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DELIVERANCE

INTERVIEWS BY:

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DELIVERANCE



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Rev. Dr. Dominic Savio, SJ

Principal

St. Xavier's College (Autonomous), Kolkata



We seek to deliver ourselves from external constraints that confine our freedom and autonomy as well as our inherent reversions that inhibit our development and repress our ingenuity.



"The great use of life is to spend it for something that will outlast it."

As an institution, St. Xavier's College (Autonomous), Kolkata has always strived towards bolstering and nurturing every individual that passes through its halls. It has always embodied the spirit of progress and enrichment by providing to all a multitude of opportunities, both curricular and extra-curricular, to motivate students in realizing their talents and establishing their mark upon society. This outlook has always served in shaping Xaverians with the potential to prevail over all the trials and tribulations that stand in their path, and continue on in their journey towards distinction in every sphere of their lives.

Since its very inception, the Xavier's Commerce Society has always manifested the zeal and ambition to reach beyond boundaries and attain excellence in all its endeavours. Being the representative body of the Department of Commerce, it has undertaken to make sure that every student undergoes a gamut of experiences and insights, to hone their calibre and mobilize themselves towards precedence. Youthink Volume XVII serves to be the primary illustration of the proficiencies and undertakings taken towards academic discussion and discernment, challenging the ambits of our previous understandings and seeking to assess the world and its nuances in a whole new light.

The theme of 'Deliverance' for this edition of Youthink encompasses a diverse array of notions and perspectives. It contemplates the spirit of self-discovery and reflection, to be able to find the true interpretation of our ideologies and convictions. We seek to deliver ourselves from external constraints that confine our freedom and autonomy as well as our inherent reversions that inhibit our development and repress our ingenuity. We, at St. Xavier's College (Autonomous), Kolkata have always aimed at championing the cause of amnesty and free thinking amongst our students, to be the wind beneath their wings and equip them with all the necessary traits to continue flying high and free. It is my earnest belief that Youthink Volume XVII will be able to ignite a fire amidst all of us and accomplish its objective of delivering us from all that is regressive.

The seventeenth edition of Youthink has only been possible with the ceaseless support of all who were, in any way, associated with it. I would like to take this opportunity to offer my heartfelt gratitude to Rev. Dr. Joseph Kulandai SJ, Vice Principal, Department of Commerce (Morning) and Rev. Dr. Peter Arockiam SJ, Vice Principal, Department of Commerce (Evening), along with Dr. Amitava Roy, Dean, Department of Commerce (Morning) and Dr. Soheli Ghose, Dean, Department of Commerce (Evening), without whom this pursuit would remain unfulfilled. I would also like to extend my appreciation to all the professors in the reviewer board, for their time and support to this cause. I also commend the Professor-in-Charge, Dr. Shaunak Roy, the Managing Editor, Dr. Sumona Ghosh, the Editorial Board of Youthink and the student body of the Xavier's Commerce Society for ensuring that Youthink Volume XVII comes to fruition. In conclusion, I would also like to thank all of those who contributed their work and ideas to the journal, for without which, nothing would be possible. I wish the team of Youthink Volume XVII the best of luck as it continues to inspire and encourage us all to reach for the pinnacle of glory.

Rev. Dr. Dominic Savio, SJ



Rev. Dr. Joseph Kulandai, SJ

Vice Principal (Morning)

St. Xavier's College (Autonomous), Kolkata

“
When all of this
comes to an end,
we must seek
deliverance; for it
liberates and
immortalizes us.
”

The world that encircles us is filled with complexities. It transforms and accelerates, and with each progression, it creates impediments to confront. At every step of life, it challenges us to prove our mettle and establish dominion. It tests our allegiance and makes us question our existence. Where determination seizes, hope comes to rescue. It acts as an impetus to move forward and forge a legacy. However, despite all the changes that we go through, it is imperative for us to pause and think about our decisions, their consequences and the final verdict. When all of this comes to an end, we must seek deliverance; for it liberates and immortalizes us.

St. Xavier's College (Autonomous), Kolkata has always been an epitome of knowledge and wisdom and is a home to the brightest minds of the country. As a premier institute, it aspires for excellence from its students and motivates them to think beyond the limits of human capacity and establish a mark for themselves in this world. We are committed to the holistic development of our students and have always sought to provide them with a platform to showcase their skills and confer them with opportunities to hone their art. With this aim, the Xavier's Commerce Society is dedicated to encouraging students to pursue knowledge outside of the classroom, as evidenced by initiatives like Youthink that embody the true spirit of research. Youthink acts as a forum to connect experts and young students, covering a vast spectrum of topics including finance, entrepreneurship, global affairs, economy, policy and industry.

I would like to congratulate the Youthink Editorial Board for elucidating a theme that resonates perfectly with today's world and evoking a sense of retrospection within us all. Youthink envisions to inspire and instil a sense of innovation to transcend the fringes that confine us, to augment our calibre and assist us in emerging victorious. I would like to express my appreciation for all the professors and guests, who through their profound analysis, have enlightened the young minds.

The launch of the seventeenth edition of Youthink is the attestation of the resilience and allegiance of the students of the Xavier's Commerce Society, who have always aspired for eminence and have outlived our expectations. They have continued to prevail over all predicaments with their perseverance, dedication and persistence.

I wish Youthink Volume XVII the very best as it strives to evoke the inner conscience of the students to introspect, contemplate and seek ideas beyond their purview, to rise above the horizon. I would like to extend my heartiest congratulations to the Xavier's Commerce Society on releasing a publication that embodies the virtues and tradition of the Department of Commerce of St. Xavier's College (Autonomous), Kolkata, as well as the very heritage of a Xaverian.

May God bless you!

Rev. Dr. Joseph Kulandai, SJ



Rev. Dr. Peter Arockiam, SJ

Vice Principal (Evening)

St. Xavier's College (Autonomous), Kolkata

“

The eternal search for wisdom and the understanding that knowledge in itself is unlimited illuminates the mind like no other, and brings forth boundless opportunities to create and conquer.

”

The sacred path to consciousness and the mastery of your own truth is an enigma of the extraordinary - the philosophy of all existence. The eternal search for wisdom and the understanding that knowledge in itself is unlimited illuminates the mind like no other, and brings forth boundless opportunities to create and conquer. This sacrosanct journey to pursue the inevitable bears witness to the tenacity of the will and the potential of cultured wisdom. A sequel to both, Youthink breaks the bondage of nescience and perfectly encapsulates the very essence of knowledge by providing the most opportune platform to authors to discover uncharted territories.

The Xavier's Commerce Society exceeds all expectations as they venture beyond and defy the ordinary. With unmatched discipline and peerless dedication, their consistent efforts to give unparalleled experiences to the students of St. Xavier's College has led to the creation of a holistic environment of supreme excellence that inspires ambition at every turn. Their vision is to provide the students with an empowering opportunity to experience and express their unique perspective of the world and sow the seeds of innovation in the minds of the readers. The journal is a symbol of knowledge that seeks to transform the perception of your reality, and through the power of information, give a more creative outlook towards the problems of society today.

The seventeenth edition of Youthink, 'Deliverance' is the true descendant of 'Reckoning' and fulfills its destiny to uphold the legacy that it has been blessed with over the years. This volume gives us the wisdom of what the bright minds of the Department of Commerce can do at their very best. The selection of articles in the journal nurture those on a hunt for knowledge and are a food for thought for those that demand recognition in the corporate world. No stone has been left unturned in the careful analysis of each topic. The compilation is a promising tribute to the constantly growing capacities of a Xaverian and gives us confidence in a better tomorrow. With this collection, Youthink has mapped out for us new possibilities that will change the way the pioneering perspective envisages the role of knowledge in all our lives.

As Youthink displays a unique ensemble of excellence, I am elated to see that the seventeenth edition of the annual journal sustains the values that the Xavier's Commerce Society has been built on. With admirable interviews from luminaries and a wide range of articles, Youthink leaves a lasting impression in the minds of the readers. I would like to extend my heartfelt gratitude to everyone who has been associated with this journal. I sincerely hope that these words give you the answers you have been searching for and bring peace to your thoughts.

May all your aspirations be fruitful. God Bless you all!

Rev. Dr. Peter Arockiam, SJ



Dr. Sumona Ghosh

Managing Editor

Youthink Volume XVII

“

To traverse this passage towards the ultimate truth, it becomes evident for each of us to quest for deliverance in our lives.

”

'Within yourself deliverance must be searched for, because each man makes his own prison.'

As we go through the motions of our daily lives, we come across a vast dimension of conceptions and notions which seek to inadvertently guide and influence our actions. These flashes of epiphanies that grip us; provide to us an infinite sense of redemption from the constricted dungeons of our mind and regressions. Humankind has always had a striking proclivity and allegiance towards the liberation of our convictions and ideas; to strive towards the new dawn heralding over the horizon with a renewed sense of purpose and determination. This legacy that we have built echoes at St. Xavier's College (Autonomous), Kolkata as well. Deliverance embodies the absolution of our attitudes and outlooks from the impediments and the limits placed upon our thinking as well as expression. It reckons us to search for higher understanding and provides an impetus for continued advancement and proliferation from the extremities we lurk behind. Youthink, as a journal, also aspires with the same ideal of nailing one's colours to the mast; assertively. The resilience so attained in this pursuit beckons us to yearn for our enrichment and inculcates within us the drive to endorse our beliefs unreservedly.

To traverse this passage towards the ultimate truth, it becomes evident for each of us to quest for deliverance in our lives; and deliver ourselves from the twilight of our prejudices, towards the light of knowledge and discernment.

Youthink has continually been a guiding light in a sea of darkness, to provide students and educators alike, a free and open stand to discuss, discourse and deliberate on a variety of issues staring down at our civilization presently, and encourages each and every one to share their story and lend their voice towards the revelation of truth. It elucidates upon crucial global developments to enkindle a desire for enlightenment amongst us all, and in this constant attempt to shape the trailblazers of tomorrow, demonstrates before the youth a myriad of opportunities to take the privilege of, and ascend towards eminence unfalteringly.

I would like to extend my sincerest gratitude to the professors and administration, as we present Youthink Volume XVII, for their indispensable insight and unwavering dedication, which have been the driving force behind our progression year after year. I appreciate the initiative of the Joint Editors-In-Chief, Vanessa Chung and Yash Sanghvi, as well as the entire Editorial Board of the seventeenth edition for consistently leaving no stone unturned in establishing new thresholds and raising the bar to greater heights.

It is only because of the unconditional support and steady guidance of Rev. Dr. Dominic Savio, SJ, Principal, Rev. Dr. Joseph Kulandai, SJ, Vice Principal, Department of Commerce (Morning) and Rev. Dr. Peter Arockiam, SJ, Vice Principal, Department of Commerce (Evening), as well as the relentless motivation from Dr. Amitava Roy, Dean, Department of Commerce (Morning) and Dr. Soheli Ghose, Dean, Department of Commerce (Evening), that Youthink Volume XVII: Deliverance has seen the light of day.

I earnestly hope that flames of freedom surge within each of you and push you towards attaining the epitome of transcendence. With this thought in mind, I unveil before you Youthink Volume XVII: Deliverance.

Sumona Ghosh

Dr. Sumona Ghosh



Vanessa Chung and Yash Sanghvi

Joint Editors-in-Chief

Youthink Volume XVII



“Once any individual savours the unparalleled satisfaction entailing the liberation, it is an impetus for them to help those around him in attaining the same.”

'True deliverance of man is the deliverance from Avidya i.e. ignorance. It is not in destroying anything that is positive and real, for that cannot be possible, but that which is negative, which obstructs our vision of truth.'

For every action, noble or corrupt; for every intent, positive or negative; and for every conflict, inevitable or artificially stimulated; the motive, at its core, is Deliverance. Deliverance is the central pillar around the attainment of which most humans, knowingly or unknowingly, orchestrate their entire life. Although the course that each individual takes is distinctive, the intended destination is always the same. While amassing astounding wealth, gaining extraordinary knowledge, commanding immense power, or attaining boundless fame, all are conceived as the end; they, in fact, are only the means to an end, which a human realizes as he becomes wiser. The end is and has always been the liberation that comes associated with it. Once any individual savours the unparalleled satisfaction entailing the liberation, it is an impetus for them to help those around him in attaining the same.

To persevere with the impending transformations around the globe, Youthink continues to uphold the power to broaden the mind as the potential to examine meticulously and challenge all that comes under observation in one's existence. The seventeenth edition of Youthink encapsulates the unequivocal curiosity and aspiration of the driven student authors to illustrate the rippling effects of the geopolitical instability, the mechanism of the economic forces and the reverberations of alterations in the legislation which is depicted by the articles in the Feature section.

In the Beyond, Ascent and Precis sections, the ideas and notions of the Xaverians and their professor guides are brought to light as they delve into an array of issues covering respective domains which incorporates perceptive insights into the revolutionary marketing transitions, the progressive developments in the digital world, and the impact of various affairs on the Indian economy.

This year's Guest Articles incisively discerns and outlines the rapid revelations and trends in the contemporary context. We would like to extend our gratitude to Mr. Anurag Behar, Dr. Himadri Roy Chaudhuri, Mr. Kiran Khalap, Mr. Pankaj Kankar, Mr. Ravishankar Natarajan and Prof. Vineeta Dwivedi for their invaluable contribution towards Youthink Volume XVII.

The riveting Interviews section manifests the persistent drive and enthusiasm of the luminaries across distinct disciplines. We are pleased to introduce the enthralling interviews of Mr. Ajinkya Rahane, Mr. Bhupender Yadav, Mr. Javed Akhtar, Ms. Kiran Bedi and Mr. Viswanathan Anand, who have all imparted and renewed humankind's credence towards deliverance.


Without the continual guidance of Rev. Dr. Dominic Savio, SJ, Principal, Rev. Dr. Joseph Kulandai, SJ, Vice Principal, Department of Commerce (Morning), and Rev. Dr. Peter Arockiam, SJ, Vice Principal, Department of Commerce (Evening), Youthink would not have reached its fruition. We are thankful to Dr. Amitava Roy, Dean, Department of Commerce (Morning), and Dr. Soheli Ghose, Dean, Department of Commerce (Evening), for being a source of inspiration.

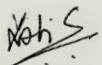
With the counsel given by our Managing Editor, Dr. Sumona Ghosh, Youthink has managed to fulfill its resolution without much complexities. We are grateful for the efforts and time devoted by the Editorial Board constituting Devanshi Chokhani, Juhi Agarwal, Nalini Surana, Niyatee Jain, Sankalp Ghosh, Shreya Kabra and Vrinda Pachisia.

Last but not the least, we appreciate the readers, contributors and students of St. Xavier's College for their uplifting support of this journal.

As our journey reaches a conclusion, meaningful destinies make their way. Each moment was a treasured reminiscence which shaped us for the better. Amidst the earthly comings and goings, we will all develop into worthwhile stories at the end.

Welcome to Youthink Volume XVII: Deliverance.


Vanessa Chung


Yash Sanghvi

FEATURE

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BRICS and Beyond: The Mixed Fortunes

Aaroahi Gourisaria

Department of Commerce (Evening)



With the combination of the new global reserve currency and the NDB, along with its expansion, the bloc aims at breaking the dollar hegemony in the international financial market.



ABSTRACT

BRICS is an acronym comprising of the major emerging economies of the world - Brazil, Russia, India, China and South Africa. In the 14th summit hosted by China in June 2022, a series of developmental actions framing the pathway to 'de-dollarize' the global financial system were laid down. The notable highlights of the summit were - the membership bids by Iran and Argentina leading to BRICS' expansion, the proposal for the creation of a new global reserve currency as an alternative to the International Monetary Fund's (IMF) Special Drawing Rights (SDR), and extending credits through the New Development Bank to fund infrastructural projects in the emerging economies by creating a sustainable lending system for its members. Acknowledging the theme – 'Foster High-quality BRICS Partnership, Usher in a New Era for Global Development', intra-BRICS cooperation is of utmost necessity, keeping in mind a plethora of geopolitical and cultural differences that exist among the member nations.

KEYWORDS: BRICS, Basket, Currency, Emerging, Financial, Global.

WHAT IS B-R-I-C-S?

The term 'BRIC' was coined by Jim O'Neill, the chief economist of Goldman Sachs, in 2001 which refers to the economic grouping of Brazil, Russia, India, and China - with South Africa later added in 2010, altering it to the modern-day acronym - BRICS. The contribution of the BRICS is substantial to the global economy with regard to the world population, gross domestic product, land coverage, world trade and global forex.

A FORESEEABLE EXPANSION

The representatives of the BRICS states meet annually at formal summits wherein they uphold the spirit of respect, understanding, openness and

	GDP, current prices (billions US dollar)	GDP per capita, current prices (US dollar)	Inflation, average consumer prices (percent change)	Population (millions)	Current account balance (percent of GDP)
Brazil	2,055	9,895	3.4	207.7	-0.5
Russia	1,527	10,608	3.7	144.0	2.6
India	2,611	1,983	3.6	1,316.9	-2.0
China	12,015	8,643	1.6	1,390.1	1.4
South Africa	349	6,180	5.3	56.5	-2.3
Germany	3,685	44,550	1.7	82.7	8.0
USA	19,391	59,501	2.1	325.9	-2.4

Figure 1: General Indicators on the BRICS Countries
(Source: IMF World Economic Outlook Database (2018))

consensus via deepened intra-BRICS mutual cooperation, thereby promoting peace and security. In June 2022, China hosted the 14th BRICS Summit virtually, after which Argentina and Iran applied for membership in BRICS. Meanwhile, Saudi Arabia, Turkey, and Egypt have expressed their interest in joining the grouping as well.

Considering the tight economic sanctions and the unresolved tensions it has with the international community, particularly with the United States over its nuclear agreement, Iran has applied to join the BRICS. Now, the main question arises - why would BRICS want to include Iran, given its crushing economy? The inclusion of Iran is advantageous to the BRICS states as the former holds around a quarter of the Middle East's oil reserves and the second-largest global gas reserves. Iran stands ready to offer its resources, including energy reserves and scientific advancements to assist the BRICS nations in the effective and efficient achievement of their goals. Additionally, the involvement of Iran shall serve as a gateway to central Asian countries because of its strategic geographical position which can be extremely beneficial for India.

The strategic alliance between BRICS and Latin America would develop immensely if and when Argentina becomes a part of the bloc, which is why its application is largely backed by China and Russia. The changes in the international scenario have made it possible for this 'stand alone economy' to be a potential member of the grouping.

The keen applications by both countries demonstrate the allure BRICS has in providing a common ground for developing economies to boom. The BRICS countries concurred that it is critical to expand cooperation with other emerging markets and developing nations in order to strengthen the BRICS mechanism's representation and give it a strong voice on pressing global issues. By doing so, the member nations can better meet challenges and defend the interests as a consequence of their synergies. 'A centre for emerging economies' seems to be a befitting title for the BRICS bloc.

AN ALTERNATIVE CURRENCY BASKET

Among the highlights of the 14th BRICS summit, the creation of an alternative currency basket was certainly notable. Before getting into the need for the same, it is essential to elaborate on certain terms mentioned below in order to comprehend the biggest turn of the century which aims to 'de-dollarize' the global financial system.

A portfolio of chosen currencies, each with a particular weightage, is known as a currency basket. Investors and governments frequently use a currency basket to reduce the risk of currency fluctuations and to determine the market worth of a nation's currency respectively.

Despite exerting dominance in the context of industrial and financial power, and being among the key players

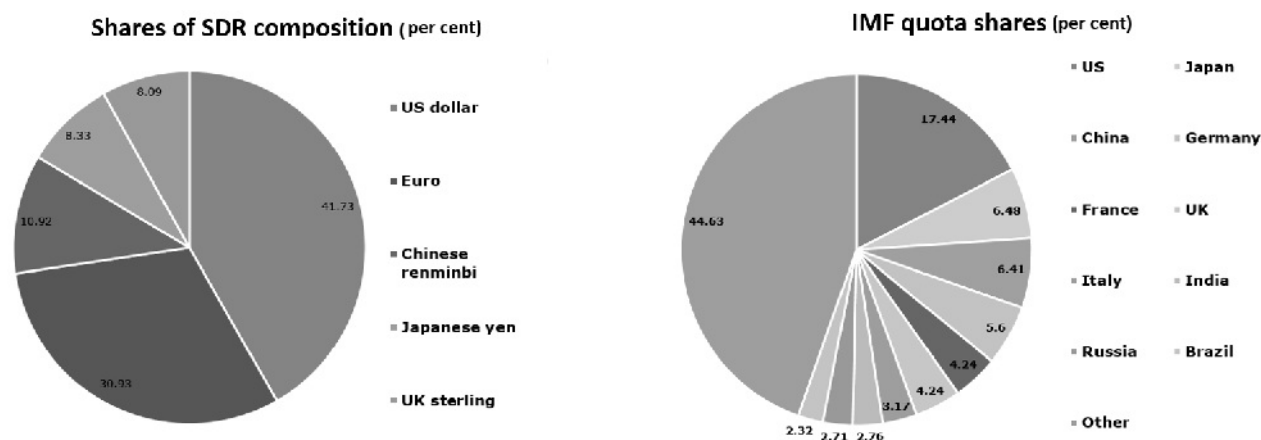


Figure 2: Shares of SDR Currency-wise and Country-wise
(Source: NN Investment Partners)

in the global markets, the bloc lacks balance in monetary and credit relations with the United States and the European Union. Only after the monetary units of the grouping transform into influential reserve assets, can they build significant international financial centres and attain the much-needed balance. A mutually beneficial way to achieve the desired results is the creation of a new reserve currency as an alternative mechanism for international payments. The currency will entail a basket of currencies of the bloc which would better serve the economic interests of the member nations.

Out of the manifold benefits that BRICS would derive as the world moves away from the Dollar, the most vital one will be currency appreciation as a consequence of the decline in its demand. Brazil and South Africa would get the golden ticket of tapping huge and unrestricted markets of China and India, with an increase in investments from the latter mentioned nations, as well as Russia. Meanwhile, Russia is insistent to find an alternative to The Society for Worldwide Interbank Financial Telecommunication (SWIFT) payment system. Combined with the geopolitical rivalry that Russia and China have with the Western world, the 'de-dollarization' attempt has been backed by them. With an increasing trade deficit and decreasing Indian Rupee value, India is left with no other choice but to support the venture, given its

ultimate goal is inclusion in the global G-Sec bond list.

It is presumed that the new global reserve currency will be an alternative to IMF's SDR. There are similarities, as well as differences between the two. The currency basket of the BRICS will involve the active participation of the emerging economies, whereas the SDR basket constitutes the key international currencies which indeed makes SDRs more stable. The new global reserve currency will constitute a major chunk of countries having paramount importance in global trade and manufacturing, such as China and India, and would be actively used as a medium of exchange during international transactions with the BRICS, involving export and import activities to and from the world. The establishment of this reserve currency by BRICS would largely reduce the dominance that the US Dollar and the Euro have in the international markets as their demand would decline. Digging deep into the course set to reduce the reliance on the US Dollar and other dominating currencies, it proposes a major question - what is the need to? If looked at objectively in the underlying context, the following come to mind:

1. Brazil - China is Brazil's major trading partner and it would only make sense to use local currencies for bilateral settlement. Even though the US only receives approximately 17 per cent of Brazil's total exports, the country's reliance on the dollar is

extremely apparent given that about 90 per cent of its export invoices are in dollars.

2. Russia - Russia has long tried to use BRICS to bring into play the idea of de-dollarization due to its geopolitical objectives. The idea of an alternative financial system free from Western dominance has been further bolstered by the near-elimination of Russia from the West-led, dollar-dominated financial system following the Russia-Ukraine war in early 2022.
3. China - Due to numerous roadblocks created and the proposition that China is the most prominent trading partner in the world, it is ideally situated to support the de-dollarization of the region and the world. In terms of financing for development, China plays a significant role in several Asian and African nations.
4. India and South Africa - Developing nations are price takers whose currency risk can be triggered by macroeconomic variables beyond their control because their currencies are directly affected by global economic dynamics. Beyond the BRICS states, the lack of economic sovereignty among emerging countries is a source of concern. India and South Africa have been encouraged to support the ambitions of the BRICS to encourage the use of local currencies in trade by the transactional and financial risk resulting from the US dollar's predominance.

THE BRICS BANK

The New Development Bank (NDB) is a multilateral institution, established by the emerging economies, for the emerging economies. Since its inception, the NDB has been growing its lending portfolio, which at present stands at over \$10 billion. The supranational set-up initiated by the BRICS nations in 2015 is intended to serve as an alternative to the two major bodies - IMF and World Bank, wherein the BRICS have long sought to exert more influence. Its architects are optimistic that it can compete with analogues that are dominated by the West, and that it will shift the balance of power in

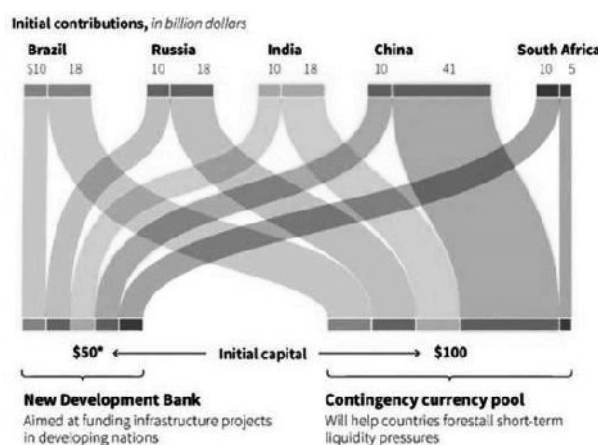


Figure 4: Initial Capital Contribution by the BRICS
(Source: Brazilian Government; Reuters (2014))

the global system. The World Bank and the IMF's respective roles will be combined into one organization with the creation of this bank, which will offer both

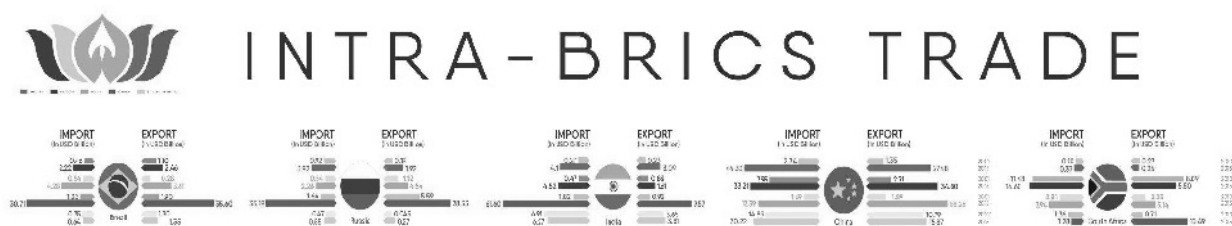


Figure 3: Intra-BRICS Trade
(Source: Gateway House)

If put in a concise manner, IMF's SDRs are used as more of a last resort financing option for its members who are in dire need of cheap finance, but the BRICS' currency would focus more on the lines of trade facilitation and collective growth of the emerging economies, ushering a new era for global development.

development loans and emergency reserves. The five founding members will always have a minimum of 55 per cent of the voting power among them, of which they will each hold an equal part (rendering the bank popularly being called 'The BRICS Bank'), and any

future members - likely other developing countries - will share the remaining 45 per cent equally.

CRITICAL APPRAISAL

With the combination of the new global reserve currency and the NDB, along with its expansion, the bloc aims at breaking the dollar hegemony in the international financial market. But can the grouping really disrupt the status quo? Various shortcomings could create multiple hindrances in achieving a decent bargaining power in international trade:

1. China's proposal for the 'Friends of BRICS' or 'BRICS-Plus' alliance: Pakistan, Sri Lanka, and Mexico will be a part of an expanded BRICS, according to the Chinese. Pakistan's inclusion has been suggested, but India has not been fond of the idea because Pakistan is not an emerging economy and its inclusion would not bring about any significant benefit to the group. Due to China's significant economic influence in the group, the internal balance of the BRICS has shifted in Beijing's favour.
2. The new global currency reserve by BRICS will be unstable and volatile in nature because of the heavy fluctuations that the currency basket would have to face.
3. The performance of NDB has not been satisfactory as it has not lent funds for any mega project. Lack of transparency and good governance, coupled with the erratic relations of the member states are the roots of this issue.

The list of obstacles could go on, but what matters the most is the approach applied by the bloc to resolve the tensions amongst themselves, and for the achievement of mutually beneficial goals. The morphing of an acronym into a strategic global bloc will require BRICS to tread a long path inundated with thorns; for only in the successful planning and execution of its goals can the five major emerging economies dominate the global financial system in the future.

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Yield Curve Inversion – A Predecessor of US Recession

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A Predecessor for US Recession - Although inevitable, there exists an indicator that can warn us of upcoming recessionary trends and prepare us for the rough ride.



ABSTRACT

Recession has been the talk of the town for quite some time. With sky-high inflation and the tightening of monetary policies across the globe, investors fear stalling growth trajectories in the economy; opening doors to a recessionary phase, hence accelerating unemployment and poverty. Although inevitable, there exists an indicator that can warn us of upcoming recessionary trends and prepare us for the rough ride. The indicator is none other than the United States of America (USA) Treasury yield curve, which shows the relationship between treasury yields and their time to maturity. The inversion of the USA treasury yield curve has historically predicted recessions to a great extent. As of 2022, the yield curve has inverted once again escalating fears of recession across the globe, especially in the USA. Through this article, we understand the dynamics of the yield curve and what lies ahead for the global economy.

KEYWORDS: Recession, Interest Rates, Yield Curve, Inversion, Treasury Bills, Unemployment, Poverty.

INTRODUCTION

‘There is nothing certain but the uncertain.’

As the global economy remains tangled in the webs of uncertainty, recouping from the after-effects of the cataclysmal COVID-19 pandemic and the unwanted geopolitical tensions between Russia-Ukraine, we stand at the brink of an anticipated global recession.

Technically, the recession represents a period of economic decline identified by a falling real Gross Domestic Product (GDP adjusted for inflation) for two

successive quarters. It is a period characterized by rising unemployment and lower consumer spending.

Considered the superpower of the world, the United States of America experienced a 1.6 per cent and 0.9 per cent decline in its real GDP, in the first and second quarter of 2022, respectively, indicating a recessionary phase for the superpower.

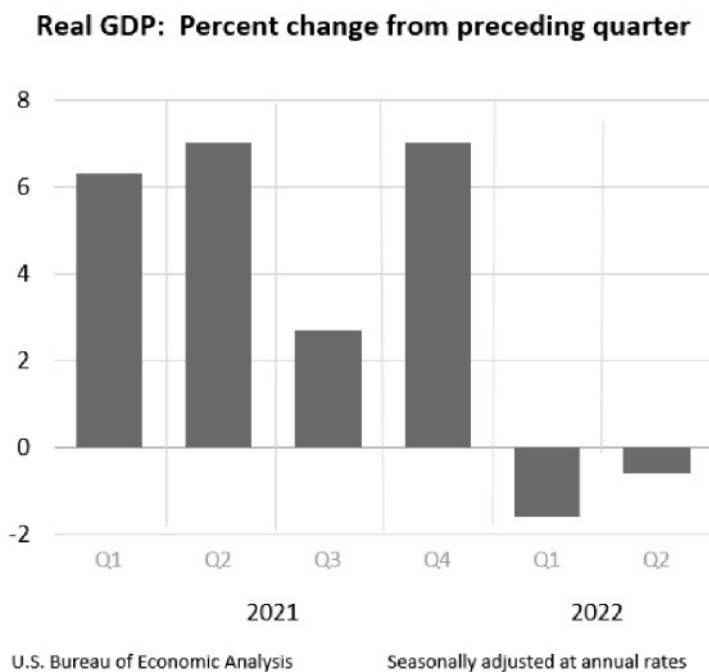


Figure 1: Graph Showing the Trends in the Real GDP of USA
(Source: US Bureau of Economic Analysis)



Figure 2: Weekly Candlestick Chart depicting fall in DJIA
(Source: Trading View)

From a high of 36952 in January 2022, the Dow Jones Industrial Average fell by more than 22 per cent by September 2022, creating a low of 28715 which clearly highlights that the recession took the markets by surprise.

However, it raises a pivotal question. Is recession unpredictable? The answer to this question is debatable, however we have a parameter that has been regarded as an excellent indicator of recession. This indicator is the yield curve. To establish the premise, please note that over the past forty years, only once had the yield curve forecast been wrong about the recession.

UNDERSTANDING YIELD AND FIXED-INCOME SECURITIES

Fixed-Income securities, as the name suggests are investment products that provide fixed returns. Examples include fixed deposits, government bonds, corporate bonds, et al. Yield implies the return that an entity generates on its investments in fixed-income securities. Let us take an example to understand yield as well as its relationship with the price of a fixed-income instrument.

Assume that Mr. X purchases a bond at par having a face value of ₹ 100 that provides an interest of 10 per cent on face value. The yield in this case is equivalent to $10 \text{ (interest)} / 100 \text{ (amount paid)} = 10 \text{ per cent}$.

Let us say that the demand for this bond has increased and Ms. Y pays ₹ 105 to buy the same bond from Mr. X. The yield for Ms. Y is equivalent to $10 / 105 = 9.52 \text{ per cent}$

On the contrary, let us say that the demand for the bond has fallen and Mr. Z purchases the bond from Mr. X at ₹ 98. The yield for Mr. Z is equivalent to $10 / 98 = 10.20 \text{ per cent}$

As visible from the given example, the yield and price of a fixed-income instrument exhibit an inverse relationship. Now that

we have a fair idea about the concept of fixed income securities and yield, let us discuss the yield curve.

As we further evaluate the yield curve in this article, we would be referring to the USA Treasury yield curve since the USA Treasuries are considered a benchmark in the financial world.

INTRODUCTION TO THE YIELD CURVE

A yield curve is a graphical representation of a particular instrument's yield (interest rates) across multiple maturities. Ideally, there exists a positive relationship between the time to maturity and the yield i.e., the longer the time to maturity, the higher the yield. The underlying explanation is that as the maturity of the instrument rises, the risk associated rise as well and thus, investors should be compensated with higher returns, thereby increasing the yield (interest). On the contrary, short-term instruments have lesser premiums, depicting that investors' money is at a lower level of risk.

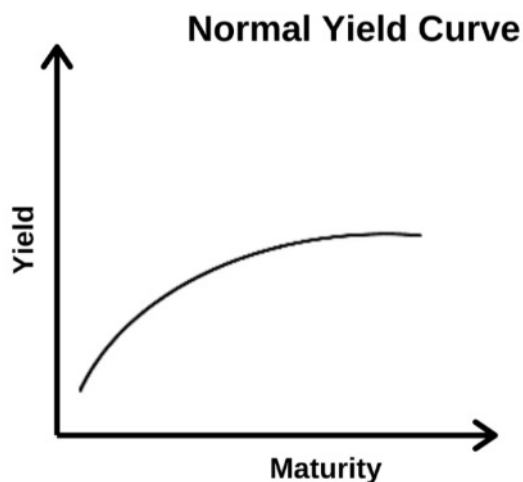


Figure 3: Normal Yield Curve
(Source: Corporate Finance Institute)

This is what we call the 'Normal Yield Curve' i.e., an upward-sloping yield curve.

INVERTED YIELD CURVE

Now that we know what a normal yield curve should look like, it is not a herculean task to understand the structure of an inverted yield curve. An inverted yield curve depicts a scenario whereby the long-term interest rates are lower than the short-term interest rates.

Does it not sound counterintuitive? Why would investors want lower returns for locking in their capital for a longer time frame?

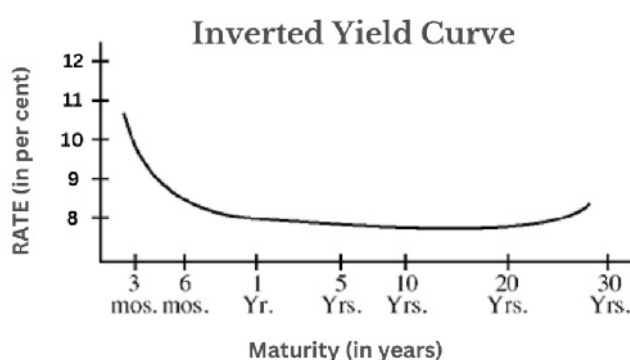


Figure 4: Inverted Yield Curve
(Source: Allbusiness.com)

The answer to this question lies within investor sentiments. An inverted yield curve implies that investors believe the future to be grim and perceive the current moment to be the last opportunity to lock in their capital at a high-interest rate for the long term. Higher demand pushes the price of the long-term fixed-income instruments higher, hence dampening the yield (price and yield of fixed-income instruments are inversely related).

A WALK DOWN THE PAST

Robert Kiyosaki, the author of 'Rich Dad Poor Dad', rightly said, 'The best way to predict the future is to study the past.'

In January 2006, the yield curve displayed an inversion, and 22 months later, the world experienced one of its biggest financial disasters (the 2007-09 subprime mortgage crisis), and a recession to follow.

Similarly, the 2001 recession brought along by the Dot Com bubble burst started 13 months after a yield curve

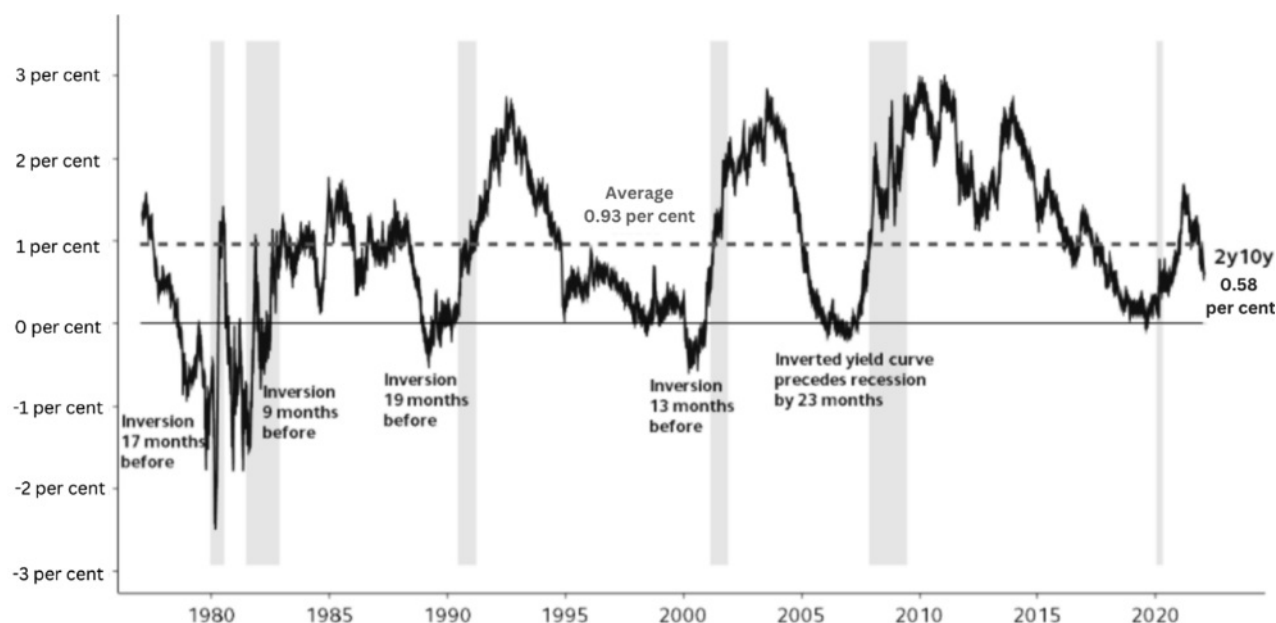


Figure 5: Timings of Past Yield Curve Inversions and Recession
(Source: Principal Global)

inversion and the 1990 recession started 19 months post the inversion.

The above facts do portray the strength of the yield curve as an indicator of recession, yet it leaves the economists and analysts on a cliffhanger, trying to demystify the possible timing of the recession.

BACK TO THE PRESENT

Recently, the yield for the USA 2-year treasuries rose above the yield for 10-year treasuries, as shown in Figure 6. Does that mean that the USA is heading for a recession?

Here's what the USA Chief Economist Ellen Zentner has to say,

'Overall, the yield curve has become less of a recession indicator over the last two economic cycles. And when we look at factors in the economy that are typically signals of a recession, such as job growth, retail sales, real disposable income, and industrial production, we don't see an approaching recession.'

As visible from the Treasury yield chart, the 2-year yield stands at 4.15 per cent as compared to 3.76 per cent for

the 10-year yield, indicating an inversion. However, another combination that has been historically used is the 3 month-10 years yield, which in our case indicates a normal curve since 3-month yields are lower than the 10-year yield. Ideally, the 3 months-10 years yield curve inversion takes more time than the 2 years-10 years, therefore, it is not easy to predict when a recession might strike. It is important to note that the 3 month-10 years yield curve inversion has predicted the past eight recessions accurately without fault. Thus, it can be wise to assume that the USA is not too close to a recession but not too far as well.

Given the rising geopolitical tensions across the globe, causing supply chain disruptions and high inflation, some bankers and economists, predict next two years, might not be easy for the USA economy.

A Deutsche Bank team says, 'We are now projecting a recession in the USA within the next two years.'

While, former USA Treasury Secretary Lawrence Summer says, 'Over the past 75 years, every time inflation has exceeded 4 per cent and unemployment has gone below 5 per cent, the USA economy has gone into a recession within two years' and predicts an 80 per cent chance of a recession.

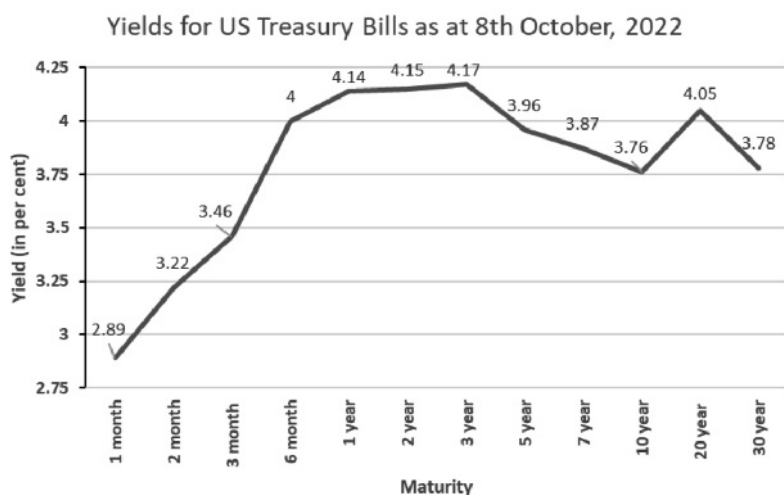


Figure 6: Yields for US Treasury Bills as of 8th October, 2022
(Source: Statista)

As a matter of fact, the recent rate hikes by the US Federal Reserve have had an impact on this yield curve inversion.

RATE HIKES AND THEIR IMPACT ON THE YIELD CURVE

The past two years of the COVID-19 pandemic saw generous liquidity packages by central banks across the globe, which eventually became the catalyst for record-high inflation. The United States of America recorded 41-year high inflation of 9.1 per cent in July, 2022. Britain's inflation climbed to a 20-year high of 10.1 per cent in August, 2022 and the Indian subcontinent recorded retail inflation of 7 per cent in August, 2022.

Considering multi-year high inflations across the globe, we saw central banks of major economies like the USA and India tightening their monetary policies. For instance, the US Federal Reserve has already hiked the federal rates by 300 bps or 3 per cent since March, 2022 and the Reserve Bank of India has hiked its repo rate by 140 bps or 1.4 per cent since 2022.

These rate hikes lead to an increase in the short-term rates, thereby flattening the yield curve. This also presents a bigger conundrum for central banks across the globe, deciding between high inflation or recession. The rate hikes have clearly demonstrated that the

central banks perceive high inflation to be a bigger threat and have been focusing on curbing inflation, even if that means stalling growth.

WHAT DOES THE US RECESSION MEAN FOR INDIA

For starters, the USA's market share in India's merchandise exports stands at 18.1 per cent as of Financial Year (FY)22, leaving India vulnerable to the USA recession. Adding to the woes, the bellwether of the Indian economy, the Information Technology (IT) sector may experience a slowdown due to the USA recession. Having 60 per cent of IT and

ITeS exports to the USA, a recession can lead to a slump in the industry, taking a hit on operating margins.

Recession-led capital outflows might create additional pressure on developing economies, especially India which might exacerbate the problem of unemployment and poverty. The current state of Indian startups on a firing spree portrays the drying up of funding; pushing companies to cut down on their costs by firing employees. According to a survey by J.P. Morgan comprising of the Chief Information Officers (CIOs) of 142 IT companies, 39 per cent of CIOs believed they will have to put off their IT purchases in the second half of FY22. It also estimated a 30-31 per cent chance of recession hitting the USA and European economies and a 35-38 per cent chance of a business slowdown in the next 12-18 months.

The current state of the Indian Rupee (INR), which has already depreciated by more than 10 per cent against the United States Dollar (USD) since the beginning of 2022, is a major concern. Given the fact that India relies on imported oil, the depreciation of INR coupled with high inflation might be the last nail in the coffin of India's \$5 trillion story.

SUMMING IT UP

The important point to keep in mind is that the yield curve inversion is a mere indicator of the recession, not the cause of it. It is impossible to predict whether a recession will take place in 18 months (like the March, 1990 inversion) or 13 months (like the 2001 inversion).

In essence, having a well-diversified portfolio both asset-wise and geography-wise, buffer capital, and multiple sources of income can help one minimize the impact of a potential recession. All we can do is hope for the best and prepare for the worst.

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The controversy on the efficacy of the SEZ policy's enforcement has been fierce and is centered on the difficulties with its formation, licensing process, power grabs, and protests.



Special Economic Zones: An Engine for Growth or Failure in Deliverance?

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ABSTRACT

Many nations have embraced Special Economic Zones (SEZs) to encourage industrialization and economic upgradation. By positioning itself as a constructive approach to integrate with the global market, it has evolved in many ways from an 'Export Processing Zone' to present-day 'Development Hubs' in India to support globalization. The controversy on the efficacy of the SEZ policy's enforcement has been fierce and is centered on the difficulties

with its formation, licensing process, power grabs, and protests. Although these zones' efficiency scores have improved over time, particularly since the SEZ Act was passed in 2005, they are still considerably below the threshold, indicating room for improvement. India strives to establish a robust legal and regulatory environment that will serve as an exemplar of sustainability in order to boost its economy and render it more resilient to varied external shocks.

KEYWORDS: Special Economic Zones, Foreign Direct Investment, DESH Bill, Units, Labour, Capital, Exports, Domestic.

SPECIAL ECONOMIC ZONE: AN OVERVIEW

'Every coin has a reverse side. Every mountain has a valley.' Every regime intended to weaken entails countless possibilities to strengthen. Divide and Rule- a mechanism to sustain imperialism in India and other nations, has now been retooled to encourage separatism based on economic considerations rather than religion, to attract Foreign Direct Investment (FDI), enable export promotion and infrastructure development. A policy often looked down upon as a barrier to cooperation is about to serve as a bridge to prosperity under Special Economic Zones (SEZs).

Special Economic Zones, a policy coined in 1947, has gained momentum around the globe. Based on various development initiatives, SEZ is a powerful tool to encourage export manufacturing by creating a distinct geographic region where the trade and business regulations differ from those in the rest of India. It represents an agreement between the government and the market requirements in which the corporate legal system is made more accommodating to businesses so as to address challenges brought in by the complexity of clearances and bureaucratic regimes, lack of appropriate power grid, and an unstable fiscal system in order to support economic transformation and globalization.

With the inception of an Export Processing Zone (EPZ) in Kandla in 1965, the seeds of SEZs were planted in India. Subsequently, 'The Special Economic Zones Act, 2005' was passed in the Parliament, outlining the

degree of control of the state government thereby paving the path for infrastructure creation. The SEZ rules offer - 'Simplified procedures for development, operation, and maintenance of the Special Economic Zones and for setting up units and conducting business in SEZs'. The approval process and administration structure were streamlined to strengthen operational efficiency and draw investment. Currently, there are 270 operational legal duty-free zones in India created to combat the deterrents of FDI within the country such as high tariffs, bureaucracy, stringent labour laws and inflexible taxation policy.

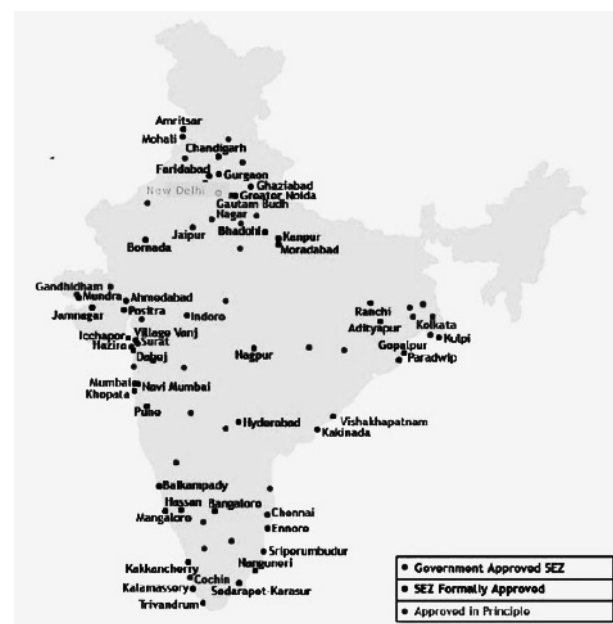


Figure 1: Spread of Special Economic Zones in India
(Source: www.sezindiainvest.com)

TRAJECTORY OF SEZS IN INDIA

The formulation of an SEZ policy was driven by the need to ensure smooth implementation and facilitation of business activities. Since the inception of the first EPZ at Kandla to replace the Karachi port, the primary aim of the Gujarat government was to facilitate export production. However, this was not the case with other upcoming EPZs as the Santacruz EPZ wanted fair and increased labour participation. Therefore, in an effort to integrate the varied objectives and bring all the reforms under one unified umbrella, the Government of India assigned focused committees to reassess the conditions

under which the EPZ were being run and provide better and more production-friendly reforms. In just six years, between 1978 and 1984, there were seven attempts to fix the problem: a committee to look into the problem hindering the growth of KAFTZ (1978); Alexander Committee on Import & Export Policies (1978); Review Committee on Electronics (1979); Dagli Committee on Controls and Subsidies (1979); Tandon Committee on Export Strategy (1980); Committee on FTZs and 100 per cent EOUs (1982); and Abid Hussain Committee on Trade policy (1984).

The continuous attempts of the government in reforming SEZ units were majorly an outcome of a lack of implementation and high corruption at all stages of regulation. Even though around 459 SEZs were approved formally or 'in principle', there were only 270 operational SEZs. More than 50 per cent of these were not operating at full capacity or were largely driven by the IT sector and IT-enabled services, thus, defeating the purpose of large-scale production and development of a strong production-driven export economy. India has proved to become one of the largest Business Process Outsourcing units in the world and these free trade zones have directly and indirectly facilitated the boost of our service sector.

However, after India opened its doors to Liberalization, Privatization and Globalization in 1991, a lot of new reforms like the abolition of License Raj, free flow of information, acceptance of global technology and FDIs opened new opportunities and a ray of hope for the stagnant SEZ units. Following this was the introduction of the Special Economic Zones Policy of 2000 under the Foreign Trade Policy for the regulation and establishment of SEZs by public, private or joint entities. All the prior EPZs had now been converted to fully operational Special Economic Zones. Soon the need for a separate act was

recognized and India introduced its first Special Economic Zones Act in 2005.

Since then, the performance has been growing at an accelerating rate yet fails to fulfil the expected government forecast and embark on its true potential. Table 1 shows the advancements in exports from 2005-06 and 2020-21.

Basis	FY 2005-06	FY 2020-21	YoY Growth
Exports	\$ 5.08 billion (0.62 per cent of GDP)	\$ 104.24 billion (3.32 per cent of GDP)	22.43 per cent
Investments	\$ 0.925 billion	\$ 84.58 billion	34.47 per cent
Employment	134,704 persons	2,358,136 persons	21.03 per cent

Table 1: Data representing export, investments and employment growth from the base year (2006) till 2021

(Source: kpmg.com/blogs, [PIB.gov.in](https://pib.gov.in))

The above figures register a staggering growth in the exports of SEZ but when we correlate the data to the total exports of the country in these years, we see no surmountable value additions by these zones in comparison to the sizable benefits they receive. In 2005-06, Indian exports accounted for \$160.84 billion, contributing a 19.6 per cent share in the GDP. Of this, only 3.15 per cent came from exports through these special zones. This is not it, we have not even accounted for the DTAs (Domestic Tariff Areas) i.e., domestic exports that have been deemed as exports due to the foreign nature of these special economic zones. Similarly, in 2020-21, Indian exports were reported at \$660.5 billion (20.8 per cent of the GDP),

SEZ EXPORT PERFORMANCE IN 2021-22 (Apr-Nov)					Share of SEZ exports in India's total exports in (%)
	Exports from SEZs		Total Exports		
	\$billion	Growth YoY (%)	\$billion	Growth YoY (%)	
Merchandise exports	31.61	62.27	263.59	51.7	12.0
Services Exports	51.46	17.0	154.97	15.1	33.0
Total	83.07	31.0	418.56	35.7	19.8

Source: Department of Commerce, Export Promotion Council of EOUs and SEZs, Service Export Promotion Council

Figure 2: Share of SEZ exports with respect to India's total exports
(Source: <https://commerce.gov.in/>)

SEZ contribution was just 15 per cent of this amount, most of it driven by IT and ITes. According to data collected by KPMG, 60.2 per cent of all the operational SEZs operate in the field of IT and related services. Consequently, the true goal of increasing the production and manufacturing of tangible goods is obscured.

SALIENT FEATURES OF SEZS

We can comprehend how SEZs struggled to influence India's inclination towards industrial development. Despite this, why do businesses opt for these economic zones over more conventional ways of establishing industries? The first and major reason is the classification of SEZ as a foreign region. Even though residing in India, it will be treated as a foreign region abolishing all the rules and regulations implemented on Indian manufacturing and industrial operations under various acts. All the goods coming into these units were treated as imports and all the goods moving out were treated as exports.

An SEZ will be a duty-free region as stated u/s 26, sub-section 2 of the Special Economic Zones Act, 2005. Along with this, an SEZ unit enjoys exemptions from various taxes like the service tax and taxes levied on the

sale and purchase of goods. Domestic sales were still subject to full customs duty and import policy in place. It also abolished licensing and bureaucratic clearances for faster and easier operations and for the development of these economic zones.

The income generated from the operations of these units was exempted from income tax for the first five years and liable to pay only 50 per cent of the realized amount in the next two years. While non-economic zones cannot get more than 75 per cent of their investments from Foreign Direct Investors, the government allowed a 100 per cent FDI as investments for these units.

Other features that were specific to these zones included freedom of subcontracting, and no routine examinations by customs authorities of import and export cargo, which induced a lot of corrupt and criminal activities taking place in these regions, one of the major reasons for the downfall of SEZ. The units are aimed at achieving net positive cash flow cumulatively in the next five years. SEZ facilities were permitted to retain 100 per cent of foreign exchange receipts in the Exchange Earner's Foreign Currency Account.

WHY DID SEZS FALL FLAT IN INDIA AND MOVE MOUNTAINS IN CHINA?

The weapon to change lies not in ideation, but in its successful execution. Two Asian nations with enormous potential, China and India, have been at the vanguard of FDI and have undertaken systemized reforms to attract capital. Their large population and access to inexpensive labour make both countries a great production base for investors. Regardless of the commonalities between the two, SEZs skyrocketed in China and collapsed in India. China undertook similar institutional policies through SEZs in 1978, whereas India did it successfully in the mid-sixties. Even then, China today receives considerably more investment than India. While FDI only made up 1.1 per cent of the GDP in India in 2002, it made up 3.2 per cent of the GDP in China. SEZs in India, as they were envisioned to be, failed to serve as the

Operational SEZs by sector
Percent of total, 100% = 124

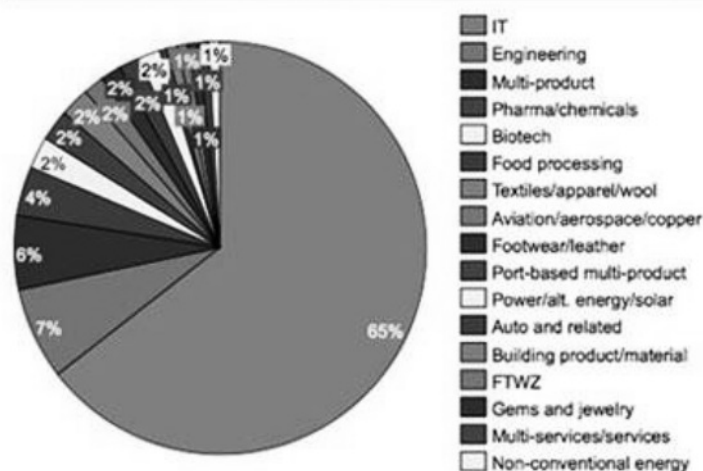


Figure 3: Sector-wise distribution of Operational SEZs
(Source: <http://sezindia.nic.in/>)

primary source of exports. These zones have evolved into hubs of deceit, instead of converting India into a manufacturing powerhouse. This poses the question of why China and India witnessed such significantly different outcomes from the same approach. The development of such FDI-attracting enclaves in India was inhabited by a host of domestic and international concerns.

India's failure has been largely attributed to bureaucracy and government inefficiencies in designating locations for SEZ implementation that would enable expansion. For optimizing economies of scale, a region should have a population of between 1 million and 4 million people. However, self-serving agendas instead of factors for development and advancement were used to steer these choices. The majority of SEZs in India are smaller and can only accommodate 0.5 million people. Because of this, the economies of scale are not fully utilized, negating the intended objective of SEZs. The number of zones formed is likewise at fault. With constriction in capacity, India already has exceeded 270 zones. On the other hand, China began by assessing only four zones- Xiamen, Shenzhen, Shantou, and Zhuhai. Additionally, the Shenzhen metropolis occupied 2,000 square kilometres whereas the total area covered by all SEZs in India is less than 500 square kilometres. A plethora of ripple effects help larger zones: they lure economic clusters, improve information flows between firms, and disseminate

employment, infrastructure, and development. India's zones are too small and undesirable to extract value from these perks.

Furthermore, China benefits from the fact that countries like Hong Kong and Taiwan act as natural entry points for the flow of capital and goods. India does not have such a natural entryway. Moreover, India gets the majority of its FDI in the services industry, where the investment needed is far less than that needed to construct a production base.

Instead of a major overhaul of India's complex and onerous regulatory requirements, the reforms under SEZs in India are mostly focused on tax breaks for corporations. Due to apparent policy inconsistencies and lax labour rules, businesses have also moved away from Indian enclaves. India's labour laws are very strict, in contrast to China's. There are no environmental regulations that are followed. Workers are compelled to labour in hazardous and unsanitary conditions with industrial accidents a common occurrence.

The SEZ policy appears to have been foisted on the nation hastily without taking into account the serious shortcomings in our country's factor endowments. Different measures were adopted to renew the government's commitment to its strategy on SEZs and to provide stability for investors.

SOCIO-ECONOMIC IMPACT

Apart from the failure in implementation on the government's part, there has been a lot of socio-economic criticism faced by SEZ. It has seen massive protests from farmers and agricultural workers as it alleged that most of these lands being converted into SEZs are arable lands for farming and cultivation. In a nation where the agricultural sector generates more than 65 per cent of employment, it is a major red flag for the development of these special economic zones. Therefore, the question arises, have SEZs actually created employment? Or are we looking at pseudo-employment in the economy? To answer this, we need to map the employment generation capacity of these lands for farmers and other allied



Figure 4: Comparison between the rises in per capita GDP of both the countries
(Source: <https://data.worldbank.org/indicator>)

activities and compare it with the employment generation of these economic zones.

Another criticism it faced was on the grounds that provisions of subsidies and incentivization were faltering the business sentiments of those operating outside these units and thus, giving rise to unnatural and unfair competition. In the long run, had SEZs been a success for the country, the government would have lost a huge chunk of tax revenues and customs duties that would add to the setbacks the concept already faces.

DESH BILL: CONTOURS OF CHANGE?

The World Trade Organization's (WTO) dispute settlement panel of Geneva, 2019 found that the export policies of India, including SEZs 'violated several provisions of the WTO's subsidies and countervailing measures agreement'. The Finance Minister of India-Nirmala Sitharaman emphasized new legislation in the Union Budget 2022 to maximize the use of the current infrastructure and improve the competitiveness of exports. The Development of Enterprise and Service Hubs Act (DESH) is anticipated to be the proposed replacement for the SEZ Act (2005). The bill intends to boost local manufacturing and job creation while bringing the SEZ Act into compliance with WTO standards in a way that benefits both the producers and the consumers, promising a positive outcome.

The DESH Bill seeks to remedy the flaws in the existing SEZ legislative structure, which would have improved market ripple effects. According to the bill, the Development Hubs will be given infrastructure status, which will make it simpler for them to raise capital at favourable rates. The units will be able to import any amount in INR to support domestic transactions without restrictions on the emphasis on higher exports. Changes in the framework to attract major economic players include a reduction in corporate tax rates from 22 per cent to 15 per cent, incentives for SEZ units selling in the domestic market with regard to customs duty, and automatic renewal of licenses for SEZs that have undergone reconstruction.

The introduction of this bill will give a new definition to the more traditional concept of Special Economic

Zones (SEZs) embarking on a plan aligned with the present-day business dynamics and ever-changing economies. The SEZ Act was primarily initiated to boost India's export revenue and earn valuable foreign exchange, most of which it received from the export of IT and ITes. However, since the IT and ITes industry business is moving towards inculcating more on-site delivery capabilities, the sheen has worn off. Moreover, this seems to be quite the right time to focus on not only India's export revenue but also on its domestic manufacturing. This is governed by two major recent developments; the rampant promotion of the 'Atmanirbhar Bharat' and 'Make in India' campaigns by the Government of India, and at a time when most multinational companies are looking at alternatives to China to set up their manufacturing units.

WILL A REGIME SHIFT PROMISE INDIA DELIVERANCE ON PRODUCTION EFFICIENCY?

India was one of the first Asian countries to embrace the EPZ model's competence in export development. However, the SEZ policy has become less palatable over time to investors due to the current fiscal environment, the fact that many income tax benefits have already reached the end of their useful lives, the lack of compliance certainty, the enormous gap between market forces, and the unutilized state land.

India may have been a little slower than other nations to implement its SEZ policy, but learning from its mistakes and those of its neighbours was crucial for the formation of a new SEZ Policy. The Baba Kalyani Committee's (BKC) report, 'Revitalizing SEZs: From Islands of Exports to Catalysts of Economic and Employment Growth', offered a solution to this situation. However, is India ready to own its previous mistake of ineffective policy implementation and in a position to undertake necessary reforms so as to eliminate bureaucracy, inconsistency in concessions offered and red tape? Or, will the country continue to exist in a utopian state yet again, striving to make reforms flawless on paper but faltering again when put into practice? Will SEZ 2.0 serve as a cluster of development hubs enabling growth or will it fail to take off again? There are some questions whose answers are unforeseeable because they depend

on the smooth and cohesive operation of several different components.

The new SEZ law under DESH Bill intends to work with states to utilize the existing industrial capacity in the areas that are highly anticipated. The new and vibrant age of incentives designed in India is expected to pave various manufacturing enclaves. The key to its accomplishment is in the hands of those in positions of responsibility, their clarity on the policy's objective and faith in its capability to bring about an economic revolution that will be cited as a miracle for generations to come.

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“

For every such war waged, every such battle fought and every drop of blood shed, the battle cry of deliverance from the misfeasance incessantly committed, has been the driving force.

”

Armageddon: The Birth of New Global Order?

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ABSTRACT

‘An eye for an eye makes the whole world blind.’

Law, morality and peaceful co-existence are the pillars on which the global order is maintained. Time and again when these principles of harmony have been breached, it has stimulated instances of provoked aggression, seeking deliverance from external oppression. For every such war waged, every such battle fought and every drop of blood shed, the battle cry of deliverance from the misfeasance incessantly committed, has been the driving force. The same ideology is presently shaping the course for all the nations across the world as we witness the Russo-Ukrainian war. This fight has unfolded a course of events which is a major blow to the global truce, giving birth to a new international order, which this article seeks to analyze.

KEYWORDS: America, Economic, Europe, Global, India, Invasion, Peace, Political, Russia, Social, Ukraine, War.

BACKGROUND

‘Everyone imposes his own system as far as his army can reach’, and holding on to this very ideology of Stalin-the Red Tsar, Russian President Vladimir Putin had his eyes on each step undertaken by the independent Ukraine, which he always believed to be ‘the historical Russian land’. The political leader with a dominant vision is too self-observed to put forward his key idea that Ukraine was never an independent country and has been a part of Russia with its roots extending to the common history of civilization. This idea of ‘oneness’ amongst the Russian elite circles shaped and influenced its political discourse towards Ukraine, be it in terms of derailing the latter’s military front by nuclear disarmament in the 1990s or crippling its natural resources by gaining access to its gas and oil pipelines owing to the gas debt arrears. The long-standing history of a presumed cold war between these two nations took the worst turns with protests rising against the unstable Ukrainian Government and the inclination of the newly formed Ukrainian polity to integrate with the North Atlantic Treaty Organization (NATO) countries revolting against Russian interests. Such non-cooperation led to a contrast of viewpoints and resulted in the Russian annexation of the Ukrainian territory of Crimea in 2014, occupying a significant part of the country, equivalent to the size of modern-day Belarus. These actions initiated a wave of conflict and tension, which today, probably has taken the most terrifying discourse for the world to witness. Vladimir Putin, anticipating spiritual unity, and intending to teach the West a lesson, once again waged an unprecedented war against Ukraine on 24th February 2022, which has had ramifications on economies all over the world.

RECKONING THE IMPACT

The Russian invasion of Ukraine caused a geopolitical whirlpool dragging Russia, Ukraine and the NATO allies into a vehement obsession for power which plunged

the world order into a trench and led to severe political, economic as well as social unrest.

• Political and Military Impacts

The attack and intervention of Russia into the major areas of Ukraine disrupted the global order and exposed Putin’s intention to overthrow the power in Ukraine and establish Russian supremacy over the people of Ukraine as well as the world. The continued instances of aggression and its adamant against proposals of peaceful co-existence led to Russia abrogating to conform to the global peace standards and making Europe and the United States of America (USA) a direct party to the war.

Months of clashes between the two countries have exposed several shortcomings in the strategic approaches from both sides. While the Russians commanded a reputation for their arms and weapons, the Russo-Ukrainian War proved otherwise. The Russian army, owing to the difficulties posed in command and control, logistics and faulty tactical measures, performed poorly overall and the Ukrainian army proved to be resilient and adaptive, contrary to Russian belief, despite being quantitatively and qualitatively disadvantaged.

With the war extending for months, both sides have been trying their best to build dominance over the other, however, other external factors seem to have a greater influence in deciding the course of action in the war. Although Russia as a nation has been backed by an advanced defence system and a dependable and powerful military, the continuous support of the United States and its allies and the endeavour of the Ukrainian forces to keep up against the Russians have led the countries to stay the course.

Casualties have been recorded on both sides and more than a hundred thousand soldiers have lost their lives in this skirmish for victory. This conflict is no more restricted to two nations and has caused political tension amidst the entire geopolitical accord. With every nation being pushed to take their stance and come out in favour of one party to the war, it has left the world at the brink of yet another ‘world war’.

More than 10,000 deaths reported in Ukraine

Figure likely an underestimate due to difficulty in recording deaths in a war zone



Figure 1: Graph Reflecting the Number of Casualties in the Initial Months of the Conflict
(Source: BBC Analysis of Aced Data)

• Economic Impacts

The International Monetary Fund (IMF) has recently stated that the Russo-Ukrainian conflict is a major blow to all the economies that will cripple growth and raise prices across the globe. The ongoing conflict has outcomes that significantly impact the economic front of all the major economies, which are just recovering from the stress of the Coronavirus pandemic. The economic impacts broadly take into account three components: food, energy and finance which have been elaborated below.

Finance (Sanctions, Embargoes and Boycott Movements): Sanctions and embargoes both refer to trade restrictions that are placed on a particular country by the other governments as a punishment for crimes and violations. The difference between the two lies in how comprehensive each of them is. A sanction is a partial prohibition and can take the form of restricting trade with particular companies, travel and other financial dealings. Embargo, on the other hand, refers to a full prohibition on a particular kind of trade with another country.

Ever since the Russia-Ukraine war has started, a critical economic war has erupted between Russia, Europe, and the USA. In anticipation of pushing Russia into an economic turmoil, the USA and the Europe have imposed heavy sanctions on it. Russia is the world's largest oil exporter. Before the war, most of its oil i.e., 60 per cent went to Europe, and 20 per cent to China. Given the major role which oil and gas exports play in expanding the Russian State's exchequer, it seemed a logical step for Western sanctions to be levelled at this strategically prominent industry. Following rounds of sanctions also included a 35 per cent tax imposed on Russian liquor by the European Union (EU) and a G-7 Russian gold imports ban, the second largest export industry of Russia. Such a move targeted Russia's ability to interact with the global financial system at large.



Figure 2: Countries that have Imposed Sanctions on Russia
(Source: Business Today)

Moreover, Russian goods were also banned, and billion-dollar businesses like Apple, Mercedes-Benz, Zara, et al. have quit the Russian markets. Russia is even debarred from the Society for Worldwide Interbank Financial Telecommunications (SWIFT Network), and such sanctions have further frozen its forex reserves of around \$300 billion. The West has even started forcing other developing nations such as India to stop trading with Russia, targeting its economy with the sole aim of bringing the country to its knees.

Global companies pulling out of Russia

As Russia's war on Ukraine intensifies, many of the world's leading companies are leaving Russia



Figure 3: Global Conglomerates Pulling out of the Russian Markets
(Source: Anadolu Agency)

However, contrary to the expectations of the West, the striking high prices of the energy sources (explained in the further section) led to the Russian Rouble hitting the highest prices in seven years despite experiencing large-scale global sanctions.

Food and Energy: After the sanctions and embargoes, it was expected that Putin would withdraw from Ukraine; and Russia will accept defeat due to the economic turmoil and havoc. Although Russia got affected, it also has now played its best card (i.e., food and energy supply) against all other nations.

Russia and Ukraine collectively account for more than 25 per cent of global wheat exports, almost 20 per cent of global corn exports and more than 80 per cent of the world's supply of sunflower oil. The moment the supply of these commodities got cut off, the entirety of Europe witnessed a surge in food prices, favouring and feeding Russian interests.

As far as the energy is concerned, this is where the most powerful leverage of Russia against Europe in specific comes in. Energy is the 'main spillover channel' for Europe, with Russia being a prominent provider of natural gas. The key to Russia dominating the major energy supply lies in the Nord Stream pipeline, one of the most noteworthy infrastructures across the globe. It is a 1,224 km long underwater gas pipeline that runs from Vyborg in north-west Russia to north-eastern Germany via the Baltic Sea. This very pipeline transfers 55 billion cubic litres of gas a year, most of which directly goes to Germany and then to the several well-connected countries of Europe. This is indicative

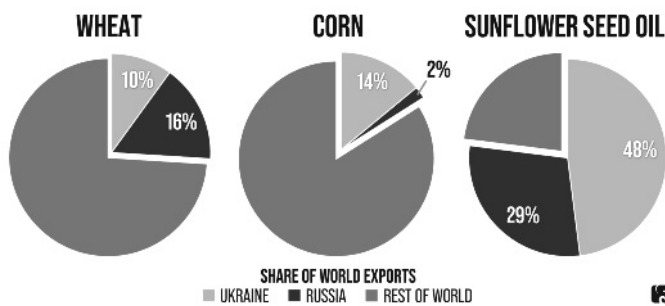


Figure 4: Share of World Exports
(Source: Republican Policy Committee)

of the extent to which all European nations, including Germany, the largest economy within Europe, are heavily dependent on Russia for their gas supplies and energy resources.

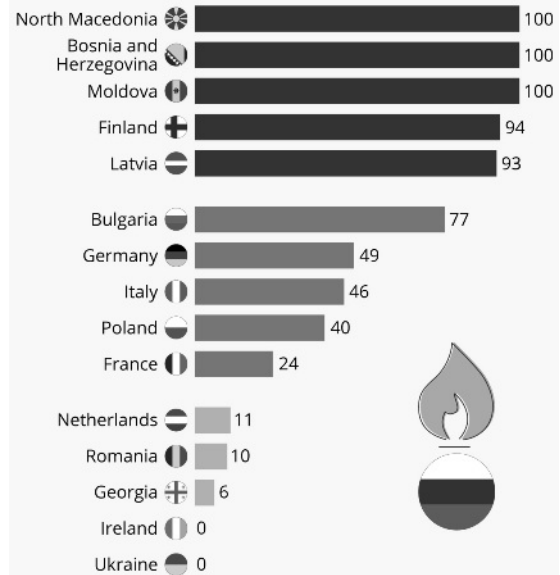


Figure 5: Nord Stream Pipeline
(Source: entsog.eu)

Intending to teach Europe and other nations a lesson, Russia is now squeezing its gas supplies. Moreover, all the 'unfriendly countries' have been asked to further trade in Roubles if they wish to buy Russian gas. Due to this intentional shortage of energy sources created in the market by Russia and the demand-supply mismatch, the gas prices in Europe have started to soar, leaving many nations at the beck and call of Russia.

Which European Countries Depend on Russian Gas?

% share of gas supply from Russia in selected European countries (2020 or latest available)



Ukraine buys its gas from the EU since 2015.

Source: European Union Agency for the Cooperation of Energy Regulators

Figure 6: Percentage of Gas Supplies of the European Nations from Russia
(Source: European Union Agency for the Cooperation of Energy Regulators)

HOW GLOBAL GAS PRICES HAVE CHANGED

Percentage change since 1 January 2022

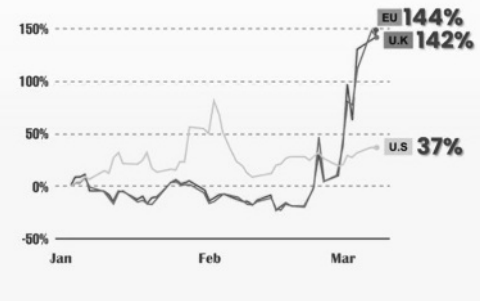


Figure 7: Significant Rise in Global Gas Prices
(Source: Think School)

Owing to energy prices being all-time high in Europe, every single industry's cost of production is also going up, causing inflation to rise up to 9.6 per cent all across the European Union. All above this, the food price inflation in Europe has accelerated to 7.5 per cent as of June 2022, being the highest in the last 20 years. As it turns out, Russia is making more money off oil, gas and food as compared to the pre-war scenario by simply regulating the supply and the prices. This has provided a different tangent to the war and a reason to thrive further.

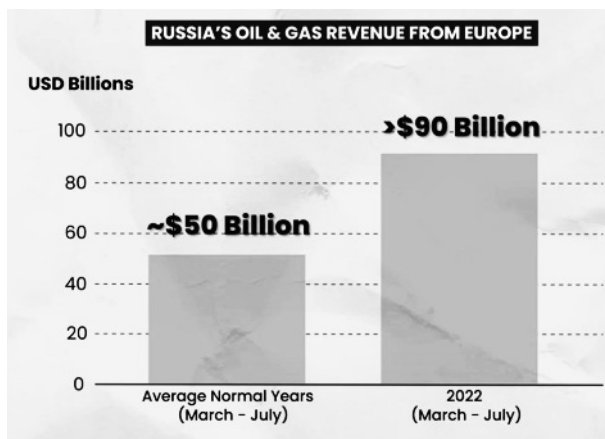


Figure 8: Russia's Oil and Gas from Europe
(Source: Think School)

• Social Impacts

War is a humanitarian crisis and in such a state, there is no right or wrong. Geopolitical conflict of the scale of the Russo-Ukrainian War of 2022 is bound to have severe violations in terms of economy or polity but the social impact that it carries has far-reaching consequences that will cost the countries much more than just a percentage loss in their Gross Domestic Products (GDPs). The war, which began in the second month of 2022, has now continued for a period of nine months during which many innocent people lost their lives, the armed forces of both countries are tied in a state of conflict, and cases of violation have done rounds and the social conditions for survival in Ukraine have worsened with the passing times because of such activities.

Ukrainian Refugee Crisis:

The war between Ukraine and Russia resulted in one of the largest refugee crises of the 21st century that has caused around a quarter of Ukraine's population to take refuge in the neighbouring countries of Poland, Russia, and Germany, among others. This large-scale migration has also resulted in human rights violations including instances of crimes relating to deportation, discrimination, and abduction, which under international law is considered genocide.

Migration of the Ukrainian population in the neighbouring countries has also in turn increased pressures on the neighbouring countries and made it difficult for the refugees to integrate into the host countries and their markets. In most cases the resources available with the host countries are insufficient for housing and protecting the large number of refugees coming from Ukraine, and the impact caused by this influx has made matters go downhill for the other European countries as well.

Figure 9 below shows the number of refugees leaving Ukraine on a weekly basis after the commencement of the war.

Chart A

Number of Ukrainian refugees leaving the country

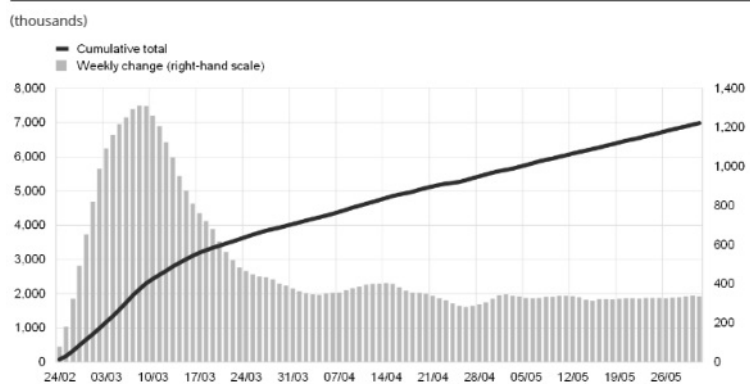


Figure 9: Number of Refugees Leaving Ukraine on a Weekly Basis in the Initial Months of the Conflict
(Source: UNHRC and ECB Calculations)

IDP Distress:

Internally Displaced Persons, commonly referred to as IDPs, are the people who, due to a crisis or some other

and even their loved ones. The conflict has caused suffering among the masses, and the displaced people face a shortage of all essential items like food, water, basic items, shelter, and energy and lack access to health care facilities.

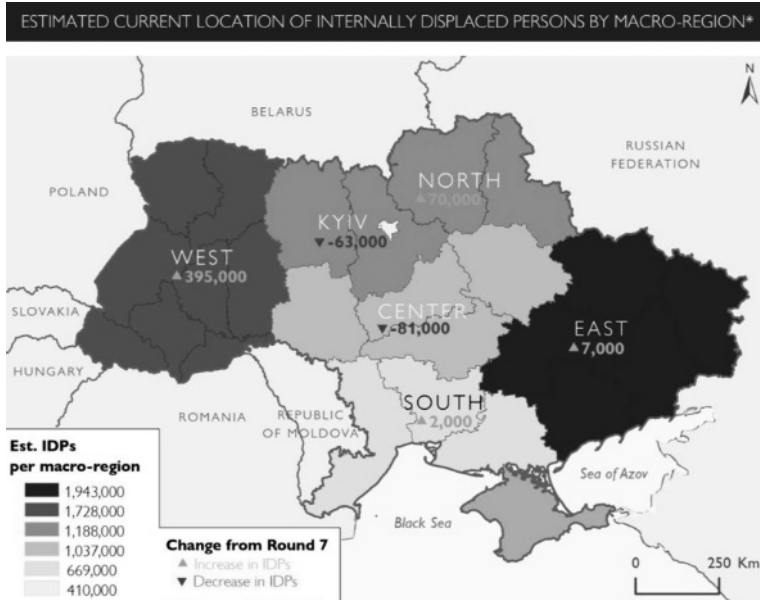


Figure 10: Assessment of the Locations of the IDPs in Different Regions across Ukraine
(Source: Centre for Disaster Philanthropy)

adverse situation, are forced to leave their homes but remain within the borders of the country. According to the data provided by the United Nations Human Rights Office of the High Commissioner, around 7.7 million people, accounting for around 17.5 per cent of Ukraine's population, have been internally displaced.

Internal displacement cannot be simply expressed in terms of the number of IDPs and the reason is not just it being a complex phenomenon, but also the other factors that have to be taken into consideration to evaluate the social impact of the war on the IDPs residing in different parts of the country.

The situation for the IDPs has been atrocious. The war has wrested from the IDPs everything that they had - their livelihood, their homes, their belongings,

To deal with this challenge, the United Nations sought to flash appeals which was an internationally recognized tool that had been designed to raise cash assistance in times of war. The third iteration of this Ukraine Flash Appeal requested the support of \$4.29 billion showing a 90 per cent increase in fund requirements over the last appeal, advocating the scale of the worsening humanitarian crisis over time.

The Proliferation of War Crimes in Ukraine:

Ever since the war commenced, various instances of war crimes were documented and there were several others that went undocumented. The Russian forces after the invasion of Ukraine, committed a host of war crimes, including deliberate attacks targeting civilians, forcefully abducting women and



Figure 11
(Source: United Nations OCHA)



Figure 12

Figures 11 and 12: Data Showing the Flash Appeal Funds Requirements by the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) for June 2022 and August 2022
(Source: United Nations OCHA)

children and torturing them, and launching indiscriminate attacks in various parts of Ukraine, failing to distinguish between military objectives and protected objects. According to a report by BBC News, by the end of July 2022, Ukraine was investigating nearly 21,000 war crimes committed allegedly by Russia since the beginning of its invasion of the country, and the number is on the rise.

According to the UN Human Rights Monitoring Mission in Ukraine, Russia committed crimes in Ukraine by means of strikes and indiscriminate attacks aimed at utilities like schools, hospitals and houses, among others. The war also recorded the use of cluster munitions, a form of air-dropped or ground-launched explosive weapons that further releases smaller submunitions, which according to the International Humanitarian Law, is incompatible to be used in densely populated areas. A report by the New York Times stated the usage of unguided

munitions, having the potential to bounce off buildings and cause damage to the people nearby by breaking into razor-sharp fragments that can penetrate bodies, by the Russian armed forces. The targeting of the Zaporizhzhia Nuclear Power Plant by the Russian forces was also considered by many nations as a war crime that risked radioactive leak in the country, endangering millions of others. The attack on the cultural properties also undermines the laws that prohibit any country involved in a war from targeting historical monuments as a military move. The UN High Commissioner for Human Rights commented that the heavy civilian toll from the usage of such indiscriminate weapons and tactics had by now become 'indisputable' and such actions should be stopped in their tracks.

Upon in-depth analysis of all the impacts, it comes out that every nation, whether directly or indirectly, has been trapped in the shackles of this war which probably now has emerged as a larger struggle of good against evil. The war, in all its dimensions, is producing alarming cascading effects to the world economy, with developing nations like India being more vulnerable and exposed.



Figure 13: Areas Reporting the Use of Cluster Munitions
(Source: Human Rights Watch)

THE INDIAN PERSPECTIVE

India, which has good relations with Russia, has adopted a neutral position on the global platform and has abstained from supporting or condemning Russian actions in Ukraine. Although India has always opted for a diplomatic front on controversial topics, instances of India's abstinence from voting against Russian aggression on global platforms have been evaluated as 'a subtle pro-Moscow position' that has been called under question by various countries in the West. However, banking on its stance of neutrality and strategic approach towards its interest and the interest of its people, India has anchored its position in the global markets under the context of the war between the East and the West. This might as well lead to certain secondary sanctions being imposed on India by the West.

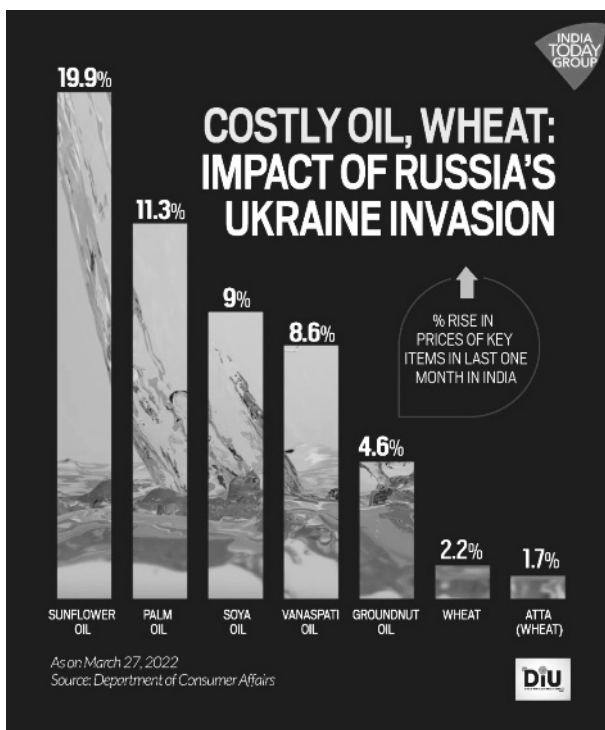


Figure 14: Impact on the Prices of Oil, Gas and Food Items in the Indian Markets
(Source: Department of Consumer Affairs)

Indian exports such as pharmaceuticals, telecom equipment, tea, coffee and marine products have been negatively affected due to the ongoing conflict and the

trade disruptions. This has further led to a depletion of foreign reserves due to increasing energy prices and the increasing cost of imports as well the existing market prices of different energy and food items. However, on the positive side, as Ukraine is known as the 'wheat basket' of Europe and both Russia and Ukraine are major food exporters, the supply shortages hence have also opened wider opportunities for the supply of India's wheat, mustard, barley, cotton and soybean. As a result, in spite of the global economic adversaries, India's high-frequency indicators reflect a sustained growth momentum in the initial two quarters of 2022.

CONCLUSION

Ever since the announcement of the Truman Doctrine, an American foreign policy instrument aimed at helping democracies against authoritarian threats, hostilities between the western and the eastern bloc had become evident, which created a situation of geopolitical tension between the two. With the disintegration of the Soviet Union in 1991, its constituent republics gained full sovereignty, and this event led to the germination of Russia versus the North Atlantic Alliance. Although the Russian invasion of Ukraine has been aimed at destroying the capabilities of the latter, the ulterior motive of this move has been Russia's intimidation to its neighbouring lands as well as the NATO countries to desist from integrating with the East.

As part of the Soviet Union, Russians in Ukraine were not a big deal. However, with the disintegration of the Soviet Union, there were sudden claims on historical territories by Russia and Ukraine that went on to become more challenging. Putin recognized the fact that with every factor working in his favour, it was his opportunity to challenge NATO's credibility and establish Russian supremacy by invading Ukraine and overthrowing the government. The war did begin with Russia dominating on military as well as other aspects; however, with the passing of time, Ukraine's resilience and strategy combined with the support extended by the West has made the situation much worse for Russia. With the war dragging major economies like India, China and the West into the picture and bequeathing major implications across the globe, any estimation of

the world's deliverance from the fetters of the war or its end seems uncertain.

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Electricity
(Amendment) Bill
2022: A
Turnaround in the
Power Sector? -
The most striking
feature of The
Electricity
Amendment Bill is
the concept of
multiple
distribution license
holders in each
geographic area.



Electricity (Amendment) Bill 2022: A Turnaround in the Power Sector?

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ABSTRACT

'India has one of the world's most complex power sectors, which has seen remarkable evolution over the past few decades. However, the sector still faces significant challenges. Most power distribution companies incur huge losses every year which leads to the accumulation of large amounts of debts. Many efforts have already been made to turn around the dismal condition. The Electricity Act (EA), 2003, brought about major changes in the power sector, including delicensing of generation, open access to distribution, and independent regulators at the state and central levels. A series of schemes were also launched by the government to upgrade the distribution infrastructure and help the distribution companies (discoms) improve their financial condition. The government is making yet another attempt to turnaround the condition of the power sector with the Electricity (Amendment) Bill 2022 which aims at giving multiple players open access to the distribution network of the existing power suppliers.

KEYWORDS: Amendment, Discoms, Distribution, Electricity, Government, Subsidy.

WHAT IS THE ELECTRICITY AMENDMENT BILL, 2022?

The Electricity Amendment Bill, 2022 was introduced in the Lok Sabha recently, to amend the current Electricity Act (EA 2003) which provides that single legislation shall supply the electricity in an area. The major aim of the bill is to consolidate the laws with regard to the generation, transmission, and distribution of electricity among people. This amendment bill aims to allow non-discriminatory open access to distribution networks of power suppliers and will create an open channel for consumers to choose from multiple power suppliers in their area.

THE KEY PROPOSALS

- Multiple discoms in the same area - The act provides multiple discoms to operate in the same area of supply and requires them to use their own distribution network. The bill removes this requirement and adds that a discom must provide non-discriminatory open access to its distribution network to all other discoms operating in the same area, on payment of certain charges.
- Procurement of Power and tariff - Upon the grant of multiple licenses for the same area, the power and associated costs as per the existing Power Purchase Agreements (PPAs) of the existing distribution companies will be shared between all discoms. The bill provides that the State Electricity Regulatory Commissions (SERCs) must specify the minimum tariff in case multiple discoms operate in the same area of supply besides specifying the maximum tariff in the same case as per the act. This is done to avoid predatory pricing by the new distribution companies.
- Renewable Purchase Obligation (RPO) - RPO refers to the mandate to procure a certain proportion of electricity from renewable sources and the act authorizes SERCs to specify RPO for the discoms. The bill adds that RPO should not be below the minimum prescribed percentage as specified by the central government and failure to meet the RPO will be punishable with a monetary penalty.
- Cross-subsidy Balancing Fund - Cross-subsidy refers to the arrangement of one consumer category subsidizing another. The surplus with a discom on account of cross-subsidy will be deposited to the cross-subsidy balancing fund set up by the state government which will be used to finance deficits in

cross-subsidy of the discoms in the same or other areas.

POLITICAL CONCOMITANT

The introduction of the bill by the Ministry of Power faced several backlashes from the State Governments. They feel that the amendments will raise issues regarding farmer subsidies. The most striking feature of The Electricity Amendment Bill is the concept of multiple distribution license holders in each geographic area, which will only benefit the private power distribution companies according to the State Governments. Although there may be multiple licensees, the distribution channels of the existing state discoms will be used. This concept of having multiple licensees in one area is not feasible in a country like India where we have cross-subsidies, huge trade losses, operational issues, et al. The Union and State governments work together but the opposition stated that the Centre did not consult any of the State Governments. The Central Government on the other hand indicated that multiple discoms can already exist in the same area as per the existing EA 2003, the bill only simplifies the process to ensure that competition leads to better service for the consumers. As of June 2022, renewable energy sources contribute 27.78 per cent of the total energy generated in the country (Figure 1). With the RPOs mentioned in the bill, the Central Government is of the opinion that it will augment India's efforts toward achieving its goal of procuring 50 per cent of its installed power capacity from renewables.

DISCOMS: A CHANGE OF FATE?

The distribution business can be divided into two parts, the Carriage (the physical infrastructure) and the Content (sourcing, metering, billing, and supply). With the bill, the Government wants the existing discoms to retain a monopoly over the Carriage, which is the wires business, and open up the Content, which is the supply business for competition, with private sector entry. Enabling retail competition would indirectly worsen the operational and financial conditions of the existing discoms. Since only government discoms will have universal power supply obligations, it is very likely that the private companies will prefer to supply in the profit-making areas - to industrial and commercial consumers. If this happens, the existing state discoms will lose their profit-making areas to the private players and increase their losses, worsening their financial condition. Moreover, with the non-discriminatory open access to

the distribution network of existing state discoms, the bill will help the new private discoms get an easy entry to the supply business as they would not need to bear the huge capital costs of building the supply infrastructure. The new private discoms would thus experience *schadenfreude* over the existing state discoms.

IMPACT ON CONSUMERS

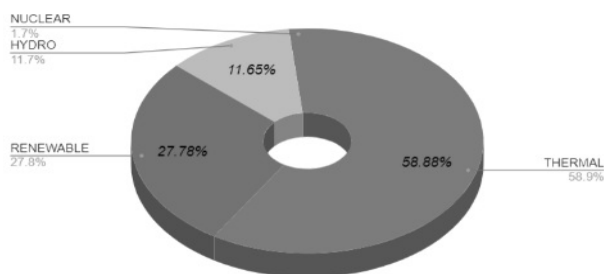


Figure 1: Share of Sources of Power in Total Installed Capacity
(Source: IBEF)

The Electricity Amendment Bill, 2022 has raised the eyebrows of farmers and poor people who fear losing electricity subsidies. With the entrance of too many power suppliers in the market, the distributors will provide electricity to people for earning profits rather than giving subsidies to below poverty line people. Privatization will affect the employees as they may lose their jobs due to high-profit maximization motives followed by private owners. The bill will help in getting rid of the existing private and public monopolies in the power distribution sector and consumers will get the freedom of choosing from multiple service providers operating in the same area. There will also be an improvement in the quality of services and there will be an uninterrupted supply of electricity provided by the distributors because of stiff competition among the power distribution providers.

CONCLUSIVE REMARKS

The Electricity Act, 2003 changed the dynamics of the power sector with the opening up of the generation part of the utilities business which led to a flurry of private sector investments. As a result, India's installed capacity grew over four times in less than two decades. Then, the distribution part was protected and unfortunately, it has now become a huge financial burden on the government and the taxpayers. The total debts to generation companies stood at ₹ 679,170 million as of March 2021 (Figure 2).

Though the bill is not complete privatization of the

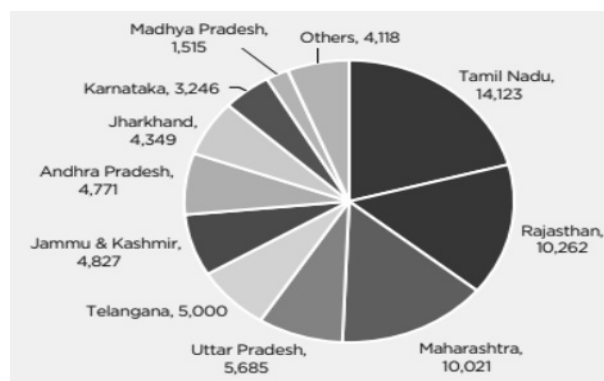


Figure 2: State-wise overdue to Generation Companies, in crores
(Source: NITI Aayog)

distribution part of the electricity supply business and a step towards it may be beneficial for the consumers, in the long run, it looks like it will worsen the financial condition of the existing discoms. The new private players would be paying a certain charge for using the existing supply infrastructure of the state discoms and thus would simply bypass the need of bearing huge initial capital costs. Though this is good for the country since the wastage of resources would be minimized, it seems like the private players would build their business at the existing discoms' expense. For the consumers on the other end, privatization and increased competition would lead to a better quality of services.

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Inflation: A Contemporary Deep Dive and the Road Ahead

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There is a silver lining to every recession which can still be looked at as a good thing despite the slowdown.



ABSTRACT

Inflation has been ailing the global economy with the fear of underlying recession and slowed economic growth. Just the idea of fiat currency being available to be printed as a decision of the government leads to prices going up and consumer behaviour takes no time to adapt to the increased prices, leading to everyday items being sold at skyrocketing prices. These situations can even lead to a condition called 'Hyperinflation' where commodities and their prices are exponentially high due to inflated rates. In this article, we explore the major reasons including tensions between Russia & Ukraine and the long brunt of the COVID-19 pandemic which have led to the current global economy falling into the unavailability of resources and slowed economic growth. These causes have been instrumental in deterring free trade movements and have been a constant challenge for global governments.

KEYWORDS: Inflation, Recession, Economy, Interest Rates, Pandemic, Crisis.

Imagine if you had to wake up as early as 2:00 in the morning, make your way to the nearest ATM and then wait in a queue to be able to withdraw an equivalent of 2 US dollars only, the maximum that the government allowed, and that too on a good day. Or even worse after all this effort, and hours of waiting, only to discover that there was no money left. This is Zimbabwe for you around 2007 when buying a plate of dinner costed a million Zimbabwean dollars. The country was experiencing the second highest inflation in history.

The government stopped reporting numbers soon after inflation hit 100000 per cent, when a single loaf of bread costed 30 billion Zimbabwean dollars. And here is the catch, to keep up, the central bank of the country kept printing bigger and bigger denominations of banknotes - a million dollars, a hundred billion dollars and also one hundred trillion which was worth a mere 40 US cents.

So how does inflation get that bad? And are we today headed to another global recession in the near future?

WHAT IS INFLATION?

Inflation by definition is a rise in prices, which can be synonymously interpreted as the decline in purchasing power over time. It can simply be understood as the average price increase of a basket of selected goods and services over some period of time.

According to the International Monetary Fund (IMF), for 2022, global inflation is forecast to rise to 8.8 per cent from 4.7 per cent in 2021. As shown in Figure 1, in 2022, in the wake of the Covid pandemic, US inflation reached 9.1 in June, staying at the fastest pace in 40 years.

US Inflation Rate, April 2018–August 2022

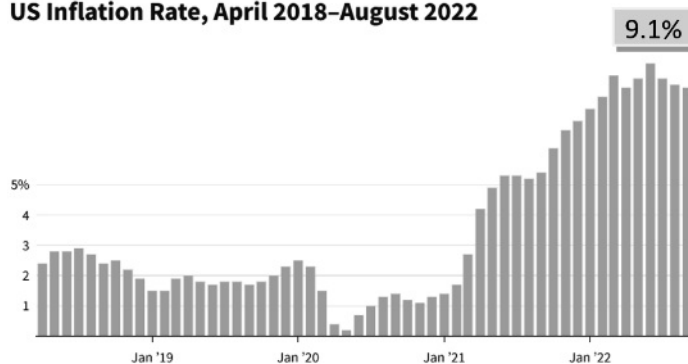


Figure 1: US Inflation Rate, April 2018 – August 2022
(Source: Federal Reserve Bank of St. Louis)

BUT WHY IS INFLATION SO HIGH?

The world has lately been witnessing soaring inflation rates not just in the US but also globally. Declaring a single reason responsible for this rapid rise would be

incorrect. But the two major factors which have been the flag bearers of this unprecedented increase are the COVID-19 Pandemic and the War between Russia and Ukraine which has disturbed the global economic functioning at a huge level.

THE PANDEMIC

After having witnessed a lockdown for nearly two years, the world economy has been shaken badly with businesses, trade, supply chains, and production, all coming to a standstill.

So, what went wrong?

What America is witnessing today has much to do with the decisions that were taken 2 years back when the lockdowns pushed millions of Americans into being temporarily laid off from their jobs. To provide relief to the increased number of unemployed people, the government issued stimulus checks and increased unemployment benefits. And now that the pandemic has almost ended, the repercussions of an increased supply of money and low-interest rates are coming to the front. The demand has in no time outperformed the supply which is as yet battling and advancing back to the pre-COVID levels.

In 2020, the Federal Reserve stepped in with an expansive cluster of activities to keep credit streaming with the aim of restricting the financial harm from the pandemic. This included large purchases of U.S. government and mortgage-backed securities and lending to support households, employers, financial market participants, and state and local governments. In 2008, the Federal Reserve followed the Zero Interest Rate Policy (ZIRP) and lowered the funds rate to 0 per cent, to revive the economy during the Great Recession. As depicted in Figure 2, it did so once again in 2020 in order to limit the economic after math of the COVID-19 crisis. Lowering the rates eases lending and makes it easier for borrowers to get credit. This spurs consumer and business spending and grows the economy. The activities of the Federal Reserve were of critical significance to guarantee that credit kept on streaming to families and organizations,

keeping monetary market interruptions from strengthening financial and economic damage. The decisions helped manage the situation greatly and if not taken at the right time, the US economy today would have been in a worse situation.

RUSSIA-UKRAINE CRISIS

Russia being a large producer of fossil fuels, its invasion of Ukraine has led to a series of gaps in the world's supply of oil and gas. The country is the third-largest producer of oil and accounts for 14 per cent of the world's total supply. When a country this strong experiences economic sanctions and trade restrictions, the supply chain is bound to witness challenges. The Biden administration's ban on oil imports from Russia to the US meant a clear call to a sharp increase in the prices of oil which was followed by one barrel costing over 110 dollars. Ukraine on the other hand is a significant producer of staples. Both Russia and Ukraine combined supply 30 per cent of wheat, 20 per cent of maize and 80 per cent of sunflower seed products. Gas, food and lodging costs have all taken off and year-over-year, gas costs are up 7.5 per cent. Not simply fuel, costs have likewise gone up at supermarkets, especially for staples including fruits and vegetables. Basic food item costs throughout the past year have risen 12.2 per cent – the most noteworthy increment since April 1979. Home costs and rent have expanded as well – up 5.6 per cent in contrast to last year.

WHAT'S NEXT?

The global economic outlook is falling because of inflation-fighting efforts by national banks, the conflict between Russia and Ukraine, and China's prioritization of political command over economic development. The global economy may not officially be in what we call a recession, but it's not looking good.

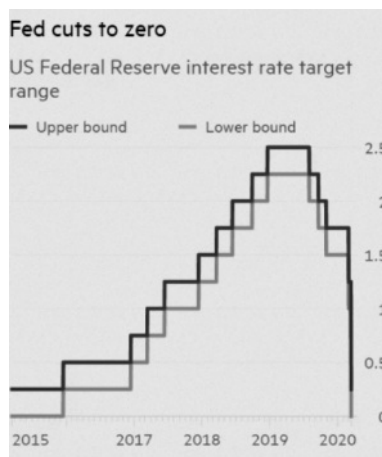


Figure 2: US Federal Rates Interest Rate Target Range
(Source: Bloomberg)

WHAT IS A RECESSION?

There is no universal definition for an economic recession, but analysts and investors commonly define it as two consecutive quarters of negative Gross Domestic Product (GDP).

ARE WE REALLY STEPPING INTO A GLOBAL RECESSION?

A question that has been lurking in the back of the minds of world leaders, investors, business owners and almost everyone else out there is if we have entered into, or are moving towards a global recession. But as the

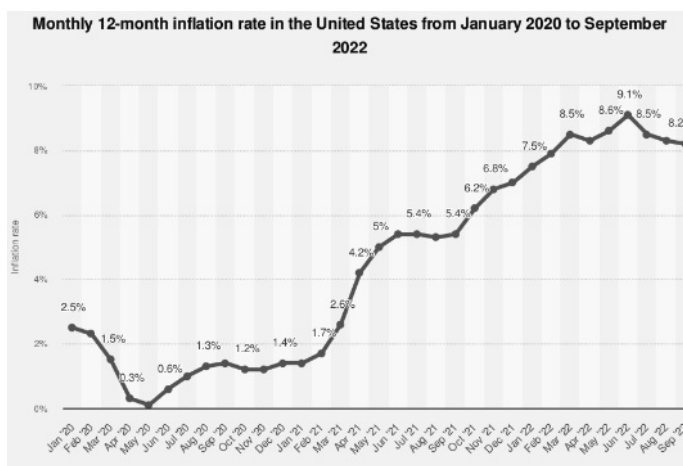


Figure 3: Monthly 12-month Inflation Rate in the United States from January 2020 to September 2022
(Source: Bureau of Labour Statistics © Statista 2022)

trend shows in Figure 3, after months of peakedness, inflation rates in the US have been sliding down though not steeply, but the reduction is happening. The Federal Reserve's control of interest rates is its most integral asset to check inflation. However, it is an intensely difficult exercise, as it takes a chance with a downturn. If it increases interest rates, a decline in investments following the increase could significantly affect jobs and spending. In the event that the U.S. slips into a downturn at some point this year or in 2023, there is little reason for investors to be frightened as recessions do not generally last very long. The typical span of a U.S. downturn since the Second World War is just around

eleven months, and the Coronavirus downturn in 2020 likewise persisted for only two months. Additional supply chain disruptions and potential energy price shocks remain among the key risks, and could accelerate price growth in the last quarter of 2022 and possibly beyond. Countries like Germany, Spain and Italy, which have a greater dependency on energy imports will feel higher inflationary effects in 2022-2023 in the event that energy price growth accelerates.

THE BRIGHT SIDE

Although recessions can lead to unemployment, economic slump and other financial difficulties, they have historically been excellent buying opportunities for long-term investors. Conclusively, every significant change brings opportunities for development and growth for a couple of businesses that are inventive, far-sighted and visionary. Being open to opportunities in changing times will pay dividends in the eventual upturn. There is a silver lining to every recession which can still be looked at as a good thing despite the slowdown. Some of the pointers covered under the bright side of a recession are discussed further:

- **Visionary businesses**

The analyses made by organizations claim the onset of a recession, but not every business needs to fret. Although there is no easy way to escape an economic downturn, some businesses can still survive and even record good revenues in the said period. Despite the recession, we can expect businesses like grocery stores and maintenance services to stand firm and benefit from the sinkage.

- **Business efficiency and cost-cutting**

The recession can bring with it the opportunity for businesses to think creatively and innovatively. Many

small businesses might have to undergo bankruptcy and resort to dissolution. But this means lesser competition and therefore bigger markets for the ones who survive. Businesses can try new models that might be associated with lower costs.

- **Lower borrowing rate**

On the upside, the recession can bring with it the benefit of lower loan repayments. Generally, inflation rates tend to fall during a recession and the borrowing rates remain low as well. The recession can therefore be the perfect timing for some of us including individuals and businesses to clear off our payables.

By recognizing the opportunities and through long-term planning, a lot has been established during the past recessions and much more can be looked forward to even if we step into one in the near future. The bright side if explored efficiently, can bring with it opportunities, innovation and improved mindsets.

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Fool's Gold?

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ABSTRACT

Overseas oil exploration deals are standard in low-income countries where the government cannot undertake the capital expenditure to commence the projects. These contracts are a great way to capitalize on substantial natural strategic reserves that would have remained untapped due to insufficient funds. Foreign oil assets also come out as a great investment option for countries which have insignificant reserves and have to import the majority of their oil. With the global markets becoming significantly unstable for crude oil due to numerous geopolitical tensions all around the globe, many nations are looking to acquire strategic oil assets to help stabilize their foreign reserve outflows. These investments also help the third-world countries, as they have more money to spend on their nation's development.

In this article, we will analyze the feasibility of these assets from the Indian context, find out the geopolitical and financial impacts of these events and discuss the bottlenecks which the nation faces concerning oil price instability. We will also discuss the risks associated with both the involved party states and the following repercussions of an unplanned tragedy.

KEYWORDS: Oil Rigs, Foreign Exchange Reserves, Offshore Projects, SWIFT Payments System, Exploration and Production, Geopolitics.

NEED OF THE HOUR FOR INDIA

India is only third to the United States and China when it comes to ranking by oil consumption. The nation imports more than 80 per cent of its oil from outside the country as of 2022, most of which usually comes from the Middle East and the United States. India is the second largest buyer of crude oil in the global markets after China and oil imports consume a great chunk of India's annual budget allocations – a little over 24 per cent.

India is a developing country which has a big current account deficit. This means the revenues collected by the government are not enough to meet its expenditures. The oil import bill contributes to a chunk of that difference. The foreign exchange reserves also take a huge hit because almost all of the oil trade globally is done using the USD because of the petrodollar system. A strong dollar has made the bruises worse for India, as now the nation has to spend more local currency to buy the same amount of oil. This is also affecting the value of rupee in foreign exchange markets.

THE GEOPOLITICS OF OIL

Crude oil is the most important commodity in the global markets, as the

Indian foreign oil assets are a great way to hedge against rising oil prices and if done under good circumstances, keeping in mind all the external factors, shall prove to be a great economical and strategic victory for India in the long term.

world cannot run without oil. All countries do not have equal access to this black gold, global geopolitics have always played a major role in shaping the oil trade mechanisms between nations.

This started with the petrodollar agreement between the United States and the country of Saudi Arabia, which is considered to be the uncrowned leader of the Organization of Petroleum Exporting Countries (OPEC) in the early 1950s. The United States imposed sanctions on the Republic of Iran, as the latter was suspected to be involved in nuclear arms development. This coupled with the sanctions on Venezuela disrupted the global oil supply and sent the prices to new soaring highs. The war on Ukraine by Russia showed the ugly side of this game when the West imposed sanctions on oil trades with Russia by excluding it from the SWIFT payments system, which is a payment system wherein countries make payments to each other.

These events cause major instability in oil prices globally and are very detrimental to the global economy. High oil prices cause demand-side inflation in the economy

which reduces the growth prospects of a nation in the long run. The oil-exporting nations, however, make huge profits by capitalizing on situations like these. The OPEC nations allegedly artificially cut down oil production to keep the prices steady at the top. The history of oil prices with respect to major geopolitical and global events is shown in detail in figure 1.

CURRENT SCENARIO OF INDIAN OFFSHORE OIL ASSETS

India's share in foreign oil assets increased multifold in the last five years and foreign oil production under the control of Indian Public Sector Undertakings (PSUs) has been able to exceed the domestic oil production for multiple years. The ageing domestic oil rigs and low investment in domestic Oil Exploration and Production (E&P) have proven to be the main reasons behind the low output of domestic assets. Indian energy needs are also on a steady rise and by 2030, India is estimated to consume more than 10 per cent of the world's energy

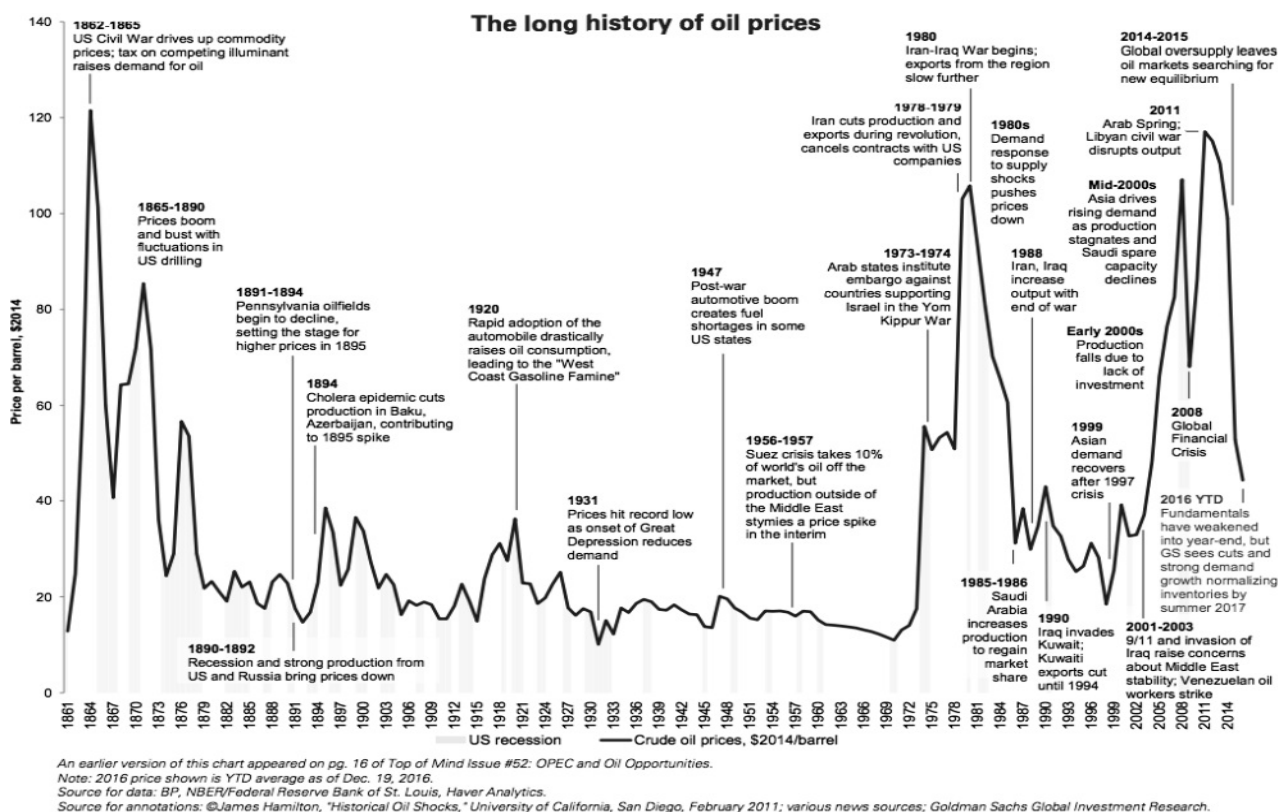


Figure 1: The Long History of Oil Prices
(Source: www.bmindstoday.com/155-years-of-oil-prices-in-one-chart)

requirements. Figure 2 shows the estimation of Indian energy requirements by the International Energy Outlook (IEO).

Oil and Natural Gas Corporation Videsh Limited or ONGC Videsh is the main channel of Indian public sector foreign investments. It has major oil investments and stakes in foreign oil projects in countries like Russia, Brazil, Venezuela, Sudan, et al. It has more than 40 projects in more than 20 countries, with a total investment of more than USD 30 billion. Figure 3 shows ONGC's oil and gas production forecasts in the short term.

India's major investment in Brazil's offshore oil project in the BM-SEAL-11 project is anticipated to be a major boost for Bharat Petroleum's foreign asset portfolio. The project is located on the west of Brazil's shore and costs about USD 1.6 billion. Bharat Petroleum's upstream arm Bharat PetroResources Ltd. or BPRL holds a 40 per cent stake in this project. The project is estimated to be completed not before 2027. Indian companies are also keen to make huge investments in Russia's eastern oil projects. Russia wants India and other friendly nations to make huge investments in its eastern side which is relatively untouched. It wants to enhance collaborations in E&P and new technology adaptations. India is also looking forward to investing in African nations such as Sudan and Nigeria to exploit these nations' huge untapped oil resources.

EIA analysis explores India's projected energy consumption

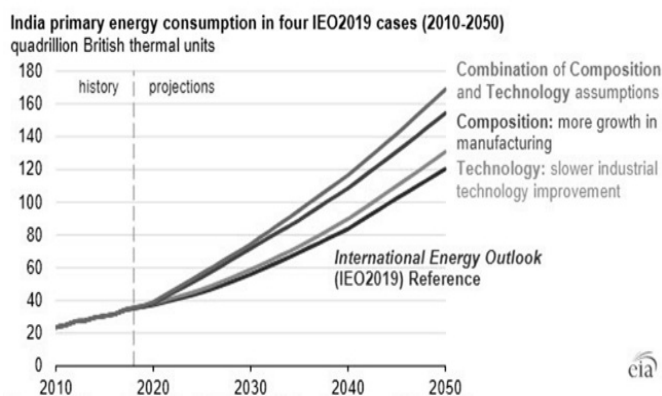


Figure 2: India's Projected Energy Consumption
(Source: www.oilandgas360.com/eia-analysis-explores-indias-projected-energy-consumption)

WHAT IS IN IT FOR INDIA AND WHAT COULD GO WRONG?

Having investments in foreign assets would help India enhance its oil production capabilities. Domestic oil production is very less when compared to the global demand for oil, domestic supply is very inadequate to even fulfil the domestic demand of major cities in the

ONGC'S OIL & GAS PRODUCTION

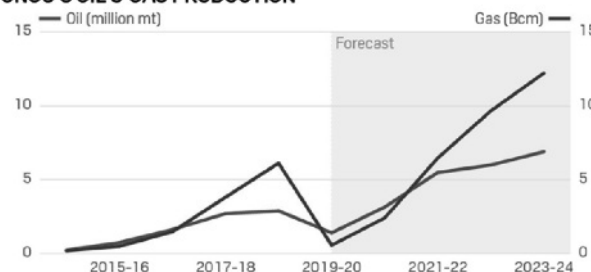


Figure 3: ONGC's Projected Energy Production
(Source: www.spglobal.com/commodityinsights/en/market-insights/latest-news/oil/090519-india-ceo-series-ongc-to-keep-focus-on-eamp-prepares-for-new-energy-landscape)

country. India has recently liberalized the E&P sector in India for foreign companies and has a long way to go for domestic oil output to rise significantly. Meanwhile, the foreign portfolios of Indian PSUs are making huge profits for the companies.

The main problem here is that all this production cannot be used to satisfy the domestic demand because it is very unfeasible for our companies to transport oil from such far-off places like Brazil and Russia. These are, however, used as a hedge against global price rises. The Indian oil companies sell their output at market prices when the global prices are high and use the production as reserves when the prices are at a discount. This way the Indian oil companies enjoy a strategically better position when prices around the globe rise suddenly. It also helps to bring in valuable foreign exchange. Foreign sales help companies get payments in dollars which averages out forex fluctuations when we pay for imports in dollars. Figure 4 shows the movement in foreign exchange of India due to the Russia-Ukraine war in 2022, among the major factors responsible for this decline was rising oil prices.

However, there are many unforeseen problems associated with such investments. They take a long

time to give back returns, hence they can be very risky as democratically elected governments change in a short period of time and so does their approach towards different foreign countries. India has had its share of bad experiences and has suffered huge losses because of unstable political conditions in foreign nations.

Indian investments in Venezuela were severely affected by the currency and economic crisis in the country. The political instability of the elected government and authoritarian measures by corrupt politicians worsened the situation to the extent that the G7 countries had to put sanctions on the oil trade with Venezuela. The same is the case with Iran. India was keen to make major commitments to the Iranian oil industry but had to put all its plans on hold because of the nuclear deal blunder by the Iranian government. India till date is not able to utilize the full potential of its share in the Chabahar Port and has many failed investments in the country. Investments in the country of Sudan were affected by the civil wars and unstable political conditions in the region. Indian assets in Russia were also left valueless when the G7 countries led by the United States sanctioned energy trade with Russia. India, however, was not so affected by this until the western companies declined to trade in oil which was extracted from Indian projects in Russia, as a counter to India's dual diplomacy and independent foreign policy. This hurt India's economic interests.

ROAD AHEAD

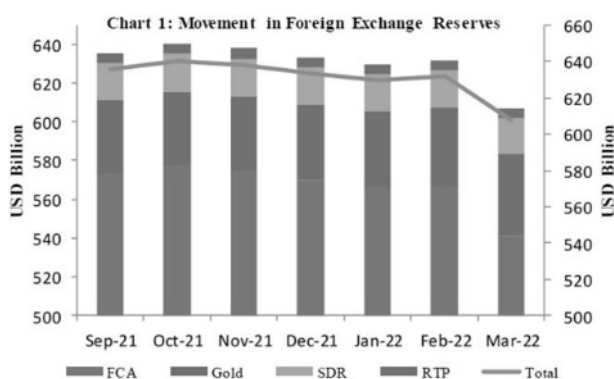


Figure 4: ONGC's Projected Energy Production
(Source: www.rbi.org.in/Scripts/PublicationsView.aspx?id=21046)

Indian investments all around the globe are in a big tussle because of great instability in international relations and country politics. The main aim of the PSU companies should be to wait for their opportunities. Generally, asset prices slump heavily when there is a decrease in global crude prices, and Indian companies should capitalize on such situations. This will reduce risks due to huge capital investments and increase the return on investment on projects in the long term.

It should also focus on avoiding countries which have unstable foreign policies. Countries having internal conflicts and political turmoil should be avoided for long-term investments. Countries which are strategic allies should be prioritized and countries with a friendly approach should be seen as viable investment options. Countries in the Middle East, Europe, Latin America and South-East Asia are great alternatives to countries like Sudan, Venezuela and Russia.

BRINGING IT ALL TOGETHER: DELIVERANCE OF DOMINANCE

As we near the end of our discussion on foreign oil assets and their viability, I would like to state the obvious fact that oil import bills will be a big trouble for the Indian economy in the very short-term future but eventually, the Indian economy has a bright future and the constant strides to shift to greener sources of energy will ensure that the dependence of the world on oil shall decrease. Indian foreign oil assets are a great way to hedge against rising oil prices and if done under good circumstances, keeping in mind all the external factors, shall prove to be a great economical and strategic victory for India in the long term.

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MR. AJINKYA RAHANE

Indian international cricketer and
former captain of Indian team

Taken by the Editorial Board

YT: Your family had always been very supportive of you growing up - and had fought against the circumstances and sacrificed a lot to see you follow your dreams to fruition. What were some of the sacrifices they had to make in the process, and how vital do you think having such a support system is, especially for a young cricketer, considering the training and travelling required?

AR: I have been very lucky to have a very supportive family and whatever I have achieved would not have been possible without them. My parents gave so much of their time to help me develop my cricket skills. I used to stay and initially train in Dombivli. It is situated quite a distance from one of the prime cricketing hubs of Mumbai. So, travelling by the suburban local trains was not easy. I grew into it as time passed though. Quite often, I had to leave home at around 4:30 A.M. My mother used to wake up and prepare lunch for me even before I did. She used to carry my heavy kitbag and walk me to the S.V. Joshi cricket ground in Dombivli when I was very young. She also had my younger siblings to look after, so it was not easy for her. Financially, my father had to

make many sacrifices so that he had the necessary funds to support my cricket. Backing from family is extremely important for players and sportspersons at every stage of their careers.

YT: You've always revered your childhood coach, Mr. Pravin Amre, for playing a significant role in making you a batsman of international temperament. What is the best advice you have received from him which has held you in good stead both on and off the field?

AR: Pravin Sir always encouraged me to maintain my composure on the crease. He is a big believer in visualizing match situations and preparing for the same a day or two before the game. Such traits have rubbed off on me over the years. The calmness bit is particularly important, especially on overseas tours. Often, we are equipped with the required skill sets and it is all about implementing the same appropriately whilst on the field. I have been able to do so primarily because of the learnings taken from Pravin Sir over the years.

YT: The Indian Premier League was first introduced 14 years ago, and since then it has changed the way domestic T20 cricket has been perceived. What are some significant changes you have seen in the cricketing world from 2008 to 2022 and how have these changes shaped your career?

AR: The Indian Premier League (IPL) has provided a fantastic launchpad for younger players to showcase their skills and temperament against world-class opponents. It has unnerved us concerning high-pressure situations given that we encounter them countless over the course of an IPL season. Earlier, only a selected crop of individuals got an opportunity to face international players. But the IPL has given that chance to upcoming and domestic talent from our country as well. The IPL has made them well-prepared to deal with the challenges of international cricket and hence, we can see several debutants performing so well right from the start of their careers these days. Personally, the league allowed me to interact with greats of the game like Rahul Dravid and Shane Warne at a very young age. I took some invaluable lessons from Rahul Bhai and thrived from the trust that he reposed in me. Moreover, the league acquaints you with different cities, cultures and supporters, which helps in shaping your overall personality as an individual as well.

YT: It has become a prevalent practice nowadays for cricket enthusiasts to openly troll, ridicule, and even shame cricketers for any performance they deem as unsatisfactory. Having been faced with the same, how do you react and deal with the afflictions?

AR: As a sports person, it is important to control what you can control. Appreciations and criticisms are part and parcel of playing the sport. One cannot get overawed with praise or bogged down by failures. I have a solid support system with family and friends who are my sounding board at every phase of my life. Beyond that, I stay unaffected

by the outside noise and just try to do my job to the best of my abilities.

YT: After the defeat in Adelaide, you led India to a historic triumph that cricket fans will remember for years to come. Your composure during that period was commendable and inspirational. How did you boost the morale of the team and instil confidence after the defeat? Did you, as the team captain, make any significant changes in the preparation?

AR: Australia 2020-21 was special. We did not panic and did not make any significant changes to our approach after the first game. The team management sat down for a frank chat post the defeat in Adelaide. We collectively decided to forget whatever happened in the first Test and instead start with a fresh slate from Melbourne onwards. I told the team to look at this as a three-match series starting from the second game. The team had enough match-winners and we had a staunch belief that we could emerge victorious in the series. I wanted the senior players to be more involved in the team and the making of the strategy. I had an individual chat with each of them about this and what followed was there to see for all of us.

YT: In the past few years, there has been constant shuffling in the Indian cricket team, with the intention of giving new talents an opportunity to express themselves. While young players bring new energy to the field, their lack of experience sometimes becomes very evident. In your opinion, which of them counts more on the cricket field, experience or vigour?

AR: There needs to be a fine blend of both. A team always needs younger talents who can bring new ideas and some fresh energy to the setup. However, experience is equally important to take the team past challenging moments. A good team always finds the correct balance.

YT: Cricket in the times of COVID-19 had become extremely challenging and mentally taxing, with cricketers being confined to their rooms, quite often in isolation. We had also seen many cricketers leave tours and tournaments midway because of 'bubble fatigue'. How does isolation affect the performance of an athlete on the field, and what are the methods they use to cope with it?

AR: Bio-secure bubbles are indeed quite taxing and it is encouraging that we are slowly moving away from that system. Firstly, it is only fair to admit that they were important to resume cricket amidst COVID-19. However, recovery is a very important part of any athlete's routine. It includes rejuvenating mentally as well and that had become quite difficult whilst being confined in a bubble. It hampered our interactions with people, friends and family. Moreover, being stuck in a room, a player is more likely to succumb and give into negative thoughts whilst going through a poor run of form. That gives rise to 'bubble fatigue' and accordingly compels individuals to take a professional break at the peak of their careers. Bubbles are not an ideal arrangement but then Covid was and continues to remain an extraordinary phenomenon as well. We really cannot complain much about external factors as it is essential to adapt to changing times. At the end of the day, being able to play professional cricket is what matters the most for all of us!

YT: You are regarded as one of the best Indian batsmen and have many accolades to your name. Is there any accomplishment that you dearly want to add to your name before you bid farewell to the sport?

AR: I honestly do not think about bidding farewell to the sport at this stage in my career. I have plenty of years of competitive cricket left in me. Until then, the first and foremost aim is to play cricket and score runs aplenty. Test cricket is considered to be the zenith of the international game. We came very close to clinching the World Test Championship (WTC) title last time around. That is one tournament that I really look forward to winning with the Indian team.

YT: The students of St. Xavier's College (Autonomous), Kolkata are ardent followers of cricket, and are undoubtedly inspired by your journey. What message would you like to give them?

AR: Work hard as there is no substitute for hard work. One should go after every opportunity with a 100 per cent positive attitude. Moreover, it is important to remain grounded and humble enough to acknowledge our drawbacks and consistently look to improve upon them. These traits will hold a professional in good stead irrespective of the career that they choose to pursue going ahead.



MR. BHUPENDER YADAV

Indian Politician, Union Cabinet Minister of Labour and Employment, Environment, Forest and Climate Change in the Government of India

Taken by the Editorial Board

YT: You had led the Goods and Services Tax (GST) Select Committee, and had played a prominent role in the introduction of the new tax regime. Throughout the years since its introduction, the GST witnessed constant changes in its clauses and frequent updations even to this day. While these changes are constructive and imperative, they cause discomfort to small business owners, who do not have the resources to keep up with the pace of change. How do you plan to settle this problem beneficially, for both the government and the citizens?

BY: The implementation of any new reform has teething problems, with the time needed for settling in and allowing our citizens to adjust. The GST too, as a major tax reform, perhaps the most revolutionary our nation has seen, was bound to have an adaptation period. The implementation and rollout of the GST itself, have been long in the making, and it is the proactive approach of our government that has propelled the dream of a GST to fruition. Of course, any reform can always be improved upon, and our government strives towards an optimal GST that is beneficial to all. On the way to such a tax structure, there

are issues that need to be ironed out, and updates that need to be made - which is what the government aims to do, by routinely reviewing and bettering our tax structure. We must keep in mind that the GST is based on a futuristic and long-term vision, one that will see bumps in the road in the short term, but which will ultimately lead to improved outcomes and business environments for all. Greater formalization, increased compliance and GST collections, and reduction in leakages through a digitally enabled tax system are all testimony to this.

YT: Recently the Wildlife (Protection) Amendment Bill, 2022 was passed in Rajya Sabha which focuses on increasing the species protected under the law. However, the effectiveness of the law has been dampened by the inability to implement it thoroughly. Do you think this amendment will tackle such obstacles and what will be the further plan of action with respect to this?

BY: The Wildlife (Protection) Amendment Bill 2022 seeks to conserve and protect wildlife through better management of protected areas and

rationalize schedules which list out species under the Wildlife (Protection) Act, 1972. India is a signatory to the Convention on International Trade in Endangered Species of Wild Fauna and Flora that required certain legislative actions. The government led by Hon'ble PM Narendra Modi has taken steps to increase the green cover in the country since 2014, and it is bound to protect wildlife according to the provisions of the law.

The amendment will definitely ensure that we are able to implement the law in letter and spirit and enrich our wildlife, while at the same time protect the rights of the indigenous communities.

YT: **Being the Environment and Climate Change Minister of the country, and having spearheaded the COP 26 at Glasgow, you have witnessed how the developed world has been coercing developing countries like India to completely phase out fossil fuels, when it is the developed countries that have contributed the most to carbon accretion in the environment. What are your views regarding the same and why do you think this is the case?**

BY: I am happy to share with you that under PM Modi, India cannot be coerced into doing anything that is against the interest of the country and its people. We are responsible global partners and we are fulfilling our responsibilities towards that end. Despite being 17 per cent of the world population, we have only contributed 4 per cent to the global carbon emissions. That said, we are mindful that climate change is a global problem. It will sooner or later impact everyone, irrespective of their contributions to emissions, if allowed to continue. India has a huge area vulnerable to climate crisis. In that light, we have declared a target of Net Zero by 2070.

At every global forum India has maintained that developing countries have a 'Right to Development'. At COP15, the UN Biodiversity Conference that I participated in Montreal,

Canada, it was recognized that developing countries must have a right to development and while each country must look at alternative fuels that targets should be in accordance with common but differentiated responsibilities and respective capabilities. In India, we understand the importance of sustainable development. This is not a lesson we have to take from someone, nor do we have to buckle under someone's pressure because we are doing our bit. In 2021, at the Glasgow COP26, PM Narendra Modi announced his five-point climate agenda, called 'Panchamrit'. India has now said it would revise its renewable target to 50 per cent, and the emission intensity target to 45 per cent. India is among 30 countries to have upgraded its Nationally determined contributions (NDCs). PM Modi also announced Mission LiFE, which is about behavioural changes, both at the individual and community level, to fight climate change. The problem of climate change has been precipitated primarily because of excessive consumption patterns and profligate lifestyles of the developed countries. It is this overconsumption which has been depleting our natural resources at a rate faster than their natural replenishment, and is damaging our planet's life and life support systems.

Unfortunately, while we in India can and must do our share to ensure that we do not follow the ways of those nations that industrialized before us, our efforts alone cannot be enough. The entire world has to contribute. Especially those who have built their wealth on the fossil fuel emissions. We also have our own needs and aspirations. And we have our own duty to ensure our rapid progress to ensure the well-being of all citizens.

YT: **Over 94 per cent of the overall labour force in India is employed in the unorganized sector, wherein social security benefits and other retirement benefits are absent, and a majority of the workforce is occupied in agricultural activities, which is prone to its own fair share**

of detriments. In your capacity as the Labour Minister of the country, what are some of the changes that we should look towards to improve the existing labour issues prevalent in our society?

BY: Labour force in the unorganized sector is a major segment of overall labour force and also it is the most deprived and disadvantaged amongst the work force. This work force lacks social security benefits, thereby making them vulnerable section of society. Promoting the welfare of unorganized workforce is the top priority of my Ministry.

In this endeavour, the Ministry has taken following steps towards the issues pertaining to unorganized work force:

1. To start with, there has to be database on the unorganized sector work force which is based on a scientific survey and robust methodology. Towards this, Labour Bureau, an attached office of the Ministry, has launched following surveys:

a. All India Survey on Migrant Workers:

The objective of the survey is to estimate the number of domestic/internal migrant workers in the country and to collect data on their household characteristics, socio economic conditions and working conditions. It will also study the impact of COVID-19 on their work. The survey covers all the State/UTs in India.

b. All India Survey on Domestic Workers:

The objective of the Survey on Domestic Workers (DW) are, inter-alia, to estimate the number/proportion of DWs at National and State level; to estimate percentage distribution of DWs Estimates: formal/ Informal Employment; their wages and other socio-economic characteristics. Reports of both surveys are likely to be submitted in January, 2023.

2. The offices of MoLE that deal with different aspects of labour welfare are; EPFO, CLC(C), ESIC, DG(Employment), VVGNI, DTNBVED, Labour Bureau, DGFASLI, DGMS, DG(LW). These organizations have their presence across

India and together have offices and units at 3192 locations. Such vast presence and reach of offices give scope to work to promote the welfare of workers and particularly in unorganized segment of workers, in an integrated manner.

Ministry will leverage the strength of these organizations to tackle social security aspects of the unorganized sector. This will ensure that there are conversion of efforts and the benefits are delivered in an efficient manner. Ministry is convening a meeting of Bureau Heads of these organizations to draw SOPs in this regard.

3. The code on Social Security, 2020 has specific provisions (Section 109) which empowers the Central Government and the State Government to frame a welfare schemes for the unorganized workers on matters related to life and disability cover, health and maternity benefits, old age pension, education, et al. Further, the code has given special emphasis for welfare of building and other construction workers. Ministry has been working on the necessary steps required for the implementation of the Code in general and welfare measures in unorganized sector, in particular. When the Code comes into force, the Ministry will be ready with the schemes.

4. e-Shram Portal- National Database of Unorganised workers. Central Government has developed e-Shram portal which will be a centralized database of unorganized workers seeded with Aadhaar. After registering, he/she will get an Accidental Insurance cover of ₹ 200,000 under PMSBY. In future, endeavor is that all the social security benefits of unorganized workers will be delivered through this portal. In emergency and national pandemic like situations, this database will be utilized to provide necessary assistance to the eligible unorganized workers. Work in this regard is in progress.

YT: The United Nations SDGs include Climate Action as one of its targets for 2030. Where do you think India is lagging behind other countries of the developing world when it

comes to environment protection and climate change, and what are the feasible solutions we can implement to perform our best in this regard?

BY: Regarding climate change and climate action, I think India is doing quite well compared to most developed and developing countries.

India is now an established leader in climate action and climate policy. India walks the talk and speaks its mind, clearly and firmly. India participates as a responsible power in the world, 'contributing to the global brainstorming on how to meet the challenge of global warming'. Today we are a partner in the global dialogue. The world acknowledges India as the voice of ambition in climate action as well as the champion of equity on behalf of developing countries.

India's mitigation action is tremendous. No sector of the economy is untouched; every institution wants to contribute to tackling climate change. Our young people, our youth and women are eager to face the challenge. Our engineers, our entrepreneurs and industrialists, young and old are eager to innovate and move ahead.

As I have mentioned already, India's historical and current emissions are well below the global average. This is the first and most important point in many ways. Second, India has ambitious commitments under the Paris Agreement, two of which we have actually just upgraded. These are i) installing 50 per cent of non-fossil fuel generating capacity by 2030, ii) reducing the emissions intensity of our GDP to 45 per cent below 2005 levels by 2030. In the Hon'ble Prime Minister's National Statement at Glasgow at COP26 last year, India has declared that it would strive for net zero by 2070. Unlike many developed countries, India has fulfilled its pre-2020 voluntary contribution to mitigation. Not only are we undertaking domestic climate action, but we are also going out of our way to promote international cooperation. India has promoted and hosts the International Solar Alliance and the Coalition for Disaster Resilient

Infrastructure, and co-leads with Sweden the UN initiative, Lead-IT, on mitigation in hard-to-abate sectors.

So, I think we can be proud of our achievements in this respect. But, of course, we can and must do more. With greater innovation, we can use our fair share of the carbon budget even more effectively, ensuring that our growth and development is not seriously impacted by global warming. India's initiatives can assist other developing nations where feasible and challenge the developed countries to fulfil their obligations, responsibilities, and commitments. As far as the way forward is concerned, the panic and alarmism of western civil society is not the answer. We have our duties clear before us. Our development efforts must be stepped up. Every scheme, every development effort must be speeded up. This is our first defense against climate change. But we must remember that dealing with climate change is not a 100 metres race – that you run very fast and win. It is 5,000 metres, 10,000 metres, marathon and eventually even more. So, we have to integrate dealing with climate change into our way of life, our economic and social life.

What is needed today is Mindful and Deliberate Utilization, instead of Mindless and Destructive Consumption. It is in this context that our Hon'ble Prime Minister Shri Narendra Modi Ji has launched the Mission LiFE which is a mass movement towards an environmentally conscious lifestyle. Embracing it, let us move forward towards an equitable and sustainable world by implementing the foundational principles of UNFCCC, both in letter and spirit. It is this spirit which has been captured so truly in the logo of India's G20 Presidency which calls for One World, One Family or 'Vasudhaiva Kutumbakam'.

YT: **You have been involved in the sphere of wildlife conservation and forestry since the time climatic and environmental issues were not given foremost attention. This could be attested by the book published by you,**

‘Supreme Court on Forest Conservation’ in the year 2005. What were the circumstances that impelled or influenced you to explicate on these matters so ahead of its time?

BY: India’s cultural ethos has environmental conservation at its heart. Our scriptures say ‘Prakriti Rakshati Rakshitah’ (Nature protects when it is protected). Mahatma Gandhi spoke about conserving the planet and its resources because we are merely the custodians of Planet Earth and have to pass it on to our future generations in a way so that they can enjoy the beauty of nature and the richness of our biodiversity.

Once Dattopant Thengadi ji had told me that the biggest challenge in the future would be environmental protection. These thoughts have had an influence on me. Our Hon’ble PM is a great nature lover and very concerned about environmental conservation. When I read his book Convenient Action: Gujarat's Response To Challenges Of Climate Change, I was deeply moved and when he gave me the responsibility of heading the Ministry of Environment, Forest and Climate Change of India I took it with a sense of gratitude because it allows me to do my bit for the environment.

YT: The portfolios that you manage are very dynamic in nature and have a lot of scope for further development and advancement. What are your ideas going forward and what do you visualize for your tenure henceforward?

BY: When Shri Modi took over as the Prime Minister of the country in 2014, he very clearly stated that his government will be dedicated to the welfare of the poor and the marginalized. As the Labour and Employment Minister my task is to ensure that karma yogis of this country who are involved in the task of nation-building are looked after. Their social security, their healthcare, their safety at the workplace are aspects that this government is deeply concerned about. A healthy working environment where corporates have ease of doing business and workers feel safe

and secure is the key to building a strong nation. The world of work is fast changing, newer jobs are emerging even as old ones are being phased out. To adjust to this change, workers need skilling and reskilling. In all these areas the role of MoLE is significant.

As far as MOEFCC is concerned, we all understand the importance of dealing with climate change at the levels of the individual, the society and the government. The Earth is faced with an existential crisis. India has a huge role to play in this fight. We are trying to give shape to PM’s vision of development with environmental protection. India believes both can coexist and we are showing the way to the world on sustainable development. Despite our population size, we are meeting our climate targets and we are the world’s fastest growing economy. PM Modi’s vision is finding implementation on the ground.

That said, I believe every part of a machine is important for its optimal performance. Each compliments the role of the other. From each ministry, to each organizational position, the BJP works with contributing to nation building.

YT: The students of St. Xavier's College (Autonomous), Kolkata are inspired by your vibrant leadership and innovative ideas to augment the country towards the path of constant enrichment. What would be one piece of advice you would like to give to them?

BY: I have a four-letter advice. LiFE. Lifestyle for Environment. The advice has come from PM Modi for the entire world. With every choice you make, think whether your choice is environment friendly or not. Is your action going to add to the pollution around or can you do something at your level to help reduce it?



MR. JAVED AKHTAR

Indian poet, lyricist and
screenwriter

Taken by the Editorial Board

YT: As a child, you were inspired by Urdu novels and were also influenced by the riveting plots and fascinating characters of different detective stories. How important a role did these stories and your fascination of reading play in helping you nurture your art and become one of the most renowned artists of the Indian film industry?

JA: I was not only reading the original Urdu literature but also most of the classical Bengali literature that was translated into Urdu. Since India had a big Soviet house of culture and they used to publish all their good novels and short stories in Urdu, I read most of them when I was 13 years old, whether it be Russian novels or Italian novels. In Urdu also there were two kinds of novels available, one was the serious novels like 'Gaudaan' and 'Maidan-e-Amal' by Premchand. On the other hand, there were thrillers like 'Jasoosi Duniya'. So, I was reading all of them. I started reading English literature and English novels but that was when I was 15-16. At that time, there was a great influence in me of Hindi cinema because right from my childhood, since I can remember, I was a movie lover. Those

movies, actors, and stories have influenced me, and then came the modern American novels, besides the heavy literature, so I think it was good for me since my sources were different so I did not get committed to one genre or I did not start imitating one style.

YT: As a writer, you have not only created trademark Bollywood films like Sholay and Deewar, but also critically acclaimed and profound movies like Lakshya and Saagar. Considering that these two genres of cinema are significantly different from each other, how different is the process involved in creating such stories?

JA: Firstly, let me correct the record that even Deewar and Sholay are really appreciated. Sholay was praised by none other than Mr. Satyajit Ray. He even said in an interview that he was really proud and happy to see that films of such standard are being made in India now. So, anything which is entertaining should not be looked down upon. You see, there is no genre that is good or bad in itself. For example, if you

are a painter and you are making, say, a calendar that will be treated as commercial art, you have to be a good painter to make a good calendar. If you are a bad painter you will end up making a bad painting. So, you should be good at your work and then whichever genre you will take up, hopefully, you will do good work.

YT: You have been a lyricist, a screenwriter and even a classical poet. As a creative professional, which of these mediums do you personally prefer and in which of these do you think you can display your imagination in the best possible manner?

JA: I would have preferred one of them if I would have been in a situation wherein, I had to choose one. Since I have never confronted such a situation where I have had to choose one at the cost of another, there is no reason that I should have any preference. The very fact that I do all of it means that I enjoy doing all of it.

YT: As a parliamentarian, you were vehemently opposed to the Copyright Amendment of 2012, which made the royalty collected by the producers on behalf of writers and composers non-transferable. After almost a decade of this amendment having been passed, do you think that the condition of composers and writers is much better in the industry today?

JA: In comparison to what the situation was and what the present situation is, yes, it is much better now. However, there is still something left to be desired. After the amendment and after the writers and composers have taken over Indian Performing Right Society Ltd. (IPRS) to a great extent, it has made a world of difference. During the pandemic, there were many of our colleagues who were not in such a happy economic situation, there were at least three to four thousand people who went out of jobs because the world stopped and they had no savings to take care of their families or themselves and we stood by them and we gave money to them again and again from the royalty which was

there. So, anybody who used to get say around 10,000 -15,000 in one year, today he gets 300 - 400 thousands per year. This difference is great and it will keep on increasing because there are still some people who are reluctant to pay honestly and there are some who are not paying even after taking strict legal actions against them. But with every month, every year the collection is increasing. I became the chairman of IPRS in 2017 and the average annual pay of IPRS of royalty was somewhere around 350-400 million but today it has increased to 3000 million. This money is divided and given to the publishers, authors, and composers. The very amount can tell you how much we have achieved, but there is still a lot to be achieved even now.

YT: You have worked as a prominent screenwriter over the years, and your work has been a classic example contrary to prosaic writing. In an industry where mass consumption is hailed over artistic freedom, how do you create work that stands out both ingeniously and authentically?

JA: Cinema is for mass consumption, mostly mainstream cinema. If one is making a niche film or a film that goes to a festival and is appreciated by the connoisseurs and that is good enough for them, such people have the right to do so and one respects them for it. Many great films are made in that genre. But at the same time, there are some people who like to communicate to a bigger audience, which is called mainstream. Now the mainstream has developed a term called 'Lowest Common Denominator' which should not be a licence to be crude, absurd, vulgar, obscene, and in bad taste. The Lowest Common Denominator can be quite high. It may be called the lowest but it can be high, artistic, interesting, sophisticated, have a certain emotional depth, and so on. I mean pictures like Pyaasa, Awara, Ganga Jamuna, Mother India, Mughal-e-Azam, and so on were mainstream films. They had songs, stars and they were very good films. So, this is no excuse that we are making films for the mainstream. If one wants to

communicate to a larger audience, it does not give them the license to be bad. The difference between a good niche film and a good mainstream film is like giving a lecture in a seminar and giving a lecture to a crowd of 50 thousand people. If you are addressing 50 thousand people, your value and your message should not change, only your pitch will be different because you are not talking to people who are familiar with the subject, have the required knowledge or certain IQ and understanding. You keep your expressions and language a bit more direct than what you would have done in a seminar and so on. So, I think mainstream cinema and niche cinema are different in that aspect only. Only the communication becomes different and it better be because if you are trying to communicate and you fail in doing so, then you have failed. You should be able to deliver your message, whatever it be, it should reach the common man.

YT: You have, with sheer determination and hard-work, been a part of the Indian movie industry for almost 50 years. As someone with considerable experience, how do you think the pandemic has shaped the way in which the industry functions? Do you think the pandemic has affected the kind of content produced in the industry, considering the changing preferences of the audience?

JA: We shall only be able to gauge the impact of the pandemic on Indian cinema, after a couple of years. The simple reason for this is because the movies and content which was being produced in the midst of the pandemic, will only be released one to two years down the line, and that is when we will be able to tell. Nonetheless, I think that the pandemic surely gave people the time necessary to introspect and review their values, style, manner of storytelling and so on. At the moment, however, the film industry has been going through a strange phase. Movies are not performing well, and perhaps we were moving in this direction for quite some time now.

Take the example of the music industry. Young people rather remember songs released 40 - 50 years back, than the music released one to two months ago. Thus, somewhere along the way, Indian music lost its shelf life, and I feel that this has come to Indian cinema too. This is where young filmmakers must assess the reasons behind this occurrence. After all, hospitals were always there. People would always fall sick. However, there remains a difference between an individual falling sick, and a pandemic. In the film industry too, some films were always unsuccessful. However, the current scenario is like that of a box office pandemic gripping the silver screen. Hence, young filmmakers have to re-evaluate their visions, values and their manner of communication and decipher the reasons as to why they can no longer reach the common Indian.

YT: In the past few years, Indian mainstream news media has been accused of being complacent and not executing its function in the desired manner. As a proponent of freedom of press, do you think the Indian media has been serving its purpose of providing relevant and accurate information to the citizens?

JA: No. There are ample reasons behind this. Media, as of today, is majorly electronic. I, rightly or wrongly, feel that there is a notion amongst the present Indian media, that if they stream anything that goes against the current dispensation, they can land into trouble. It is not my place to judge whether this line of thinking is appropriate or not, but this is the impression I get from the media, and hence, I rarely find them ever being critical and/or openly critical. On the other hand, there lies another compulsion on electronic media. They survive, all round the world, on advertisements. Advertisements of refrigerators, air conditioners, and other expensive appliances. These can only be bought by the affluent, upper-middle class Indian. Thus, these advertisements have channelled electronic media into catering news for the elite Indians, of their interests and views. Thus, why should the

media cover the village? Such people will not buy such appliances. The financial gains of the advertisements have influenced the media into covering news that only a small section of the Indian demographic can relate to. This is the sad truth, that the Indian media has abdicated their responsibility.

YT: **Considered a pillar of democracy, the role of social media is to ensure that the people are aware of the social, economic and political developments taking place around them along with playing a pivotal function in creating public opinion. Having used the platforms as an active means of voicing your opinion, how important is social media and its distinguished fraternity in influencing public views in a politically dynamic environment?**

JA: Of course, it is very important. The kind of polarization we see in society today is to a great extent due to the media. Primarily, the media is responsible. Constantly discussing topics which are actually irrelevant to the real problems of the average person. How many discussions have you seen about employment or price rise? How many discussions? It is constantly about something which is actually of no significance but it is turned into something very important. And indirectly, this only causes polarisation in the society.

YT: **The Indian audience has evolved with time with respect to the kind of songs that they want to listen to and the stories that they want to watch on screen. As a screenwriter and a lyricist, how has your process changed so as to cater to these changing tastes and preferences?**

JA: I have already said this before that today Indian film music has no shelf life at all and music is played as long as the movie is in the theatre. The moment the movie is removed from the theatre, the music vanishes and it does not have that kind of life that once upon a time hindi music used to have and I am very sad about it. But many factors

are responsible for it. One, since perhaps the last thirty - forty years, our society's list of priorities did not have poetry, literature, classical arts. I mean, there was no priority given. Whatever can be put in a bank is important and the rest of it is not important. Only those vocations are important which can give you some kind of economic security like doctor, engineer, civil service and so forth. But anything which cannot be deposited in the bank is not important. Coaching is not important; language is not important and no attention has been given to this. So, today when you see a young person, his or her vocabulary will be not even one-fourth of the great languages, in any language. Language is not just a vehicle of communication; it is a vehicle of culture. When language shrinks, culture and tradition shrinks. I mean how would you know what is your folk art, folk poetry, folk song, folk music? You do not know. Most of the people are not aware of it. So, it will reflect. Ultimately, the people who are making films do not come from Mars, they were born in this society and they hardly know about the nuances of the language. Films are not made by some Martians. Films are made by people who are born in your society. They grew up and they started making films.

YT: **Your work continues to resonate in the lives and hearts of millions around the country; the students of St. Xavier's College (Autonomous), Kolkata are no different. What message would you like to pass on to them?**

JA: See, messages are given by very big people. I am not that big and I don't believe that young people need my message. They are smart people; they are better people. They may get polluted like me after a little while but, at least now in this age, they are much better people - more sensitive, more sensible people. So, please see to it that our world, the world we have made, does not spoil you and you remain what you are and remain true to yourself. And you do not need any suggestions from anybody who is of my age!



MS. KIRAN BEDI

Indian Administrator,
Social Activist and
Retd. Woman IPS Officer

Taken by the Editorial Board

YT: Early in your life, you switched your career from a tennis player to an IPS officer. Being a national champion and having had such an outstanding career in tennis, what were the factors that led you to change your career field and join the Indian Police Services?

KB: Tennis was never a career. It was an added learning, in all-rounded growth. If it was not tennis, its challenges of learning to lose and win, extra hard work, my journey towards the Indian Police Services would not have happened. My passion was working in the government and connecting with people from a 'position of power to serve'.

YT: Being the first female Indian Police Service Officer, you are regarded as an inspiration by thousands of young aspiring girls in India. Your constant efforts to defy societal norms have encouraged us to aim for greater heights. Having said that, whom would you consider as your inspiration in life, personally and professionally?

KB: My inspiration is from many sources - internal and external. The internal one is the sense of deeper purpose inside me for life. External are moments, incidents, persons, ideas, books, films as well as remaining sensitive to learn and grow further.

YT: Since the 1990s, the bureaucratic system of India has witnessed a lot of changes. What, according to you, are some of the most influential reforms that have taken place till date, and what future expectations do you have from the Indian ecosystem when it comes to its administration?

KB: There is a growing demand for transparency. It is raising expectations from the government. It calls for pressure for accountability. People seek compelling needs to provide solutions and innovations. Integrity and collaboration are the future expectations from the Indian administrative ecosystem.

YT: In your TED Talk, you have spoken about how your father was of a progressive nature and educated four daughters against the common convention. However, millions of girls do not get such parental support and opportunities. How would you approach this problem and ignite hope in such women?

KB: We do not choose our parents. We do not even choose the school we are to go to. Parents come by grace, as does the upbringing. The onus lies on the parents to take responsibility for good parenting. However, if one has not been blessed with visionary parents, you must try to uplift yourself as soon as you have realized the deficiency. Do not lament; make the best use of what you have and build up from there. Do not lose time.

YT: Your initiative, the 'India Vision Foundation' which looks after reformation programs for prison inmates, has been very influential and successful. How did you envision the idea that led to this initiative and what is your vision for the same?

KB: India Vision Foundation is focussing on correctional behaviour of prisoners and the prison staff. We work with staff and prisoners to act in such a way that the inmates reflect and realize their own mistakes. They also learn a skill to self-employ when released. The prison staff also administers in such a way that it facilitates this recovery. Additionally, we work with children brought in by mothers. We ensure their schooling and growth by adopting them into home-care and providing further education. 'It's to save the next victim'.

YT: Power corrupts, and absolute power corrupts absolutely. For the common Indian, the word 'politician' is synonymous with that of 'corruption'. What would you say are the reasons for the above correlation and how do

you propose to change the public sentiment regarding this?

KB: I have personally seen this correlation in my tenure as the Lieutenant Governor of Puducherry. People have to reject them and not fall prey to their inducements. Known corrupt politicians get elected by voters. The same corrupt persons also recycle. Unless the voters change their vision, we shall get what we deserve.

YT: In your career, you have served a tenure as a civil servant as well as a politician. In the context of public policy and administration, how were the offices different from one another, when it came to executing various plans and ideas?

KB: It is the value system they come with, which drives the difference. Each one passes the exam, trains equally, yet their own beliefs and character traits make them different. Training only equips one professionally, and does not necessarily transform the values within - the ones that come from more sources than merely the professional.

YT: Your organization, 'Navjyoti India Foundation' works towards social development and crime reduction especially amongst marginalized communities in North India. What was the rationale behind this initiative and how have you seen the landscape change over the years through this endeavour?

KB: This organization was born in 1986 and formally registered in 1988. It came up to wean away children from supporting their families in peddling drugs. Hence, we opened schools for them. Additionally, to wean away women and the youth from selling drugs, we opened stitching and tailoring centres for them. A culmination of all these places of reform were called Navjyoti, the new light. All of us serving cops came together and founded this society.

Since then, it has become a banyan tree, spreading empowerment as well as being in step with changing needs and times.

just flown away. The message is that time is precious and it runs away. One must use it optimally and keep adding value to it.

YT: Your book, 'Dare to Do! For The New Generation' presents the vast, diverse and long career you have had, along with your work concerning people across all walks of life. In this journey, you have been able to experience life and its various facets intimately. What would you say have been your biggest takeaways from life, considering the above?

KB: One life is not enough to do enough. The more I do, the more I see there is to do. I feel time has

YT: Having been a dedicated social activist and an advocate for reform, what would be your message for the students of St. Xavier's College (Autonomous), Kolkata?

KB: Love education. Love your books, research and be your own teachers. Make learning a daily habit. Have short-term and long-term goals and practice discipline in achieving them. Celebrate and keep evolving.



MR. VISWANATHAN ANAND

Indian Chess Grandmaster

Taken by the Editorial Board

YT: Your mother was a chess aficionado and an influential socialite who taught you chess from the age of six. If it were not for her passion for the game, could you ever see yourself becoming a professional chess player? What alternative profession would you have opted?

VA: The critical moment for many chess players is the moment they get introduced to the game. That is the biggest point of connection. I would have to say that if my mother had not taught me how to play, the probability that I knew someone else who might have taught me how to play chess drops quite a lot. So clearly, she was decisive in getting me into the game. Besides the support that my parents gave me for many years, that moment was very crucial. Having said that, it happened at the age of six so it was not like I had an alternate plan lined up. I simply did not know what I was going to become. I had certain interests and leanings but honestly, I could have gone anywhere.

YT: You broke onto the world stage and became the first Grandmaster from India in 1987, at a time when chess was not considered a serious sport in the country, and since then 75

Grandmasters from India have followed your footsteps. Do you think that the sport has been successful in reaching the masses and how does it feel to be a pioneer of the sport for the nation?

VA: Well, that is a very interesting question because chess has had a constant challenge to face; which is how to make it more popular, expand its reach and how to get more people to play it. One obvious limitation is the fact that to be a fan you need to know the rules and to be a reasonable chess player yourself. Back in the day, many people popularized the game by bringing out stories about how the game evolves, talking about the struggles that players face, to try and engage with people and bring them into the game. In recent years it looks like several solutions are beckoning, thanks to the availability of graphics, connectivity, and so on. We have kind of addressed that problem because now it is possible to have commentary teams sit there and explain the game, graphics which make it visually easy to understand what is happening and the level of sophistication in the broadcast has caught up. So right now, we are in a good moment thanks to the ubiquity of the

internet, we are able to be a broadcast sport in effect very similar to gaming platforms and so on and that is our biggest hope right now. Of course, you still have to get your fans one at a time but the method has become much easier. There are already 75 grandmasters in India so it is very nice as it kind of connects well with the 75th anniversary of our independence.

YT: You learned the intricacies of the game in Manila while staying there with your parents for a couple of years. What influence did the Filipino culture have on your upbringing and approach to life?

VA: The Philippines deepened my interest in chess because in contrast to India, where chess was highly specialized and you had to go to a chess club to engage with other chess players, in the Philippines there was already a television show about chess at that point, so what would happen is that they would show one of the most important games played at some part of the world and then they would give you some puzzle to solve and if you sent in your answer, they would check all the answers that people mailed to them to see which the correct answers were. After this, all the correct answers would be put into a box and they would pick a lucky winner out of that box. Since I used to be at school when the TV programme happened, my mother would take down everything that was said. She would write down that puzzle, show me the game that they showed, display the puzzle and we would solve it together. Then we used to send the answers. Like this I won many chess books, because that used to be the prize they gave, so most of my early library collection came from there. That is why the Philippines is where my interest in chess deepened, so by the time I came back to India, I was a very regular chess player.

YT: The controversies around the 1998 World Championship continue to be discussed till date with many hailing your match against Karpov as unfair. What impact did this result and the subsequent comments of your

opponent have on you? How did you deal with the backlash? Does the envy of your competitors serve as a source of motivation for you?

VA: I would say that people found the conditions unfair and they thought that it was not a format that should happen again. In fact, progressively, the privileges that certain chess players used to get have been removed. Now the competition has been in terms of being universally fair to all the participants rather than weighted towards one or two. Having said that, you can complain and try to be a martyr for a few days and it is fun but then people get bored very fast and it is best to move on. So, the most important thing was to forget about that thing. It still bugs me a bit when I look at that tournament that I had to go through all of it, but the important thing is to move on and go to the next championship because you cannot keep on talking about the past. In fact, you should not lose your next tournament because you are thinking of the previous one and I think as I mentioned in the start that this event was one of the things that caused public opinion to shift in terms of very fair formats.

YT: In the April 2007 FIDE Elo rating list, you were ranked first in the world for the first time, a tag that every professional chess player aspires to achieve. What was the feeling of having your dream fulfilled? How does an athlete ensure that the feelings of pride do not overwhelm them and they do not lose motivation towards surpassing boundaries having reached the top of the ladder?

VA: When you reach a long-cherished goal, you should pat yourself on the back and take a minute and appreciate what you have done but then move on to your next goal and not stop. I found that in general you do not appreciate a big success when it happens, you appreciate it many years later. So now when I look back at these moments like that and think that it was very nice and it was wonderful that it happened and so on. But the moment it happens, it is easier to think of what is coming next, what you have to do because how long can you sit and celebrate but

many years later it is still something that gives me a lot of pleasure.

YT: In 2010, you joined the Olympic Gold Quest to promote and support India's elite sports persons and potential young talent. In the 12 years that have elapsed, how has the situation changed and what additional changes do we need to make to proceed further towards gaining widespread recognition at the Olympics?

VA: Olympic Gold Quest (OGQ) was created to be an organization, an institution that helps athletes. So, the main aim was that we would go to companies and the public and tell them and try to raise money and then support athletes with experiences that people like Geet Sethi, Prakash Padukone or I had faced, with the intention that if the athlete knew that we were supporting them in that area, one weight on their shoulder would be lifted and they could focus on Olympic Medals. I think the research shows in 2012, 2016 and then last year's Tokyo Olympics, a good number of the medal winners are of the OGQ support and work with it, so that is nice. Over the years, we have created centres of excellence having physiotherapists, personal trainers and coaches. You build these networks because that is very useful as well, since what is useful for one athlete in one sport very often turns out to be very useful to another athlete in another sport and so you build these kinds of excellence. The sports people themselves get to pass on their experience to the next one. I think in a sense the result speaks for itself where I would not claim that OGQ is exclusive here, nonetheless, it is part of a number of organizations that are working to get there, including the Government of India. So, the Government of India often has a sports budget and a sports ministry or sports authority who come to OGQ and say let us avoid working on the same area. Why do not you do this and we will take care of that, let us coordinate our efforts. So like this you also build networks and it is manifested in the fact that our athletes are now regularly winning medals. The important thing is they are thinking of winning Olympic medals. They don't think I won bronze or qualified and

that is great, They feel that if I did not win a gold and if I win a silver then that is already something to aim for, for the next time and the bar is set high. So, every person who wins the medal sets the bar higher for the next one. It is kind of an upward nudge.

YT: You have often been described as the most versatile world champion ever, owing to the fact that you are the only player to have won the World Chess Championship in tournament, match, and knockout format, as well as rapid time controls. How did you manage to balance the dynamics and the pressures of the different formats without losing out on your performance levels? How does your approach differ while you are preparing for and playing the different formats of the games?

VA: In the knockout formats, I did not know what to expect but once I started playing in it, I felt that I am fairly good at it, in the sense that your target is very clear. Every two days you will survive and you move to the next round and you focus on that one and since you don't do any long-term planning, there is no use of planning for the fourth round. You have to get to the 2nd round first so it is a very step-by-step approach. I found that I was very good at that. I was very good at the rapid formats. The formats in which it was the hardest for me to catch up on were the slowest and the most classical formats. I came close a lot of times; I came second a couple of times but there were a couple of crucial decisions. So, in 2007, when I was going to play the tournament format in Mexico, I had to revisit how I worked and address problems that I had been ignoring for a long time. To simplify, I would say that it was not enough to simply focus on my strengths. I had to keep on working on my weaknesses too because they kept on coming and haunting me, especially in that format. Therefore, at some point I had to face what I disliked working on, forced myself to get better at it and then the next year, for the match format, the most important thing I did was to think very strategically. Instead of just deciding, well this is what I normally do, how to get better at it, my whole approach was

what kind of positions do I want to have in the match. So I switched my entire approach to something I have never played before which is very risky because you are not very familiar with it, but the nice thing was that it was easier to generate new ideas because you have not told yourself for many years that there is nothing here and nothing there. It was very easy to work on many new areas and in terms of my creative achievement, that was probably my highest.

YT: **Having been successful in reaching the pinnacle of the sport as a player, you set forth to spread out your years of experience and tactics through books to serve as an inspiration and role-model for every aspiring chess player. What was the motive that went behind publishing these books? How important is learning theoretical strategy to be successful in chess?**

VA: Theoretical knowledge is basically the knowledge that is shared by everyone in the sense that there are games that have already been played and therefore people study them, put them under the microscope and look at them very closely to draw conclusions which help them in deriving not only narrow concepts but also the wide concepts of chess because that is the very foundation of it. As far as my books are concerned, I did not publish them only for the chess audience, however some of them are targeted at people who play chess, but also for the non-chess players. I wrote my autobiography, 'Mind Master', which is geared towards a non-chess audience. The idea is two-fold that even if a non-chess player reads my books, he should learn and see something new that he has not seen ever before in my chess. He should look at familiar events and think that I know this story but there are these new experiences that he has shared which are very interesting and for a non-chess player, I wanted them to know the life of a chess player.

YT: **When two top Grandmasters are playing, there's virtually nothing to separate the two in terms of their skills and the tactics employed.**

So, what makes the difference at the end of the day as one emerges triumphant?

VA: What makes a difference at the end of the day is your nerves, your ability to concentrate under high pressure and high tension, your physical fitness, your ability to understand your decision-making process and then to face your worst decisions coming true. To be able to correct your wrong decisions and predict that your moves can cause a train wreck is essential. The other factors that also count are the general ambience and the kind of day you have led before the round and understand yourself. If there are two players with equivalent technical ability, then often the difference will happen over one or two moves and not more. So being able to hang in there till the end is the crucial element.

YT: **Your unfettered passion and dedication towards the game, and your allegiance to the nation and upholding its image has been a source of inspiration for millions and the students of St. Xavier's College (Autonomous), Kolkata are no different. What message would you like to give to them?**

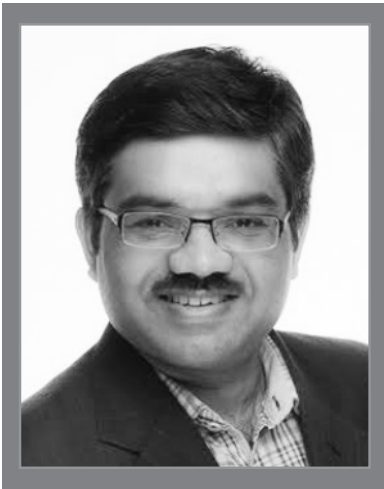
VA: I would say that the nicest thing is to find something you really like doing and do that, something that gives you fun and pleasure, that is the most important thing. Generally, you would want to do best at whatever you take up but it is easiest to do your best in something that you enjoy doing and something that you do not have to force yourself to do. This is not a tremendous insight and anyone who has been at school would understand that there are some subjects that come effortlessly and then there are others that do not and so on but it is not static. You are not born with it. There are subjects that I used to dislike but eventually learned to like. It is all about finding something that you are curious about, finding something that is difficult for you and trying to be better at it. As you learn unconnected things, you will become interested in new things. As long as you have that curiosity and willingness to learn, you will find your way out.

FEATURE
INTERVIEWS

GUEST ARTICLES

BEYOND
ASCENT
PRECIS
LOOKING BACK
TRIBUTE AND FUN SECTION





Omni-Channel Retail: Staying Ahead of the Curve

Pankaj Kankar

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It is not just about ensuring online-offline customer data sync; it is all about the right user experience.



ABSTRACT

Retailers all over the world have recognized that shopping habits are changing, and they are adapting to this new reality as quickly as possible. According to a Harvard Business Review study, 73 per cent of customers use multiple channels for their purchases. The most successful retailers are incorporating omni-channel retail into their models with an endeavour to offer a seamless experience to customers across channels and locations, enabling them to shop whenever, wherever, and however they want.

This article discusses the concept of omni-channel retail and the key pillars of a successful omni-channel strategy. The strategy needs to be centred around customers, with a comprehensive mapping of the customer retail journey and understanding their buying behaviour. It encompasses the 4Ps - Process, People, Product and Personalization.

Once that is done, it becomes easier to create an integrated, seamless and personalized experience for customers that can build a strong and loyal customer base and secure long-term relationships.

KEYWORDS: Omni-Channel Retail, Converged Commerce, Shopping Habits, User Experience, Personalization.

INTRODUCTION

Imagine your offline store customer waiting in a billing queue at the Point of Sale (POS) station, getting prompted by the teller to pick an ear pod for the new phone she purchased from your website last week. The customer is excited, but does not like the colours available in the store. The teller opens

the retailer's app on the tablet and showcases other available colours. The customer chooses her favourite colour and picks the following morning slot for delivery at her home. Thus, the order is completed at the store and the ear pods get delivered to her at home. I am sure this customer's delight can be hard to quantify, but you can get a very well-quantified view of the uptick in your sales numbers with this omni-channel retail strategy up your sleeve. This is the power of omni-channel retail - where it is not your sales channel, but the customer and data about the customer that defines what to sell, how to sell and when to sell while providing a seamless experience to customers across the channels. Retailers all over the world have finally accepted that shopping habits are changing and are incorporating omni-channel retail into their models.

WHAT IS OMNI-CHANNEL RETAIL?

Multi-channel retailing is the process of selling products on different channels, such as a physical store, online store and mobile app, but the channels operate in silos.



 Multi-Channel Retailing	 Omni-Channel Retailing
Different channels have a different view of customer	Single view of the customers across all the channels
All communications channels work independently with little communication between channels.	All communication channels work in harmony with each other.
Delivers different messages on different channels.	Timely, relevant and consistent customer experience across all the channels is easy to maintain.
All channels work in competition with each other and create friction in the journey of the consumer.	All channels work together with each other to allow the consumer to have a seamless and consistent experience across the channels.

Figure 1: Difference Between Multi-Channel Retailing and Omni-Channel Retailing

(Source: <https://www.linkedin.com/pulse/omnichannel-retailing-need-hour-pankaj-kankar/>)

Omni-channel retailing is the process of bringing these channels together to provide an integrated seamless experience to customers enabling customers to not only switch between channels but actually use these channels simultaneously, allowing customers to shop whenever, wherever, and however they want.

A lot is being said about the power of omni-channel retailing, but the beast surely lies in the details and execution.

DEVELOPING AN OMNI-CHANNEL RETAIL STRATEGY

In the past few years, retail technology has been focused big time on setting integrated systems in place that should enable a single customer view across customer touch points and provide an integrated experience.

These views are not just about collating a customer's purchase history across sales channels, but are also about the ability to have their interest and affinity graphs, that speak about:

- How frequently and when a customer purchases
- The best times to reach out to a customer
- The best channels to reach out to a customer, in a given context
- A customer's brand and price point affinity

If you think creating single customer views and generating customer interest and affinity graphs is half your battle won, we surely need to talk about the real challenges that can make or break the winning strategy. A successful omni-channel strategy must nail down the 4Ps - Process, People, Product and Personalization.

Process

Let us explore some processes that can be set in place for the brands to have an omni-channel first outlook. Getting offline stores to know the customer from the moment they step in, and having technologies to detect online customers in the store using beacons and smart cameras can be a part of the store set-up process. Both the online customer care staff and the store staff should

have one consolidated view of customers across the online and offline stores. Design customer check-out and return processes in a seamless way across offline and online paradigms. Some of the key use cases to focus on can be:

- An online channel order and its return from an offline store or vice versa
- Order online and pick-up from the store
- Easy refunds to a single wallet, which can be used for offline and online purchases
- A single loyalty program, that spans across offline and online purchases

People – the biggest asset

People, who are your employees and your customers are the biggest asset any brand holds. Your employees need to have an Omni-channel-first DNA too. They need to devise strategies which are truly cross-channel, and work in the mobile as well as the offline universe. The store staff needs to be technology-first and be trained to use customer identification and interest graphs to drive offline store journeys and product recommendations. The customer care teams need to understand customer history from their touch points across online and offline channels. Coming to the customers, who are the centre of your universe, they need to be enticed to do a smart self-check-in while entering the store, so that they can have a personalized shopping experience.

Products – integrated catalogue and inventory view

When it comes to products, it is imperative that a single view of inventory has to be part of your brand's success equation. Empowered by omni-channel technology, a single view of inventory can give you control over your product catalogue, inventory movements, pricing, and locations. For customers, this offers a seamless and uniform product catalogue across online and offline stores. It is a must to have an online catalogue and

inventory to be visible in-store via endless aisles or kiosks.

If you are still finding a reason why to invest in a single view of inventory, dig deeper into how your customers are shopping. An analysis by Adobe Digital Insights (ADI) shows how with the pandemic and post-pandemic dynamics, the retail world is witnessing a rising trend of 'Click and Collect'. At the onset of the pandemic in the United States, 'Click and Collect' increased from 15 per cent of orders to 25 per cent - a 65 per cent share increase.

Personalization

A McKinsey report shows that 83 per cent of customers say that they want their shopping experience to be personalized in some way. While we have more instances of successful personalization efforts that were directed towards online customer journeys, in industries such as retail more than 80 per cent of sales occur in a physical location. Thus, it is imperative for any retail brand to have personalization at offline stores as well and omni-channel implementation is the only way to achieve it.

Ingesting and integrating data across various channels provides deeper and richer insights about customer



Figure 2: The Don'ts of a Successful Omni-Channel Strategy
(Source: <https://www.linkedin.com/pulse/building-successful-omnichannel-retail-strategy-pankaj-kankar/>)

needs and preferences and drives personalization that is much more encompassing and relevant. Studies shows that such omni-channel personalization can achieve 5 to 15 per cent revenue increase across the full customer base.

CONCLUSION

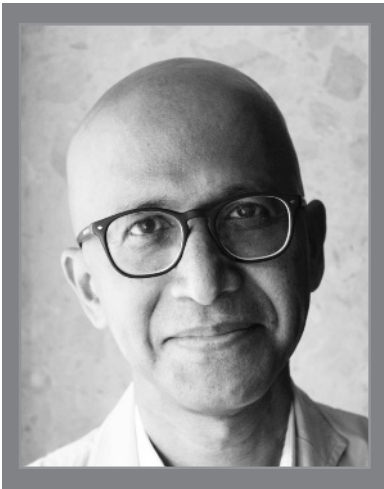
Omni-channel retail is not new, but just like Artificial Intelligence (AI), very few retailers have been able to deploy it in a meaningful way. It is not just about ensuring online-offline customer data sync; it is all about the right user experience. It is about an experience where the customer can seamlessly transition between online and offline stores; not only physical and online, it encompasses all the touch points including customer care, last mile and loyalty.

One must also be aware of the do not's of omni-channel strategy as depicted in Figure 2. Most retailers make the mistake of building omni-channel

experiences based on technology, but success lies in building those experiences based on user research and customer needs. Just like AI's 'Trolley Problem', omni-channel also raises multiple scenarios where one will have to favour either the offline or online customer in certain circumstances, like in the case of the last-piece inventory. Omni-channel is unlikely to achieve its full glory unless it is designed using people, processes and technology to solve for all such sophisticated and fragile user journeys.

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The Tectonics of the 3hird Era of Branding™

Kiran Khalap
Author, Co-Founder and
Managing Director at chlorophyll



Brands and
businesses are
conjoined twins.
One cannot find
deliverance
without the other.



ABSTRACT

According to Simon Anholt, who invented the science of nation branding, 'Now that Madonna and Pavarotti are brands and Greenpeace is a brand...the word is perilously close to becoming a synonym for 'thing''.

In his article, Kiran Khalap takes up the gauntlet and defines precisely what a brand is and its current, post COVID-19 tribulations: how brands have entered the 3hird Era of Branding™ where the key stakeholder is the future of the Earth and her inhabitants.

By definition, a brand is a belief system and can therefore be timeless (the oldest brand on Earth we have been involved with is 1400 years old!) but unless a business or an organization lives up to its own belief system, while simultaneously adapting itself to the changes in society, it is scripting its own slow demise.

KEYWORDS: Brand, Post COVID-19, Stakeholder, Ownership.

BRANDS HAVE DIFFERENT MEANINGS IN THE HEARTS AND MINDS OF DIFFERENT PEOPLE

To the socialite in London, eager to either impress or belong, her Birkin bag is a cultural accessory. To the housewife in India just vaulting over the poverty line, Parle-G biscuits are a guarantee of good nutrition for her adored child. To the 9.7 million Instagram followers of Japanese comedian Naomi Watanabe, she stands for the ability to entertain with confidence despite her short chubby figure, the antithesis of beauty in Japan. Thankfully, the etymological meaning of the word is the same in over 13 languages.

‘To brand’ means ‘to burn’. Basically, burn cattle skins to claim ownership.

REMEMBER THIS CRUX WORD: OWNERSHIP

We now know the meaning of the word brand, but brand professionals have not yet agreed on the definition. Here is a handy definition we at chlorophyll created in 1999, and holds us in good stead after managing over 350 brands.

A brand is an idea that guides a business or an organization over the entirety of its existence. It is an unchanging idea, but its expressions change over time. This definition is for the brand owner.

To the stakeholders, the brand is the experience that must change over time.

The unchanging idea that has been James Bond is a witty British spy licensed to kill. Over time, he has stopped smoking (because smoking killed 100 million human beings in the 20th century) or being a sexual adventurer (because 690,000 human beings died of HIV in 2019).

Now that we know what a brand is, let us look at the tectonic shifts that accompanied each era. For a long time, there have been three entities involved in the process of branding.

FIRST ENTITY: THE BRAND OWNERS

A corporation like P&G, which owns 19 brands each worth USD one billion; an entrepreneur like Elon Musk or a milk cooperative like Amul India, probably the only brand in the world that has redefined mass production as production by the masses!

The second entity is brand facilitators, who create the access to the brand, whether mental access through communication or physical access through physical outlets or online e-commerce. Facilitators are advertisement agencies or PR companies or retailers or newspapers.

And of course, the third entity is the consumer or the customer. Let us classify this as Era One: the First Era of Branding: which basically means the legal owner of a brand was also the psychological owner of the brand. Brand communication was simple and one-way; from brand owner to consumer through the facilitators.

The ‘1984’ TVC for Apple in 1984, considered the greatest TVC ever made, is the poster boy for this era. It ran just once on Super Bowl and sold computers worth USD 3.5 million without showing the product.

The Second Era of Branding was presaged by an incident in 1985. In 1985, Coca-Cola launched New Coke, because its 200,000 blind tests proved that consumers preferred its taste to Pepsi, the brand they felt was threatening their supremacy among youngsters.

The company received over 27,000 phone calls and 12,000 faxes, all asking the same question: ‘How dare you change the taste of my Coke?’

This was an inflection point in marketing, where we realized that the customer owns the brand psychologically, even though the company owns it legally. The Coca-Cola company hastily brought back the original Coke as Classic Coke.



*Figure 1: Image showing Era One: Pre-Digital
(Source: Primary Data)*

Twenty years later, by the year 2005 around the world and by the year 2011 in India, the second era had well and truly flourished. Social media like Twitter and Facebook and Instagram crept into human consciousness and created a new online community. Social media democratized the production of opinion and the three entities above suddenly got split into four.

The online community became the fourth entity, placing itself between facilitators and consumers.

Let us classify this as Era Two: the Second Era of Branding: where the legal owners had to share psychological ownership with brand stakeholders, allowing their business practices to change according to the stakeholder demands.

Now comes Era Three, post COVID-19, post the lockdown.

Underneath it all, the big question for humanity that persists: 'Will I live life the same way as before?'. There

is research to show that the resounding answer is 'No!'. All the five emerging trends, Sustainability, Safety, Transparency, Purpose and Equality are exploding. They have become megatrends!

Did they exist before COVID-19? Of course they did, but now their influence is a tsunami sweeping businesses. That

is why it represents the 3hird Era of Branding™.

For the first time, brands have a totally new stakeholder: the Earth, and her future inhabitants.



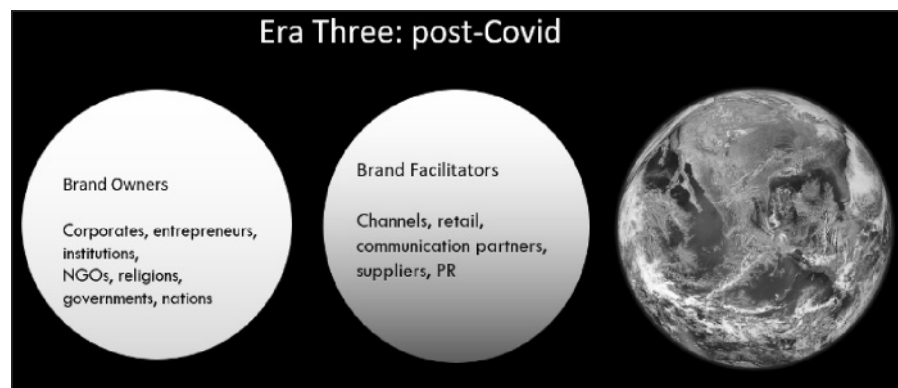
*Figure 2: Image Showing Era Two: Post-Digital
(Source: Primary Data)*

Multiple stakeholders could talk back to brands, demanding change because of their psychological ownership.

Stakeholder One: consumers rejecting a brand they loved when it merely changed packaging: the Tropicana packaging change in 2009 cost the brand USD 20 million in three months.

Stakeholder Two: shareholders started rejecting brands. Socially Responsible Investing by Amy Domini brought together shareholders who said, 'We do not want profits if they are not good for the planet or people.'

Stakeholder Three: employees rejected their own brand. Nike employees protested against the tainted coach Alberto Salazar being supported by their company.



*Figure 3: Image showing Era Three: Post COVID-19
(Source: Primary Data)*

THINK MEGATREND ONE, THE BIGGEST OF ALL: SUSTAINABILITY

Why is Rolls Royce selling honey? The reason is because an iconic brand can stay relevant only if it contributes to one of those megatrends. Rolls Royce's 42-acre Goodwood Apiary is helping in the conservation of Britain's endangered bee population.

THINK MEGATREND TWO: SAFETY

Why is organic food from India growing at 20 per cent per year? It is because we have realized how critical safety is: what we ingest must be free of toxins, whether air, water or food. We are looking at the back of packs for expiry dates.

THINK MEGATREND THREE: TRANSPARENCY

In the US, The Transparent Imperative report published by Label Insight and Food Industry Association¹, found that over 75 per cent of consumers are likely to switch to a brand that provides in-depth product information beyond what is printed on the physical label.

THINK MEGATREND FOUR: PURPOSE

The latest research shows the highest rating is 95 per cent - 95 per cent of the 8000 respondents in eight

countries said, 'I will take action when I believe in the brand's purpose.'

Amazingly, only 37 per cent believe companies today have a clear purpose, which is a huge opportunity for you if you know your purpose.

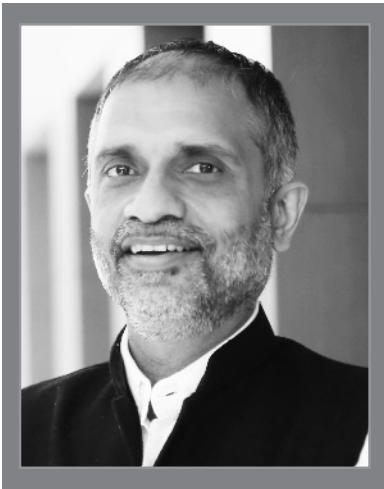
FINALLY, THINK OF THE MEGATREND FIVE: EQUALITY

Whether gender equality, colour equality or race equality. We now know that even in the most evolved societies of Scandinavia, inequality of wages is a reality!

TO SUMMARIZE

Brands and businesses are conjoined twins. One cannot find deliverance without the other. It is because both are naked in the 3hird Era of Branding™. chlorophyll has been involved in articulating the oldest brand on Earth: it is 1400 years old.

So, we know a brand idea is theoretically immortal. However, when businesses or organizations do not live up to their own ideas, they script their own demise.



A Bit of Professionalism

Anurag Behar
CEO, Azim Premji Foundation

ABSTRACT

Leadership is the backbone of every sphere of our lives. In the political and public administrative scenario, it is the role of the government as a leader to enforce discipline and well-being among the citizens in every facet of their lives. This entails a meticulous estimation of budgets and various other contributive mechanisms, suitable allocation of resources and initiation of various programmes in a diversified field, by exhibiting indispensable qualities of competency, ethics and judgment towards the same. Past data reveal that politicians have made a difference in various matters by either working consistently and diligently throughout their tenure or by merely showcasing professionalism - a sense of doing good work in whatever undertaking they are engaged in. The article scrutinizes how the fundamental enhancements of a country can take place amidst the existing dysfunctions predominant in the Indian political system, such as corruption, by merely displaying a sense of professionalism.

KEYWORDS: Leadership, Competency, Professionalism, Dysfunctionality, Corruption.

The political and senior administrative leadership in government can make a significant difference in the lives of people. Depending on what these leaders do or do not do - even in short tenures - they can cause development, drift, or decline. From education and health to trade and industry, public safety to the environment, and everything in between, this is true.

Since the state plays such a large role in our society, why does the obvious need to be stated? This is because too often such leaders themselves; and we as citizens, give them a getaway pass by saying 'they cannot do much individually, it is the system.' Even accounting for the intractability of 'systemic' issues and for short tenures in any role for an individual, good work matters. Cumulatively, that is what changes things for the better at the nut-and-bolts level of governance and administration. In fact, it is changes at this level that enable or stymie progress. Most election manifestos or high-level policies would lead to real improvements in people's lives if such good work were done by most individual actors, with its cumulative effects getting clearer over time.

For sure, there are also those who are driven by a real sense of mission to do good, but a sense of professionalism is often sufficient to make a genuine difference.

Let us get a few things out of the way. First, political and administrative leaders do not lack in smarts (or competence). The normal curve of distribution of smarts among these people is probably higher than in the corporate world of business, academia and civil society. Politicians survive by their smarts - so almost all those in leadership have ample measures of it. Administrators get selected for the services for their smarts, so most have it, though, unlike politicians, they can survive in their careers even without using these capacities, and so many lose that sharpness over time.

Second, almost all politicians are incredibly hard-working. Most do not know the notion of a holiday or a moment of rest. They are constantly surrounded by people wanting things done and are themselves hustling continually, persuading and organizing, be it Diwali or Eid, late night or early morning, in their constituency or the state capital. On this matter, the distribution of administrators looks bimodal. One group is much like politicians, without a moment of rest; this is the larger group. The other group is not small, but relaxed, having given up on the notion of working - to enjoy their sinecures till retirement.

Third, take the matter of corruption - just the monetary kind, not intellectual or moral corruption. The financial basis of our electoral political system is such that politicians are corrupted by merely being engaged in what they are. However, such a black-and-white categorization has no explanatory or descriptive usefulness. It is worthwhile to delve a level deeper.

We can imagine two axes of monetary corruption. Imagine the X-axis on this graph to be 'makes/enables money to be made for the party' and the Y-axis to be 'makes money for him/herself'. There are those who are zero or very low on the Y-axis, but even they are forced by electoral financial demands to be high on X-axis at senior levels of leadership; even if not actively, but merely by looking away. There seems to be a high correlation between being low on the Y-axis (personal corruption) and doing good work. The same seems to be true of administrators. Though for them the X-axis is more accurately labelled 'stop-facilitates corruption'. There is a fair proportion who will do much to stop corruption, often strategically and therefore effectively.

So, if a large number of political and administrative

leaders are smart, hard-working and can deal with corruption in some manner, why do we not see more good work? In decades of dealing with such leaders, I have noticed that what differentiates those who make a difference is a certain sense of professionalism and professional pride. They simply want to do a good job in whatever role they are in. For sure, there are also those who are driven by a real sense of mission to do good, but a sense of professionalism is often sufficient to make a genuine difference.

Cross-state differences in human development are instructive. That most of India's southern states are way ahead on most parameters is well known; the thought-provoking cases are from the rest of the country, where one can see marked differences across groups of states that were in one cohort till about 20 years ago.

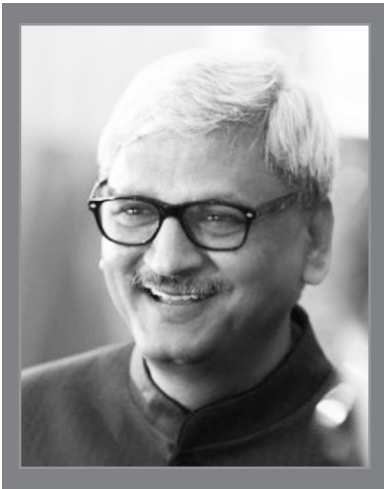
Dealing with them (and also in the South), one realizes that a key difference is a culture of professionalism in their governance. Both kinds of examples are there: a chief minister who has been at the helm for many terms in a state and has fostered this culture, and cases where the baton has switched between two parties, but both side leaders have fostered the same culture of professionalism. In these cases, state leaders have made a real difference; in part by merely doing their job with a professional commitment.

This is not an apologia for our systemic failings and dysfunction; nor is it a case for ignoring systemic improvements. It is simply a description of the reality that nuts-and-bolts improvements can happen through a professional approach within dysfunctional systems, which cumulatively can help improve systems. The recent history of many states offers us testimony that staying with such a course over time can transform the lives of millions. Thus, no political or administrative leader has a getaway pass. They are either complicit in dysfunction and decay or are contributing to progress. Citizens will do better if they remember that as voters.

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Indian Agriculture: Rejuvenate the Once Roots of the Indian Economy

Ravishankar Natarajan

Consultant – Agri e-Markets, Reforms and Fair Trade



Even if a small fraction of the young Indians commit to solving the problems of the rural folks, it could support the positive change we need to make happen.



ABSTRACT

A host of systemic and nature-perpetuated challenges are the cause of the current affairs of the farming community, resulting in half of our fellow Indians dependent on agriculture and related livelihood being left behind during the past decades in the country's economic growth by miles over that of urban India. The only way to a secure future for farmer families is to get their younger generations to migrate to industry and urban areas, either as skilled or unskilled labour, and a small proportion gaining access to higher education. This is entirely true for rain-fed farmers across the country, threatening the very survival of small farmers which are getting even smaller unviable farms with every generation. Policies need to bring in fairtrade practices in agricultural produce markets, crop planning and moderation to limit production swings within acceptable levels, aggressively promote land consolidation and collective farming, thus de-risking individual farmers and assuring them of fixed incomes as well as providing urban amenities in rural areas. This article hence emphasizes on the predominant drawbacks and performance of the agricultural administration of India, and the need for drastic steps required to save the small farmers of the country who form the bulk of Indians. Young generation living in cities can lend a helping hand to the rural folks in solving their problems, building local collective organizations and developing local youth leadership to manage their lives.

KEYWORDS: Farming, FairTrade in Agricultural Marketing, Farm Ownership Structure, Small Farmers Survival.

'Annadhata Sukhi Bava' will soon be a major prayer by all Indians looking at the rate at which farmers are dumping their profession. It may sound alarming, but we are getting there rapidly. Farmers producing our staple grains and other non-horticultural crops in particular are fighting a lot to survive economically. A host of systemic and nature-perpetuated challenges are the cause of the current affairs of the farming community.

A sector with well over one-half of our fellow Indians dependent on agriculture and related livelihood has been left behind, during the past decades, in the country's economic growth by miles over that of urban India, yet they have not failed in their duty to produce for all of our fellow citizens. Farming is a losing proposition and for those who are in it, continue to be doing as there are no other alternative uses of their land - the only resource at their disposal. The only way to a secure future for the farmer families is to get their younger generations to migrate to industry and urban areas, either as skilled or unskilled labour, and a small proportion gaining access to higher education. There is a need for some serious thinking to address the root of the problem, lest our villages may soon not have anyone doing the hard work of producing food. Poverty and debt trap relief from the governments by way of debt write-off and compensations for the families of farmers ending their lives are by no means the solution to weed out the problem, but are just temporary pain killers. Farm debt accumulates because the business of cultivation is not resulting in adequate financial surplus to service the loan, the resultant losses become the individual responsibility of the borrowing farmer. In reality, the losses of farmers are the cost incurred by farmers in satisfying the hunger of the consumers of their produce.

Thankfully, there are exclusions, being sections of farmers, who are into horticulture crops farming with adequate sources of irrigation, good market demand and those limited few farmers who are covered under the government procurement operations under the scheme of Minimum Support Price (MSP).

FARMING, A GAMBLE WITH NATURE AND MARKET

In decoding the problem of the farmers, the root cause is essentially of two types, one that is made by the administration and its policies and second is the mother nature. In a combination of these factors which are not in the control of farmers, their net incomes are static. A season with favourable rainfall distribution, resulting in a good harvest is greeted with depressed market prices. An estimated higher production of one quarter of the normal results in a 50 per cent reduction in prices, as is right now the situation of onion farmers in Maharashtra, who have taken to protest since their cost of production is not being recovered. When production is lost due to unseasonal rains, lower production would drive up prices, however, the quantity available for sale being limited, the farmer would still be earning nearly the same, with higher production. This is a perennial occurrence as the produce of farmers are auctioned amongst the traders who offer prices covering every downside until the produce is sold by them to the next link in the chain.

MARKETING SYSTEM

In most states in India, agricultural marketing has been historically governed by Agricultural Produce Marketing Committee Act (APMC), with some minor differences between the states. There are physical infrastructure facilities available for farmers to bring their produce which are inspected by potential buyers (traders mostly), generally auctioned and sold to the best bidder. The commission agent is responsible for ensuring that the farmer receives his payment, while the agent takes his commission which varies from as high as 10 per cent to 1 per cent, for different categories of commodities. Over the past decade or longer, most state governments have amended the APMC Act to permit a range of commodities to be sold by farmers outside the APMC-managed markets, generally in fruits and vegetables. This was a relief to some extent in transacting, that the farmer had the convenience of delivering at nearby delivery centres of modern retail including online ones, while weighments, billing and payments were digital, saving lot of time for the farmers besides the commissions payable. More importantly,

this has served to lift the personal dignity of farmers as value chain partners, instead of hitherto as someone seeking a favour to sell their produce. However, the requirement of modern retail is a small fraction of the production, hence the APMC markets are the centres giving out price signals, therefore, the prices are still decided unilaterally by trade.

Auctions are a good mechanism with the reserve price determined by the seller. In APMCs, the reserve price is also determined by the buyers unilaterally based on their own views of supply-demand, denying farmers the rights to seek a certain base. The defence often given is that the farmer has a choice to decline the offer. But this seldom makes sense for the farmers with no better options around. As arrivals are seasonal, with huge volumes coming in short periods, prices in production markets remain depressed during the harvest season, no matter what the cost of production was.

As all agricultural produce are perishable over days or weeks, the farmer is always in a hurry to monetize his yield. Otherwise, the value of his produce would drop with every passing day or week. This vulnerability conveys a huge advantage to the buyers, who discount farmer prices with all possible losses and onward volatilities reducing the prices to levels assuring trader profits.

Fair Trade Practices Needed

In summary, there is a problem of imbalance in the bargaining power of the farmers vis-à-vis the traders which needs to be addressed with the introduction of fair trade practices. Such practices are in use in our stock exchanges to protect the interest of the investors, which can be suitably adapted to regulate (not manage) price volatility and provide necessary surveillance to curtail speculative players at the cost of consumers, farmers and well-meaning traders alike. Competition regulations in many countries recognize the vulnerability of farmers and allow them to form bargaining councils to prevent undue exploitation by buyers. India needs to act on this at the earliest.

PRODUCTION SYSTEM

The average landholding size sliding over the decades stands at 1.16 ha. As of 2011, holdings of 1 ha or less account for 22 per cent of operational area held by 67 per cent of landholders and holdings of 1-2 ha constitute 18 per cent of the landholders owing another 22 per cent of operational area. Staggering 85 per cent of the Indian farms or 117 million farm households till 5 acres (2 ha) or less.

‘According to the Agriculture Census, the total number of operational holdings in India numbered 138.35 million with an average size of 1.15 hectares. Of the total holdings, 85 per cent are in marginal and small farm categories of less than 2 hectares. These small farms, though operating only on 44 per cent of land under cultivation, are the main providers of food and nutritional security to the nation, but have limited access to technology, inputs, credit, capital and markets. The continuously declining farm size also gives rise to concerns on the very sustainability of the small farm’, said the ex-agriculture minister of the Government of India.

Farms of size 2 ha and less are a bad financing proposition for institutional lenders, which in most cases are already under excessive debt, and hence do not get any investment. These farmers are incapable of individually putting in any additional capital needed for productivity improvement, risk management either in production or in market. Therefore, the lives of most of the 117 million farm households hopelessly rely on underperforming farms individually managed by farmers. There are no strategic inputs from the planners of the country for a permanent reprieve, as the problem requires drastic measures requiring immense tenacity and political will. As the disparity widens, the threshold of frustration amongst this section of our countrymen could be difficult to contain, and hence requires immediate action to protect the interest of the small and marginal farmers in rain-fed areas.

The solution lies in land pooling and managing large-size farms under a single management, with land owners participating in production activities. Collectivization has several benefits, one of the major ones being that the individual farmers are de-risked

from the business of farming and are assured of a stable monthly income from the work done by them and from additional off-farm activities. The country has laws to recognize a failing industry and support their revival, but millions of farmers failing and taking away their lives has still not been reason enough to take a fresh look at the existing structure and to put in measures to arrest the root cause of the problem, which are unviable individual farm sizes and individual small farmers bearing all the risks of the business of farming which is becoming unmanageable to manage.

Promote Collectivization

Just as there is the 'Sick Industrial Companies (Special Provisions) Act, 1985' or SICA for the industrial sector, the agriculture sector also requires an equivalent. The object of both remains the same as that of reviving potentially viable but presently loss-making businesses to get productive and profitable. The equivalent of the Board for Industrial and Financial Reconstruction (BIFR) for the industries under SICA needs to be created to promote collective farming, the structural change that can permanently arrest the problems of under performance of the small and marginal farms. Ownership of farm has an emotional connect for farmers, but where survival is at stake, a workable proposition would be acceptable to them. Targeting geographies predominantly held by small and marginal farmers and enlisting the farmers interested in collectivization is to be undertaken by the agency mandated under the Act. Collectivization could be modelled on the basis of ownership retained with the participating farmers, and fresh capital being brought by collaborating partners from industry or trade.

MISSION TO SALVAGE SMALL FARMERS

There are problems of abnormalities in the marketing system, which over time, can be hoped to be resolved by developing a fair trade system with necessary corrective steps. However, the issue of land fragmentation with every passing generation needs immediate attention to bring relief and hope for a better future for the small farmers and their generations.

The younger generation living in urban India would benefit to know their country better by sparing some time to meet with the farmers on some periodicity. Besides, knowing the tough conditions under which our farmers produce food for us, it would also bring them closer to the challenges of their lives in rural India. Even if a small fraction of the young Indians commit to solving the problems of the rural folks, it could support the positive change we need to make happen. As part of the course, students can be encouraged to take up small projects in rural areas, which can be of immense value to both the students and the villagers.

'Soul of India lives in its villages' was once said by Mahatma Gandhi, let us hope it would still be so after a few decades as well, but with better amenities and improved living conditions as desired by Dr. A. P. J. Abdul Kalam, ex-President of India.

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Across the world, we have seen the emergence of deep divisions, politicization of miseries, and stories of resentment and anger add to the conditions of desperation across countries.



After the Pandemic – What? – Musings from Marketing

Prof. Dr. Himadri Roy Chaudhuri

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Xavier School of Management, Jamshedpur

ABSTRACT

In this discussion, we look at the marketing learnings from the pandemic. We accept the under-preparedness on the part of the marketer and, at the same time, appreciate the consumer reactions under conditions of uncertainty and existential crises. We articulate the reasons for such consumer reactions, provide a typology of characteristics and propose the action points for the marketers as we prepare for the next round of apocalypse.

KEYWORDS: Marketing, Pandemic, Consumer Reaction, Uncertainty.

INTRODUCTION

Human history is not new to such periods of untold sufferings wherein narratives of death and miseries repeat themselves with sinister periodicity - be it a pandemic, the recession, or wars and famine. The COVID-19 pandemic brought with it a first-hand acknowledgment of life's fragility and made us aware of our vulnerability even when science has progressed so far; perhaps, we need to rethink the role of work, social engagement, and consumption in our everyday lives.

Many were rendered unemployed while a large portion of us experienced working remotely, devoid of face-to-face interactions with other humans: the ferocity and suddenness with which the pandemic hit us had a little parallel in human history.

I take up the job herein to identify the changes in consumers' world views during the COVID-19 period, which could be extended to any crises that may happen later. While some may argue that my efforts are merely

repetitive, hence, futile, my contretemps will squarely be built around the permanency of crises that have plagued human civilization from its dawn. Based on reflexive contemplations, I present a few emergent life perspectives which may shape consumer motivations in the days to come. This short piece closes with recommendations for managers.

EXPLAINING EXPERIENCES OF CATASTROPHE

Most catastrophes are unexpected; hence, most of us would try to make sense of the 'hows' and 'whys' of adversity. In doing so, the first obvious reaction comes in the form of what famous psychiatrist Elizabeth Kubler-Ross characterized as the stage of denial. She mentions five stages where she proposes that individuals oscillate between complete denial to complete acceptance as they move through catastrophe and grief. In this journey, they also experience anger and try to negotiate with reality. While a detailed discussion may be out of our scope, we may still clearly understand that our handling of catastrophes is far from perfect and, more importantly, rationale. This mentality becomes further complicated when we are faced with crises that are enormous in proportion and overwhelming - existential threats suddenly come out with their full force and tend to paralyze the individual with fear and anxiety.

However, as we move from denial to acceptance, certain sociocultural characteristics help us negotiate with reality, e.g., cultural ethos, self-esteem, and strength of interpersonal relationships. As we may recall that Indian society has always been a collective one and promotes spirituality, the virtue of being the same is getting support from recent scientific studies as well. This leads us to propose that as catastrophes hit us, individuals (also including the consumers) adopt strategies to cope with the insufferable anxieties, which could be (life) preservation-orientated (as they are more in the state of negotiation) or more inner-directed and value-oriented (as they are more in the acceptance oriented) or more other-directed. Indian philosophy has long recognized the Maya as the source of all miseries - so detachment, hence acceptance of reality, is prescribed as a virtue.

During COVID-19, we saw human behaviour falling largely between these extremes of the spectrum - people fighting over toilet rolls, ostracizing the affected, or donating their life's savings to buy oxygen and medicines for others. International relations also witnessed reflections of anthropophilic and anthropophobic policies giving rise to jargon such as 'Vaccine Maitri' or 'vaccine nationalism'.

MARKET REACTION

As discussed above, the consumer motivation following a catastrophe can usually be grouped into: a. Anxiety reduction through self-preservation; b. Anxiety reduction through benevolence and tolerance. These led to a spurt in demand for products and services that offer value-for-money and utility-focused and also served the cause of responsible consumption. An increase in demand for conspicuous and hedonistic products that don't strengthen relationships and enhance self-protection was avoided.

Marketers responded by launching more wellness-focused products, creating online experiences (including travel), eco-friendly products, value-for-money offerings, et al.

LEARNING

In the days to come, we should be ready for more pains and agony arising out of crises that would be global in nature. COVID-19 has shown us that knee-jerk actions to sudden catastrophes are far from desirable. Across the world, we have seen the emergence of deep divisions, politicization of miseries, and stories of resentment and anger add to the conditions of desperation across countries.

As consumers show a preservation-centric value, businesses can offer successful products through value engineering to innovate and deliver an array of new and sustainable offerings. This essay recognizes the emergence of both self-centred and community-centred mindsets of consumers. It provides a blueprint for future marketing actions by promising higher (or macro) level life values and societal well-being.



The Sunak Effect

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A symbol of good
'Indian' work
ethic has now got
a very
recognizable face
in Rishi Sunak.



ABSTRACT

While Indians around the world and in India have hailed Rishi Sunak's meteoric and even unexpected rise to the top political office in the UK, many find this euphoria unfounded. After all, the other high-ranking Indian-origin minister in his cabinet, Suella Braverman, has already made the 'Indian migrants overstay' remark, and her utterances cast a shadow on the Free Trade Agreement with India.

However, the impact of having Rishi Sunak as Prime Minister of the United Kingdom on Indians, as a minority in that country, could be far-reaching. It could be an anthropomorphism of what being an Indian stands for. An important aspect of reputation is visual identity – and the sharp, educated, articulate and sophisticated Sunak could enhance the worth of an entire community.

KEYWORDS: Reputation, Race, British-Asian.

Indians are the largest ethnic minority in the UK and constitute 2.5 per cent of the population. The 1.5 million people of Indian origin living in the UK are the largest subgroup of British-Asians and are one of the biggest communities within the global Indian diaspora. The majority of them are young and hold the highest employment rate of all ethnic minorities (76 per cent) and the lowest poverty rate. They also have a high level of academic attainment, with 96 per cent of Indian pupils going into higher education.

Despite this, life has not been easy for them. Ask any British-Asian of the South-Asian experience in that country. Until a generation ago, the vast majority of South-Asians experienced racism and racist slurs at some point in their lives. A GQ report in 2020 talked about how virulent racism still exists in public life.

Many British-Asians have long since been told off for their 'smelly' food, their children with non-British accents have been asked about their country of origin.

A recent survey in the UK found that hundreds of thousands of minority workers face indifferent behaviour - from 'banter' and jokes through to harassment - but four out of five do not report such cases, for fear of it not being taken seriously or having a negative impact on their work life.

The latest Home Office figures show that the number of hate crimes recorded by police in England and Wales rose by 26 per cent, to 255,841 in the year to March 2022, with racially motivated hate crimes being the highest. The numbers speak volumes about attitudes towards minorities in England and Wales. The number of racial or religiously aggravated offences has witnessed an upwards trend since the Brexit referendum in July 2016. In fact, the Brexit vote was fought and achieved by a divisive rhetoric.

Hopefully, Rishi Sunak could have the same impact for the community as perhaps Mohammed Salah did in Liverpool. A Stanford study found that since Salah joined Liverpool Football Club, levels of hate crime in the team's home county of Merseyside had decreased relative to other British counties.

THE SUNAK EFFECT

Research has shown that people and images shown to us can greatly affect attitudes toward social groups more generally. In the United States, exposure to Barack Obama - a positive and counter-stereotypic exemplar, resulted in a decrease in implicit anti-black prejudice among non-black people. Exposure to Obama reduced

implicit prejudice (Colum and Plant 2010). It was called the Obama Effect, and its impact was felt from Japan to the Arab world.

The Obama Effect led to a better reputation for the USA in many countries of the world. Yes, of course, Mr. Sunak is a British-born native. However, his direct links with India via his wife, who was educated in India, makes him quasi-Indian. Even if the impact may not be on India and on its ability to export talent to the world, as several top corporate leaders exemplify, the impact on the reputation of the Indian community, in general, might be consequential.

Akshata Murty, the wife of Rishi Sunak, also carries a fine brand reputation of 'Infosys' and a high personal regard for the credibility of her parents - Narayan and Sudha Murty. They are widely regarded as honest entrepreneurs who achieved great success through education and diligence. Again, a symbol of good 'Indian' work ethic has now got a very recognizable face in Rishi Sunak.

While he may not be the first Indian-origin leader in a foreign country - the leaders of Ireland, Portugal, and Mauritius - all have Indian roots, he is one of the most powerful leaders of the developed world. He would wield enormous influence, and the media will lap up his every move.

The chain of events that followed the UK's exit from the European Union led to a political and economic turmoil that was unprecedented. A British-Indian prime minister has been anointed because he is the best man to lead, despite his clear loss in the race with Liz Truss. He may have come as the last recourse, with a daunting task at hand, but it is also a watershed moment for the Indian diaspora worldwide. The deafening chatter on social media will attest that after a string of Indian-American CEOs, a British-Indian Prime Minister in London - at the heart of the erstwhile colonial empire - is an event of great historical note.

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“

Though the Indian economy has gone a long way since the 1991 liberalization, privatization and globalization (LPG) reforms, agriculture has relatively been left behind in most other sectors.

”

Rural Wages and Inflation in Post Liberalization Era:

Analyzing the Trend of Agricultural Wages, Rate of Growth on Agricultural Wages Considering Gross Fiscal Deficit, Wholesale Price Index (WPI) and Minimum Support Price of Crops

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ABSTRACT

The Indian population is predominantly rural. This makes it all the more necessary to factor in the rural sector while formulating economic policies or welfare schemes. Rural wages and inflation, influenced by interplay of several factors, are very vital to understand and address major challenges

being faced by the rural populace. Agriculture, being the mainstay of most of the populace, has been emphasized for analysis of rural wages and inflation. Though the Indian economy has gone a long way since the 1991 liberalization, privatization and globalization (LPG) reforms, agriculture has relatively been left behind in most other sectors. Such developments require prompt attention. The period roughly between 2007-08 to 2013-14 was characterised by 'wage-price spiral'. This study delves into the various developments in rural wages and inflation since the 1991(LPG) reforms, the interplay of its major determinants so as to identify the prime driver of the upward movement in prices. It was found that for the period between 2013-14 to 2020-21, food prices were primarily pulling up inflation. Then further findings related to rural inflation depicts policy measures biased towards the urban sector as one of the causes which unfairly affects the rural sector. Such a situation needs to be dealt effectively to avert a serious crisis in the rural sector.

KEYWORDS: Rural Wages, Inflation, Food Prices, LPG Reforms, Agriculture.

INTRODUCTION

The rural sector, especially agriculture is the backbone of the Indian economy. Around 65 per cent of the Indian population (2020) resides in rural India. 45 per cent of the Indian population relies on agriculture for their livelihood. Considering the dynamic rural wage trends post liberalization, an insight into their functioning is imperative in foreseeing the developments in the rural and agricultural sector in future.

The New Economic Policy in 1991 was a watershed moment in the history of Indian economic development. India embarked on a journey towards a market economy. Not only did it avert a major financial emergency (due to the foreign exchange crisis) but also gave impetus to economic growth (highest being around 8 per cent in 2007-12). However, the benefits were not uniform with growth in agriculture lagging in relation to other sectors. This results in erosion of the purchasing power of the people in the rural areas

(predominantly dependent on agriculture), due to higher price level and lower wage income.

Containing inflationary measures should be an essential objective of wage policy. Increasing inflation erodes the real purchasing power of the workers causing consequent demand for higher nominal wages in the next cycle. This leads to wage-price spiral which is detrimental to the workers and macroeconomic stability.

REVIEW OF LITERATURE

G. S. Gupta (1980): Despite agriculture being a major contributor to employment and the Gross Domestic Product (GDP) of the country, its relative state has remained more or less the same with no significant improvement. An appropriate price policy is one of the ways of augmenting of development in this sector. However, in India's context, though the effect of price support policy is evident, its role is marginal with not much increase in agriculture's contribution to national income.

G. Dutt and M. Ravallion (1998): They conducted a sample survey of 24 households for around 35 years to study jointly consumption poverty measures, agricultural wages, and food prices. It was found that higher farm productivity resulted in absolute and relative gains for poor rural households.

V. Abraham (2009): According to the 61st round of the NSSO survey (2004-2005), there was employment growth in the rural areas during distress in the agricultural sector. Due to decline in wages in agricultural sector below sustenance, the non-working population is forced to enter the labour market to support the income level of their household

A. Krishna and D. Bajpai (2011): The study states that the income distribution since the mid-1990s LPG reforms has followed a spatial pattern. It is more concentrated in the cities. As we move further from the cities towards the rural areas, the concentration of income decreases. As a result, the inflation-adjusted per capita income for the years 1993-2005 (the period of study) has fallen.

G. V. Nandhanael (2012): Vector Error Correction Model (VECM) was used to ascertain presence of wage price spiral in India. The real rural wages during 2000-07 remained constant or declined in some areas and were responsive to inflation. Rise in wages from 2007 onwards affected prices due to its impact on cost of production. Though the Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) wages were higher, its coverage had decreased. There was decrease in labour participation rate due to shift from agriculture, to education and withdrawal of female workforce. Such factors contributed to tightening of labour market driving up wages.

Venkatesh P. (2013): There has been a higher changeover of male workers than female workers from agriculture to rural non-farm sector. Though agricultural wages are lower than those in the rural non-farm sector, the growth rate in agricultural wages is higher. The rural non-sector and agricultural productivity positively impact agricultural wages (trickle-down effect benefiting agricultural labour) resulting in inclusive growth.

H. G. Jacoby (2013): Nominal wages for manual labour, whether engaged in agriculture or another sector, respond elastically to higher producer prices. Increased agricultural commodity prices are beneficial for rural households. Even wage adjustments facilitate rural welfare more than Public Distribution Systems. Inward looking policies such as agricultural export bans, insulating both consumers and producers from international price fluctuations are rather harmful to the rural economy.

A. Gulati, S. Jain, N. Satijha (2014): The Eleventh Five Year Plan (2007-2012) saw the fastest growth in Post Liberalization era. The increase in rural wages has been analyzed through the various 'push' factors, primarily MNREGA which has in turn lead to 'pull' factors.

S. Thangzason, H. Joshi, A. Sebastin, U. Sharma (2014): There has been a rise in food inflation in India which has been propelled by factors such as increased demand, increasing rural wages, increase in Minimum Support Price (MSP), and droughts in certain years with the role of increase in real rural wages being most dominant.

Manjit Kour (2014): Manjit Kour states that though India has faced inflation since the 1950s, it has become prominent post 1991 LPG reforms and the global economic meltdown. As of the date of the study, inflation was around 9 per cent.

A. Goyal, A. K. Baikar (2014): The rise in wages in traded goods sector will be driven by rise in food inflation, rise in non-traded wages, reduction in net supply of labour, increase in demand of labour, and employment in traded goods sector while the effect of exchange rate would be ambiguous. Food price inflation and fiscal deficit predominantly impact inflation. Wage indexation was reflected in inflation while MNREGA did not push up wages. Food prices were not much impacted due to wages.

R. Bhattacharya, A. Sengupta (2015): Food Prices in India were among the highest emerging market economies in 2006-2013. On the demand side, this can be attributed to not only rise in per capita rural wages but also rise in cost of inputs, MSP, et al.

J. Samsal (2015): There has been a high rate of economic growth for the past two decades. The growth rate of agriculture has not been able to keep pace with the overall growth. Due to increase in per capita income and limited supply, agricultural prices have shot up.

S. Kundu (2019): As per the observations of rural prices from November 2013 to February 2019, agricultural wages are positively and significantly related to rural prices even after adjusting other factors such as non-agricultural wages, MGNREGA scheme and rainfall departure from normal. However, no evidence of wage price spiral was found.

OBJECTIVES OF THE STUDY

Nearly three decades have elapsed since the LPG reforms. However, to streamline the study so as to lay stress upon the current time period (i.e., years from 2013-14 to 2020-21), the focus area of the study will be as follows:

- Analysis of rural wages (emphasis on 2007-13, till the year 2021-22) -Post liberalization of the Indian economy.

- Introspecting the factors which have caused inflation in the rural sector (especially agriculture).

RESEARCH METHODOLOGY

For the study, quantitative analysis using secondary data from select variables of the Reserve Bank of India (RBI) Handbook of Statistics has been adopted. A simple average of state-wise agricultural wages has been obtained from their respective official website the reference of which has been given later.

Growth in agricultural wages was derived using the following formula:

Growth Rate = $\frac{(\text{agricultural wages of current year} - \text{agricultural wage of previous year})}{(\text{agricultural wage of previous year})} \times 100$

Analyzing the trend of agricultural wages, and rate of growth in agricultural wages considering the following factors has been made:

- Gross Fiscal Deficit
- WPI – All Commodities
- WPI – Food Grains
- Minimum Support Price of Crops

The agricultural wages (nominal) and growth rate of agricultural wages (which indicates real agricultural wages) have been plotted against the above-mentioned factors, by use of line (agricultural wages and its growth rate) and column chart in MS Excel.

A trend line for agricultural wages and the growth rate of agricultural wages has also been used to forecast future wages. This line was selected based on R² value (as shown in excel) of the line.

R² denotes the proportion of variance of the actual agricultural wages/ growth in agricultural wages from the trend line. Out of the trend line options, the line of best fit with a higher value of R² was selected.

SIGNIFICANT DEVELOPMENTS IN RURAL WAGES AND INFLATION POST LIBERALIZATION

It has been around three decades since the LPG reforms. However significant trends were noticed during the periods 2002-07, 2007-13 and post 2014 (the latter two periods are to be considered for detailed analysis in the later sections).

The period between 2002-07 has been that of agrarian distress. The growth in nominal rural wages has been 4 per cent whereas rural inflation has been about 4.5 per cent. The corresponding agricultural growth had been 2.4 per cent p.a. in the 10th plan vis-à-vis 4.8 per cent in the 8th plan (1992-97). This agrarian distress resulted in lower income for the agricultural sector caused due to poor agricultural performance and lower employment opportunities outside agriculture. Another reason was the fall in global agricultural commodity prices in the wake of the 1997 East Asian Crisis that reached a trough in 2001-02, followed by a slow recovery in global agriculture prices between 2003-05.

Subsequently, high growth rate was seen in rural wages when between 2007-2013, rural wages grew by 17 per cent for agricultural workers and 15 per cent for non-agricultural workers while rural inflation was low, at 10 per cent. This increase has mainly alluded to the MNREGA scheme. Spike in international food prices as well as high fiscal stimulus after the Global Financial Crisis may have also contributed to the increase in rural wages. These along with a host of other factors are to be discussed later.

The period after 2014 witnessed a deceleration in wage growth rates with agricultural wages growing at 5.6 per cent and non-agricultural wages at 6.5 per cent. The overall rural inflation stood at 4 per cent. Hence, there were periods of negative real wage growth in the rural economy. Along with the twin droughts of 2014-15 and 2015-16, factors such as a slowdown in the construction sector, deceleration in agriculture and moderation in inflation suppressed rural wage growth.

In the later sections, the relationship and trends in rural wages and inflation have been analyzed with respect to some of its important factors.

ANALYSIS AND FINDINGS**Absolute amount (₹):**

Year	Male field labour	Female field labour	Male skilled labour
2010-11	147.91	115.02	201.78
2011-12	180.7	135.67	241.31
2012-13	213.71	164.57	281.72
2013-14	229.12	178.82	296.21
2014-15	268	204	340
2015-16	281.32	217.76	358.88
2016-17	295	230	384
2017-18	315	244	406
2018-19	330	262	427
2019-20	348	278	449

Table 1: Agricultural Wages (8 Hours/ Day)
 (Source: Website of Directorate of Economics and Statistics Department of Agriculture and Farmers Welfare, Ministry of Agriculture and Farmers Welfare of Government of India)

The table above depicts the absolute amount of wage received by agricultural labourers. It includes the effect of inflation.

Year	Male field labour growth rate	Female field labour growth rate	Male skilled labour growth rate
2011-12	22.17	17.95	19.59
2012-13	18.27	21.30	16.75
2013-14	7.21	8.66	5.14
2014-15	16.97	14.08	14.78
2015-16	4.97	6.75	5.55
2016-17	4.86	5.62	7.00
2017-18	6.78	6.09	5.73
2018-19	4.76	7.38	5.17
2019-20	5.45	6.11	5.15

Table 2: Growth in Agricultural Wages
 (Source: Website of Directorate of Economics and Statistics Department of Agriculture and Farmers Welfare, Ministry of Agriculture and Farmers Welfare of Government of India)

Growth rate in agricultural wages (expressed as per cent). It removes the effect of inflation, thereby indicating direction of real rural wages.

Year	WPI foodgrain	WPI All Commodity
2012-13	110.9	106.9
2013-14	124.5	112.5
2014-15	131.5	113.9
2015-16	134.9	109.7
2016-17	140.3	111.6
2017-18	143.2	114.9
2018-19	143.7	119.8
2019-20	155.8	121.8
2020-21	160.7	123.4

Table 3: Wholesale Price Index (WPI)
 (Source: Wholesale Price Index: Annual Average, RBI Handbook of Statistics on Indian Economy)

Table 3 is an index to indicate inflation. WPI food grains represent food price inflation. This has primarily been used for analysis. WPI all commodities represent overall inflation as per WPI. WPI better reflects inflation at producer level. Base Year: 2011-12

Year	Gross Fiscal Deficit
2010-11	6.46
2011-12	4.80
2012-13	5.91
2013-14	4.93
2014-15	4.48
2015-16	4.10
2016-17	3.87
2017-18	3.48
2018-19	3.46
2019-20	3.44
2020-21	9.36
2021-22	6.76

Table 4: Gross Fiscal Deficit

(Source: Select Fiscal Indicators of the Central Government
(As Percentage To GDP), RBI Handbook of Statistics on Indian Economy)

Gross fiscal deficit in Table 4 represents fiscal stimulus. Useful parameter to analyze and infer the effect of government expenditure on agricultural wages.

MINIMUM SUPPORT PRICE FOR FOODGRAINS ACCORDING TO CROP YEAR (Fair Average Quality)							
(₹ per quintal)							
Year	Paddy common	Coarse cereals	Wheat	Gram	Arhar (Tur)	Moong	Urad
2010-11	1000	880	1170	2100	3500	3670	3400
2011-12	1080	980	1285	2800	3700	4000	3800
2012-13	1250	1175	1350	3000	3850	4400	4300
2013-14	1310	1310	1400	3100	4300	4500	4300
2014-15	1360	1310	1450	3175	4350	4600	4350
2015-16	1410	1325	1525	3500	4625	4850	4625
2016-17	1470	1365	1625	4000	5050	5225	5000
2017-18	1550	1425	1735	4400	5450	5575	5400
2018-19	1750	1700	1840	4620	5675	6975	5600
2019-20	1815	1760	1925	4875	5800	7050	5700
2020-21	1868	1850	1975	5100	6000	7196	6000
2021-22	1940	1870	-	-	6300	7275	6300

Figure 1: Minimum Support Price

(Source: Minimum Support Price for Non-Food Grains According to Crop Year (Fair Average Quality),
RBI Handbook of Statistics on Indian Economy)

Minimum Support Price has been used for better understanding and analysis of determinants of rural wages in Figure 1.

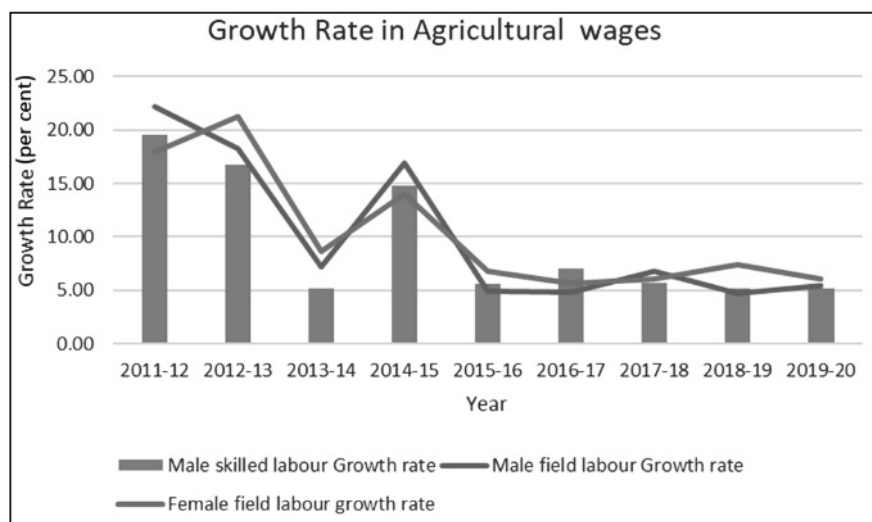


Figure 2: Growth in Agricultural Wages

(Source: Website of Directorate of Economics and Statistics Department of Agriculture and Farmers Welfare, Ministry of Agriculture and Farmers Welfare of Government of India)

From 2011-12 till 2013-14, there has been a deceleration in growth in wages. After a short spurt in growth rate in FY-2014-15, the years thereafter witnessed a constant low growth in agricultural wages. This indicates decline in real agricultural wages.

After 2016, though agricultural productivity improved but the rate of growth of wages were still low because role of agricultural output in influencing the rate of growth of rural wages had become limited and there were episodes of farmers taking to streets because of non-remunerative prices available for their produce. A decline in prices of agricultural produce and overall neglect of the sector since 2012 caused farm income to decline in real terms with stagnating non-farm incomes in the last 5-6 years. This phenomenon has been termed as 'demand deflation', i.e., a fall in demand as opposed to a rise in inflation.

FACTORS AFFECTING RURAL WAGES

For an insight into rural wages and inflation for the period, stress has been laid on the agricultural sector

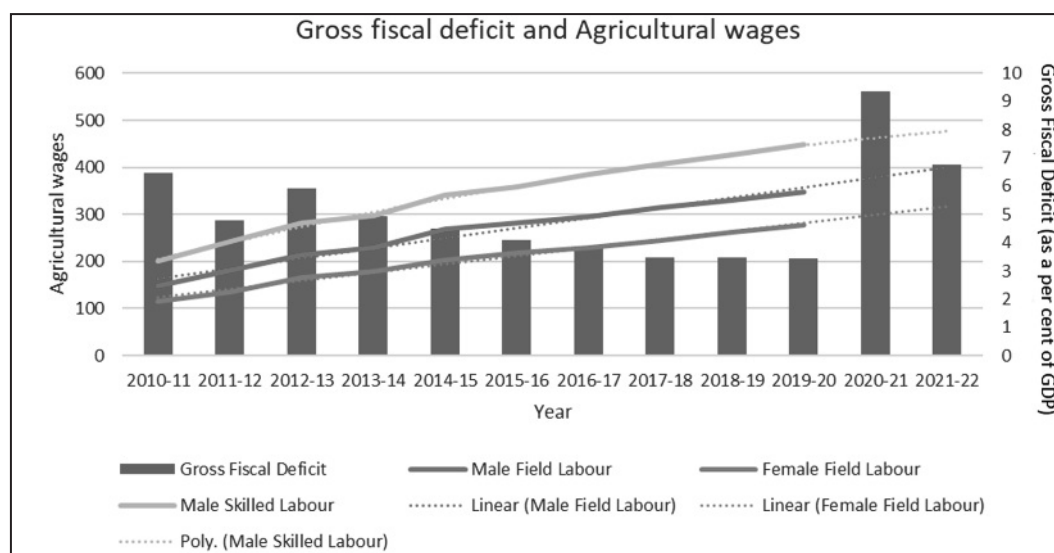


Figure 3: Fiscal Deficit

(Source: Website of Directorate of Economics and Statistics Department of Agriculture and Farmers Welfare, Ministry of Agriculture and Farmers Welfare of Government of India
Select Fiscal Indicators of the Central Government (As Percentage To GDP),
RBI Handbook of Statistics on Indian Economy)

which is the most significant contributor to the rural economy. Agricultural wages and the growth in rural wages have been thus considered. Primarily, for the purpose of study growth in agricultural wages and changes in nominal wages have been analyzed considering the following factors:

The consensus is that increase in government expenditure (in the above analysis reflected through gross fiscal deficit) causes an increase in wages (here agricultural wages).

For the period 2010-11 till 2019-20, three types of agricultural wages as mentioned in the graph, increased. A reason for the persistence of high inflationary pressures in the economy has been lagged responses of fiscal and monetary stimuli to recover from the 2008 crisis. Monetary tightening that was pursued aggressively before the crisis had to be relaxed and a more accommodative stance was employed. The RBI thereafter only started targeting inflation in 2012 with the establishment of a monetary policy committee which has been able to keep the core inflation within the mandated range of 4 per cent (plus or minus 2 per cent).

Gross Fiscal deficit increased from 2011-12 to 2012-13 and thereafter it shows a declining trend. This shows that rising agricultural wages are not consistent with fiscal deficit.

In Figure 4, growth in agricultural wages, decelerating since 2012-13 indicates a decline in agricultural wages. Thus, an increase in agricultural wages will not be a major reason for accelerating inflation because the rate of decline is quite steep during this period. Fall in growth in agricultural wages is much higher than the fall in fiscal deficit over the same period. Hence, increasing government expenditure is not consistent with rising agricultural wages causing inflation.

It will be interesting to see the effects on agricultural wages of the hike in gross fiscal deficit, due to the fiscal stimuli and declining revenues experienced during the COVID-19 pandemic and the resulting economic lockdowns. Growth in male and female field labour wages is expected to increase, but that for male skilled labour may remain constant.

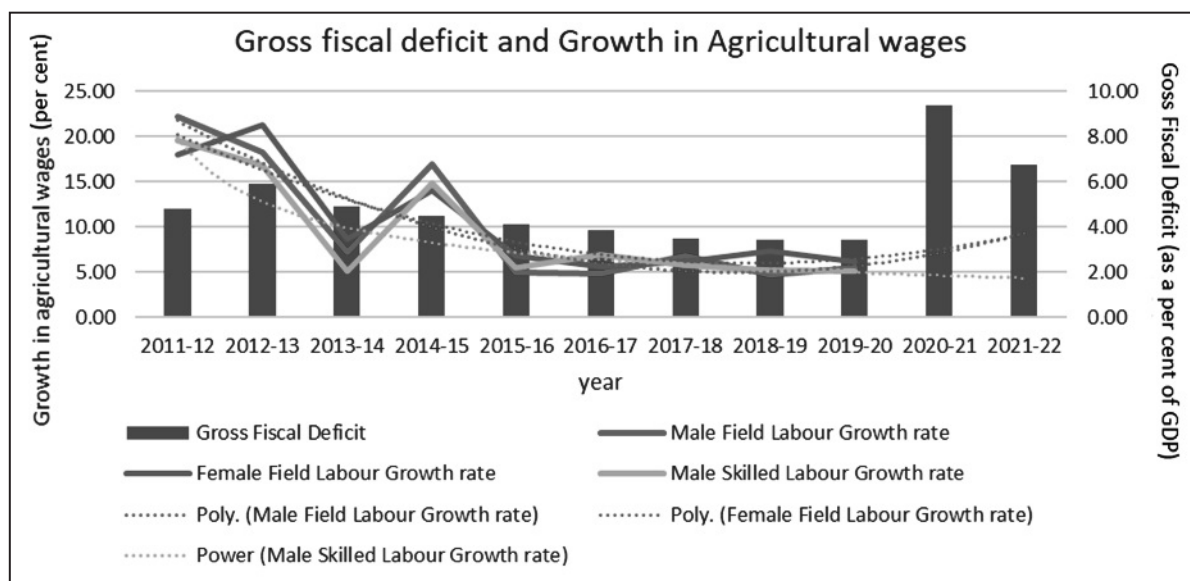


Figure 4: Gross Fiscal Deficit and Growth in Agricultural Wages

(Source: Website of Directorate of Economics and Statistics Department of Agriculture and Farmers Welfare, Ministry of Agriculture and Farmers Welfare of Government of India
Select Fiscal Indicators of the Central Government (As Percentage To GDP),
RBI Handbook of Statistics on Indian Economy)

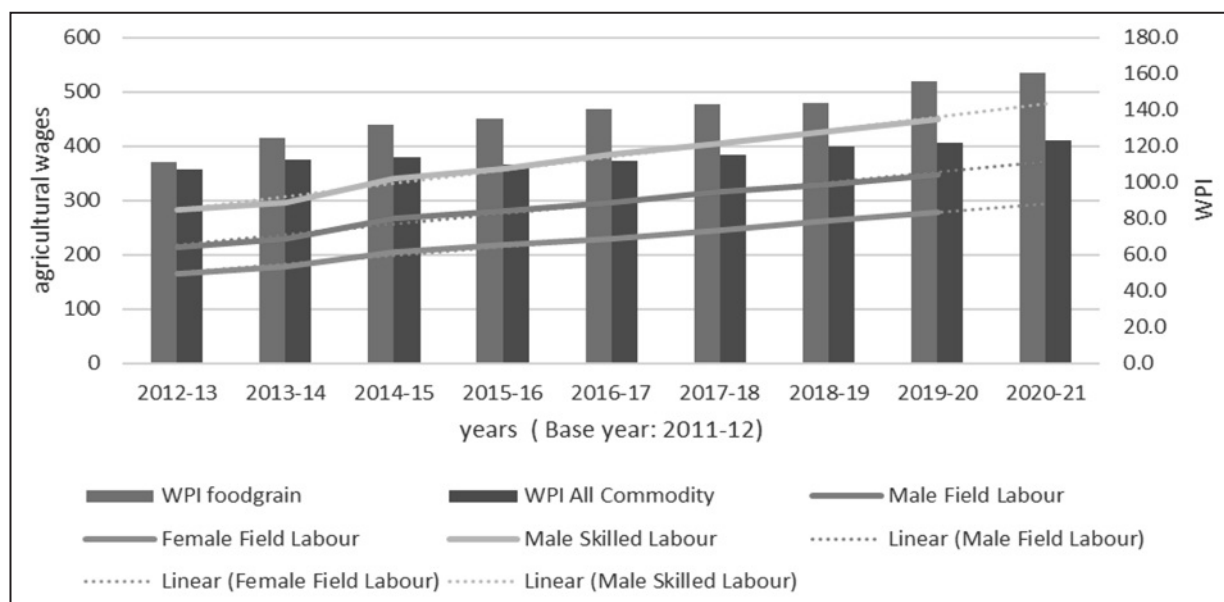


Figure 5: Wholesale Price Index and Agricultural Wages

(Source: Website of Directorate of Economics and Statistics Department of Agriculture and Farmers Welfare, Ministry of Agriculture and Farmers Welfare of Government of India)

(Source: Wholesale Price Index: Annual Average, RBI Handbook of Statistics on Indian Economy)

For the period, WPI for all commodities shows a moderately increasing trend. Meanwhile, WPI for food grains has increased significantly. This increase in WPI and agricultural wages are consistent with each other.

Thus, inflation has a major role in pulling up nominal agricultural wages. Such an increase in agricultural wages has significantly influenced food price inflation.

Persisting inflation during 2007-13 (period of substantial growth in agricultural wages) was driven up by international food prices after the global financial crisis to boost agricultural demand. Nominal wages peaked by 20 per cent by mid-2011. Apart from wages, a range of other factors feed into food inflation. Even though other costs to production went up significantly, rising labour costs dominated inflationary trends. Rising

food production cost with increasing farm wages have contributed to rising inflation.

For the analysis, WPI inflation has been considered as it focuses on the producer level and includes goods only. Moreover, wages of agricultural labourers have been analyzed (producer level). Since rural economy is predominantly agrarian, WPI will better capture the effect of inflation in the agricultural sector. Meanwhile, to lay emphasis on food grains, WPI – food grains have also been considered.

In Figure 6, growth in agricultural wages has shown a sharp decline in the face of rising inflation (as indicated by WPI). This indicates that the real agricultural wages have been on decline, thereby further cementing that inflation, especially in food prices, was primarily responsible for the increase in agricultural wages.

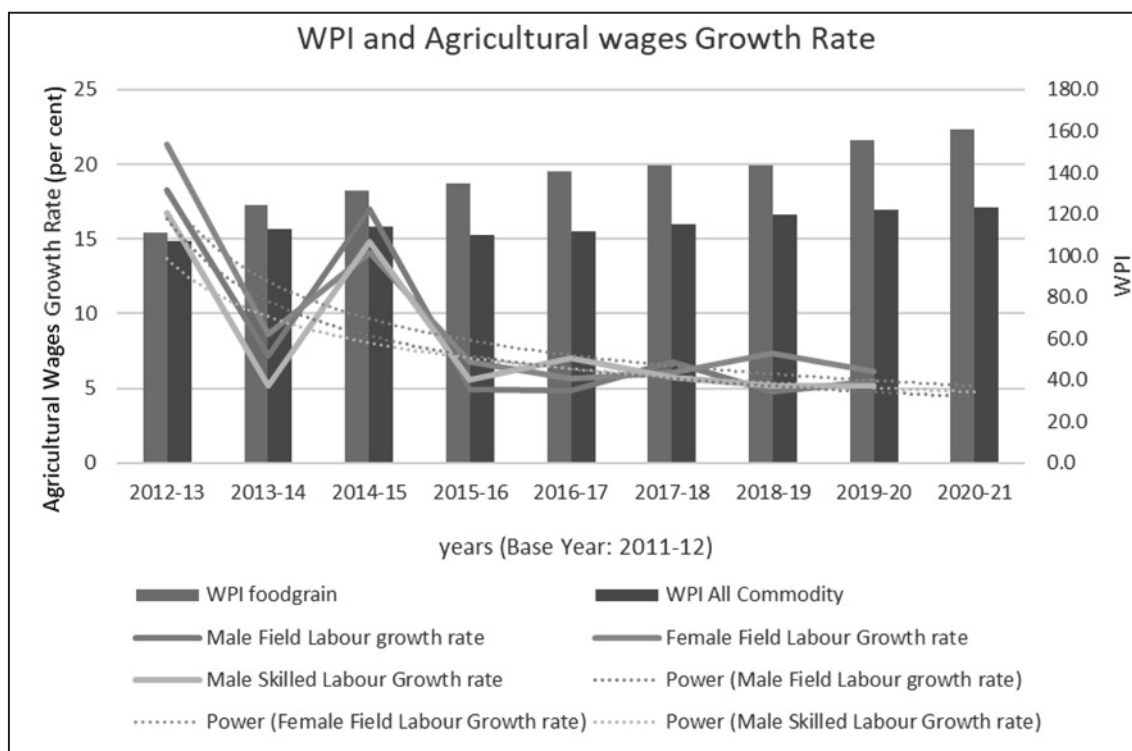


Figure 6: Wholesale Price Index and Agricultural Wages Growth Rate

(Source: Website of Directorate of Economics and Statistics Department of Agriculture and Farmers Welfare, Ministry of Agriculture and Farmers Welfare of Government of India
Wholesale Price Index: Annual Average, RBI Handbook of Statistics on Indian Economy)

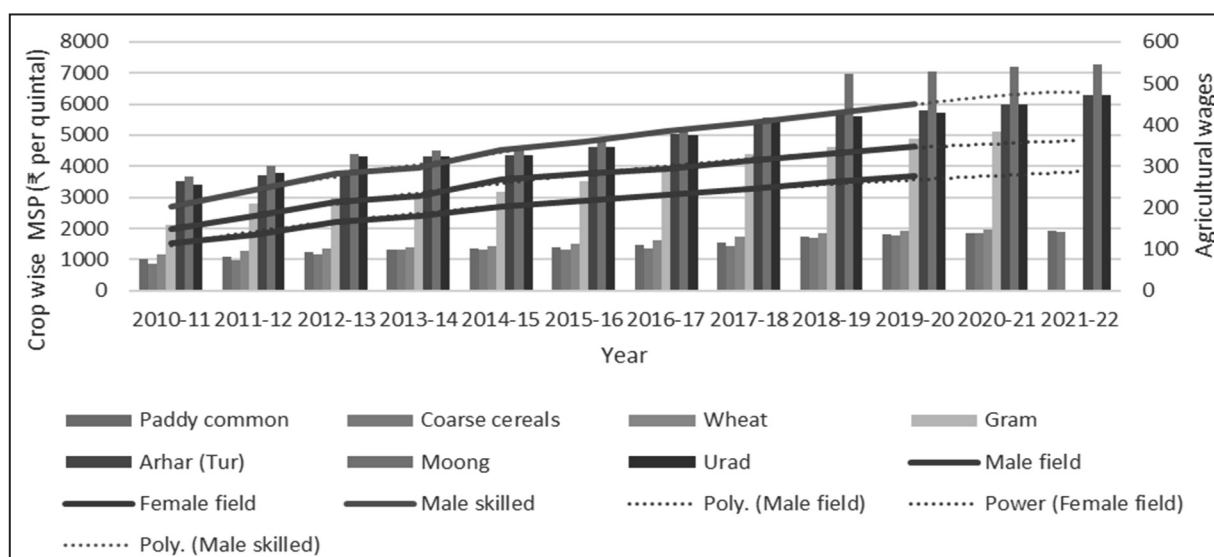


Figure 7: Crop-wise Minimum Selling Price (MSP) vs Agricultural Wages

(Source: Website of Directorate of Economics and Statistics Department of Agriculture and Farmers Welfare, Ministry of Agriculture and Farmers Welfare of Government of India
Minimum Support Price for Non-Food Grains According To Crop Year (Fair Average Quality),
RBI Handbook of Statistics on Indian Economy)

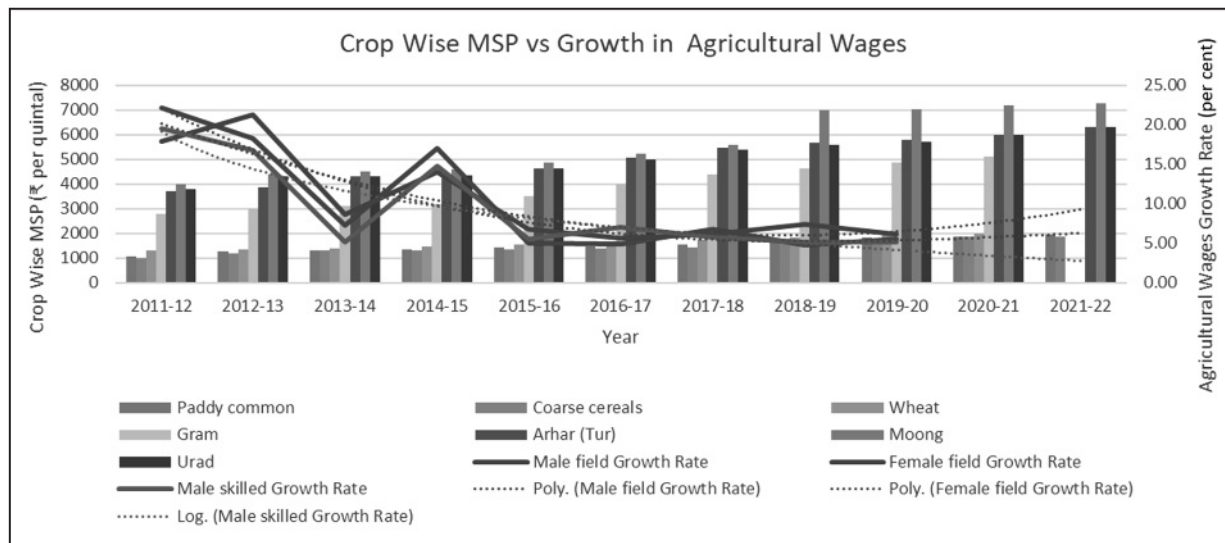


Figure 8: Crop-wise MSP vs Growth in Agricultural Wages

(Source: Website of Directorate of Economics and Statistics Department of Agriculture and Farmers Welfare, Ministry of Agriculture and Farmers Welfare of Government of India
Minimum Support Price for Non-Food Grains According to Crop Year (Fair Average Quality),
RBI Handbook of Statistics on Indian Economy)

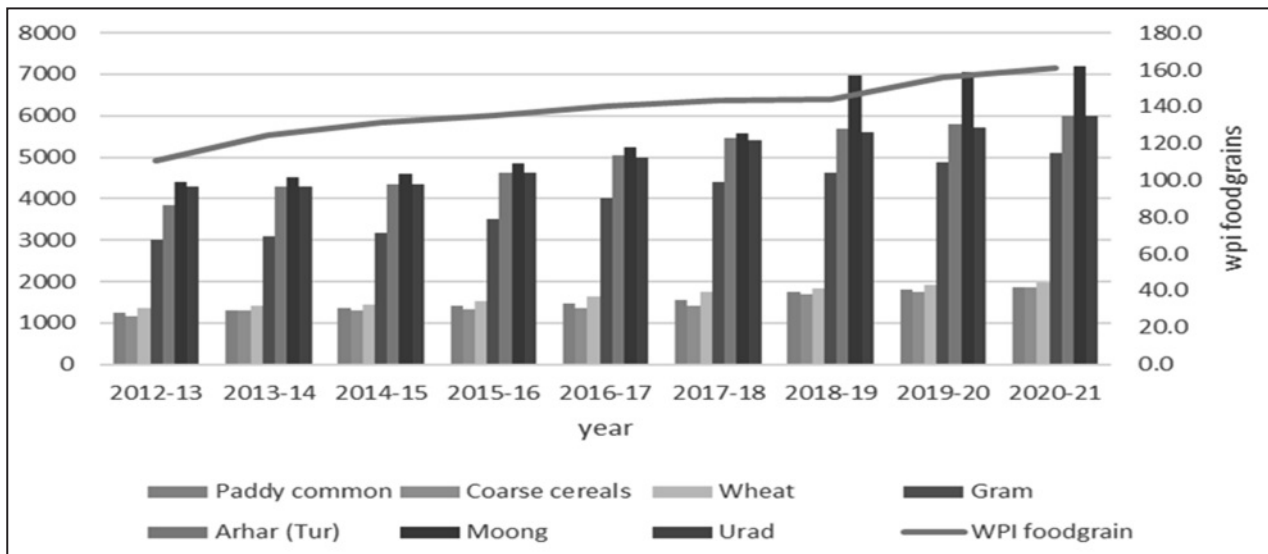


Figure 9: Crop-wise MSP vs WPI Food Grain (Base 2011-12)

(Source: Minimum Support Price for Non-Food Grains According to Crop Year (Fair Average Quality),
RBI Handbook of Statistics on Indian Economy Wholesale Price Index: Annual Average,
RBI Handbook of Statistics on Indian Economy)

Similarly, the rise in minimum support price for major crops is consistent with the increase in agricultural wages and inconsistent with rate of growth in agricultural wages. This again shows that agricultural wages for the period 2011-12 till 2019-2020 were largely driven by inflation. Moreover, the positive correlation between MSP and WPI food grains (shows an increasing trend) further confirms that inflation (especially in food prices) is the main driver of such an increase in agricultural wages. Government intervention in the form of MSP may have fuelled inflation in 2009-2014.

OTHER FINDINGS

The general level of demand in the rural economy in the last few years have been generally depressed due to a slew of policy decisions disproportionately affecting the rural sector. Results from regression analyses show nominal and real wages to be sticky, i.e., responding to prices with a lag.

The WPI data for primary food articles for 2019 has been negative for six consecutive months starting July 2018. Food subcomponent of CPI has also been negating for the months of October to December 2018. This means that food components are witnessing falling prices. However, the same disinflation has not been witnessed by non-agricultural economies. This caused asymmetry in inflation i.e., farmers receiving falling farmgate prices and rising non-farm prices causing a deterioration in terms of trade of agriculture.

Moreover, a slowdown in construction and manufacturing sector which had been major drivers of real wage growth in the previous period also caused agricultural wages to stagnate. The causes of increasing price levels in this period have been dominated by:

1. Increase in prices of diesel and regulated fuel at wholesale level. This has caused input costs for farmers to rise because diesel is a major input for irrigation pump sets.
2. Cost of fertilizer has increased causing rising input prices in agriculture that have further squeezed profitability.

3. Transmission of global prices that have increased post 2008 crisis.
4. Problem of food prices decoupling from production problem. This is because India has seen inflation in those food items that have not seen production constraints- for example, buffer stock prices of wheat and rice soared in recent times whereas India produces both these crops in plenty. Government policies have been a major culprit in keeping the prices of food commodities high. The government procured 34 MT of wheat in 2019 (procurement in 2018 was 36 MT) at record levels which it failed to release and distribute. Wheat prices increased causing demand for coarse grain to increase as wheat became expensive causing an overall 14 per cent increase in fodder prices.

The policy of the government itself has been skewed towards the urban consumer and withholds any increase in food inflation that might actually transmit into higher income for the farmers. Restrictions on exports distinguish between agricultural and manufactured goods, thereby reducing welfare in rural India. It usually results in tilting the terms of trade against agriculture. Hence, price sensitive wages have positive distributional effects for all classes in agriculture.

When all wages and prices are going up, it is the Central Bank that pumps in liquidity to sustain the spiral. Quantitative ease and infusion of monetary stimulus (or fiscal stimulus) would cause new investment. However, this flow of money into the economy is uneven and as different sectors receive new money, wages in those sectors rise causing wage earners to have more money in turn fuelling inflation. Wage growth is not a cause of inflation but a symptom of it. If inflation takes place due to rise in oil prices that are external to the economy, then it is unevenly transmitted to all other sectors and the long-term inflationary expectations kick in which the monetary policy must accommodate causing a long-run inflationary trend. In this case, it becomes difficult to target wage inflation as a standalone reason for causing the spiral.

In India, inflation is kept at a moderate to low level as long as there is a class of workers who absorb the increase in price shock by depressing their own wages.

The class of workers are none other than the agricultural workers. This is because even though the prices of manufactured goods might increase, their real wages barely rise proportionately (or rise with a lag) and an increase in prices in one sector is offset by a fall in prices in the other sector to meet the aim of targeted and stable monetary policy to keep inflation low.

LIMITATION OF THE STUDY

The study has proposed the determinants of rural wage rate for different categories of workers as fiscal deficit, inflation in food price and minimum support price. The study observed the trend of these variables along with that of rural wages. On the basis of pattern of such trends, the study concluded the relationship between wage rate and its determinants. Fiscal deficit and rural wage may show an upward trend but rise in fiscal deficit may not signify the fact that the government is giving higher wages to rural workers. It requires empirical analysis by focusing on correlation and regression. Along with empirical analysis, it requires an intuitive explanation of how rural wage is affected by these factors.

RECOMMENDATIONS

More agricultural investments would improve farming efficiency and higher realisation of wages. Suggestions have been made for synergy between MGNREGA and farming operations. MGNREGA work should focus on agricultural operations that perform farm-related work. The labourer would receive wages from MGNREGA funds and farmers. The wages of labourers would rise but there will not be a commensurate rise in burden for farmers. The productivity of the agricultural sector is overall sought to increase.

The Nutrient Based Subsidy scheme since 2010 has caused an increase in fertilizer prices to curb the indiscriminate use of fertilizers. The higher input costs for agriculture are a squeeze on farmers' income. Efforts like Kisan Credit Card scheme can help them in meeting liquidity constraints. However, lower agricultural input costs are bound to increase net income levels with lower WPI inflation.

Government intervention that smacks urban bias can be detrimental to the sector. When prices of agricultural commodity rise, measures like Essential Commodity Act, 1955, export bans et al. kick in that hinder farm price realisation. There are established welfare losses for farmers if they cannot export to international markets especially if international prices are high. The farmers, hence, suffer dually in periods of bumper production, when the market price crashes as also during times of relatively inelastic supply when they are forced to sell at lower prices. There is a policy bias against the sector.

There is a need for a more specific study analyzing whether rural wage is affected by inflation and other factors such as inflation, fiscal deficit, and minimum support price affects the rural wage.

CONCLUSION

There are certain considerations on the premise of which the study has been made. However, there is ample scope for further detailed analysis into the dynamics behind rural wages.

Though there is a complex interplay of factors determining rural wages, emphasis has been laid on MSP, MNREGA wages, gross fiscal deficit.

Supply constraints such as infrastructure bottlenecks also influence WPI due to supply chain bottlenecks in transport of food grains.

There is a further scope that could be finding the econometric relationship (time series analysis) between WPI inflation and rural wages controlling for other factors. (MNREGA, state, fiscal deficit, et al.)

For ease of calculation, for a particular year, simple average of state wise monthly agricultural wages of male field, female field and male skilled labourers have been considered.

For rural wages, emphasis has been laid on agricultural sector as it is the biggest contributor to the rural economy. Agricultural wages have thus been taken as representative of rural wages.

From the overall analysis of inflation for the period of study, unlike the 2007-13 phase, the increase in

nominal rural wages as observed in post 2014 phase, has been largely driven by inflation, especially food price inflation. The inflation in food price (shown through WPI – food grains) was most consistent with increasing nominal rural wages. Both nominal rural wages and food price inflation have significantly influenced each other. Thus, contrary to the consensus, the fiscal stimulus (represented by gross fiscal deficit) was not responsible for the inflationary trend in nominal rural wages. The growth in rural wages, declining since 2012, and persistently low post 2016 indicate a declining real rural wage. This further affirms the role of inflation in the high wages.

These consistently low real rural wages need to be addressed through an effective government policy. The persistent demand deflation must be dealt with at its earliest so that it does not give way to a vicious circle of low growth in the face of persistent inflation.

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- Gross Fiscal Deficit: RBI Handbook on Statistics on Indian Economy: Select Fiscal Indicators of the Central Government (as a percentage to GDP): Table 229
- WPI Data: RBI handbook on statistics on Indian Economy: Wholesale Price Index (Annual Average): Table 37
- MSP Food Grains: RBI handbook on statistics on Indian Economy: Minimum Support Price of Food Grains According to Crop Year (Fair Average Quality)



“

There is a need to research the viability of a mass shift to electricity, and overcome the challenges, to promote faster adoption of EVs in the Indian Economy.

”

Future of Electrified Mobility in India

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Savya Sureka

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ABSTRACT

‘Mainstream electric vehicles will transform the automotive industry and help decarbonize the planet’ - McKinsey & Company

Rapid urbanization has augmented the travel demands impacting air quality and increasing fuel bills. Thus, there is a potential need to develop appropriate business models to facilitate a robust Electric Vehicle (EV) ecosystem.

According to a report published by the International Council on Clean Transportation, simply extending the vehicle emissions and fuel-quality standards currently in place in the biggest vehicle markets throughout the rest of the world could reduce the number of premature deaths annually brought on by fine particle emissions by 75 per cent in 2030.

According to 'The Impact of Stringent Fuel and Vehicle Standards on Premature Mortality and Emissions', doing so would also have the additional benefit of reducing near-term climate impacts by reducing black carbon and other short-lived climate pollutants by the equivalent of 710 million metric tonnes of carbon dioxide annually.

KEYWORDS: Technology Disruption, Economic Sustainability, Renewable Energy, Electric Vehicles.

INTRODUCTION

Mobility has been one of the top five largest revenue-wise industries, comprising private and public transport that serves daily commuting needs; and commercial vehicles adding value to mobility in distribution and transportation worldwide. In such a scenario, EVs seem to be the next big development in the transportation sector to ensure sustainable development and play a vital role in the protection of the environment and the ecosystem.

These environmental concerns have driven the technology disruption in EVs. With the development of batteries and hydrogen fuel cells, the market for EVs has been growing in recent years due to their positive implications on the environment and the economy.

In India, the electric vehicle market has been slow, because of various viability factors such as unaffordability and lack of infrastructure. The battery consumption and high costs are the major problems resulting in lower adoption. Thus, there is a need to research the viability of a mass shift to electricity, and overcome the challenges, to promote faster adoption of EVs in the Indian economy.

RESEARCH METHODOLOGY

This research is exploratory and descriptive.

Sources: Primary (questionnaire) and Secondary Data.

Sampling Technique

A Convenience sampling method was adopted to draw the sample respondents for the research. It is a non-

probability sampling technique, where subjects are selected because of their accessibility and proximity to the researcher.

Secondary Data Source

Use of data from various reports published by APEC (Asia-Pacific Economic Cooperation), OPEC (Organization of Petroleum Exporting Countries), IEA (International Energy Agency) and Economic Times. Statistics and other publications by trusted consultancies such as PwC, McKinsey, Deloitte, KPMG and EY.

Method of Analysis

The data gathered was analyzed using descriptive statistics. Variables in a question have been presented as a percentage of total responses using charts and graphs, and conclusions have been drawn from them.

LITERATURE REVIEW

Satyendra Pratap Singh and Nitesh Sharma (2001)

The high cost of EVs is one of the numerous reasons why people do not buy them. The primary obstacles are a lack of charging infrastructure and reliance on imported batteries. The discovery of lithium deposits in Bangalore in 2020 has the potential to revolutionise the industry.

Dr. M. Robinson and P. Rajavignesh (2020)

Typically, it is found that proper campaigns and promotional activities can induce the sales volume of EVs throughout the world. This paper found that there is a growing trend in the demand for EVs and the stock of EVs is expected to increase exponentially in the coming future.

Anil Khurana and V. V. Ravi Kumar (2019)

In India, EV adoption is still in its early stages; people are unfamiliar with the technology and may be hesitant to adopt it. Government policy on EVs, and clearly articulated incentives for early adopters (both manufacturers and consumers), will play a crucial role in the transition.

OBJECTIVES OF THE STUDY

- To evaluate the consumer's perception about economic and environmental viability of EVs in the Indian ecosystem.
- To know the factors that impact the consumer's purchasing decision and shift towards EVs.
- To study the trends in sales of EVs over the last five years and its demographic distribution in India.
- To understand the government initiatives and how it would impact the future growth of EVs in India.

BASICS OF ELECTRIC VEHICLE

EVs are propelled by electric motors and uses electrical energy stored in batteries. The electrical energy for charging the vehicles must be produced from renewable sources of energy. Unlike vehicles with Internal Combustion Engines (ICE), EVs do not produce exhaust gases during operation.

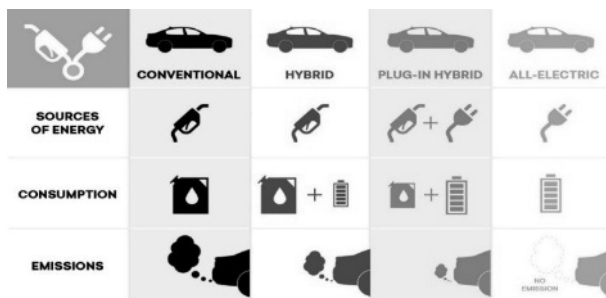


Figure 1: Types of EVs

(Source: <https://www.skoda-storyboard.com/en/emobility/types-of-electric-vehicles-do-you-know-them-all/>)

Working Principle of an EV

Key Advantages

- Environment-friendly
- Electricity is cheaper than gasoline
- Low maintenance

Key Challenges (EV-vs-Fuel-based car)

- High cost (INR13L vs INR5L)
- Lack of charging infrastructure and time taken to recharge (8-10 hrs vs 15 mins)
- Range anxiety (315 km vs 500 km)

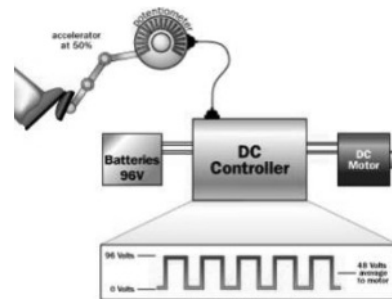


Figure 2: Working Principle of Electric vehicle

(Source: *International Journal of Mechanical Engineering and Technology*, Volume 9, Issue6 - Commercial Viability of Electric Vehicles in India, Article June 2018)



Figure 3: Merits-Demerits of EV

(Source: Website of Reviews, *The Best Buyers' Guide* – <https://reviews.com.np/article/electric-cars-advantages-and-disadvantages>)

GLOBAL DEMAND AND SUPPLY OF FUEL

Supply Side

Fuel (petrol/diesel) is produced from crude oil. It is a fossil fuel made up of the remains of ancient sea organisms like plants, algae, and bacteria.

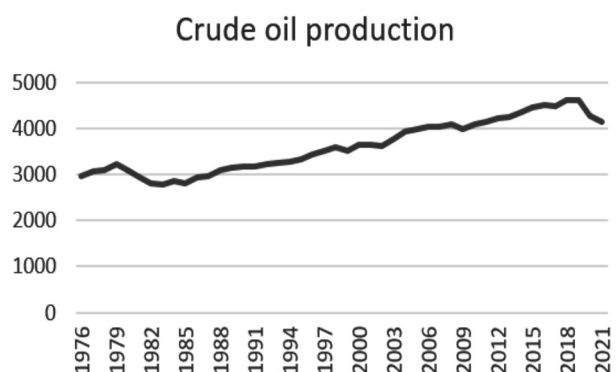


Figure 4: Supply of Oil (Period: 1976-2021)

(Source: IEA Report 2021)

As per the IEA report, the global oil supply has been on an increasing trend of 1-2 per cent-4500 Mtoe (million tonnes of oil) for a decade. In the face of COVID-19, world oil production suffered a significant drop of 7 per cent.

Oil Scarcity

As per the expectations of various organizations, the world is estimated to have no oil by 2050. It is evident from the rapidly increasing oil prices, that the country is suffering from a demand-supply mismatch of oil.

Today the world is suffering from an oil crisis due to the Russia-Ukraine war, as Russia is the world's second-highest exporter of crude oil. India imports more than 85 per cent of its total crude oil requirement.

Demand Side

The demand for crude oil has been increasing rapidly with growing economies. As per statistics, 70 per cent of total oil consumption in the world is used for transportation.

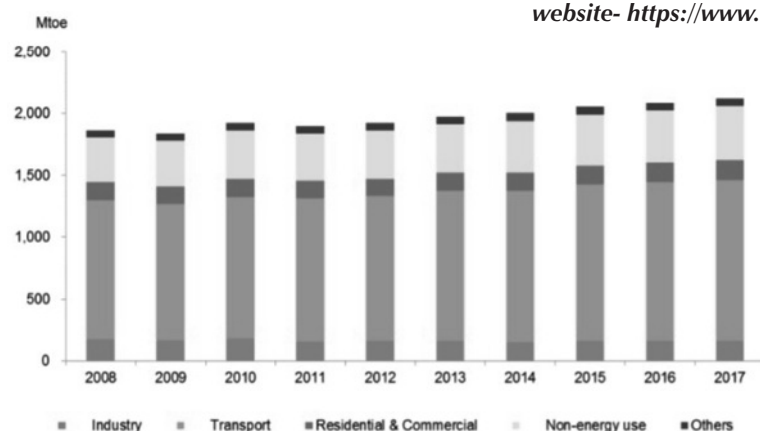


Figure 5: Demand for Oil (Period: 2008–2017)
(Source: APEC Oil Report 2020)

Electricity for Mobility

Renewable energy refers to energy that is collected from renewable sources such as sunlight, wind, rain, tides, that are naturally replenished on a human timescale. Benefits:

- Zero carbon emissions
- Sustainable and a fuel that never runs out
- Substantial cost savings in long term

Thus, renewable technologies are cost competitive with coal and gas. However, the initial investments on Capital Expenditure (Capex) are high, which acts as a disincentive towards the transformation.

GLOBAL SCENARIO OF EV ECONOMY

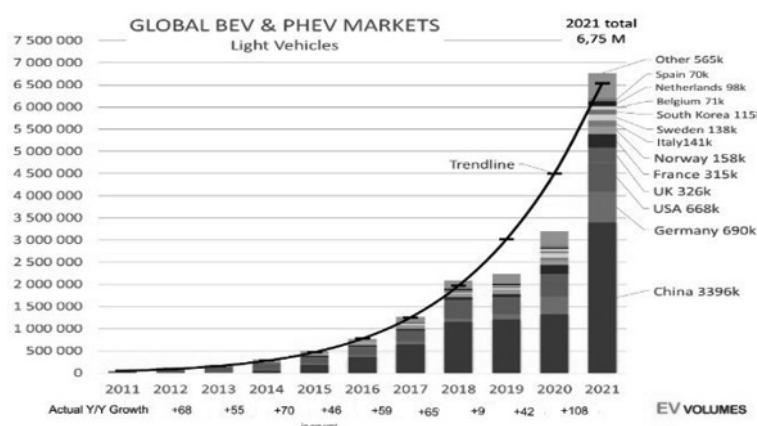


Figure 6: Global Scenario of EV Economy
(Source: Report on Global Sales, published by EV Volumes website- <https://www.ev-volumes.com/news/global-ev-sales-for-2018/>)

Observations

- The global EV sales are on an increasing trend. Substantial increase year-over-year (YoY) by at least 50 per cent.
- Less growth in 2019 (by 10 per cent) due to China's export restrictions, which were removed thereafter.
- Recovery post-COVID-Substantial growth in EV sales by 170 per cent.

PRIMARY DATA ANALYSIS

This survey was conducted on a population of 105 people using convenience sampling.

Most of the respondents pertain to the age group 18- 25 years, who are most exposed to emerging technology. A fair portion of both males and females is included.

Analysis of Global EV economy

The data shows the acceptance of the global economy towards this growing sector. However, the dependency

of global EV sales on China is extremely significant. Various countries, including India, are looking forward to reducing such dependency by manufacturing EVs.

What is your gender
105 responses



Figure 7: Gender Classification
(Source: Primary Data)

Period: 2011-2021

What is your occupation
105 responses

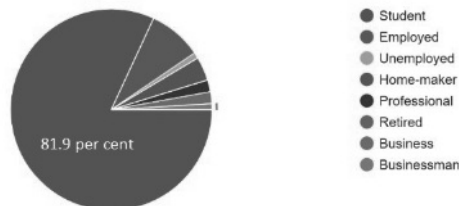


Figure 8: Occupation Classification
(Source: Primary Data)

A diversified occupation helps to improve the validity of the research conclusion.

Do you own or have travelled via any electric vehicle?
105 responses



Figure 9: Whether Respondents Have Travelled via any EV
(Source: Primary Data)

Preference Analysis

Figure 10 shows that with the exponential development in this field, it seems likely that EVs can become a part of normal life and fuel-driven vehicles can become a thing of the past.

Do you think electric cars are economically suitable for normal life? (No.1 being least likely and moving up the scale to No.5 which indicates being most likely)

105 responses

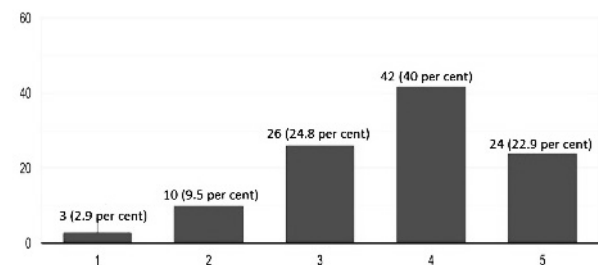


Figure 10: Whether Respondents Believe that EVs are Economically Suitable for a Normal Life?
(Source: Primary Data)

Despite challenges regarding the viability of EVs, technological growth can make them economically viable.

Figure 11 shows that given the conclusion that EVs in the long run will be economically viable for normal use, it is very likely that people will prefer to buy such products.

Are you contemplating to buy Electric vehicle in the future? (No.1 being least likely and moving up the scale to No.5 which indicates being most likely)

105 responses

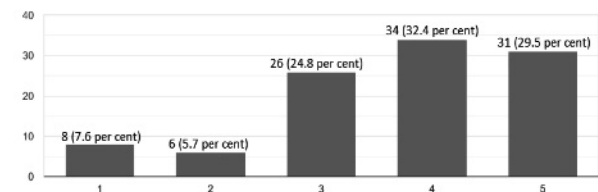


Figure 11: Whether Respondents are Contemplating to Buy an EV in the future?
(Source: Primary Data)

Feature Analysis

Figure 12 shows that time taken to recharge is the most important factor considered while evaluating the purchase of EVs. The most sceptical area about EVs revolves around batteries, their performance, sustainability, and recharging facilities.

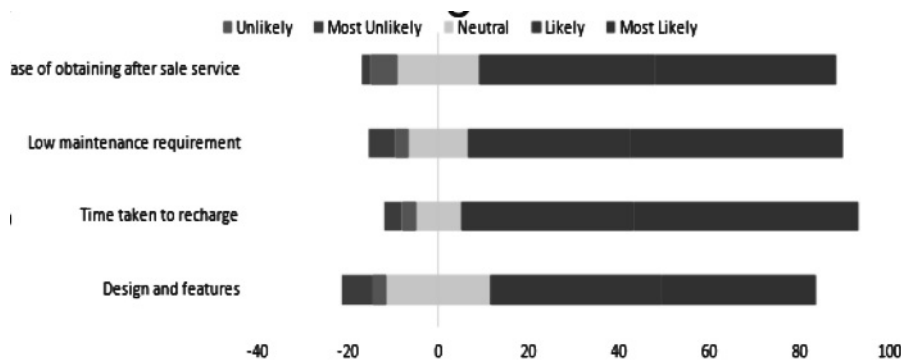


Figure 12: Factors Impacting Purchasing Decision
(Source: Primary Data)

The above figures show that young adults inclined towards sustainable development believe that EVs can be used as a part of renewable energy sources.

As per the Automotive World article (March 21), Volkswagen group (one of the biggest and most exclusive vehicle manufacturing groups across the world) has tied up with BP to work on speeding up the development of ultra-fast EV charging facilities across Europe. This development is much needed in India as well.

Although not an important factor, design and features would impact the purchase decision, as a car is to date considered a necessity in a growing country like India.

Environmental Analysis

To what extent would the feature of being eco-friendly electric vehicle impact your purchasing decision (No.1 being least likely and moving up the scale to No.5 which indicates being most likely)
105 responses

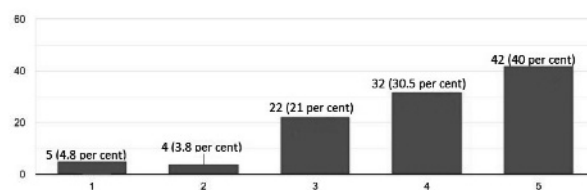


Figure 13: The Extent to which the Feature of being Eco-friendly Impacts Purchasing Decision
(Source: Primary Data)

The prime reason for research on EVs is because of their eco-friendliness in comparison to fuel-driven cars.

John Mitchell, a partner at Blue Horizon Capital stated 'In several countries, people will no longer be allowed to purchase ICE vehicles within a short decade and global auto-makers have realized that the transition to electrified vehicle is the only way to compete'.

Do you think electric cars can be used as a part of renewable energy sources? (No.1 being least likely and moving up the scale to No.5 which indicates being most likely)
105 responses

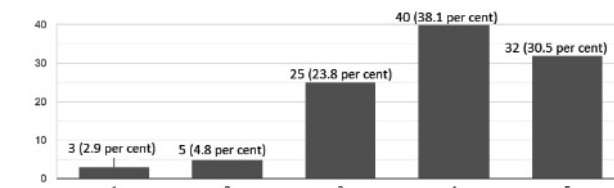


Figure 14: Can Electric Cars be Used as a Part of Renewable Energy Sources?
(Source: Primary Data)

Do you think it would be technologically and therefore economically viable for electric vehicles to be the new normal in the future? (No.1 being least ...he scale to No.5 which indicates being most likely)
105 responses

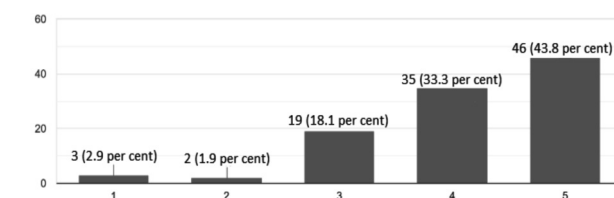


Figure 15: Will EVs be Technologically and Economically Viable for New Normal in the Future?
(Source: Primary Data)

If technological development takes place which enables EVs to generate energy while they are being driven, it will lead to a huge benefit for society in the form of -

- conservation of the environment
- An exponential rise in demand.

CURRENT INDIAN SCENARIO

India has the world's worst air quality, according to the World Health Organization (WHO). Even amid the COVID-19 crisis with national and state lockdowns in 2020, India accounted for 36 of the 50 cities with bad air quality.

The rise in private automobiles, particularly those with ICE, has exacerbated the degradation of air quality. Due to the development of ICE car stock, India has surpassed China as the world's third-largest oil consumer and emitter of greenhouse gases (GHG).

Furthermore, ICE vehicle emissions are responsible for roughly two-thirds of all deaths in India. Today, every 11 in 100 in India's capital are facing breathing disorders.

States	2021	2020	2019	2018	2017
Uttar Pradesh	66,704	31,878	40,627	37,273	17,943
Karnataka	33,302	12,261	15,626	14,336	6,901
Tamil Nadu	30,036	6,989	8,907	8,171	3,934
Maharashtra	29,860	7,356	9,375	8,601	4,141
Delhi	25,809	6,130	7,813	7,168	3,451
Rajasthan	23,454	5,517	7,032	6,451	3,106
Bihar	23,081	11,770	15,001	13,762	6,625
Telangana	17,839	6,130	7,813	7,168	3,451
Assam	15,635	8,582	10,938	10,035	4,831
Gujarat	9,778	2,452	3,125	2,867	1,380
Others	53,692	23,541	30,001	27,525	13,250
Total	329,190	122,607	156,256	143,358	69,012

Table1: EVs Sold Each Year in India- State-wise and Year-wise
(Source: Economic Times-Auto)

Period: 2017 – 2021

States	2W	3W(L3)	3W(L5)	4W	e-Bus	Others	Total
Uttar Pradesh	6,286	59,705	418	79	192	24	66,704
Karnataka	29,617	358	1,782	1,485	27	33	33,302
Tamil Nadu	23,940	3,398	865	950	-	883	30,036
Maharashtra	23,622	1,572	368	3,743	552	3	29,860
Delhi	7,565	14,954	1,288	1,952	31	19	25,809
Rajasthan	13,953	8,846	91	552	-	12	23,454
Bihar	2,788	20,011	194	61	26	1	23,081
Telangana	14,448	63	1,516	1,812	-	-	17,839
Assam	378	15,204	45	7	-	1	15,635
Gujarat	7,887	246	507	857	216	65	9,778
Others	27,228	21,979	1,615	2,720	127	23	53,692
Total	157,712	146,336	8,689	14,218	1,171	1,064	329,190

Table 2: Category-wise EV Sales in India
Source: Economics Times-Auto

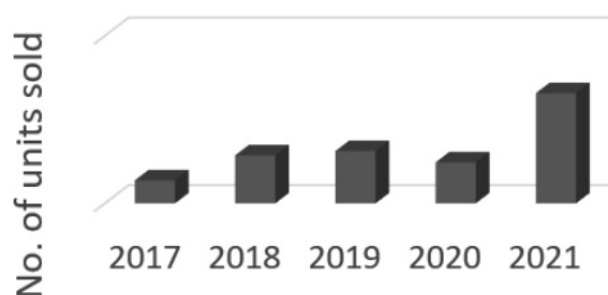
Period- 2021**YoY Sales Analysis**

Figure 16: Year-on-Year Sales Growth of EV in India
(Source: Derived from Table 1)
Period: 5 years (2017-2021)

The year-on-year trend is in line with the global EV sales trend. There has been substantial growth, however, 2019 was a setback due to import restrictions on lithium-ion batteries from China. Also, 2020 was impacted by the pandemic. However, the following year (2021) has covered up for the pandemic-affected year.

State-wise Sales Contribution

Uttar Pradesh is the largest contributor of EVs because of the proactiveness of the government towards incentivizing EV sales, especially on three-wheeled vehicles, with a subsidy of ₹ 30,000 per bike, as compared to ₹ 15,000 provided by the central government.

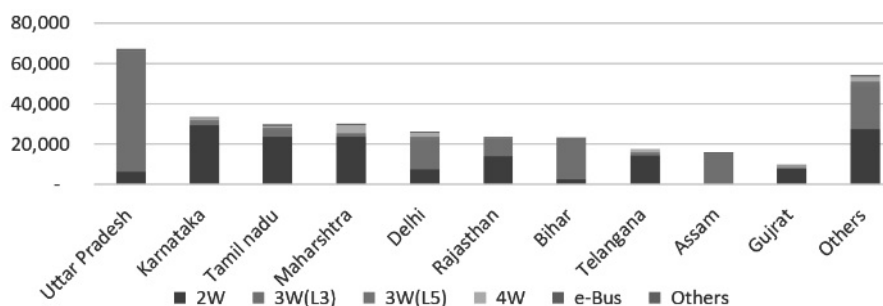


Figure 17: State-wise Sales Contribution in India for 2021
(Source: Derived from Table 1)

Vehicle Category-wise Distribution

In India, the two-wheeled category is a major contributor due to its availability at competitive prices with fuel-based vehicles. Major players- TVS Motors, and Hero electric.

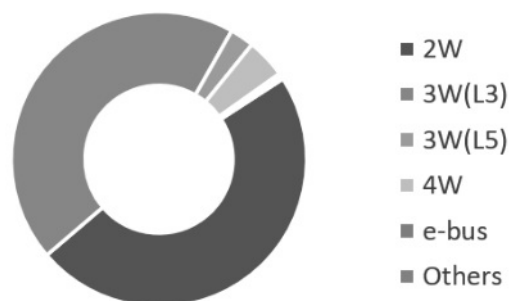


Figure 18: Vehicle Category-wise Distribution
(Source: Derived from Table 2)

Also, three-wheeled vehicles sales have been high due to government intervention with the deployment in the public sector for use in garbage disposal, vaccine and food distribution, public autos. Recently, the Central Government has floated 30,000 million for acquisition of 1,00,000 three-wheelers in July 2021.

INITIATIVES IN EV SECTOR BY INDIAN GOVERNMENT

The central ministry has set a goal of switching from ICE vehicles to 100 per cent plug-in EV by 2030. The Indian government also intends to make the country a global hub for EV production.

Under India's umbrella policy, FAME I: 'Faster Adoption and Manufacturing of Hybrid and EVs' government subsidised the adoption of 278,000 EVs, costing 3430 million.

In 2019, FAME II was designed with demand-side incentives in mind, with 86 per cent of cash going to consumer incentives for EV purchases and 10 per cent to charging infrastructure.

Around 20 Indian states have produced EV policies, with the purpose of hastening India's move away from ICE automobiles. Each state's policy will have different objectives, common among them include-

- addressing air quality issues,
- assisting in climate change mitigation,
- reducing dependency on oil imports, and
- promoting development of EV industry

IMPACT OF BUDGET 2022 ON EV SECTOR

The future of mobility in India over the next decade is going to be defined by the electrification of personal, public, and commercial transport. The sales trend indicates a five times growth of EVs in India.

Before the budget of the financial year 2023, government policies like FAME and the 'Production-Linked Incentive Scheme (PLI)' were created to incentivize Original Equipment Manufacturers (OEMs) to produce EVs. The government has rightly identified the support charging infrastructure as a bottleneck for increased adoption of EVs in India.

Considering this, the Union Budget for 2022-23 reaffirmed the need of promoting EVs as a mode of transportation in India. In addition to existing financial incentives, the Finance Minister, Nirmala Sitharaman announced plans to implement the following:

- Battery-swapping policy and formalize interoperability standards (259,380 million)

This shall reduce the problem of time taken to recharge a battery and inclusion of energy storage devices in the standardised list of infrastructure will make obtaining credit easier and lower the cost of financing for EVs.

As per ICRA Report, India currently has less than 2000 charging stations with a concentration in a few states, primarily in urban areas.

- Increase the push for EVs to be used in public transportation.
- Establish dedicated mobility zones for EV.
- Customs charges on -

* Nickel ore reduced to 0. NMC (Nickel Manganese Cobalt) is a key component of lithium-ion batteries, which are primarily imported.

- * Motor parts reduced by 2.5 per cent will aid in the cost reduction of EVs.

The decreased customs tariff will assist domestic EV battery manufacturers in lowering production costs.

These policies have been implemented in other countries to promote EVs, such as China and Europe.

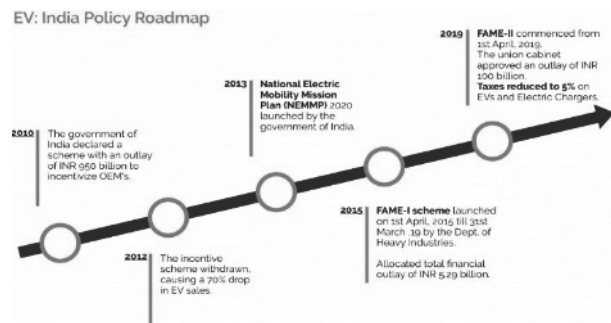


Figure 19: India-EV Policy Roadmap
(Source: Report by JMK Research & Analytics,
EV Central Policy: Tracing key milestones)

CONCLUSION

In India, there is a need for energy transition in automobiles due to the depletion of fossil resources and the steady rise in fuel prices.

Our primary research concludes that Indians are aware of global climate change and are eager to convert to environmentally efficient vehicles. When it comes to purchasing an EV, price is a major consideration. If sufficient infrastructure is available, respondents are willing to accept EVs as a future buying option. The initial cost of purchasing, the limited number of charging stations, and the time it takes to replenish the battery are all factors that limit consumer confidence.

Taking the economy into consideration as well, EVs will generate economic benefits in terms of employment generation, reduction of dependency on foreign countries for supply of oil and increase in carbon credit available. EVs are being introduced in India by several new brands. Governments and manufacturers should work together to construct the infrastructure and create a favourable climate for EVs.

Thus, it can be concluded that EVs will have a positive

impact on the environment in terms of an increase in the usage of renewable sources of energy in the future along with generating positive outcomes for the economy.

RECOMMENDATIONS

Green License Plates

Indicate environmental awareness and financial incentives like free or discounted tolls, parking.

Incentivising for Charging Stations

State and local governments must be rewarded for constructing public charging stations.

Reducing Taxation on the Import of EVs

To enhance consumer knowledge, taxes on EV imports can be reduced for a few years.

Increased Spending towards Technological Advancement

Even though EVs promote a renewable energy source, they are not completely environment-friendly. Hence, more spending shall lead to the increased use case of the technology.

Integrated Government Body for EVs

To create India's EV ecosystem, an integrated government organization is required.

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“

With his Midas touch, his investment in companies has turned into gold for him over the years.

”

Mapping the Portfolio of Rakesh Jhunjhunwala

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ABSTRACT

This paper is an analysis of Mr. Rakesh Jhunjhunwala's career as an investor. Firstly, his investing strategy is analyzed by looking into his past investments. Secondly, his impact on the stock price is analyzed after he executes a bulk or block deal and its effect on other retail investors. Lastly, his overall portfolio return is determined for the year 2021 and a comparative analysis is done between the returns generated by his portfolio and those by Nifty 50.

Born on 5th July 1960, in Mumbai, Mr. Rakesh Jhunjhunwala is one of the most prominent investors in the Indian stock market. With his Midas touch,

his investment in companies has turned into gold for him over the years. He initiated his journey in Dalal Street in 1985 with 5,000, with his portfolio being worth more than 350,000 million as of December 31st, 2021. Such magnanimous success in the stock market has earned him the title of 'Warren Buffett of India' and 'Big Bull'.

His first big investment breakthrough was Tata Tea where he bought 5,000 shares for ₹ 43 per share which soared to ₹ 143 per share within a span of just three months generating thrice his initial investment. The most prized investment in his portfolio as of now is Titan Company Ltd. valued at 114,400 million.

In 2003, both he and his wife opened a private asset management firm called Rare Enterprises.

This study is dedicated to analyzing the portfolio of Mr. Jhunjhunwala and his associates, which includes the investments of his wife as well as his firm Rare Enterprises, observing his investing strategy, his portfolio's performance as well as his effect on the stock market regarding his investment decisions.

KEYWORDS: Value Investing, Pareto Principle, Bulk and Block Deals, Time-Weighted Rate of Return.

LITERATURE REVIEW

- 'Time and the Payoff to Value Investing', Roland Rousseau and Paul van Rensburg, *Journal of Asset Management* (2004). The research paper proves that the returns generated through value investing keep on increasing and become consistent with the increase in the holding period.
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- 'What's Hidden Behind Bulk Deals? A Study on Indian Stock Market', Vivek Rajvanshi, Samit Paul, *Managerial Finance*, Vol. 48 No. 4, pp. 557-576 (2022). The paper tries to portray the price

manipulation caused due to bulk deals in the NSE from 2010 to 2019.

- 'Returns on Financial Instruments: Time Versus Money-Weighted Returns Estimating', Mark Tippet, *Journal of Business Finance & Accounting*, Volume 21, Issue 5 (1994). The paper deals with the issue of the determination of returns when there is insufficient data about an instrument's cash flows. Two methods of return are analyzed: the money-weighted return and the time-weighted return.
- 'How Profitable is the Indian Stock Market?', P.K. Narayan, H.A. Ahmed, S.S. Sharma, K.P. Prabheesh, *Pacific-Basin Finance Journal*, Volume 30, (2014). In this paper, using technical strategies, the profitability of the stock market in India is ascertained.

OBJECTIVES

- To analyze the investing strategy of Mr. Rakesh Jhunjhunwala.
- To observe the impact of Mr. Jhunjhunwala on the market price of a stock pre and post-transaction.
- To make a comparative analysis of his portfolio against a benchmark index.

RESEARCH METHODOLOGY

The study is conducted and purely based on secondary sources of data. For analyzing the investing strategy of Mr. Rakesh Jhunjhunwala, news articles and research blogs were examined.

To interpret the effect on the stock price due to him, bulk and block deals were taken up along with the historical data of the stocks against which the deals were executed by him. The magnitude of intraday change in the price of the stock on the day of the deal was ascertained by calculating the percentage change between the intraday high or low and the opening price. The candlestick chart of each stock has been used for better visualization of the effect of the transaction. The daily return and volume percentage has also been calculated to analyze the growth or fall in the stock value.

Lastly, in order to calculate his portfolio return for 2021, the time-weighted return formula was used. The formula is used since the exact date of the transaction with respect to the stocks in his portfolio cannot be ascertained. Therefore, it is assumed that for a given quarter, all the changes in his portfolio have taken place in the middle of the quarter in which it was reported. When the percentage holding in a company fell below 1 per cent, it was assumed that the entire stock was sold off. To calculate the price at which a particular stock was bought or sold, the average of the adjusted closing price of the stock for the respective quarter was taken. The formula for calculating the time-weighted rate of return is given below:

$$TWR = [(1 + HP_1) \times (1 + HP_2) \times (1 + HP_3) \times \dots \times (1 + HP_n)] - 1$$

Here:

n = Total Number of Time Intervals

HP = [End Value – (Initial Value + Cash Flow)] / (Initial Value + Cash Flow)

His portfolio return has been divided into the following time intervals for calculation:

- 1) 1st January 2021 – 15th February 2021
- 2) 15th February 2021 – 14th May 2021
- 3) 14th May 2021 – 13th August 2021
- 4) 13th August 2021 – 15th November 2021
- 5) 15th November 2021 – 31st December 2021

Company Name	1st Jan 2021 Value	15th Feb 2021 Value	14th May 2021 Value	13th Aug 2021 Value	15th Nov 2021 Value	31st Dec 2021 Value
Titan Company Ltd	73,74,70,94,498.00	69,86,96,40,764.00	65,21,28,21,798.90	78,38,82,17,763	1,09,95,84,83,218	1,14,14,10,46,728.00
Tata Motors Ltd	7,35,40,00,000.00	13,33,40,00,000.00	13,34,86,87,500.00	11,59,86,87,500	18,57,52,87,500	18,93,42,00,000.00
Escorts Ltd	8,04,96,64,000.00	8,92,33,28,000.00	7,43,11,04,000.00	8,14,33,60,000	10,49,92,00,000	12,21,56,80,000.00
Crisil Ltd	7,51,24,71,750.00	7,90,04,71,500.00	7,51,38,23,250.00	10,08,27,86,250	12,79,63,59,750	11,53,78,00,000.00
Fortis Healthcare Ltd	4,65,60,00,000.00	4,90,35,00,000.00	7,22,12,17,500.00	7,69,80,75,000	8,83,09,80,000	9,49,87,35,000.00
Lupin Ltd	7,03,85,98,065.15	7,62,73,03,471.40	8,49,11,96,955.55	7,07,78,69,244	-	-
Delta Corp Ltd	3,19,50,00,000.00	3,05,28,00,000.00	2,95,44,00,000.00	3,52,20,00,000	6,08,10,00,000	5,18,40,00,000.00
Indian Hotels Company Ltd	2,99,51,97,600.00	3,29,05,65,700.00	2,81,43,75,300.00	3,55,76,72,500	5,40,84,12,500	5,16,34,78,923.75
NCC Ltd	4,47,43,96,153.92	6,60,11,44,325.82	6,08,88,44,766.18	6,53,29,94,384	6,40,37,44,496	5,51,07,45,263.10
Federal Bank Ltd	3,12,41,45,329.60	3,99,11,23,991.20	3,73,09,35,950.60	4,66,77,06,418	7,53,80,31,523	6,28,48,47,980.00
VIP Industries Ltd	2,73,38,95,800.00	2,87,41,53,280.00	1,09,75,71,020.00	-	-	-
Rallis India Ltd	5,33,28,46,658.60	5,03,41,85,623.20	5,88,55,72,285.20	5,67,01,19,334	5,05,50,11,632	5,22,47,19,680.00
Jubilant Pharmova Ltd	5,83,37,43,608.00	7,86,44,19,640.00	8,16,33,94,200.00	6,47,69,28,000	6,17,93,34,000	5,87,77,32,000.00
Tata Communications Ltd	3,48,51,32,053.69	3,14,90,27,911.82	3,16,45,82,300.63	4,20,98,92,677	3,74,00,35,392	4,50,41,89,827.15
GMR Infrastructure Ltd	2,25,25,00,000.00	2,17,17,50,000.00	-	-	-	-
Aptech Ltd	1,50,90,15,858.80	2,26,39,58,886.00	2,07,54,16,506.00	2,48,87,59,416	3,57,69,87,358	3,94,48,86,720.00
Multi Commodity Exchange of India Ltd	3,39,62,60,000.00	3,01,40,00,000.00	3,72,24,75,000.00	3,68,66,75,000	-	-
TV18 Broadcast Ltd	1,33,05,54,000.00	1,28,96,47,000.00	1,60,86,16,000.00	1,30,90,00,000	1,57,32,50,000	1,12,12,50,000.00
Karur Vysya Bank Ltd	1,62,96,93,439.64	1,92,54,77,941.16	1,98,05,32,720.64	1,59,04,71,407	2,05,10,60,412	1,63,90,49,153.80
Agro Tech Food Ltd	1,75,15,06,877.89	1,72,15,24,352.24	1,92,44,70,823.53	2,00,89,68,288	1,98,15,23,640	1,98,34,26,735.90
Va Tech Wabag Ltd	1,03,20,00,000.00	1,21,87,50,000.00	1,29,70,00,000.00	1,76,90,00,000	1,65,52,50,000	1,54,75,00,000.00
ION Exchange (India) Ltd	69,95,92,500.00	92,57,68,500.00	-	-	-	-
Geojit Financial Services Ltd	98,05,18,500.00	99,00,78,375.00	1,17,91,11,375.00	1,48,80,93,750	1,40,78,26,875	1,35,73,21,875.00
Firstsource Solutions Ltd	86,23,80,000.00	83,48,40,000.00	-	-	-	-
Wockhardt Ltd	1,36,63,77,732.75	1,23,31,27,466.25	1,58,45,03,169.00	1,28,02,52,561	1,16,38,77,328	1,03,21,27,064.25
Dishman Carbogen Amcis Ltd	69,40,00,000.00	61,62,50,000.00	83,67,50,000.00	1,03,12,50,000	1,09,55,00,000	1,00,77,50,000.00
Anant Raj Ltd	27,06,00,000.00	41,84,00,000.00	50,17,00,000.00	62,60,00,000	69,30,00,000	77,35,00,000.00
Edelweiss Financial Services Ltd	74,74,88,750.00	74,03,68,750.00	67,11,71,250.00	1,26,55,08,750	1,20,92,43,750	1,08,90,00,000.00
Indiabulls Real Estate Ltd	41,10,00,000.00	40,62,50,000.00	-	-	93,47,50,000	78,85,00,000.00
D B Realty Ltd	7,12,50,000.00	9,12,50,000.00	9,97,50,000.00	11,65,00,000	23,17,50,000	23,30,00,000.00
TARC Ltd	22,65,00,000.00	32,15,00,000.00	26,50,00,000.00	40,90,00,000	22,55,94,750	-
Orient Cement Ltd	21,10,25,000.00	23,14,50,000.00	28,92,75,000.00	40,11,25,000	42,47,75,000	39,70,25,000.00
Man Infraconstruction Ltd	6,56,70,000.00	7,09,80,000.00	7,95,60,000.00	13,32,30,000	26,12,10,000	45,78,75,000.00
Prakash Industries Ltd	13,75,00,000.00	12,42,50,000.00	22,31,25,000.00	18,62,50,000	16,66,25,000	-
Bilcare Ltd	8,70,09,633.75	11,78,77,575.00	10,92,86,497.50	16,11,32,651	15,94,34,415	16,64,27,152.50
Autoline Industries Ltd	6,19,06,086.55	5,38,50,414.75	5,98,92,168.60	10,40,23,240	11,83,83,351	9,85,06,856.25
Prozone Intu Properties Ltd	6,28,42,500.00	6,34,72,500.00	6,42,60,000.00	9,90,67,500	8,89,87,500	11,46,60,000.00
Prakash Pipes Ltd	3,60,53,125.00	3,62,84,375.00	4,12,03,125.00	5,10,21,875	4,94,53,125	-
The Mandhana Retail Ventures Ltd	3,36,18,624.30	3,31,96,633.20	3,26,33,978.40	5,04,98,268	2,71,54,485	-
Nazara Technologies Ltd	-	-	5,50,21,56,562.00	5,53,32,87,792	7,68,90,84,256	7,54,10,05,021.00
Jubilant Ingrevia Ltd	-	-	4,23,16,46,400.00	7,17,67,24,800	5,62,60,58,244	4,29,55,74,400.00
SAIL Ltd	-	-	-	7,33,81,50,000	8,37,01,25,000	4,82,40,00,000.00
Indiabulls Housing Finance Ltd	-	-	-	2,49,65,00,000	1,13,22,50,000	1,09,00,00,000.00
Canara Bank	-	-	-	-	6,62,25,68,240	5,81,80,25,130.00
National Aluminium Company Ltd	-	-	-	-	2,38,27,50,000	2,46,22,50,000.00
Star Health Ltd	-	-	-	-	-	79,35,88,36,902.75
Metro Brands Ltd	-	-	-	-	-	17,94,01,79,520.00
Total	1,59,45,90,48,145.64	1,69,32,99,66,976.04	1,71,49,80,62,402.73	2,00,42,67,99,369.00	2,51,98,43,52,738.02	3,45,15,88,51,933.45

**Figure 1: Mr. Jhunjhunwala and Associate's Portfolio for the Year 2021
Which was Used for Comparative Analysis against Nifty 50.
(Source: Yahoo Finance)**

Data

In order to analyze his investing strategy, the following stocks were taken from his portfolio:

- Titan Company Limited
- Lupin Limited
- Crisil Limited

The three above-mentioned stocks had one of the highest holding values in his portfolio and thus were taken up for this objective.

For the second objective, the following bulk or block deals of companies executed by him were selected:

- Intellect Design Arena Ltd. (INTELLECT.NS)
- Delta Corp Ltd. (DELTACORP.NS)
- Dish TV India Ltd. (DISHTV.NS)
- Tata Communications Ltd. (TATACOMM.BO)
- Yes Bank Ltd. (YESBANK.BO)
- Indiabulls Real Estate Ltd. (IBREALEST.NS)
- Ion Exchange (India) Ltd. (IONEXCHANG.BO)
- Tata Steel Ltd. (TATASTEEL.NS)
- Jubilant Pharmova Ltd. (JUBLPHARMA.NS)
- Zee Entertainment Enterprises Ltd. (ZEEL.NS)

ANALYSIS AND RESULTS

1) Investing Strategy

a) Titan Company Ltd.

Titan Company Ltd. is a company specializing in selling luxury products like jewellery, perfume, and eyewear. Mr. Jhunjhunwala in 2002-03 invested in the company by purchasing 60 million shares at ₹ 3 per share. Titan's persistent revenue growth over more than a decade, high return on equity (ROE) of 30 per cent and the everlasting prospect of jewellery in India made it a promising investment for him at that time. Since then, he had been tweaking his stake in the company with it currently being over 45 million shares as of 31st December, 2021 priced at 2,522.40 per share. The total worth of his stake is over 1,144,000 million.

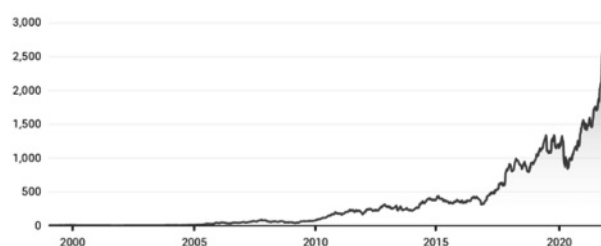


Figure 3: Growth of Titan Company Ltd.
(Source: Google Finance)

Company Name	15th Feb 2021		14th May 2021		13th August 2021		15th November 2021	
	Difference	Value	Difference	Value	Difference	Value	Difference	Value
Titan Company Ltd	-22,70,000	-3,37,90,01,946.81	22,50,000	-3,55,55,62,680.26	6,50,000	1,21,77,53,441.91	19,50,000	4,66,61,98,328.78
Tata Motors Ltd	27,50,000	80,52,20,284.18	50,00,000	1,59,58,68,852.95	10,00,000	-30,39,48,414.60	25,00,000	1,18,13,07,543.73
Crisil Ltd	-	-	-	-	-	-	25,000	7,46,95,224.82
Fortis Healthcare Ltd	25,50,000	44,19,52,622.20	-	-	-6,00,000	-15,52,80,952.24	-	-
Lupin Ltd	-	-	-	-	72,45,605	-7,54,87,37,729.56	-	-
Indian Hotels Company Ltd	-	-	-	-	-	-	35,56,965	70,69,29,808.28
NCC Ltd	-	-	-	-	-	-	-	-
Federal Bank Ltd	-	-	75,00,000	60,89,47,550.16	2,10,00,000	1,76,74,00,006.67	-	-
VIP Industries Ltd	-42,27,000	-1,56,70,32,051.60	-32,73,400	-1,17,68,57,060.34	-	-	-	-
Rallis India Ltd	-	-	-	-	-2,37,500	-7,15,78,918.65	-	-
Jubilant Pharmova Ltd	7,49,200	55,96,24,473.98	-	-	-	-	-	-
Tata Communications Ltd	-2,50,000	-27,14,06,542.42	-	-	1,25,000	17,45,38,590.93	-	-
GMR Infrastructure Ltd	-8,50,00,000	-2,22,72,78,681.56	-	-	-	-	-	-
Multi Commodity Exchange of India Ltd	5,00,000	78,07,60,985.33	-	-	-25,00,000	-3,92,02,15,550.95	-	-
TV18 Broadcast Ltd	15,00,000	4,62,25,819.70	-95,60,000	-36,06,31,409.99	-	-	-1,00,00,000	-44,19,52,380.00
Agro Tech Food Ltd	50,000	4,14,68,227.35	-	-	-	-	-	-
ION Exchange (India) Ltd	-7,75,000	-93,28,72,063.62	-	-	-	-	-	-
Firstsource Solutions Ltd	-90,00,000	-86,89,07,131.23	-	-	-	-	-	-
Edelweiss Financial Services Ltd	-	-	40,00,000	26,32,01,735.41	-	-	-	-
Indiabulls Real Estate Ltd	-50,00,000	-43,87,62,295.25	-	-	50,00,000	71,16,62,696.98	-	-
TARIC Ltd	-	-	-	-	-53,05,000	-21,94,62,799.30	-46,95,000	-21,86,64,035.12
Man Infraconstruction Ltd	-	-	-	-	-	-	15,00,000	13,05,20,573.36
Prakash Industries Ltd	-	-	-	-	-	-	-25,00,000	-16,08,84,920.79
Prakash Pipes Ltd	-	-	-	-	-	-	-3,12,500	-4,68,37,053.57
The Mandhana Retail Ventures Ltd	-	-	-	-	-11,82,374	-2,00,18,717.98	-16,30,900	-2,60,19,326.83
Nazara Technologies Ltd	32,94,310	5,03,74,94,136.50	-	-	-	-	-	-
Jubilant Ingrevia Ltd	1,00,20,000	2,71,22,30,841.92	-	-	-12,10,426	-80,65,47,907.85	-12,89,574	-81,25,93,623.84
SAIL Ltd	-	-	5,75,00,000	6,46,18,73,043.36	1,50,00,000	1,77,96,44,088.57	-2,75,00,000	-3,08,87,90,414.29
Indiabulls Housing Finance Ltd	-	-	1,00,00,000	2,13,30,58,129.18	-50,00,000	-1,24,45,47,615.71	-	-
Canara Bank	-	-	-	-	2,90,97,400	4,51,62,39,799.69	-	-
National Aluminium Company Ltd	-	-	-	-	2,50,00,000	2,07,27,09,383.33	-	-
Star Health Ltd	-	-	-	-	-	-	10,07,53,935	81,66,44,22,782.00
Metro Brands Ltd	-	-	-	-	-	-	3,91,53,600	18,04,16,99,479.91
Total		73,97,16,678.66		2,77,81,60,454.57		-2,05,03,90,598.77		1,01,67,00,31,986.46

Figure 2: Shares Sold or Bought by him in 2021: Valued at the Average Price of the Stock for the Respective Quarter.
(Source: Yahoo Finance)

b) Lupin Ltd.

Lupin Ltd. is a multinational pharmaceutical company based in Mumbai, India. Mr. Jhunjhunwala invested in Lupin Ltd in 2006 when it was trading at an average price of ₹150. Lupin's revenue grew from 7,500 million in 2001 to 9,680 million in 2003. Along with that, it had a high return on equity of 20.1 per cent (earnings of 766 million over 3,823 million equity). As per quarterly reports, in June 2021, Mr. Jhunjhunwala had 7.2 million shares in the company valued at 6,546 million. However, he reduced his stake below 1 per cent in the company in the following quarter.

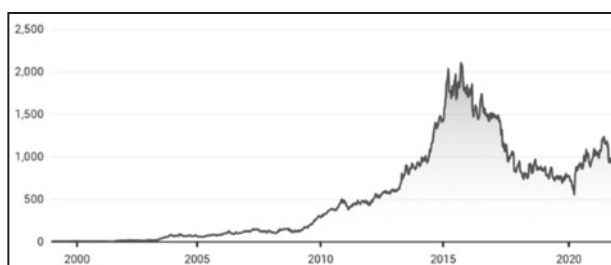


Figure 4: Growth of Lupin Ltd.
(Source: Google Finance)

c) Crisil Ltd.

Crisil Ltd. is a subsidiary of S&P Global and extends credit rating services in India. It had its revenue growing at 17.3 per cent and its earnings per share rose 22.9 per cent based on Compounded Annual Growth Rate (CAGR) over the past 10 years (1996-

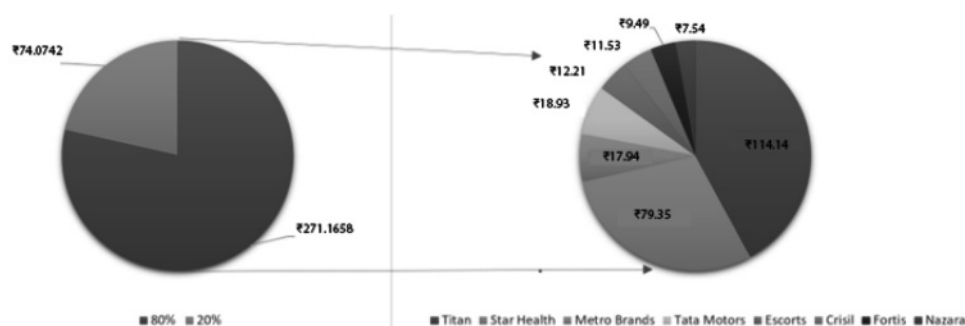


Figure 6: Rakesh Jhunjhunwala's Portfolio as on 31st December, 2021 (in billions)
(Source: Author's Calculation)

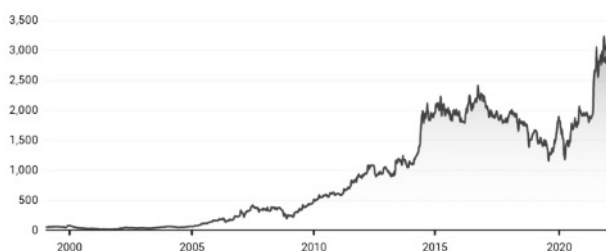


Figure 5: Growth of Crisil Ltd.
(Source: Google Finance)

2005). In 2003, he along with his wife Mrs. Rekha Jhunjhunwala got hold of 10,000 shares of the company at around 40. As of 31st December, 2021, he holds 5.5 per cent of the firm's capital (4 million shares) and their worth is over 11,138 million.

As evident, Mr. Jhunjhunwala prefers to hold his investments for a long term based on their fundamentals rather than being distracted by the market noise and being shortsighted. Hence, he believes in value investing. Value investing is where investors buy undervalued stocks which do not completely reflect their intrinsic value. It is a long-term process.

The Pareto Principle, named after Vilfredo Pareto, an economist, states that roughly 20 per cent of inputs are responsible for roughly 80 per cent of outputs in most systems. Rakesh Jhunjhunwala's portfolio adheres to the same principle with 80 per cent of his wealth generated through 20 per cent of his total portfolio investments.

One thing is common in the 8 stocks mentioned in the chart above, i.e., his long-term holding in them. Even during the global financial crisis of 2008, when most of his stocks had lost a chunk of their value, Mr. Jhunjhunwala did not sell them off and kept holding them. This strategy rewarded him with mammoth returns on his portfolio later on.

2) Price and Volume Movement After Bulk or Block Deal

a) Intellect Design Arena Ltd. (INTELLECT.NS)

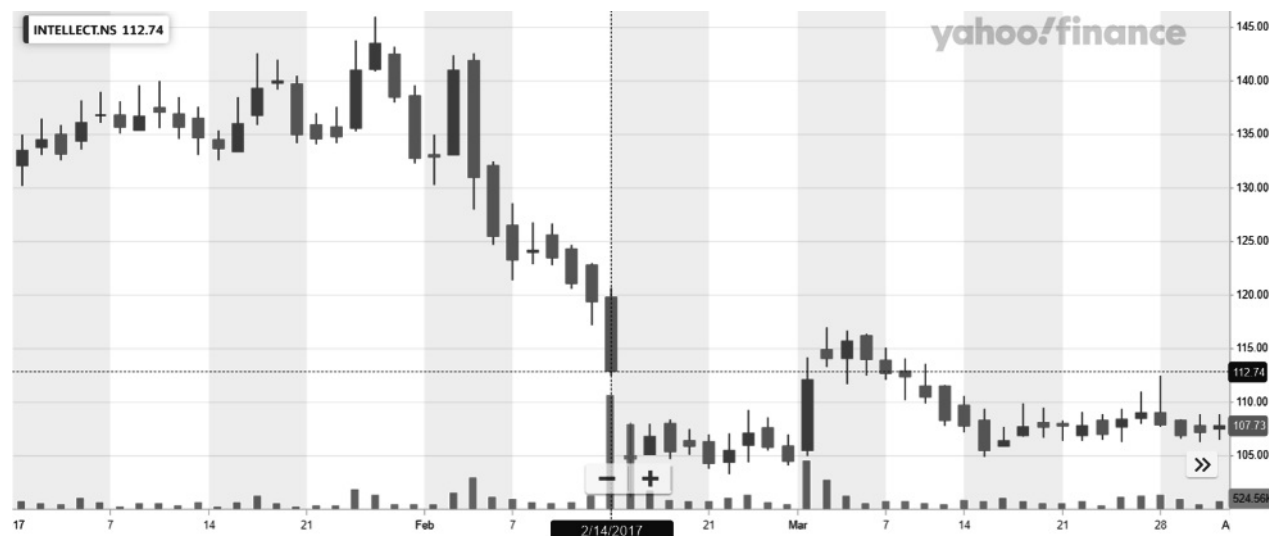


Figure 7: Candlestick Chart 1
(Source: Yahoo Finance)

Transactions:

Deal Type	Date	Client Name	Action	Quantity	Average Price
Bulk	14-02-2017	Rakesh Jhunjhunwala	Sell	1,000,000	120.35
Bulk	14-02-2017	Rekha Jhunjhunwala	Sell	3,230,000	120.44

Historical Data:

Date	Opening	High	Low	Closing	Adj Close	Volume
10-02-2017	124.21	124.58	120.51	121.03	121.03	471,877
13-02-2017	122.72	122.90	117.09	119.29	119.29	868,468
14-02-2017	119.76	120.61	112.41	112.74	112.74	6,973,293
15-02-2017	104.92	108.01	100.98	104.54	104.54	5,167,461
16-02-2017	104.96	107.96	104.96	106.69	106.69	1,138,295

Date	Change in Daily Return	Change in Volume
13-02-2017	-1.44%	84%
14-02-2017	-5.49	703%
15-02-2017	-7.27%	-26%
16-02-2017	2.06%	-78%

Figure 8: Historical Data of Intellect Design Arena Ltd.
(Source: Yahoo Finance)

As visible, the stock slipped to 112.41 from its opening price (6.14 per cent) and continued to sink on the next day after the deal.

b) Delta Corp Ltd. (DELTACORP.NS)

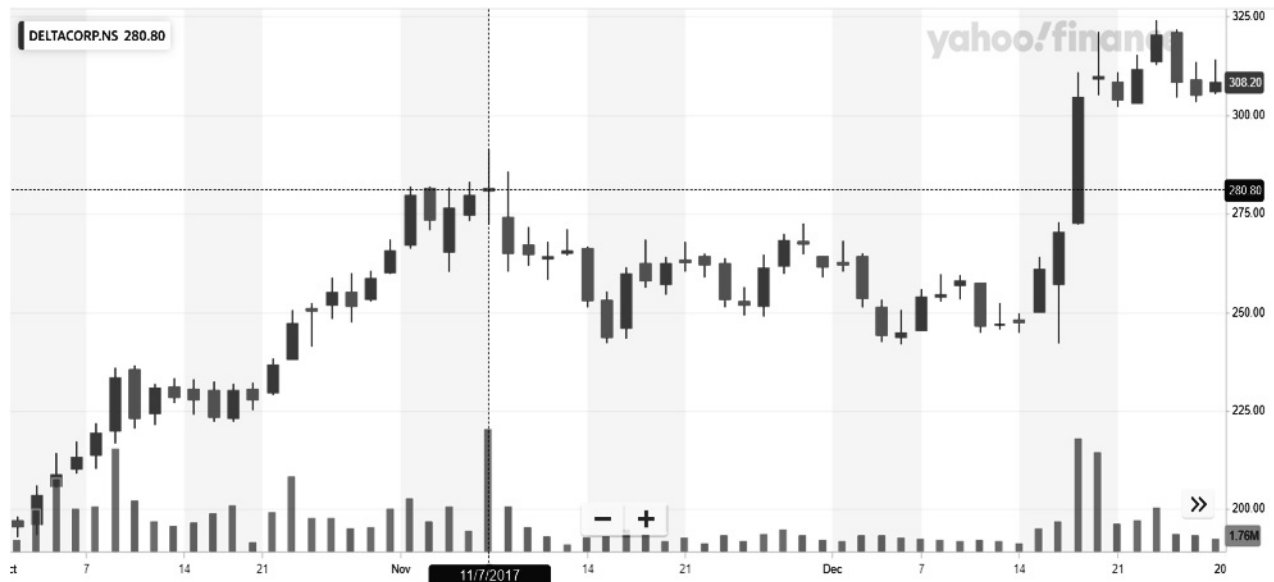


Figure 9: Candlestick Chart 2
(Source: Yahoo Finance)

Transactions:

Deal Type	Date	Client Name	Action	Quantity	Average Price
Bulk	07-11-2017	Rekha Jhunjhunwala	Sell	2,500,000	280.35

Historical Data:

Date	Open	High	Low	Close	Adj Close	Volume
03-11-2017	265	281.5	260.1	276.2	267.95	5,675,889
06-11-2017	274.3	283	273	279.6	271.25	2,626,906
07-11-2017	281.2	291.3	272	280.8	272.42	15,189,560
08-11-2017	274.1	285.8	260.15	264.85	256.94	5,689,147
09-11-2017	266.9	271.6	261.65	264.6	256.69	3,099,177

Date	Change in Daily Return	Change in Volume
06-11-2017	1.23%	-53.72%
07-11-2017	0.43%	478.23%
08-11-2017	-5.68%	-62.55%
09-11-2017	-0.09%	-45.52%

Figure 10: Historical Data of Delta Corp Ltd.
(Source: Yahoo Finance)

The stock slipped to 272 from its opening price (3.27 per cent) and continued to descend on the next day too.

c) Dish TV India Ltd. (DISHTV.NS)



Figure 11: Candlestick Chart 3
(Source: Yahoo Finance)

Transactions:

Deal Type	Date	Client Name	Action	Quantity	Average Price
Bulk	13-06-2018	Rare Enterprises	Buy	13,000,000	71.3

Historical Data:

Date	Opening	High	Low	Closing	Adj Close	Volume
11-06-2018	73.55	74.5	72.7	72.95	72.11	2,490,080
12-06-2018	72.8	73.45	72.15	72.75	71.91	2,596,805
13-06-2018	72.75	76.45	71.25	73.3	72.45	71,000,003
14-06-2018	75	76.1	74.15	74.6	73.74	28,261,390
15-06-2018	74.6	75.45	72.6	72.95	72.11	9,806,624

Date	Change in Daily Return	Change in Volume
12-06-2018	-0.28%	4.29%
13-06-2018	0.75%	2634.13%
14-06-2018	1.78%	-60.20%
15-06-2018	-2.21%	-65.30%

Figure 12: Historical Data of Dish TV India Ltd.
(Source: Yahoo Finance)

The stock rose to an intraday high of 76.45 from its opening price (5.09 per cent) and continued to rise on the next day too.

d) Tata Communications Ltd. (TATACOMM.BO)

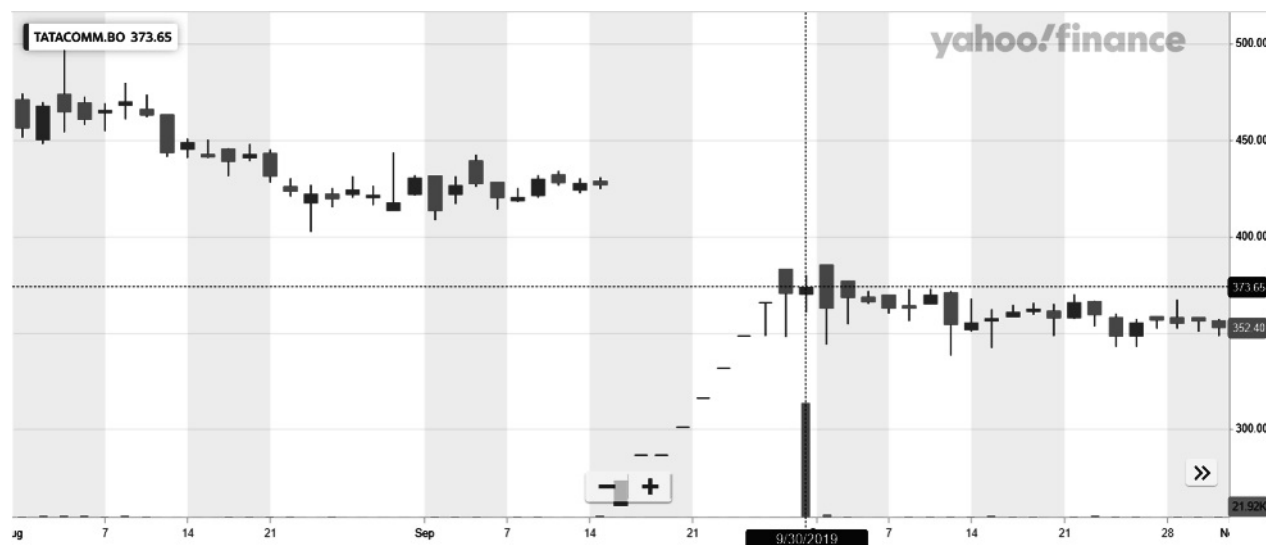


Figure 13: Candlestick Chart 4
(Source: Yahoo Finance)

Transactions:

Deal Type	Date	Client Name	Action	Quantity	Average Price
Bulk	30-09-2019	Rekha Jhunjhunwala	Buy	1,965,000	370

Historical Data:

Date	Opening	High	Low	Closing	Adj Close	Volume
26-09-2019	365.65	365.65	348.3	365.65	360.12	3,398
27-09-2019	383	383	347.4	370.15	364.55	5,808
30-09-2019	370	379.85	360.1	373.65	368.00	2,001,901
01-10-2019	385	385	343.8	362.8	357.31	51,012
03-10-2019	377	377	354	368.1	362.53	9,533

Date	Change in Daily Return	Change in Volume
27-09-2019	1.23%	70.92%
30-09-2019	0.95%	34367.99%
01-10-2019	-2.90%	-97.45%
03-10-2019	1.46%	-81.31%

Figure 14: Historical Data of Tata Communications Ltd.
(Source: Yahoo Finance)

The deal led to the stock to reach an intraday high of 379.85 from its opening price (2.66 per cent). It also opened at an intraday high of 385 from the previous day's closing price (4.61 per cent) representing a rise in after-market orders (AMO).

e) Yes Bank Ltd. (YESBANK.BO)



Figure 15: Candlestick Chart 5
(Source: Yahoo Finance)

Transactions:

Deal Type	Date	Client Name	Action	Quantity	Average Price
Bulk	04-11-2019	Rakesh Jhunjhunwala	Buy	12,950,000	67.1

Historical Data:

Date	Opening	High	Low	Closing	Adj Close	Volume
31-10-2019	56.2	76.65	54.9	70.45	70.45	62,620,476
01-11-2019	71	71.85	65	66.6	66.6	39,676,191
04-11-2019	59.95	71.35	59.95	66.1	66.1	45,824,409
05-11-2019	70.4	71.9	67.25	68.35	68.35	28,138,949
06-11-2019	68.5	71.2	67.35	68.75	68.75	21,050,895

Date	Change in Daily Return	Change in Volume
01-11-2019	-5.46%	-36.64%
04-11-2019	-0.75%	15.50%
05-11-2019	3.40%	-38.59%
06-11-2019	0.59%	-25.19%

Figure 16: Historical Data of Yes Bank Ltd.
(Source: Yahoo Finance)

The bulk deal led to a rise in share price and it reached an intraday high of 71.35 from its opening price (19 per cent).

f) Indiabulls Real Estate Ltd. (IBREALEST.NS)

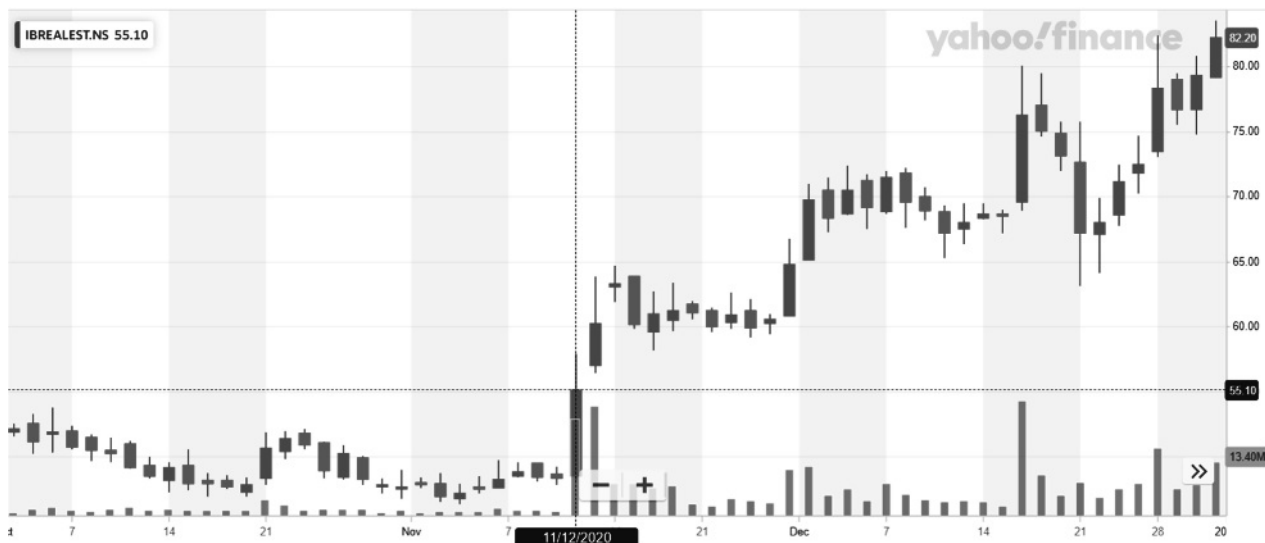


Figure 17: Candlestick Chart 6
(Source: Yahoo Finance)

Transactions:

Deal Type	Date	Client Name	Action	Quantity	Average Price
Bulk	12-11-2020	Rare Enterprises	Buy	5,000,000	57.73

Historical Data:

Date	Opening	High	Low	Closing	Adj Close	Volume
10-11-2020	49.45	49.45	48	48.35	48.35	1,242,611
11-11-2020	48.65	49.25	47.8	48.3	48.3	1,071,800
12-11-2020	48.45	57.95	48.15	55.1	55.1	24,327,920
13-11-2020	57	63.9	56.4	60.2	60.2	27,352,126
14-11-2020	63	64.7	61.85	63.25	63.25	8,002,698

Date	Change in Daily Return	Change in Volume
11-11-2020	-0.10%	-13.75%
12-11-2020	14.08%	2169.82%
13-11-2020	9.26%	12.43%
14-11-2020	5.07%	-70.74%

Figure 18: Historical Data of Indiabulls Real Estate Ltd.
(Source: Yahoo Finance)

The share price rose to an intraday high of 57.95 from its opening price (19.61 per cent) and continued to rise the next day too.

g) Ion Exchange (India) Ltd. (IONEXCHANG.BO)

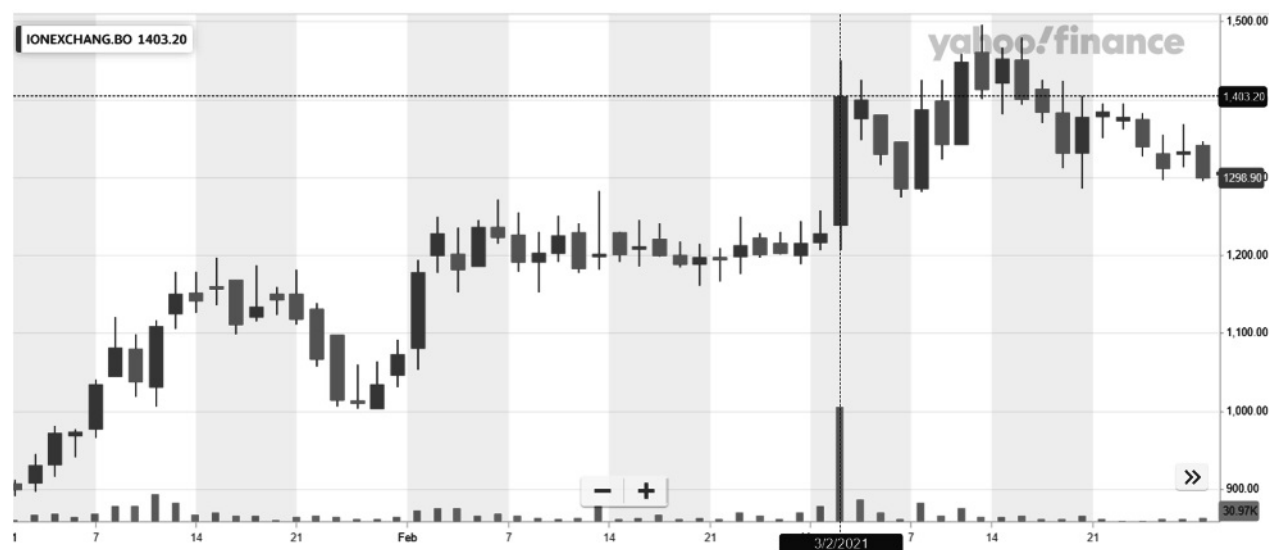


Figure 19: Candlestick Chart 7
(Source: Yahoo Finance)

Transactions:

Deal Type	Date	Client Name	Action	Quantity	Average Price
Bulk	02-03-2021	Rakesh Jhunjhunwala	Sell	150,770	1205.19

Historical Data:

Date	Opening	High	Low	Closing	Adj Close	Volume
26-02-2021	1199	1244	1187	1214	1208.78	72,957
01-03-2021	1215	1257	1205.25	1227.2	1221.93	130,038
02-03-2021	1237	1450	1205	1403.2	1397.17	903,458
03-03-2021	1375	1425	1347	1399.2	1393.19	175,273
04-03-2021	1380	1380	1315.4	1328.85	1323.14	73,464

Date	Change in Daily Return	Change in Volume
01-03-2021	1.09%	78.24%
02-03-2021	14.34%	594.76%
03-03-2021	-0.29%	-80.60%
04-03-2021	-5.03%	-58.09%

Figure 20: Historical Data of Ion Exchange (India) Ltd.
(Source: Yahoo Finance)

As visible, the deal led to the downfall to 1,205 from its opening price (2.59 per cent).

h) Tata Steel Ltd. (TATASTEEL.NS)



Figure 21: Candlestick Chart 8
(Source: Yahoo Finance)

Transactions:

Deal Type	Date	Client Name	Action	Quantity	Average Price
Block	07-05-2021	Rakesh Jhunjhunwala	Buy	1,250,000	1174

Historical Data:

Date	Opening	High	Low	Closing	Adj Close	Volume
05-05-2021	1084	1088.35	1047	1070.15	1046.73	19,249,839
06-05-2021	1055	1129	1042.5	1100.9	1076.80	46,434,537
07-05-2021	1135	1192	1130.1	1182.35	1156.47	54,075,433
10-05-2021	1210	1229	1200	1216.35	1189.73	28,080,884
11-05-2021	1190	1246	1176.9	1233.9	1206.89	41,108,381

Date	Change in Daily Return	Change in Volume
13-04-2021	2.87%	141.22%
15-04-2021	7.40%	16.46%
16-04-2021	2.88%	-48.07%
19-04-2021	1.44%	46.39%

Figure 22: Historical Data of Tata Steel Ltd.
(Source: Yahoo Finance)

The deal caused the share price to rise to an intraday high of 1,192 from its opening price (5.02 per cent).

i) Jubilant Pharmova Ltd. (JUBLPHARMA.NS)



Figure 23: Candlestick Chart 9
(Source: Yahoo Finance)

Transactions:

Deal Type	Date	Client Name	Action	Quantity	Average Price
Bulk	25-08-2021	Rakesh Jhunjhunwala	Buy	2,500,000	594.35

Historical Data:

Date	Opening	High	Low	Closing	Adj Close	Volume
23-08-2021	617.30	619.80	586.85	599.05	599.05	212,416
24-08-2021	605.00	606.85	585.05	594.35	594.35	224,782
25-08-2021	601.95	618.70	598.05	611.50	611.50	293,895
26-08-2021	618.95	644.35	603.00	610.10	610.10	995,779
27-08-2021	619.00	628.10	615.00	621.10	621.10	387,179

Date	Change in Daily Return	Change in Volume
24-08-2021	-0.78%	5.82%
25-08-2021	2.89%	30.75%
26-08-2021	-0.23%	238.82%
27-08-2021	1.80%	-61.12%

Figure 24: Historical Data of Jubilant Pharmova Ltd.
(Source: Yahoo Finance)

The deal resulted in the stock reaching an intraday high of 618.70 (2.79 per cent).

j) Zee Entertainment Enterprises Ltd (ZEEL.NS)

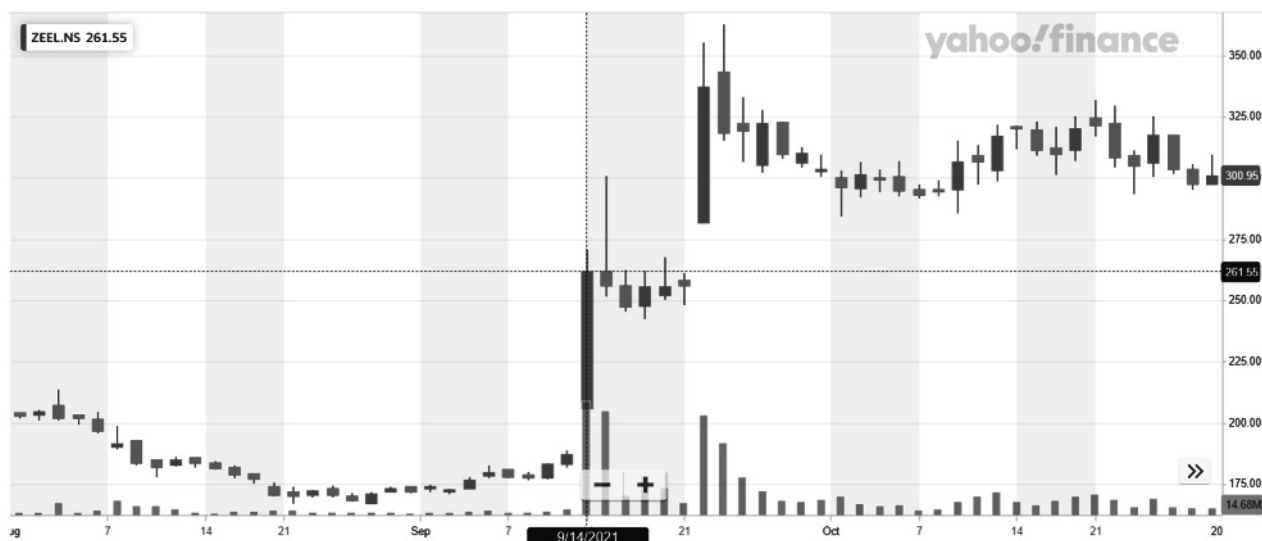


Figure 25: Candlestick Chart 10
(Source: Yahoo Finance)

Transactions:

Deal Type	Date	Client Name	Action	Quantity	Average Price
Bulk	14-09-2021	Rare Enterprises	Buy	5,000,000	220.44

Historical Data:

Date	Opening	High	Low	Closing	Adj Close	Volume
09-09-2021	177.35	183.75	176.9	183	183	8,692,351
13-09-2021	183	188.75	181.7	186.85	186.85	11,521,335
14-09-2021	205.5	270.9	205.5	261.55	261.55	218,600,225
15-09-2021	261.55	300.75	251.2	255.9	255.9	200,295,409
16-09-2021	255.9	262.5	245.2	247.15	247.15	37,987,576

Date	Change in Daily Return	Change in Volume
24-08-2021	2.10%	32.55%
25-08-2021	39.98%	1797.35%
26-08-2021	-2.16%	-8.37%
27-08-2021	-3.42%	-81.03%

Figure 26: Historical Data of Zee Entertainment Enterprises Ltd
(Source: Yahoo Finance)

This led to a massive shoot-up in the share price and reach an intraday high of 270.9 from its opening price (31.83 per cent).

From the above analysis, it could be interpreted that a positive correlation exists between Mr. Jhunjhunwala and the market price of a stock, or to put it in a different way, it could be said that a direct relationship exists between Mr. Jhunjhunwala and the behaviour of investors. Such behaviour of investors with respect to him can be classified as the Warren Harding Error.

Warren Harding Error is when people make assumptions subconsciously about someone and keep holding onto that belief even when proven wrong. In the Indian stock market scenario, due to Rakesh Jhunjhunwala's lustrous history of success, investors tend to follow his portfolio and investing activities without themselves doing any proper research. Almost no investor has a history of only gains and no losses but Mr. Jhunjhunwala's magnanimous gains supersedes his losses and investors tend to overlook those losses. Hence, whenever he buys or sells the stock of a company, other investors are provoked to do the same hoping to generate positive returns from their investments.

3) Portfolio Return of Mr. Jhunjhunwala and Associates

Time-Weighted Return = $[(1 + HP1) \times (1 + HP2) \times (1 + HP3) \times \dots \times (1 + HPn)] - 1$

HP = $[\text{End Value} - (\text{Initial Value} + \text{Cash Flow})] / (\text{Initial Value} + \text{Cash Flow})$

$$\text{a) Return for the period} = \frac{(169,329,966,976 - 159,459,048,146)}{159,459,048,146}$$

(1st Jan – 15th Feb) = 6.19 per cent

$$\text{b) Return for the period} = \frac{(171,498,062,403 - (169,329,966,976 + 739,716,679))}{(169,329,966,976 + 739,716,679)}$$

(15th Feb – 14th May) = 0.84 per cent

$$\text{c) Return for the period} = \frac{(200,426,799,369 - (171,498,062,403 + 2,778,160,455))}{(171,498,062,403 + 2,778,160,455)}$$

(14th May – 13th Aug) = 15.01 per cent

$$\text{d) Return for the period} = \frac{(251,984,352,738 - (200,426,799,369 + 2,050,390,599))}{(200,426,799,369 + 2,050,390,599)}$$

(13th Aug – 15th Nov) = 27.02 per cent

$$\text{e) Return for the period} = \frac{(345,158,851,933 - (251,984,352,738 + 101,670,031,986))}{(251,984,352,738 + 101,670,031,986)}$$

(15th Nov – 31st Dec) = -2.40 per cent

$$\begin{aligned} \text{TWS} &= [(1 + 0.0619) \times (1 + 0.0084) \times (1 + 0.1501) \times \\ &\quad (1 + 0.2702) \times (1 - 0.0240)] - 1 \\ &= 52.67 \text{ per cent} \end{aligned}$$

In order to measure the performance of Mr. Jhunjhunwala's portfolio, Nifty 50 has been chosen as the benchmark index against which it would be compared. Given below are the returns generated by both Mr. Jhunjhunwala's portfolio and Nifty 50 during the specific time intervals:

Time Interval	Jhunjhunwala's Portfolio	Nifty 50
1 st Jan – 15 th Feb	6.19 per cent	9.25 per cent
15 th Feb – 14 th May	0.84 per cent	-4.15 per cent
14 th May – 13 th Aug	15.01 per cent	10.76 per cent
13 th Aug – 15 th Nov	27.02 per cent	9.34 per cent
15 th Nov – 31 st Dec	-2.40 per cent	-3.58 per cent
Overall	52.67 per cent	22.26 per cent

Table 1: Comparison of Annual Return between Jhunjhunwala's Portfolio and Nifty 50
(Source: Author's Calculation)

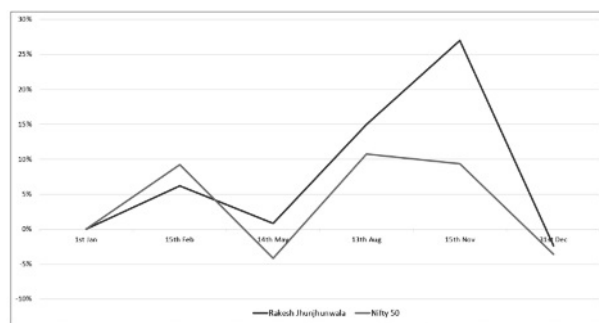


Figure 27: Comparison of Annual Return between Jhunjhunwala's Portfolio and Nifty 50
(Source: Author's Calculation)

It is quite obvious from the above-given data that Mr. Jhunjhunwala's portfolio generates a higher annual return than Nifty 50. Both of them are positively correlated, however the volatility of Mr. Jhunjhunwala's portfolio is higher than Nifty 50 as inferred from the graph above.

CONCLUSION

Rakesh Jhunjhunwala, being a veteran investor, has built a portfolio which has reaped him with immense wealth. After the analysis of the three companies with major holding value in Mr. Jhunjhunwala's portfolio as well the structure of his portfolio, we can see that he picks up companies to invest in on the basis of value investing.

After observing the price and volume sensitivity due to his bulk or block deals, it is quite evident that he has a major influence on the market price of a stock and can drive up or down the price with his deals.

In 2021, the Indian stock market saw a boom with the onset of recovery and higher participation of retail investors. The industrial, realty, Information Technology (IT) and metal sectors saw a sharp rise as compared to 2020. Mr. Jhunjhunwala had diversified his portfolio into these sectors which helped him generate more than twice the annual return generated by Nifty 50. However, the former's volatility (std. = 10.63 per cent) was considerably higher than the latter (std. = 6.71 per cent). Therefore, a higher risk was associated with his portfolio.

PRACTICAL IMPLICATIONS

This study can be used to compare the portfolio returns generated by investment managers or high net-worth individuals in the stock market against each other or against an index fund. It would help them to analyse the investing strategy and portfolio of such investors and use the same to decide whether to invest in an index fund or follow a portfolio closely related to such investors.

CONFLICT OF INTEREST

The authors certify that they have no affiliation with or involvement in any organization with any financial or non-financial interest in the subject matter, or materials discussed.

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It is now the role of social marketers which will ascertain what the future of social marketing will be and if they are able to play a constructive role, it will be possible to establish social marketing as the most potent tool which will bring about social change.



Feed the Common Good-Impact of Social Marketing on Consumer Behaviour- A Study Based in Kolkata

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Department of Commerce (Evening)

ABSTRACT

To keep pace with the fast growing and quickly evolving world of today, marketers have shifted their focus from a profit-driven marketing to social marketing. Social marketing is a set of marketing theories which are essentially an adaptation of commercial marketing, and its aim is not to maximize profits, but to create an impact on the behaviour of the target

audience and influence the same, for the benefit of the society. Behaviour can be said to be the end point of social marketing.

KEYWORDS: Social Marketing, Consumer Behaviour, Consumer Decision, Social Marketing Programs.

INTRODUCTION

Social marketing is a collection of marketing ideas that is simply an adaptation of commercial marketing, with the goal of creating an impact on the behaviour of the target audience and influencing it for the good of society rather than maximizing profits. It is important to understand that the definition attempts to emphasize on influencing behaviour as opposed to obtaining a change in attitudes or an increase in knowledge. It recognizes that behaviour change is voluntary and therefore does not force the audience to act in a certain manner, as laws do. At the same time, it does not restrict itself to mere sharing of information as in case of education. What it seeks is to motivate behavioural change, by effective application of the principles of commercial marketing.

Behaviour can be said to be the end point of social marketing. However, it has been noticed that many a time social marketers fail to keep this in mind. They often think that their work is to spread the word or provide information without considering whether their actions will lead to the desired behaviour. This negligence can lead to wastage of scarce productive resources.

The emphasis on behaviour enables marketers to focus on their customers. It enables them to understand how their strategies will affect their audience. Besides, marketers are forced to engage in deep and informative market research to understand their customers before they can launch a social marketing programme. The focus on consumer behaviour has the advantage of preventing marketers from diverting away to the fields of education and propaganda which is not the basis of social marketing.

In context of the above, it would be important to mention that there are several structural barriers to consumer behaviour. Changing behaviour will require

consumers to have more convenient and affordable alternatives. For instance, a consumer switching to healthy food will first require affordable eating options which is mostly difficult because restaurants generally charge a higher price for healthier foods as compared to the less healthy options.

An effort to change behaviour is worthless if people do not have the means or ability to undertake such change. Thus, along with keeping its focus on consumer behaviour, a social marketing programme should also try to reduce, if not eliminate the barriers that restrict or prevent change in behaviour by creating an infrastructure that fosters such change.

NATURE OF THE PROBLEM

The world is changing rapidly, and social marketing has now entered another stage. This paper studies the need for social marketing to become more customer-centric and to go a step forward to understand how consumers perceive social marketing and how social programmes are positioned in the minds of consumers. A lot of research has gone into assessing the success and accomplishment of a social marketing campaign but there has been little to no emphasis on the consumers' take on the same, whether they are affected by social marketing, whether such campaigns stimulate them to contribute to the society, whether their actual purchase is impacted, or whether they favour social marketing over commercial marketing techniques.

This has been identified as the research gap and this paper aims to bridge this gap by throwing light on the customer side of the story to establish consumer perception as an integral part of social marketing.

LITERATURE REVIEW

- Andreassen, (2002) in his article, 'Marketing Social Marketing in the Social change Marketplace', issued in the *Journal of Public Policy and Marketing*, postulates that changing to sustainable living patterns is becoming an important issue in the society and asking people to change their behaviour is in a way, asking them to change their identities.

This a lot to ask for as most people prefer to stay in their comfort zones, which is to say, their own value system.

- Glouberman and Zimmerman, (2008) in the article, 'Social marketing: Perception and Past', postulated that managing a complex adaptive socio-economic system is like raising a child. What is in our hand is raising the child and not its assured success. Just as every child is unique, every community too, is unique.
- Rose and Dade, (2007) in the book, 'Education and Social Change: Connecting Local and Global Perspectives', studied that the success of a programme lies in consideration of the local conditions and comparing them to global solutions. Behaviour and awareness of local conditions play an important role in environmental movements.
- Kotler et al. (1996) in the article, 'Social Marketing: Implications for Contemporary Marketing Practices Classification Scheme', published in the Journal of Business and Industrial Marketing, postulated that a social marketing campaign contains a mixture of certain elements. Customers are the most essential elements of social marketing and bring progress in social marketing.

OBJECTIVES

The objectives of the study are as follows-

1. To ascertain whether consumers are responsive to social marketing.
2. To determine their attitudes and opinions towards social marketing.
3. To determine whether social marketing has an impact on consumer decision-making and actual purchase.
4. To ascertain the appropriate platforms for social marketing.

ANALYSIS

Demographic Statistics

When the demographic statistics were studied, it was found that there was a significant difference between male and female responses with female responses making 63.2 per cent and males amounting to 36.3 per cent of the total respondents.

Most respondents were between the age group 18-24 years and the respondents of the age 20 years amounted for 35.3 per cent of the total respondents. The number of respondents beyond the age of 30 have been found to be significantly low. The frequency of respondents has further moved downwards with the increase in age.

Objective 1 - To ascertain whether consumers are responsive to social marketing

Consumers were asked whether they were aware of the concept of social marketing and whether they had come across any social advertisements. The responses were analyzed and Figure 1 was generated.

The awareness levels were identified as 1-meaning aware, 2-meaning unaware and 3 represented individuals who had only a vague awareness on the subject. The responses of the Category 1 were found to be 144 which showed that 70.6 per cent of the respondents were aware of social marketing.

The encountering of a social advertisement was identified by 1-meaning encountered, 2-meaning not

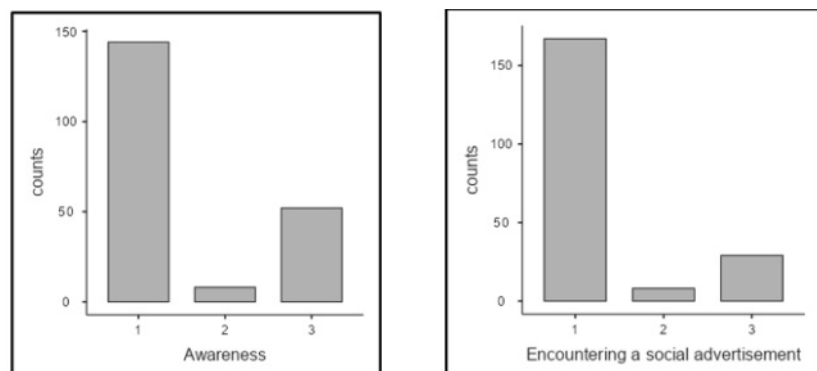


Figure 1: Graph Showing Awareness and Frequency of Encountering a Social Advertisement
(Source: Author's Compilation)

encountered and 3 represented the respondents who were not sure whether they had encountered a social advertisement. Upon analysis, it was found that 167 respondents, i.e., 81.9 per cent of the respondents had encountered a social advertisement at some point or the other.

From the analysis, it was concluded that the consumers (represented by majority respondents), were aware and responsive to social marketing.

Objective 2 - To determine the attitudes and opinions of consumers towards social marketing.

The respondents were questioned about their perception of social marketing. The responses were analyzed and the Figure 2 was generated.

It was observed that majority i.e., 160 respondents considered social marketing useful. Furthermore, a small segment of the respondents (38 in number) were found to be indifferent.

Only about a fraction of the respondents (seven in number) considered social marketing wasteful.

From the analysis, it was concluded that the consumers (represented by majority respondents) considered social marketing as useful.

There is a scope for marketers to turn around the section of the respondents who were indifferent, by increasing their promotional efforts.

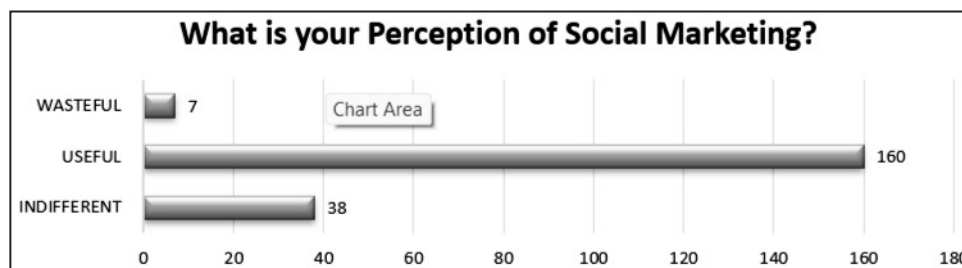


Figure 2: Graph Showing Perception of Consumers towards Social Marketing
(Source: Author's Compilation)

Objective 3 - To determine whether social marketing has an impact on consumer decision making and actual purchase.

Respondents were asked about their responses on the impact of an advertisement propagating a social cause on them so as to determine the impact of social

marketing on consumers' decision-making. The responses were analyzed and Figure 3 was generated. 97 respondents were seen to watch social advertisements and the same time take a conscious action or contribute to the social cause highlighted therein. However, there were also 88 such respondents who watched social advertisements and supported the cause but did not make any contribution or take any action. There was also observed, a small section of the respondents who ignored such advertisements.

It was concluded that the majority of consumers could be divided into two categories- those who contribute

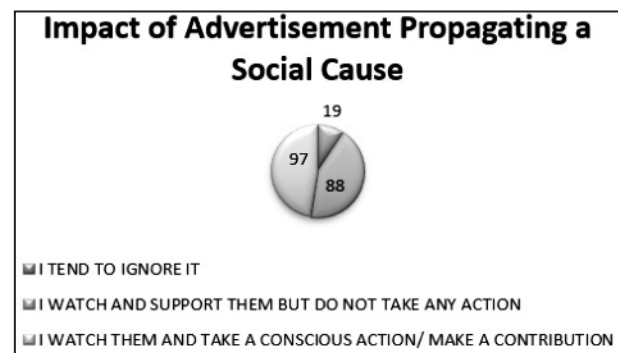


Figure 3: Graph Showing Impact of Advertisement Propagating a Social Cause
(Source: Author's Compilation)

and those who do not. While the respondents who do contribute to a social cause are large in number, it cannot be overlooked that an almost equally divided segment of respondents are only psychologically supportive of a social cause, their actions do not work in the same direction. Marketers should focus their energy on converting this segment of respondents to action-taking consumers.

Objective 4 - To ascertain the appropriate platforms for social marketing.

The respondents were asked about the platforms through which they came across social marketing, to ascertain the appropriate social marketing platforms.

The responses were analyzed and Figure 4 was generated. The question was presented in checkbox format, giving the respondents an opportunity to select more than one option. From the various responses, it was observed that social media had the highest weightage. 126 respondents were seen to have come to know about social marketing through social media. The next highest number was of such respondents who had come to know about the same from their friends and relatives. It was also observed that a considerably low number of respondents had come to know about social marketing through newspapers and magazines or through self-search.

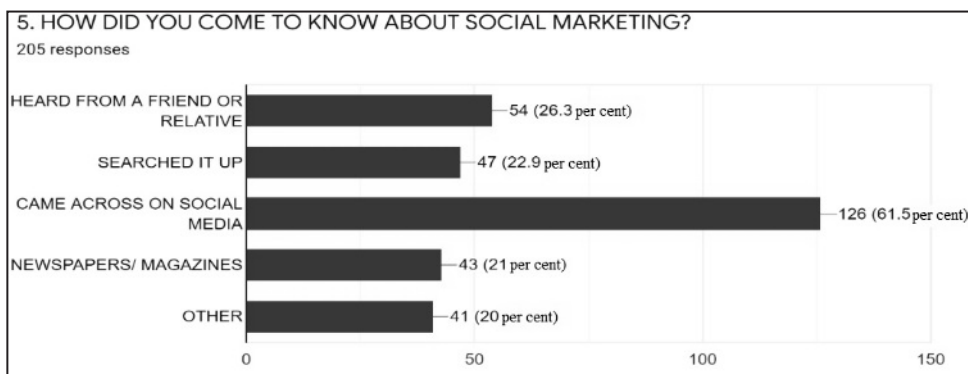


Figure4: Graph Showing Source of Knowledge about Social Marketing
(Source: Author's Compilation)

It was concluded that social media played a very important role in distributing social messages to the respondents. Additionally, word-of-mouth publicity was seen to supplement social media network in disseminating useful social marketing information.

Relationship between Awareness and Gender

It was observed from demographic data analysis that female respondents were almost double the number of male respondents. To determine whether there existed any relationship between gender and awareness, regression analysis was carried out. The value of R, which represents the correlation between the two variables (gender and awareness) was obtained as 0.122. The value obtained satisfies the mathematical measurements of correlation. It was however seen that the value of p, which represents the level of significance was found to be >0.05 with respect to gender. This showed that the result was not significant. It was

concluded that there was a weak positive correlation between awareness and gender based on the sample collected but with respect to the population, there was no sufficient evidence that the positive correlation between the two variables would hold true.

Relationship between Age and Impact of Social Advertisements/Campaigns

To determine whether there was any association between age and the impact which a social marketing message has on the respondents, a Chi-square test was carried out. Chi-square test is a statistical hypothesis test to show a relationship between two categorical variables. Herein, a Chi-square Test of Independence was performed.

χ^2 Tests

	Value	Df	p
χ^2	162	130	0.030
N	204		

Table 1: Chi-square test result
(Source: Author's Computation)

Hypotheses:

The 'null hypotheses' might be –

H0 – Age is not associated with impact

And an 'alternative hypotheses' might be –

H1 – Age is associated with impact

From the table above, Pearson Chi-square statistic, $X^2 = 162$ and $p < 0.005$ i.e., a very small probability of the observed data under the null hypothesis of no relationship. The null hypothesis is rejected since $p < 0.005$. It can be concluded that the age and impact of social advertisements and/or campaigns are related. Majority respondents in the age group of 18-24 have been seen to fall in the category of respondents who watch and support social campaigns but do not take any action in furtherance of the same. The respondents of the age above and below this range have been seen to respond to such advertisements by taking an action towards the same. It is inferred that the young population lags in taking a conscious action towards social marketing campaigns.

Marketers should conduct more real-life campaigns and organize programs in comparison to simply focusing on advertisements, wherein consumers can participate to be a part of and support a social cause.

Since social media has been found to be the most appropriate platform for social marketing, marketers should focus all their energy in using social media efficiently to communicate social marketing messages and to capture a larger audience. Further, word-of-mouth publicity could prove to be a strong driving force in determining the fate of social marketing.

A large number of consumers have been seen to be positively impacted by social advertisements and some have even shown behavioural change based on the same. Hence, the number and frequency of such advertisements should be increased to widen

FINDINGS AND OBSERVATIONS

OBJECTIVE 1	It was observed that majority respondents were aware of social marketing and had come across a social advertisement at some or the other point. It was also observed that majority respondents considered social marketing to be informative because it makes the larger population more aware. A small portion of the respondents were seen to ignore social marketing advertisements, but their number was found to be insignificant. The relevant objective was thus, satisfied and it was found that consumers are responsive to social marketing which as was apparent from their awareness.
OBJECTIVE 2	It was observed that majority of the respondents considered social marketing to be useful. A very small segment of the respondents was indifferent to the relevant question and only a negligible number considered it as wasteful. It was thus, concluded that the attitudes and opinions of consumers towards social marketing was supportive, positive, and favourable.
OBJECTIVE 3	It was observed that the respondents were divided into two categories namely those who take conscious actions to support social marketing campaigns and those who, though supportive of such campaigns, do not take a conscious action to support the same. The two categories were almost equally divided with a small proportion of those who chose to ignore it.
OBJECTIVE 4	It was observed that most respondents had come across social marketing through social media platforms and through word-of-mouth publicity. There were very few such respondents who had looked up or searched about social marketing driven by personal stimulus.

Table 2: Findings and Observations
(Source: Author's Computation)

RECOMMENDATIONS

Most consumers merely support social marketing; they do not bring about a behavioural change and often do not take any productive action to bring a change.

consumers' exposure. It is now the role of social marketers which will ascertain what the future of social marketing will be and if they are able to play a constructive role, it will be possible to establish social marketing as the most potent tool which will bring about social change.

CONCLUSION

Social marketing has been an ever-growing discipline and yet it has not been established full-fledged. Social marketing requires better assimilation of the theories of commercial marketing in its own way and develop its own matters. This will enable social marketers to distinguish themselves from other different forms of marketing such as Corporate Social Responsibility. Bringing behavioural change is the toughest job involved in social marketing and this is accompanied by a huge cost, both financial and psychological. Hence, the promotional campaign should be so built so as to help the target group understand that the benefits of changing behaviour are greater than the costs. This exchange, only, can bring the desired behavioural change. It is now the role of social marketers which will ascertain what the future of social marketing will be and if they are able to play a constructive role, it will be possible to establish social marketing as the most potent tool which will bring about social change.

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It is imperative that one acknowledges, becomes aware, understands, and accommodates the role of behavioural biases in investment decision-making.



Behavioural Finance: Role of Behavioural Biases on Investment Decisions

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ABSTRACT

The global securities market is influenced by various factors: economic, political, institutional, informational, and so forth. However, one of the most critical factors that affect how investors make financial decisions is their reactions and perception of the market.

Human nature is complex, and the assumption in traditional theories of finance that all investors are rational, provides a facile view of their financial decision-making process. Behavioural finance showcases how emotional, cognitive, and psychological factors impact investment decisions. It helps explain the deviations between the expected behaviour of rational investors and their actual behaviour. The novel field provides a deeper understanding of the behavioural aspects of wealth management and how biases can impact investment decisions.

The current study aims to understand the role of behavioural factors in the decision-making process of investors in the security market, by focusing on the individual investors of Kolkata and how these investors make choices in different investment situations.

Keywords: Behavioural Finance, Biases, Irrational, Investment Decision-making.

BACKGROUND OF THE STUDY

Traditional finance suggests that individuals are rational, and markets are efficient. The 'Modern Portfolio Theory' conceptualized by Harry Markowitz shows that investors can achieve the best results by selecting an optimal overall portfolio risk-return mix. The assumptions of the 'Modern Portfolio Theory' include the following:

- Investors are rational, that is, they behave in a manner that maximizes utility considering their level of money or income.
- Investors enjoy unrestricted access to adequate and accurate information pertaining to the risks and returns of securities.
- The securities markets are efficient and capture any new information perfectly and rapidly.
- Investors exhibit risk-averse behaviour; they aim at minimizing risk and maximizing return.
- Investor decisions are based on quantitative measures such as the variance of expected returns from the mean return.

- Investors have a preference towards generating higher returns over lower returns; for a given exposure to risk.

However, cognitive and emotional biases can lead to an illogical deviation from rationality. Known as the 'Father of Behavioural Finance,' Kahneman and Tversky conceptualized the prospect theory, which provided psychological evidence that heuristics and biases can affect how investors buy or sell their securities. The prospect theory is a behavioural model that demonstrates that investors make decisions in terms of expected utility related to a reference point instead of absolute terms, which differs from what was proposed by traditional finance.

In the 1980s, the field of behavioural finance, as a sub-discipline of behavioural economics, emerged when faults began to surface in the Efficient Market Hypothesis (EMH) theory. This theory argues that the prices of shares always reflect complete information about an investment or market. According to the EMH theory, it would be impossible for investors to beat the market with investment strategies like stock-picking. Investors would only be able to yield better results than the industry standards by purchasing investments with higher risk. Researchers supporting the EMH propagate that picking undervalued stocks or predicting market movements by means of fundamental or technical analysis is not merit. On the other hand, critics of EMH put forward studies of economic events as corroboration that prices may diverge from the fair values of stocks.

Robert J. Shiller, a Nobel Prize laureate in Economic Sciences (2013), wrote in his paper 'From Efficient Markets Theory to Behavioral Finance' published in the Journal of Economic Perspectives, 2003, that academic finance has evolved a long way from the time when efficient markets theory was widely considered to be proved indubitably. The corroboration of excess volatility discussed in his study implies that price changes occur for no fundamental reason; they can occur because of 'sunspots' or 'animal spirits' or mass psychology. (R. J. Shiller, 2003, pp.83)

LITERATURE REVIEW

Kikubhai, B. B. (2021). *Shodhganga@INFLIBNET: Role of Behavioral Finance in Investment Decision in Security Market*. Shodhganga.

<http://shodhganga.inflibnet.ac.in:8080/jspui/handle/10603/321961>

This paper focused on the function of behavioural factors in the decision-making process of investors in Southern Gujarat. It confirms the applicability of behavioural finance in the sample study of 500 individual investors.

Kahneman, D., and Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47, 263-291

This paper critiqued the expected utility theory and provided an alternative model of investor's decision making under risk, called prospect theory, which discussed pervasive effects that are inconsistent with the fundamental elements of the utility theory.

M, J. (2020). *Shodhganga@INFLIBNET: Investors Behavior Towards Performance Of Mutual Funds In Bengaluru City*. Shodhganga.

This paper focuses on the growth and performance of select mutual funds and addresses the behavioural factors that affect the perspectives of investors towards mutual funds. It also explores the relationship between awareness, attitude, behaviour, and problems of mutual fund investors.

OBJECTIVES OF THE STUDY

1. To conduct a primary study of investors in Kolkata, and analyze how they tend to react in different investment situations.
2. To understand the impact of behavioural biases that affect the decision-making of investors.

RESEARCH METHODOLOGY

- The data collected for this study contains both primary and secondary data. The primary data

source is a sample of 100 individual investors in Kolkata who have invested in the security market at least once. The individuals are from different economic backgrounds, age groups and gender.

- The secondary data is collected from different books, articles, journals, and online resources.
- The data collection is done using the Google Forms software. The research instrument used is a questionnaire.
- The data analysis has been conducted using graphical representation, tables, descriptive statistics, and hypothesis testing methods on Microsoft Excel.

LIMITATIONS OF THE STUDY

- The conclusions drawn from the sample size of 100 individuals may not necessarily be representative of the entire population under study.
- Due to the limited time of the study (3 months-January 2022 to March 2022), the information presented may be limited and in exhaustive. A prolonged study can also measure the change or stability of the responses received over time.
- Secondary data for analysis has been referred from public sources of information, primarily through online portals. Hence, there is a scope for inaccuracy or bias in the data, increasing the chances of drawing in accurate conclusions.

CONCEPTUAL FRAMEWORK

Difference between traditional finance and behavioural finance -

- Traditional Finance theories are embedded in the assumption that investors are rational and rely on quantitative tools and economic models, and study the market sentiment before making investment decisions. Behavioural Finance theories recognize that the actual decision-making process of investors is influenced by psychological factors that often deviate from rationality.

- Traditional finance is normative, whereas behavioural finance is positive.
- According to traditional finance, investors are risk-averse and follow a symmetrical pattern in their decision-making process. Behavioural finance emphasizes more on the loss aversion bias of investors and concludes that investors do not depict a symmetrical pattern in their decision-making process by reacting differently to losses and gains.
- Traditional finance theories assume that the markets are efficient and truly representative of actual value, which is only possible if we assume that investors exercise perfect self-control. Behavioural finance believes that the markets are not efficient, and investors do not exercise absolute self-control; hence, various limitations exist.
- Traditional finance assumes that all investors have perfect information about the market. Investors do not have perfect information and cannot process information accurately in reality, which is addressed in behavioural finance.
- The 'Utility Theory', a renowned theory in traditional finance, states that investors use rationally appropriate probability weights for all investment outcomes. In contrast, the 'Prospect Theory' in behavioural finance states that investors use decision weights that are random to predict investment outcomes, which leads to lower probability events having greater weightage in the decision-making process than rationally appropriate.

Behavioural Biases in Investment Decisions

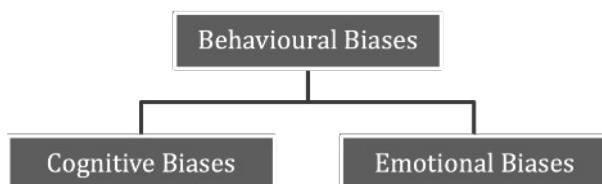


Figure 1: Behavioural Biases in Investment Decisions
 (Source: Adapted from Parker, T. (2022). *Cognitive vs. emotional investing bias: What's the difference?* Investopedia. Retrieved April 2022, from <https://www.investopedia.com/articles/investing/051613/behavioral-bias-cognitive-vs-emotional-bias-investing.asp>)

Cognitive biases exist because of faulty reasoning, which involves inefficiency in analyzing information. These biases derive from statistical and memory errors and can be classified as information-processing and belief-perseverance errors.

Emotional biases are influenced by the emotions of individuals and spontaneous or impulsive reactions. These biases derive from impulses or intuition that affect the reasoning of individuals. Emotional biases are more difficult to correct than cognitive biases.

Different Types of Behavioural Biases Under Study

Cognitive Biases

1. Conservatism Bias

Investors tend to give pre-existing information more importance than the latest information, making them slow to react to new data.

2. Representativeness Bias

Investors tend to get confused by the similarity of events and incorrectly estimate the probability of an outcome by basing their decision on how similar the current and existing situations are.

3. Control Bias

Investors tend to believe that they can influence outcomes even when they indeed cannot. This illusion of control makes them feel that they can exert some control.

4. Hindsight Bias

Investors tend to look back at past events and believe that they could have predicted the outcomes of those events. They feel that past events are more predictable than they really are.

5. Self-attribution Bias

Investors tend not to recognize the impact of luck and external forces on the success of investments and believe that their success has derived from their own strengths and choices.

Emotional Biases

1. Loss Aversion Bias

Investors tend to prefer avoiding losses rather than attaining gains of an equivalent amount. The loss aversion phenomenon emphasizes that the utility of an outcome depends on what the investors have previously experienced or expected to happen.

2. Overconfidence Bias

Investors tend to overestimate their abilities to make investment decisions and show a higher level of confidence in the accuracy of their judgements. This bias often leads investors to make risky investments.

3. Endowment Bias

Investors tend to assign greater value to their own possessions or investments than identical objects or investments they do not own.

4. Status Quo Bias

Investors prefer staying in the same position as they are currently in and doing nothing. Investors suffering from this bias take the current position as a reference point and perceive any change from this reference point as a loss.

5. Herding

Investors tend to confirm the actions of the crowd without considering their own judgment. Investors suffering from this bias are impacted and often guided by the investment decisions of others.

ANALYSIS AND FINDINGS

Demographic Profile of Respondents

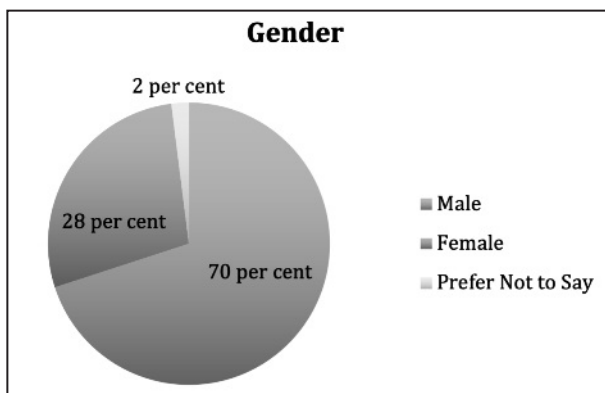


Figure 2: Gender
(Source: Data Generated)

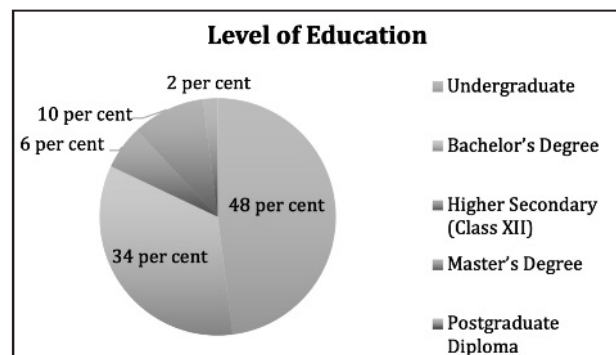


Figure 4: Level of Education
(Source: Data Generated)

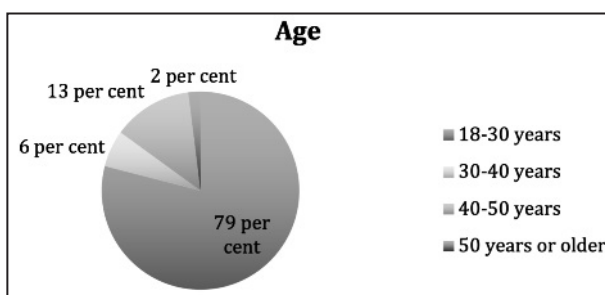


Figure 3: Age
(Source: Data Generated)

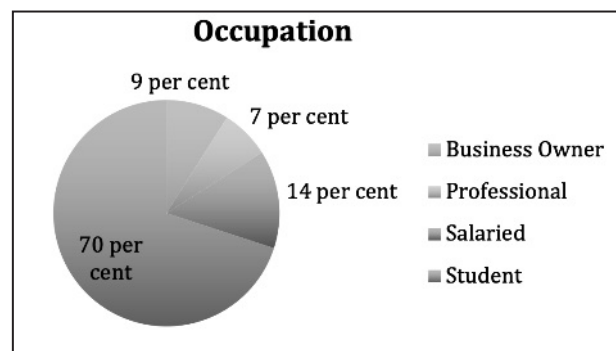


Figure 5: Occupation
(Source: Data Generated)

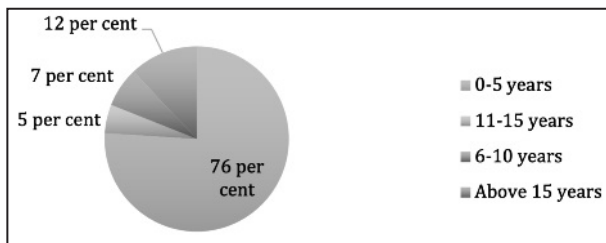


Figure 6: Work Experience
(Source: Data Generated)

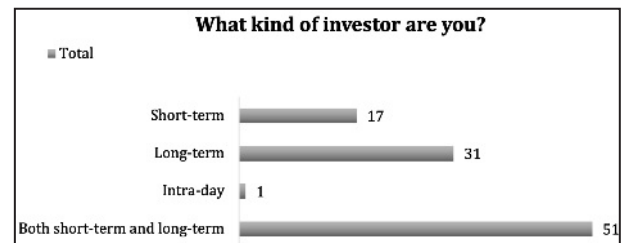


Figure 10: Categories of Investors
(Source: Data Generated)

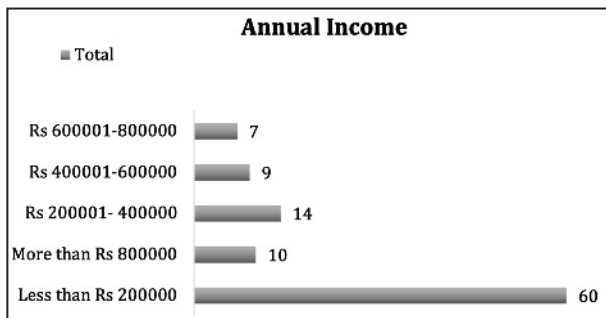


Figure 7: Annual Income
(Source: Data Generated)

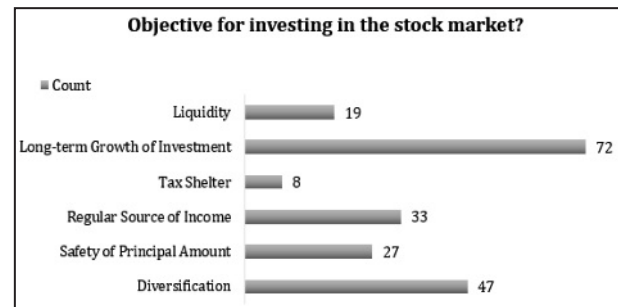


Figure 11: Objectives for Investing in the Stock Market
(Source: Data Generated)

Investor Profiling

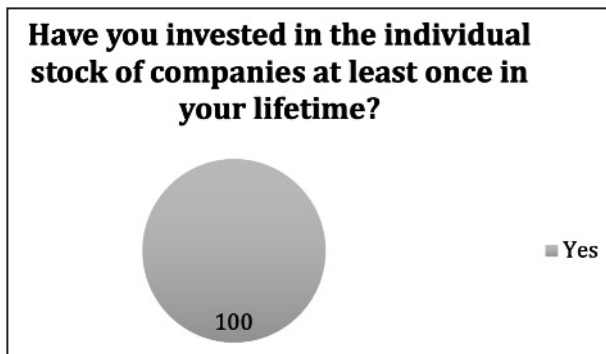


Figure 8: Chart showing Investment in Individual Stock of Companies at Least Once in the Lifetime
(Source: Data Generated)

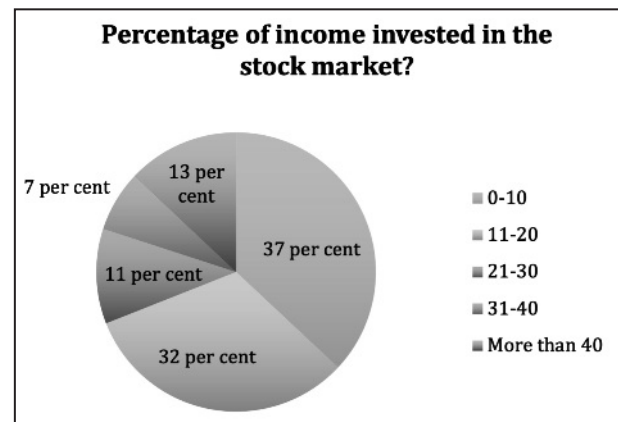


Figure 12: Percentage of Income Invested in the Stock Market
(Source: Data Generated)

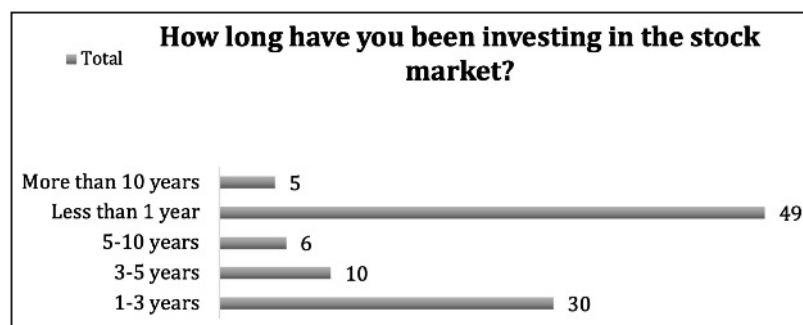
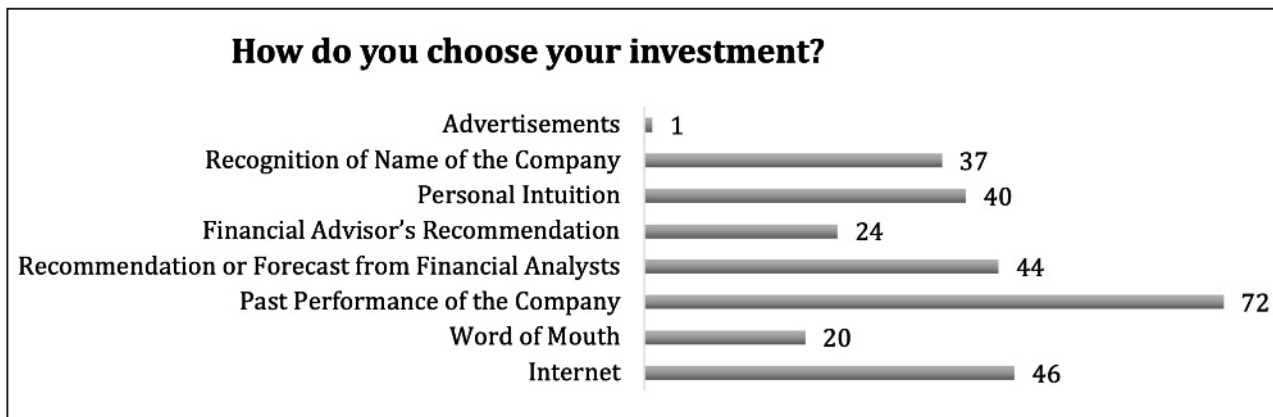
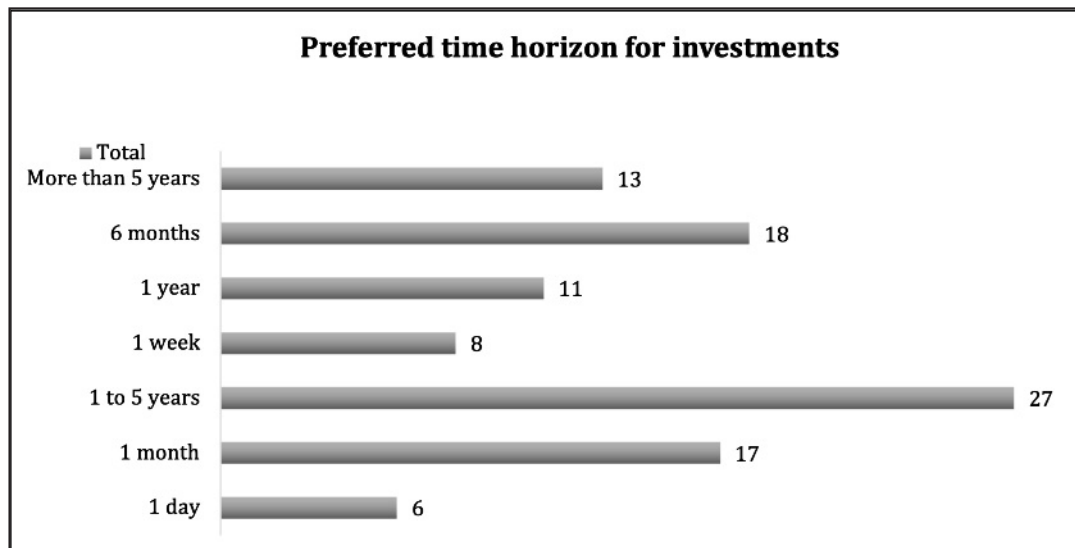


Figure 9: Time Period of Investing in the Stock Market
(Source: Data Generated)



*Figure 13: Mode of Choosing Investments
(Source: Data Generated)*

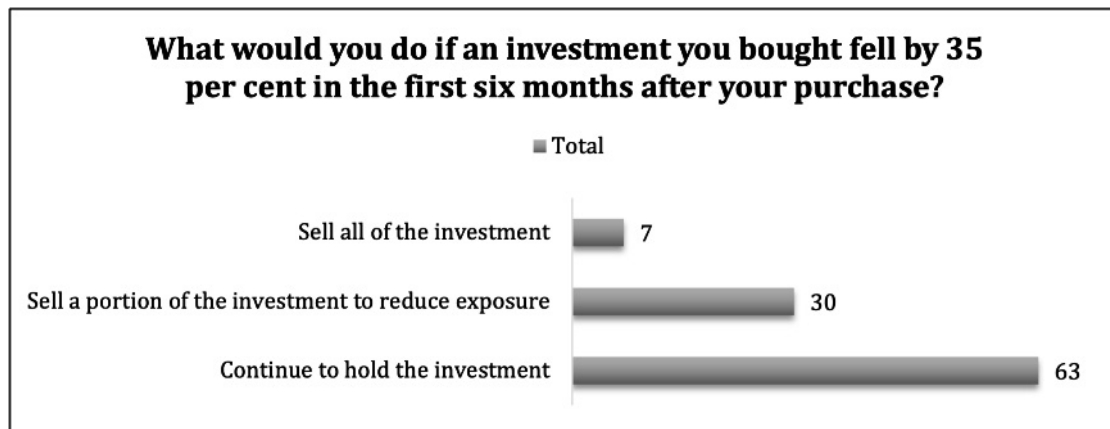


*Figure 14: Preferred Time Horizon for Investments
(Source: Data Generated)*

Market Preference for Investment	Count
Both	60
Primary Market (IPOs)	5
Secondary Market (Buying and selling of shares)	35

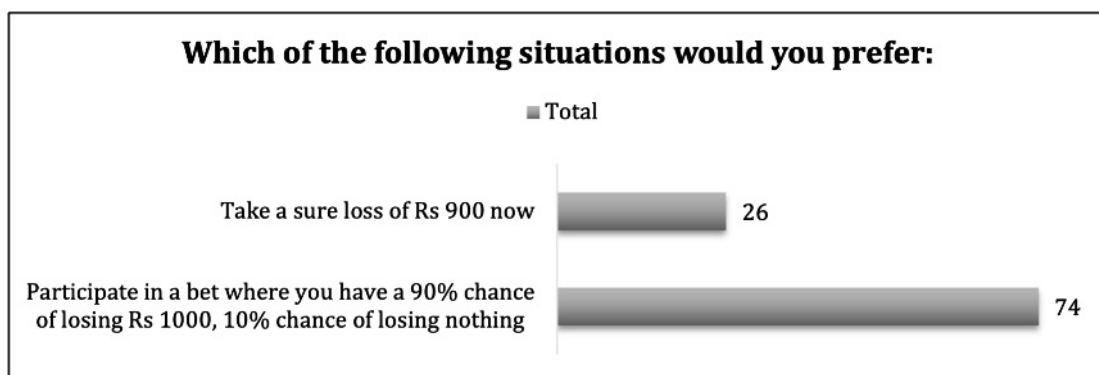
*Table 1: Table Showing Market Preferences for Investment
(Source: Data Generated)*

Investors' Behaviour in Different Investment Situations



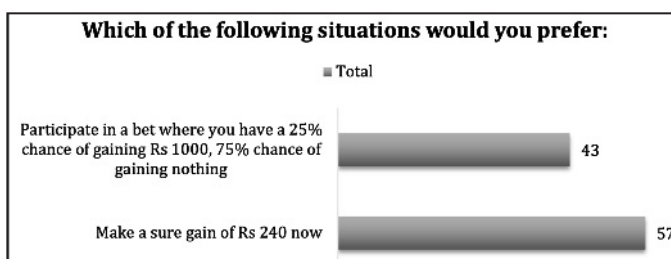
*Figure 15: Investment Behaviour if the Investment Fell by 35 per cent in the First Six Months
(Source: Data Generated)*

- 7 per cent of the respondents depict the highest degree of loss aversion bias.
- 63 per cent of the respondents depict loss aversion leading to status quo bias.
- 30 per cent of the respondents reduce exposure which is also an impact of loss aversion bias.



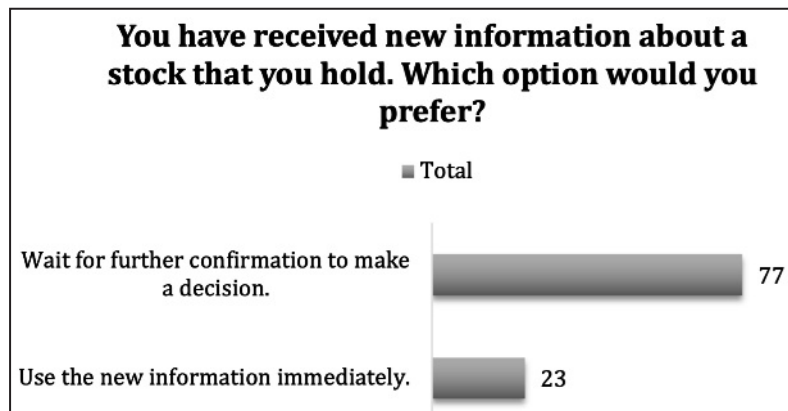
*Figure 16: Investment Behaviour as per the Above Situation
(Source: Data Generated)*

- In the situation depicted in Figure 16, even though the expected value of both the choices is a loss of 900, 74 per cent of the respondents prefer participating in a bet overtaking a sure loss of 900.



*Figure 17: Investment Behaviour as per the Above Situation
(Source: Data Generated)*

- In the situation depicted in Figure 17, 57 per cent of the respondents prefer making a sure gain of 240 over participating in a bet, even though the expected gain of choosing to participate in a bet is 250, greater than 240 by taking the sure gain.



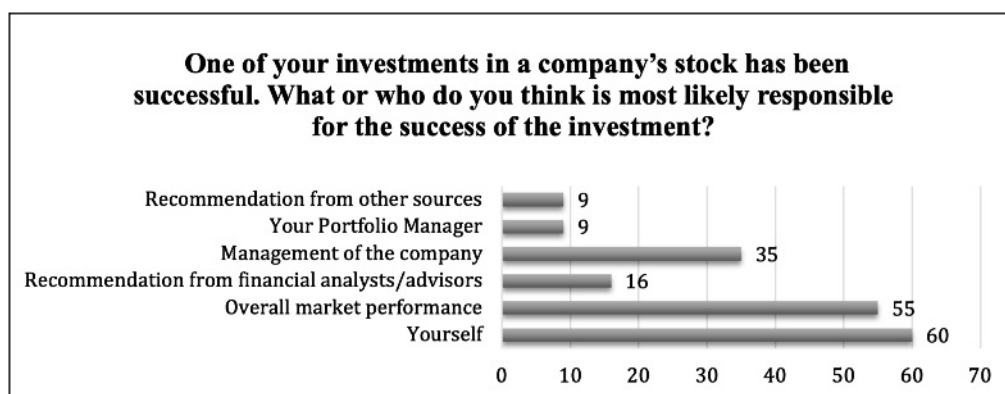
*Figure 18: Investment Behaviour as per the Above Situation
(Source: Data Generated)*

- 77 per cent of the respondents are prone to conservatism bias.



*Figure 19: Investment Behaviour as per the Above Situation
(Source: Data Generated)*

- 69 per cent of the respondents show overconfidence bias.



*Figure 20: Investment Behaviour as per the Above Situation
(Source: Data Generated)*

- 60 per cent of the respondents are prone to self-attribution bias.

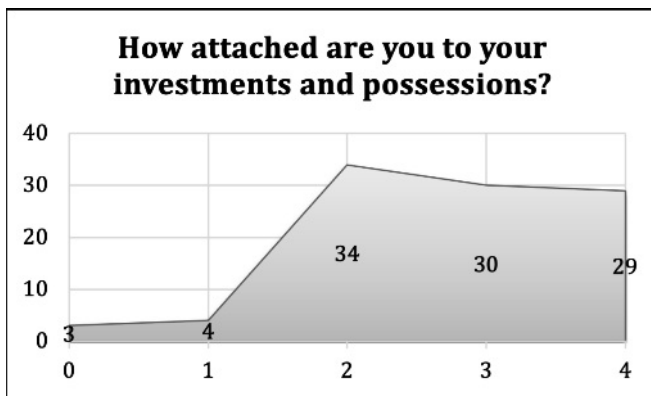


Figure 21: How Attached are you to your Investments and Possessions
(Source: Data Generated)

- The mode of the above data is 2.
- 34 per cent of the respondents are relatively prone to endowment bias.
- 59 per cent of the respondents are highly prone to endowment bias.
- 7 per cent of the respondents are either less attached or not attached to their investments and possessions.

- 21 per cent of the respondents are more likely to be impacted by status-quo bias. They might not be able to take complete advantage of the benefits possible through continuous trading.
- 9 per cent of the respondents trade daily. They are less likely to suffer from status quo bias.

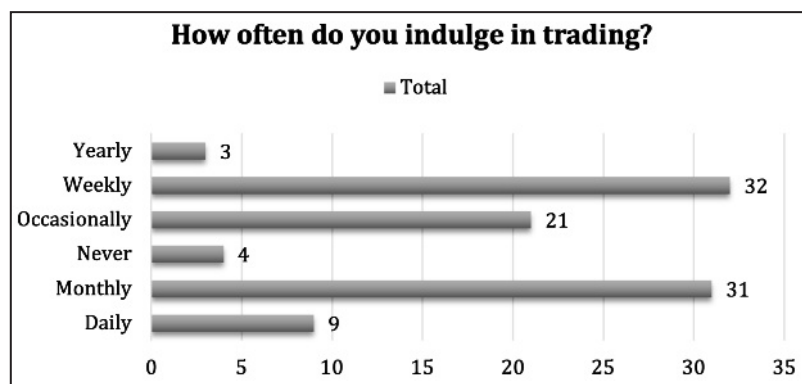


Figure 22: How often do you Indulge in Trading
(Source: Data Generated)

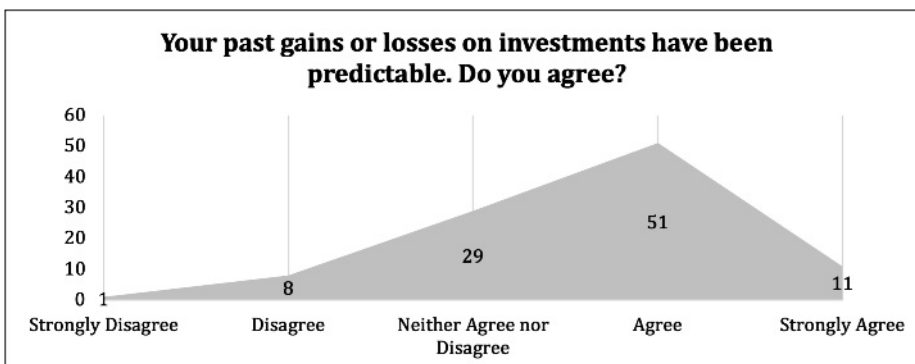
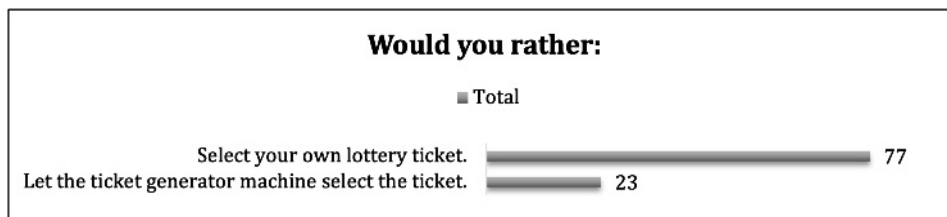


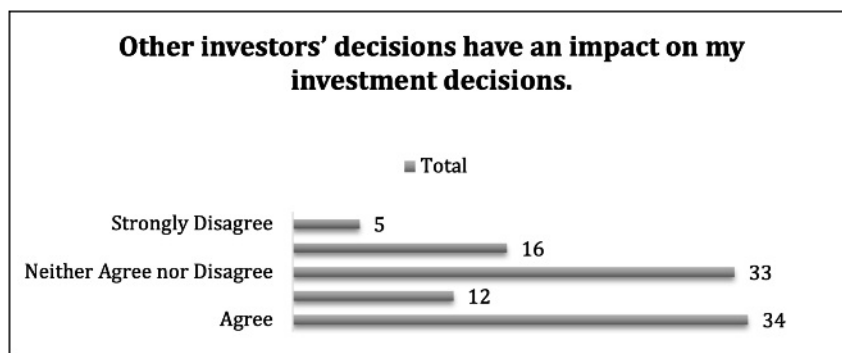
Figure 23: How Predictable are your Gains or Losses
(Source: Data Generated)

- 62 per cent of the respondents agree or strongly agree with the statement and are prone to hindsight bias.



*Figure 24: Would an Investor Rather
(Source: Data Generated)*

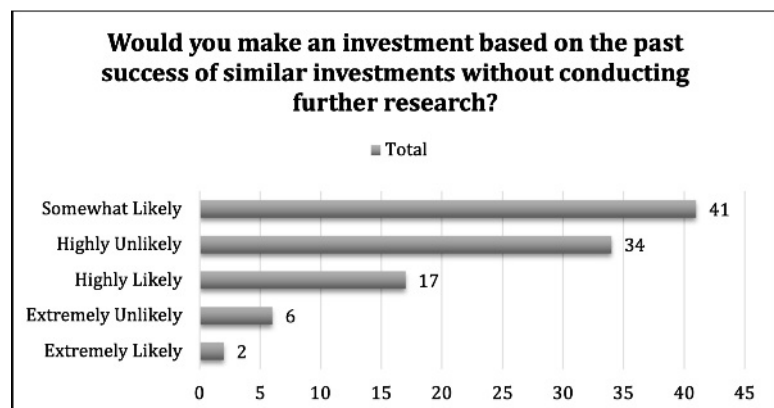
- 77 per cent of the respondents choose to select their own lottery ticket, thereby depicting control bias.



*Figure 25: Whether Other Investors' Decision have
any Impact on Another Investor's Decision
(Source: Data Generated)*

- 50 per cent of the respondents are impacted by the decisions of other investors are, hence, prone to herding.

- 19 per cent of the respondents are either extremely likely or highly likely to choose an investment based on the past success of similar investments and show the highest degree of representativeness bias.
- 41 per cent of the respondents are somewhat likely to act in the given manner and are prone to representativeness bias.
- 40 per cent of respondents are extremely unlikely or highly unlikely to act in the given manner and are less prone to representativeness bias.



*Figure 26: Whether Past Successful Investments
Affect Current Investments
(Source: Data Generated)*

Test for Significant Dependencies in Investment Decisions

Alternative hypothesis (H1)– Overconfidence bias is dependent on the gender of the investor.

The following hypothesis are formulated:

Null hypothesis (H0)– Overconfidence bias is not dependent on the gender of the investor.

Observed Frequencies			
You have conducted your research and want to make a risky investment that you are sure will be profitable. Your Financial Advisor tells you that the risk exposure is large for your portfolio and thinks it is safer not to invest. What will you do?	I will invest as I am sure of my research.	I will not invest.	Grand Total
Gender			
Female	16	12	28
Male	51	19	70
Prefer Not to Say	2	0	2
Grand Total	69	31	100

*Table 2: Table Showing Market Preferences for Investment (Observed Frequencies)
(Source: Data Generated)*

Expected Frequencies		
You have conducted your research and want to make a risky investment that you are sure will be profitable. Your Financial Advisor tells you that the risk exposure is large for your portfolio and thinks it is safer not to invest. What will you do?	I will invest as I am sure of my research.	I will not invest.
Female	19.32	8.68
Male	48.3	21.7
Prefer Not to Say	1.38	0.62

*Table 3: Table Showing Market Preferences for Investment (Expected Frequencies)
(Source: Data Generated)*

The chi-square points for the above data are found using the following formula:

$$\chi^2 = \sum \frac{(\text{Observed value} - \text{Expected value})^2}{\text{Expected value}}$$

Thereafter, the result is depicted in the table below:

Calculated chi-square test value	3.225806452
Critical Value of chi-square for 80 per cent confidence interval	3.218875825

Table 4: Table Showing Statistics
(Source: Data Generated)

The calculated chi-square test value is more than the critical value of chi-square for an 80 per cent confidence interval.

Hence, the null hypothesis is rejected at an 80 per cent confidence interval.

The test has failed to reject the alternative hypothesis.

The following hypothesis has been formulated:

Null hypothesis (H0)– Representativeness bias is not dependent on the level of education of the investor.

Alternative hypothesis (H1)– Representativeness bias is dependent on the level of education of the investor.

Observed Frequencies						
Would you make an investment based on the past success of similar investments without conducting further research?	Extremely Likely	Extremely Unlikely	Highly Likely	Highly Unlikely	Somewhat Likely	Grand Total
Bachelor's Degree		4	9	8	13	34
Higher Secondary (Class XII)			1	4	1	6
Master's Degree			2	3	5	10
Postgraduate Diploma	1	1				2
Undergraduate	1	1	5	19	22	48
Grand Total	2	6	17	34	41	100

Table5: Would Investors Make an Investment Based on the Past Success of Similar Investments (Observed Frequencies)
(Source: Data Generated)

Expected Frequencies					
Would you make an investment based on the past success of similar investments without conducting further research?	Extremely Likely	Extremely Unlikely	Highly Likely	Highly Unlikely	Somewhat Likely
Bachelor's Degree	0.68	2.04	5.78	11.56	13.94
Higher Secondary (Class XII)	0.12	0.36	1.02	2.04	2.46
Master's Degree	0.2	0.6	1.7	3.4	4.1
Postgraduate Diploma	0.04	0.12	0.34	0.68	0.82
Undergraduate	0.96	2.88	8.16	16.32	19.68

Table 6: Would Investors Make an Investment Based on the Past Success of Similar Investments
(Source: Data Generated)

The chi-square points for the above data are found using the following formula:

$$\chi^2 = \sum \frac{(\text{Observed value} - \text{Expected value})^2}{\text{Expected value}}$$

Thereafter, the result is depicted in the table below:

Calculated chi-square test value	44.34383234
Critical Value of chi-square for 99 per cent confidence interval	31.99992691

The calculated chi-square test value is more than critical value of chi-square for a 99 per cent confidence interval.

Hence, the null hypothesis is rejected at a 99 per cent confidence interval.

The test has failed to reject the alternative hypothesis.

CONCLUSION

Through the analysis and findings of the current study, it can be concluded that the majority of the investors in the sample under study are impacted by cognitive and emotional biases. It is imperative that one acknowledges, becomes aware, understands, and accommodates the role of behavioural biases in investment decision-making. One must understand that contrary to the belief of traditional theories of finance; individuals cannot always make rational decisions or have the perfect information about the market. The market cannot be understood completely when we assume that all investors are rational, and markets are efficient. Behavioural finance is, thus, an integral part of understanding investment decisions and is required to achieve a psychological edge in the investment decision-making process.

Understanding behavioural biases enhance the quality of portfolio construction and management as the

psychological perceptions of clients are taken into consideration. With the help of 'Behaviourally Modified Asset Allocation', the effect of behavioural biases must be included optimally. Effective wealth, an amalgamation of wealth, the standard of living and desired lifestyle, must be created.

SUGGESTIONS

Loss Aversion Bias

Investors should conduct a realistic assessment of their gains and losses rather than focusing on the losses more than required.

Conservatism Bias

Investors should realize that the bias exists and avoid undue retention of pre-existing information and conduct analysis using new information.

Overconfidence Bias

Investors should be open to advice and consider the returns on assets over different time horizons to avoid bias in investment decision-making.

Self-attribution Bias

Investors should take the appropriate time to evaluate their outcomes and give due credit to others for the success of their investments.

Endowment Bias

Investors must realize the importance of open-mindedness and should replace previous assets rather than selling them and restarting.

Status-quo Bias

This bias is difficult to overcome; however, to mitigate it to the extent possible, investors must be educated themselves, be proactive and ensure diversification in their portfolio investments.

Hindsight Bias

Education is essential for the recognition of hindsight bias. Investors must realize their mistakes and take corrective action.

Control Bias

Investors must understand that investment returns depend on investment strategies rather than the degree of control one possesses.

Herding Bias

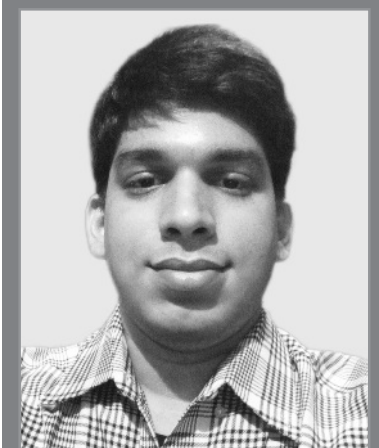
Investors should conduct their own research with the necessary due diligence. They should not blindly follow what other investors are doing.

Representativeness Bias

Investors should undertake better diversification to avoid repetitive patterns and practice due diligence.

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It is high time that we should understand that high population leads to negative environmental consequences like excessive use of natural resources, global warming, threat to biodiversity and climate change.



Indian Population and Environment

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ABSTRACT

According to a United Nations report in 2019, India will cross China as the most populous country in the world by 2027. The increasing population has led to severe growth in energy production as well as its consumption resulting in excess utilization of natural resources. It has also affected the per capita income and economic development of the nation. Hence, the increase in population is one of the most important concerns in our country.

In this research, an analysis of the entire population of India is done with graphical presentation using the Census Data from 1971 to 2011. It also explores the variation in population trends and major consequences it results. The interaction between human population demographics and the environment needs to be viewed very carefully. This research concludes by giving recommendations to solve the problem of the rise in population of the country and its adverse impact on natural resources.

KEYWORDS: Population, Census, Environment, Climate Change, Five-Year Plans.

INTRODUCTION

India is the second-most populous country in the world with a population of 1380 million and a median age of 28.4 years in 2020 according to Worldometer. It is nearly a fifth of the world's population. According to 2001 census data, the total geographical area of India is 3.287million sq.km. This also includes 0.121 million sq. km. of the area which is under illegal occupation by China and Pakistan.

At the global level, the country accounts for 2.4 per cent of the surface area of the earth but it sustains 17 per cent of the total population. According to World Bank data, the population growth rate of India was 1per cent in 2020, whereas the population growth rate of China was only 0.2 per cent in that year. It is anticipated that India will be the first country to give residence to more than 1.50 billion people by 2030, and the population may cross 1.70 billion by 2050. According to The Hindu, the population of India may peak by the year 2047 with about 1.61 billion residents. This is a serious concern for a developing country like India. Air pollution, water contamination and global warming are some of the major consequences due to the rise in consumption level on account of the increase in population.

LITERATURE REVIEW

There has been various research on population of various parts of India and relationship between population and environment.

S.N. Nandy and K.S. Raoof G.B. Pant Institute of Himalayan Environment and Development, Kosi-Katarmal, Almora conducted research named 'Census 2001: Population Dynamics of Indian Himalaya' showing the changes in population of the Indian Himalayan region comprising North and North-East India from 1951 to 2001. Changes in population density, sex ratio and literacy rate over the years was also covered in the research. It was published in ENVIS Bulletin of Himalayan Ecology, 2001.

Alex de Sherbinin, David Carr, Susan Cassels, and Leiwen Jiang conducted research named 'Population and Environment' showing the global trends in population and consumption and population-

environment theories. It also showed the adverse impact on environment and climate change because of huge population. It was first published online as a Review in Advance on 16th July, 2007 and then it was included in Annual Review of Environment and Resources, 2007.

OBJECTIVES

There are three objectives of the research, namely-

- i) To explore the changes in population of India from 1971 to 2011 in terms of magnitude, population density, literacy ratio, sex ratio, poverty rate, unemployment rate and other factors.
- ii) To find out relation between increase in population in India and its unemployment rate and poverty rate from the census data.
- iii) To state the negative consequences of the increase in population on the environment and suggesting measures to overcome these.

RESEARCH METHODOLOGY

The research is mainly quantitative in nature. Data pertaining to this research has been gathered purely from secondary sources and then descriptive and correlational analysis is done.

The secondary data has been mainly collected from Reports of The Census of India and Reserve Bank of India publications. Further, other related information has been extracted from sources like World Bank, NASA, Worldometer, United Nations Report and articles from The Hindu and The Economic Times.

Statistical tools like column charts, pie charts and data analysis tools are used in there search.

CENSUS DATA AND ANALYSIS

This portion is divided in two segments.

In the first segment, the data of Indian population is presented state-wise in tabular formunder six heads and then examined in terms of percentage increase

over the period. The six heads are mentioned as follows-

- Magnitude
- Population density
- Literacy ratio
- Sex ratio
- Poverty rate
- Unemployment rate

In the second segment, data of the Indian population is presented for the country as a whole under two heads and then analyzed in terms of per cent of the entire population of the country. The two heads are mentioned as follows -

- Mother tongue
- Religion

STATE-WISE TOTAL POPULATION (in Thousands)						ANALYSIS (done by author) (Percentage increase over the decade)			
State	1971	1981	1991	2001	2011	1971-1981	1981-1991	1991-2001	2001-2011
Andhra Pradesh	43503	53551	66508	76210	84581	23.10	24.20	14.59	10.98
Arunachal Pradesh	468	632	865	1098	1384	35.04	36.87	26.94	26.05
Assam	14625	18041	22414	26656	31206	23.36	24.24	18.93	17.07
Bihar	42126	52303	64531	82999	104099	24.16	23.38	28.62	25.42
Chhattisgarh	11637	14010	17615	20834	25545	20.39	25.73	18.27	22.61
Goa	795	1008	1170	1348	1459	26.79	16.07	15.21	8.23
Gujarat	26697	34086	41310	50671	60440	27.68	21.19	22.66	19.28
Haryana	10036	12922	16464	21145	25351	28.76	27.41	28.43	19.89
Himachal Pradesh	3460	4281	5171	6078	6865	23.73	20.79	17.54	12.95
Jammu and Kashmir	4617	5987	7837	10144	12541	29.67	30.90	29.44	23.63
Jharkhand	14227	17612	21844	26946	32988	23.79	24.03	23.36	22.42
Karnataka	29299	37136	44977	52851	61095	26.75	21.11	17.51	15.60
Kerala	21347	25454	29099	31841	33406	19.24	14.32	9.42	4.92
Madhya Pradesh	30017	38169	48566	60348	72627	27.16	27.24	24.26	20.35
Maharashtra	50412	62783	78937	96879	112374	24.54	25.73	22.73	15.99
Manipur	1073	1421	1837	2294	2856	32.43	29.28	24.88	24.50
Meghalaya	1012	1336	1775	2319	2967	32.02	32.86	30.65	27.94
Mizoram	332	494	690	889	1097	48.80	39.68	28.84	23.40
Nagaland	516	775	1210	1990	1979	50.19	56.13	64.46	-0.55
Odisha	21945	26370	31660	36805	41974	20.16	20.06	16.25	14.04
Punjab	13551	16789	20282	24359	27743	23.89	20.81	20.10	13.89
Rajasthan	25766	34262	44006	56507	68548	32.97	28.44	28.41	21.31
Sikkim	210	316	406	541	611	50.48	28.48	33.25	12.94
Tamil Nadu	41199	48408	55859	62406	72147	17.50	15.39	11.72	15.61
Tripura	1556	2053	2757	3199	3674	31.94	34.29	16.03	14.85
Uttar Pradesh	83849	105137	132062	166198	199812	25.39	25.61	25.85	20.23
Uttarakhand	4493	5726	7051	8489	10086	27.44	23.14	20.39	18.81
West Bengal	44312	54581	68078	80176	91276	23.17	24.73	17.77	13.84
						AVERAGE (MEAN)			
						28.59	26.50	23.45	17.36

Table 1: Magnitude of Population

(Source: Economic Survey, Government of India, Various Issues, Publication of RBI (2021))

STATE-WISE DENSITY OF POPULATION (Per square km)						ANALYSIS (done by author) (Percentage increase over the decade)			
State	1971	1981	1991	2001	2011	1971-1981	1981-1991	1991-2001	2001-2011
Andhra Pradesh	158	195	242	277	308	23.42	24.10	14.46	11.19
Arunachal Pradesh	6	8	10	13	17	33.33	25.00	30.00	30.77
Assam	186	230	286	340	398	23.66	24.35	18.88	17.06
Bihar	370	555	685	881	1106	50.00	23.42	28.61	25.54
Chhattisgarh	86	104	130	154	189	20.93	25.00	18.46	22.73
Goa	215	272	316	364	394	26.51	16.18	15.19	8.24
Gujarat	136	174	211	258	308	27.94	21.26	22.27	19.38
Haryana	227	292	372	478	573	28.63	27.40	28.49	19.87
Himachal Pradesh	62	77	93	109	123	24.19	20.78	17.20	12.84
Jammu and Kashmir	46	59	77	100	124	28.26	30.51	29.87	24.00
Jharkhand	179	221	274	338	414	23.46	23.98	23.36	22.49
Karnataka	153	194	235	276	319	26.80	21.13	17.45	15.58
Kerala	549	655	749	820	860	19.31	14.35	9.48	4.88
Madhya Pradesh	98	124	158	196	236	26.53	27.42	24.05	20.41
Maharashtra	164	204	257	315	365	24.39	25.98	22.57	15.87
Manipur	48	64	82	97	115	33.33	28.13	18.29	18.56
Meghalaya	45	60	79	103	132	33.33	31.67	30.38	28.16
Mizoram	16	23	33	42	52	43.75	43.48	27.27	23.81
Nagaland	31	47	73	120	119	51.61	55.32	64.38	-0.83
Odisha	141	169	203	236	270	19.86	20.12	16.26	14.41
Punjab	269	333	403	484	551	23.79	21.02	20.10	13.84
Rajasthan	75	100	129	165	200	33.33	29.00	27.91	21.21
Sikkim	30	45	57	76	86	50.00	26.67	33.33	13.16
Tamil Nadu	317	372	429	480	555	17.35	15.32	11.89	15.63
Tripura	148	196	263	305	350	32.43	34.18	15.97	14.75
Uttar Pradesh	348	436	548	690	829	25.29	25.69	25.91	20.14
Uttarakhand	84	107	133	159	189	27.38	24.30	19.55	18.87
West Bengal	499	615	767	903	1028	23.25	24.72	17.73	13.84
						AVERAGE (MEAN)			
						29.36	26.09	23.19	17.37

Table 2: Population Density
 (Source: Office of the Registrar General and Census Commissioner, Government of India,
 Ministry of Home Affairs, Publication of RBI (2021))

STATE-WISE LITERACY RATE (Per cent)						ANALYSIS (done by author) (Percentage increase over the decade)			
State	1971	1981	1991	2001	2011	1971-1981	1981-1991	1991-2001	2001-2011
Andhra Pradesh	24.57	35.66	44.08	60.47	67.02	45.14	23.61	37.18	10.83
Arunachal Pradesh	11.29	25.55	41.59	54.34	65.39	126.31	62.78	30.66	20.33
Assam	33.94	-	52.89	63.25	72.19	-	-	19.59	14.13
Bihar	23.17	32.32	37.49	47.00	61.80	39.49	16.00	25.37	31.49
Chhattisgarh	24.08	32.63	42.91	64.66	70.28	35.51	31.50	50.69	8.69
Goa	51.96	65.71	75.51	82.01	88.70	26.46	14.91	8.61	8.16
Gujarat	36.95	44.92	61.29	69.14	78.03	21.57	36.44	12.81	12.86
Haryana	25.71	37.13	55.85	67.91	75.55	44.42	50.42	21.59	11.25
Himachal Pradesh	-	-	63.86	76.48	82.80	-	-	19.76	8.26
Jammu and Kashmir	21.71	30.64	-	55.52	67.16	41.13	-	-	20.97
Jharkhand	23.87	35.03	41.39	53.56	66.41	46.75	18.16	29.40	23.99
Karnataka	36.83	46.21	56.04	66.60	75.37	25.47	21.27	18.84	13.17
Kerala	69.75	78.85	89.81	90.86	94.00	13.05	13.90	1.17	3.46
Madhya Pradesh	27.27	38.63	44.67	63.74	69.32	41.66	15.64	42.69	8.75
Maharashtra	45.77	57.24	64.87	76.88	82.34	25.06	13.33	18.51	7.10
Manipur	38.47	49.66	59.89	70.50	76.90	29.09	20.60	17.72	9.08
Meghalaya	29.49	42.05	49.10	62.56	74.43	42.59	16.77	27.41	18.97
Mizoram	53.80	59.88	82.26	88.80	91.33	11.30	37.37	7.95	2.85
Nagaland	33.78	50.28	61.65	66.59	79.60	48.85	22.61	8.01	19.54
Odisha	26.18	33.62	49.09	63.08	72.89	28.42	46.01	28.50	15.55
Punjab	34.12	43.37	58.51	69.65	75.84	27.11	34.91	19.04	8.89
Rajasthan	22.57	30.11	38.55	60.41	66.11	33.41	28.03	56.71	9.44
Sikkim	17.74	34.05	56.94	68.81	81.42	91.94	67.22	20.85	18.33
Tamil Nadu	45.40	54.39	62.66	73.45	80.09	19.80	15.21	17.22	9.04
Tripura	30.98	50.10	60.44	73.19	87.22	61.72	20.64	21.10	19.17
Uttar Pradesh	23.99	32.65	40.71	56.27	67.68	36.10	24.69	38.22	20.28
Uttarakhand	33.26	46.06	57.75	71.62	78.82	38.48	25.38	24.02	10.05
West Bengal	38.86	48.65	57.70	68.64	76.26	25.19	18.60	18.96	11.10
:-Not Available.									
						AVERAGE (MEAN)			
						39.46	27.84	23.80	13.42

Table 3: Literacy Ratio
 (Source: Office of the Registrar General and Census Commissioner,
 Government of India, Ministry of Home Affairs, Publication of RBI (2021))

STATE-WISE SEX RATIO (Females per Thousand Males)						ANALYSIS (done by author) (Percentage increase over the decade)			
State	1971	1981	1991	2001	2011	1971-1981	1981-1991	1991-2001	2001-2011
Andhra Pradesh	977	975	972	978	993	-0.20	-0.31	0.62	1.53
Arunachal Pradesh	861	862	859	893	938	0.12	-0.35	3.96	5.04
Assam	896	910	923	935	958	1.56	1.43	1.30	2.46
Bihar	957	948	907	919	918	-0.94	-4.32	1.32	-0.11
Chhattisgarh	998	996	985	989	991	-0.20	-1.10	0.41	0.20
Goa	981	975	967	961	973	-0.61	-0.82	-0.62	1.25
Gujarat	934	942	934	920	919	0.86	-0.85	-1.50	-0.11
Haryana	867	870	865	861	879	0.35	-0.57	-0.46	2.09
Himachal Pradesh	958	973	976	968	972	1.57	0.31	-0.82	0.41
Jammu and Kashmir	878	892	896	892	889	1.59	0.45	-0.45	-0.34
Jharkhand	945	940	922	941	948	-0.53	-1.91	2.06	0.74
Karnataka	957	963	960	965	973	0.63	-0.31	0.52	0.83
Kerala	1016	1032	1036	1058	1084	1.57	0.39	2.12	2.46
Madhya Pradesh	920	921	912	919	931	0.11	-0.98	0.77	1.31
Maharashtra	930	937	934	922	929	0.75	-0.32	-1.28	0.76
Manipur	980	971	958	978	992	-0.92	-1.34	2.09	1.43
Meghalaya	942	954	955	972	989	1.27	0.10	1.78	1.75
Mizoram	946	919	921	935	976	-2.85	0.22	1.52	4.39
Nagaland	871	863	886	900	931	-0.92	2.67	1.58	3.44
Odisha	988	981	971	972	979	-0.71	-1.02	0.10	0.72
Punjab	865	879	882	876	895	1.62	0.34	-0.68	2.17
Rajasthan	911	919	910	921	928	0.88	-0.98	1.21	0.76
Sikkim	863	835	878	875	890	-3.24	5.15	-0.34	1.71
Tamil Nadu	978	977	974	987	996	-0.10	-0.31	1.33	0.91
Tripura	943	946	945	948	960	0.32	-0.11	0.32	1.27
Uttar Pradesh	876	882	876	898	912	0.68	-0.68	2.51	1.56
Uttarakhand	940	936	936	962	963	-0.43	0.00	2.78	0.10
West Bengal	891	911	917	934	950	2.24	0.66	1.85	1.71
-: Not Available.									
						AVERAGE (MEAN)			
						0.16	-0.16	0.86	1.44

Table 4: Sex Ratio

(Source: Office of the Registrar General and Census Commissioner,
Government of India, Ministry of Home Affairs, Publication of RBI (2021))

STATE-WISE POVERTY RATE (Person in millions)					ANALYSIS (done by author) (Percentage increase over the period)		
State	1993-94	1999-00	2004-05	2011-12	1993-1999	1999-2005	2005-2011
Andhra Pradesh	15.4	11.9	23.88	7.88	-22.73	100.67	-67.00
Arunachal Pradesh	0.37	0.4	0.36	0.49	8.11	-10.00	36.11
Assam	9.64	9.46	9.73	10.13	-1.87	2.85	4.11
Bihar	49.34	42.56	48.56	35.82	-13.74	14.10	-26.24
Chhattisgarh	-	-	10.99	10.41	-	-	-5.28
Goa	0.19	0.07	0.36	0.08	-63.16	414.29	-77.78
Gujarat	10.52	6.79	17.22	10.22	-35.46	153.61	-40.65
Haryana	4.39	1.73	5.51	2.88	-60.59	218.50	-47.73
Himachal Pradesh	1.59	0.51	1.46	0.56	-67.92	186.27	-61.64
Jammu and Kashmir	2.09	0.35	1.42	1.33	-83.25	305.71	-6.34
Jharkhand	-	-	13.07	12.43	-	-	-4.90
Karnataka	15.65	10.44	18.57	12.98	-33.29	77.87	-30.10
Kerala	7.64	4.10	6.50	2.40	-46.34	58.54	-63.08
Madhya Pradesh	29.85	29.85	31.69	23.41	0.00	6.16	-26.13
Maharashtra	30.52	22.80	39.33	19.79	-25.29	72.50	-49.68
Manipur	0.68	0.72	0.87	1.02	5.88	20.83	17.24
Meghalaya	0.74	0.82	0.39	0.36	10.81	-52.44	-7.69
Mizoram	0.19	0.19	0.14	0.23	0.00	-26.32	64.29
Nagaland	0.51	0.55	0.19	0.38	7.84	-65.45	100.00
Odisha	16.06	16.91	22.02	13.85	5.29	30.22	-37.10
Punjab	2.51	1.45	5.38	2.32	-42.23	271.03	-56.88
Rajasthan	12.85	8.18	21.03	10.29	-36.34	157.09	-51.07
Sikkim	0.18	0.21	0.18	0.05	16.67	-14.29	-72.22
Tamil Nadu	20.21	13.05	18.68	8.26	-35.43	43.14	-55.78
Tripura	1.18	1.30	1.37	0.52	10.17	5.38	-62.04
Uttarakhand	-	-	2.97	1.16	-	-	-60.94
Uttar Pradesh	60.45	52.99	73.55	59.82	-12.34	38.80	-18.67
West Bengal	25.46	21.35	28.91	18.50	-16.14	35.41	-36.01
-: Not Applicable.							
					AVERAGE (MEAN)		
					-21.25	81.78	-26.54

Table 5: Poverty Rate
*(Sources: National Sample Survey Organization; and
NITI Aayog (Erstwhile Planning Commission); Publication of RBI (2021))*

STATE-WISE UNEMPLOYMENT RATE: USUAL STATUS (Adjusted) (Per Thousands)					ANALYSIS (done by author) (Percentage increase over the period)		
State	1993-94	1999-00	2004-05	2011-12	1993-1999	1999-2005	2005-2011
Andhra Pradesh	34	47	43	55	38.24	-8.51	27.91
Arunachal Pradesh	36	34	21	65	-5.56	-38.24	209.52
Assam	141	136	98	101	-3.55	-27.94	3.06
Bihar	87	92	79	88	5.75	-14.13	11.39
Chhattisgarh	-	-	41	51	-	-	24.39
Goa	191	278	198	97	45.55	-28.78	-51.01
Gujarat	42	24	29	11	-42.86	20.83	-62.07
Haryana	37	35	62	66	-5.41	77.14	6.45
Himachal Pradesh	31	78	56	50	151.61	-28.21	-10.71
Jammu and Kashmir	73	61	64	95	-16.44	4.92	48.44
Jharkhand	-	-	79	72	-	-	-8.86
Karnataka	43	40	35	38	-6.98	-12.50	8.57
Kerala	172	184	263	129	6.98	42.93	-50.95
Madhya Pradesh	55	40	33	30	-27.27	-17.50	-9.09
Maharashtra	52	72	46	30	38.46	-36.11	-34.78
Manipur	52	86	66	97	65.38	-23.26	46.97
Meghalaya	19	50	38	32	163.16	-24.00	-15.79
Mizoram	15	39	22	68	160.00	-43.59	209.09
Nagaland	82	115	73	389	40.24	-36.52	432.88
Odisha	79	86	184	57	8.86	113.95	-69.02
Punjab	47	45	88	47	-4.26	95.56	-46.59
Rajasthan	17	29	36	38	70.59	24.14	5.56
Sikkim	38	103	61	33	171.05	-40.78	-45.90
Tamil Nadu	63	60	47	47	-4.76	-21.67	0.00
Tripura	108	70	413	357	-35.19	490.00	-13.56
Uttarakhand	-	-	67	78	-	-	16.42
Uttar Pradesh	36	49	39	50	36.11	-20.41	28.21
West Bengal	97	104	87	75	7.22	-16.35	-13.79
-: Not Available.					AVERAGE (MEAN)		
Notes: Employment figures are the sum of principal status and subsidiary status.							
					34.28	17.24	23.10

Table 6: Unemployment Rate
(Sources: NSSO Employment and Unemployment Survey Reports; NITI Aayog;
and Periodic Labor Force Survey (PLFS), NSO, Publication of RBI (2021))

COMPARATIVE SPEAKERS' STRENGTH OF SCHEDULED LANGUAGES (MOTHER TONGUE)					ANALYSIS (done by author)			
(Magnitude)					(Percentage of Total Population)			
Language	1981	1991	2001	2011	1981	1991	2001	2011
Hindi	257,749,009	329,518,087	422,048,642	528,347,193	38.74	39.29	41.03	43.63
Bengali	51,298,319	69,595,738	83,369,769	97,237,669	7.71	8.3	8.11	8.03
Marathi	49,452,922	62,481,681	71,936,894	83,026,680	7.43	7.45	6.99	6.86
Telugu	50,624,611	66,017,615	74,002,856	81,127,740	7.61	7.87	7.19	6.7
Tamil	-	53,006,368	60,793,814	69,026,881	-	6.32	5.91	5.7
Gujarati	33,063,267	40,673,814	46,091,617	55,492,554	4.97	4.85	4.48	4.58
Urdu	34,941,435	43,406,932	51,536,111	50,772,631	5.25	5.18	5.01	4.19
Kannada	25,697,146	32,753,676	37,924,011	43,706,512	3.86	3.91	3.69	3.61
Odia	23,021,528	28,061,313	33,017,446	37,521,324	3.46	3.35	3.21	3.1
Malayalam	25,700,705	30,377,176	33,066,392	34,838,819	3.86	3.62	3.21	2.88
Punjabi	19,611,199	23,378,744	29,102,477	33,124,726	2.95	2.79	2.83	2.74
Assamese	-	13,079,696	13,168,484	15,311,351	-	1.56	1.28	1.26
Maithili	7,522,265	7,766,921	12,179,122	13,583,464	1.13	0.93	1.18	1.12
Santali	4,332,511	5,216,325	6,469,600	7,368,192	0.65	0.62	0.63	0.61
Kashmiri	3,176,975	-	5,527,698	6,797,587	0.48	-	0.54	0.56
Nepali	1,360,636	2,076,645	2,871,749	2,926,168	0.2	0.25	0.28	0.24
Sindhi	2,044,389	2,122,848	2,535,485	2,772,264	0.31	0.25	0.25	0.23
Dogri	1,530,616	-	2,282,589	2,596,767	0.23	-	0.22	0.21
Konkani	1,570,108	1,760,607	2,489,015	2,256,502	0.24	0.21	0.24	0.19
Manipuri	901,407	1,270,216	1,466,705	1,761,079	0.14	0.15	0.14	0.15
Bodo	-	1,221,881	1,350,478	1,482,929	-	0.15	0.13	0.12
Sanskrit	6,106	49,736	14,135	24,821	0.0009	0.01	0.0014	0.002

-: Not Available.

Table 7: Mother Tongue
(Source: Languages, Census of India (2011))

COMPARISON OF DATA ON RELIGION (Magnitude)					ANALYSIS (done by author) (Per cent of Total Population)			
Religion	1981	1991	2001	2011	1981	1991	2001	2011
Hinduism	549,724,717	687,646,721	827,578,868	966,257,353	82.63	82.00	80.46	79.80
Islam	75,571,514	101,596,057	138,188,240	172,245,158	11.36	12.12	13.43	14.23
Christianity	16,174,498	19,640,284	24,080,016	27,819,588	2.43	2.34	2.34	2.30
Sikhism	13,078,146	16,259,744	19,215,730	20,833,116	1.96	1.94	1.87	1.72
Buddhism	1,719,900	6,387,500	7,955,207	8,442,972	0.71	0.76	0.77	0.70
Jainism	3,192,572	3,352,706	4,225,053	4,451,753	0.48	0.40	0.41	0.37
Other religion	2,766,285	3,285,407	6,639,626	7,937,734	0.42	0.39	0.65	0.66
Religion not stated	60,217	415,569	727,588	2,867,303	0.01	0.05	0.07	0.24

Table 8: Religion

(Source: Religion, Census of India and Census of India (1981) –
A Handbook of population statistics by V.S. Verma)

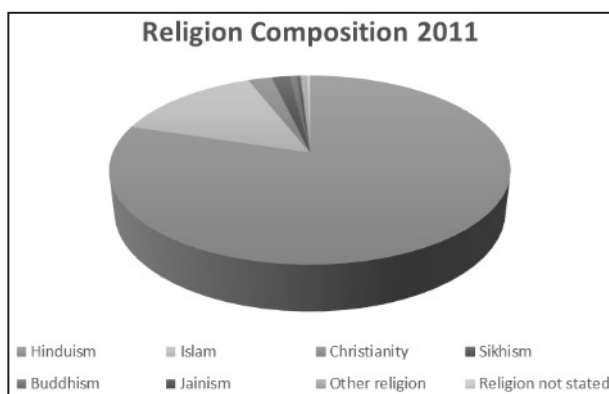


Figure 1: Pie Chart Showing the Religious Composition of the Country in the Year 2011

(Source: Religion, Census of India (2011),
Author's Compilation)

DESCRIPTIVE ANALYSIS AND INTERPRETATION

In terms of magnitude of population, Uttar Pradesh has the largest population in all the states whereas Sikkim has the least population. From 2001 to 2011, the population of Meghalaya increased by 29.94 per cent which is the maximum amount in all the states. The population of Nagaland decreased by 0.55 per cent

which is the minimum value. It can be observed that from 1971 to 1981, Nagaland's population increased by 50.19 per cent and from 1991 to 2001, the percentage increase was 64.46 per cent, the maximum amount in all the decades but still it came down to -0.55 per cent (2001-2011).

In terms of state-wise density of population, Bihar has the maximum population per square kilometre in 2011 and Arunachal Pradesh, the least one. In 1971 Kerala had the largest population per sq. km. From 2001 to 2011 Arunachal Pradesh witnessed the maximum increase in population density in all the states which was 30.77 per cent whereas the value of Nagaland was the minimum (-0.83 per cent). From 1991 to 2001, Nagaland showed maximum increase in population density in all the decades with value as 64.38 per cent.

The literacy rate of Kerala is the highest in all the years and Arunachal Pradesh, is the lowest one in India. In 2011, the literacy rate of Kerala and Arunachal Pradesh was 94 and 65.39 respectively. From 1971 to 1981, Arunachal Pradesh's literacy rate increased by 126.31 per cent which was a great achievement for the state

being the maximum in all the decades. From 2001 to 2011, Bihar showed the maximum percentage increase in literacy rate which was 31.49 per cent but Mizoram's literacy rate increase was the lowest (2.85 per cent).

The sex ratio of Kerala is consistently above 1000 in all the years but sex ratio of four states, namely Punjab, Haryana, Sikkim and Jammu and Kashmir are always below 900. From 2001 to 2011, Arunachal Pradesh experienced the maximum percentage increase in the sex ratio in all the decades which was 5.04 per cent but Jammu and Kashmir's sex ratio decreased by 0.34 per cent and it was the minimum value in that decade.

In terms of poverty, Uttar Pradesh has the largest magnitude of poor people in all the years and Sikkim has the least one. It may also be due to the fact that Uttar Pradesh is the most populated state in our country whereas Sikkim is the least populated state. Goa experienced a massive increase in poverty rate from 1999 to 2005, the value being 414.29 per cent which is a very alarming situation for the state. But it can be rightly said that the Government has achieved a huge reduction in poverty in all the states from 2005 to 2011 by 26.54 per cent.

In terms of unemployment, Nagaland had the maximum residents in 2011-12 whereas Gujarat had the minimum residents. Nagaland's unemployment rate increased by 432.88 per cent from 2005 to 2011 which is a very significant amount and unfavorable for the state. It is visible that the number of unemployed people was the highest in Tripura in the year 1999-2000 and it increased by 490 per cent between the period of 1999 and 2005. Odisha

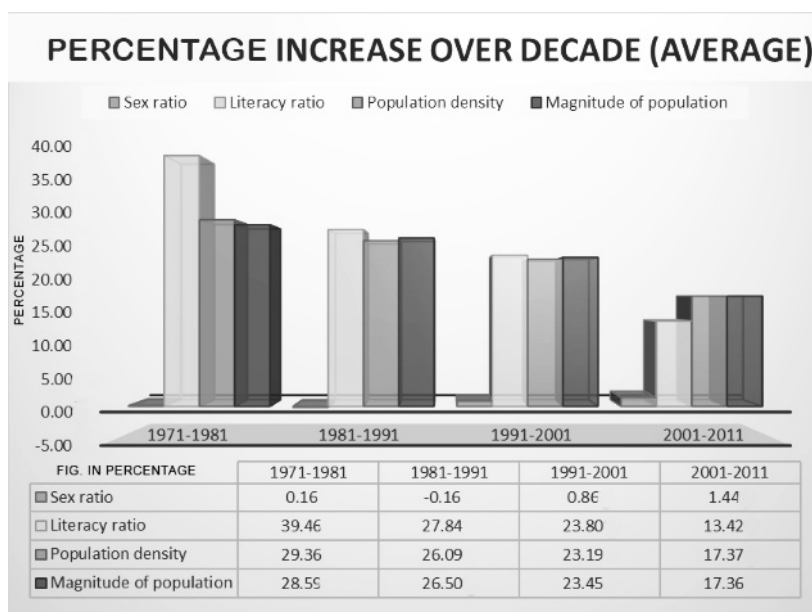


Figure 2: Column Chart Showing the Average Percentage Increase in Population of all the States in terms of Magnitude, Density of Population, Sex Ratio, Literacy Rate, Poverty Rate and Unemployment Rate
(Source: Publication of RBI (2021), Author's Compilation)

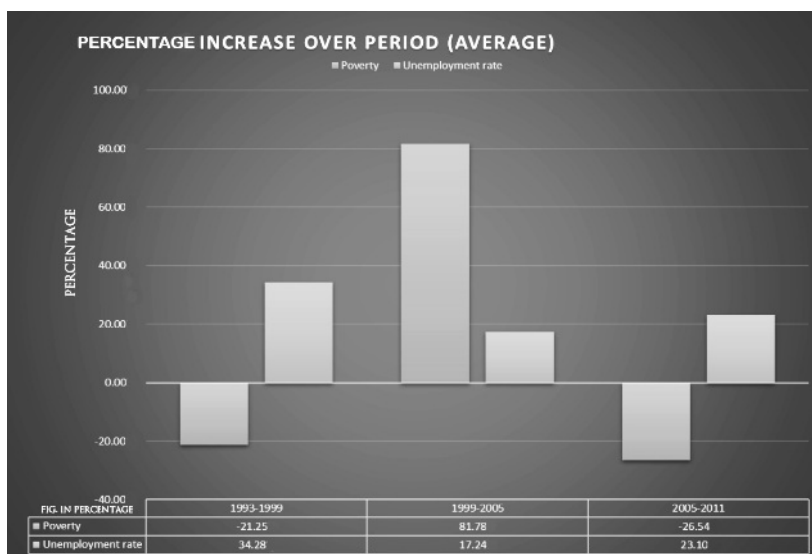


Figure 3: Column Chart Showing the Average Percentage Increase Population of all the States in terms of Poverty Rate and Unemployment Rate
(Source: Publication of RBI (2021), Author's Compilation)

witnessed the maximum reduction in unemployment rate from 2005 to 2011 by 69.02 per cent.

In terms of mother tongue, it is visible that Hindi is the most spoken language in the country in all the decades and it covered 43.63 per cent of the total population in the country in 2011. It is followed by Bengali and Marathi. Bodo and Sanskrit are the least spoken languages in all the decades which covered 0.12 per cent and 0.002 per cent of the total population respectively in 2011.

The data of religion shows that Hinduism is the most followed religion in our country followed by Islam and Christianity. Hinduism covered 82.63 per cent of the Indians in 1981 which had decreased to 79.8 per cent in 2011. Islam covered 11.36 per cent of the total Indian population in 1981 which had increased to 14.23 per cent in 2011. Christianity covered 2.43 per

cent of Indians in 1981 which fell down to 2.3 per cent in 2011.

The column charts given below show the average percentage increase in population of all the states in terms of magnitude, density of population, sex ratio, literacy rate, poverty rate and unemployment rate.

Interpretation: The charts show that the average percentage increase of the magnitude of population and population density is falling every decade but the mean value is 22 per cent for all the decades which is a negative sign for our country. This rapid increase in population leads to severe hazards on the economy which can be witnessed between 1999 and 2005, in which the poverty rate and unemployment rate increased by 81.78 per cent and 17.24 per cent respectively.

CORRELATIONAL ANALYSIS AND INTERPRETATION

CORRELATION IN MAGNITUDE (Done by author)	Total population in '000 (2011)	Unemployment rate per '000 (2011-12)	Poverty rate per million (2011- 12)
Total population in '000 (2011)	1		
Unemployment rate per '000 (2011-12)	-0.30580406	1	
Poverty rate per million (2011-12)	0.91705118	-0.2347970	1

Table 9: Correlation among the Population in each State and their Poverty and Unemployment Rates in Terms of Magnitude for the Year 2011
(Source: Author's Computation)

CORRELATION IN PERCENT INCREASE (Done by author)	Total population in '000 (2001-11)	Unemployment rate per '000 (2000-11)	Poverty rate per million (2000- 11)
Total population in '000 (2001-11)	1		
Unemployment rate per '000 (2000-11)	-0.1263379	1	
Poverty rate per million (2000-11)	0.3103921	-0.0159139	1

Table 10: Correlation among the Population in Each State and their Poverty and Unemployment Rates in Terms of Percentage Increase over the Decade (2000-2011)
(Source: Author's Computation)

State	Total population in thousand	Unemployment rate per thousand	Poverty rate per million	Percentage increase in total population	Percentage increase in the unemployment rate	Percentage increase in poverty rate
	2011	2011-12	2011-12	2001-2011	2000-2011	2000-2011
Andhra Pradesh	84581	55	788	10.98	17.02	-33.78
Arunachal Pradesh	1384	65	49	26.05	91.18	22.50
Assam	31206	101	1013	17.07	-25.74	7.08
Bihar	104099	88	3582	25.42	-4.35	-15.84
Chhattisgarh	25545	51	1041	22.61	0.00	0.00
Goa	1459	97	8	8.23	-65.11	14.29
Gujarat	60440	11	1022	19.28	-54.17	50.52
Haryana	25351	66	288	19.89	88.57	66.47
Himachal Pradesh	6865	50	56	12.95	-35.90	9.80
Jammu and Kashmir	12541	95	133	23.63	55.74	280.00
Jharkhand	32988	72	1243	22.42	0.00	0.00
Karnataka	61095	38	1298	15.60	-5.00	24.33
Kerala	33406	129	240	4.92	-29.89	-41.46
Madhya Pradesh	72627	30	2341	20.35	-25.00	-21.57
Maharashtra	112374	30	1979	15.99	-58.33	-13.20
Manipur	2856	97	102	24.50	12.79	41.67
Meghalaya	2967	32	36	27.94	-36.00	-56.10
Mizoram	1097	68	23	23.40	74.36	21.05
Nagaland	1979	389	38	-0.55	238.26	-30.91
Odisha	41974	57	1385	14.04	-33.72	-18.10
Punjab	27743	47	232	13.89	4.44	60.00
Rajasthan	68548	38	1029	21.31	31.03	25.79
Sikkim	611	33	5	12.94	-67.96	-76.19
Tamil Nadu	72147	47	826	15.61	-21.67	-36.70
Tripura	3674	357	52	14.85	410.00	-60.00
Uttarakhand	10086	78	116	18.81	0.00	0.00
Uttar Pradesh	199812	50	5982	20.23	2.04	12.89
West Bengal	91276	75	1850	13.84	-27.88	-13.35

Table 11: Magnitude of Total Population, Unemployment Rate and Poverty Rate in 2011 and Percentage Increase Over the Decade (2000-2011)
(Source: Publication of RBI (2021), Author's Compilation)

Interpretation: Table 10 shows that there is a very strong correlation between magnitude of population in each state and its poverty rate as its value is very close to 1. But there is a weak correlation between the total

population and unemployment rate as their values are close to 0. Similarly, Table 11 shows that there is a very weak or no relation among the per cent increase in the data of population in each state and their poverty and

unemployment rates as the values are close to 0. Therefore, it cannot be predicted with full accuracy that if a state is highly populated, then there will surely be an increased number of people below poverty line and unemployed ones in that state because poverty and unemployment also depend on other factors like literacy rate, rural or urban area, availability of jobs, et al.

CONCLUSION

India is a developing economy with second largest population in the world after China and has diversified communities in each state. It is high time that we should understand that high population leads to negative environmental consequences like excessive use of natural resources, global warming, threat to biodiversity and climate change. It also affects the economy in the form of increased poverty, unemployment and income inequality which can be witnessed in the period between 1999-2005, wherein the poverty rate and unemployment rate increased by 81.78 per cent and 17.24 per cent respectively.

The developed economy of China has shown a major decrease in its growth rate of population. We know that it is very difficult for India to control population in its developing stage but it is not impossible. The Government has taken initiatives in the five-year plans and the taxation laws in the country to curb the same. These helped in reducing the growth rate of population from 23.45 per cent (1991 to 2001) to 17.36 per cent (2001 to 2011) in all the states.

RECOMMENDATIONS

Some of the recommendations to reduce the fertility rate in India are as follows -

1. Spreading awareness and education: Education and awareness programs can change the mentality of people towards having more children. Educated men and women generally tend to postpone their marriage and they accept small family norms. This helps in reducing the birth rate.
2. Raising the minimum age of marriage: In India, the minimum age of marriage for boys and girls is 21 and 18 respectively. This should be increased by the Government to around 24 years. Marriage at a younger age can lead to a longer span for childbirth. It is a nice step by the Government to pass 'The Prohibition of Child Marriage (Amendment) Bill, 2021' in the Lok Sabha that will raise the minimum age for marriage of girls to 21 years.
3. Child Tax: It refers to higher taxation for the parents with more children to control the increase in the fertility rate. This birth control technique ensures that the taxpayers are entitled to exemption only for a specified number of children (generally first two) and no other.
4. One or Two child policies: The one-child policy is a birth control technique that encourages parents to have a single child only. This policy was introduced in China in 1976. Similarly, The Government of India has introduced The Population Control Bill in 2019. According to the policy, The Government will encourage small family norms by giving incentives in the form of tax benefits, employment, education, et al. to the residents who will not have more than two children. For others not following the policy, penalties shall be imposed such as ineligibility for government jobs and debarment from contesting in elections.
5. Family Planning or Contraceptive Methods: Family planning methods or contraceptive methods are means by which an individual can determine the number of their children freely. Under this population control technique, parents can consider the number of children they wish to have or not, and the age at which they are willing to have children.
6. Social Security Schemes and employment opportunities: If people are covered under social security schemes like sickness benefits, old age pensions, unemployment benefits, et al. then they do not have to depend on their children for

income. Similarly, if there are more employment opportunities, then people would prefer to adopt small family norms and thus raise their standard of living.

7. Strict laws and regulations: Proper enforcement of laws would ensure that people do not have more children and hence they will not require to send them to work in order to earn a living. It is the need of the time that Population Control Bill, 2019 get implemented in the country.

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Quantum technology is paving the way for the future as it is a million times faster and more intelligent than supercomputers.

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Back to the Future: Quantum Computing Revolutionizing Finance in India in the Gen Beta Era

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ABSTRACT

Quantum computing is a rapidly emerging technology and an extremely exciting concept, which holds the power to provide unimaginable outcomes and solutions to numerous today's date financial sector problems. A quantum computer harnesses the power of atoms and molecules to perform memory and processing tasks, which makes it capable of performing extremely

difficult calculations within seconds that would normally take millions of years to perform. Its working is based on the laws of quantum physics which has the capability of high processing. Due to this, it can exist in multiple states as well as simultaneously perform all the possible permutations in a fraction of time as compared to the computers available today. The study focuses on an overview of the applicability of quantum computing in finance in the coming Gen Beta Era (2025-2039) in India along with its potential effects and possible uses. The study also states India's position and major developments in the global tech race. Primary data has been used for analysis and findings. The findings state that a clear potential is seen in this technology, which has the ability to benefit the country's economy and boost the development of various fields, as well as change the entire functionality of the finance sector.

KEYWORDS: Quantum Computing, Quantum Technology, Finance, Cryptocurrency, Cryptography, Quantum Finance, India, Blockchain, Financial Sector.

INTRODUCTION

Change is inevitable and with the pace of innovations in the recent years of the Gen Alpha Era (2010-2024), quantum technology is paving the way for the future as it is a million times faster and more intelligent than supercomputers. According to researchers, quantum computing is expected to perform complicated calculations with the help of quantum physics that are unmanageable for even the most potent present and future supercomputers as it uses 'qubits' (quantum bits) i.e., 0 and 1 simultaneously whereas classical computers use bits i.e., either 0 or 1. In today's date, leading tech-related companies are investing heavily in quantum computing and have developed working models of quantum computers which are being used for research by researchers via cloud services. Due to the ongoing COVID-19 pandemic, India suffered major losses in various aspects. The introduction of quantum computing brings a ray of hope with it, especially for the world of finance. It will help bridge the gap that exists.

The birth of quantum computing dates to the year 1981, when Richard Feynman, an American physicist, presented a theory at MIT, stating that classical

computers were incapable of simulating the evolution of the quantum ideology efficiently and couldn't keep pace with the complexity of quantum calculations. In 1998, he built the first working model of a quantum computer, and it successfully solved the first algorithm designed for it.

NATURE OF THE PROBLEM

The problems in the financial sector mainly revolve around three main segments in the financial sector, namely the capital market, the credit and risk, and the element of fraud. This can be overcome with the help of quantum computing. According to studies, as compared to all the other sectors, the financial sector is expected to gain the most benefit from this technology. It is expected to see a rise in the profitability of the finance sector and is proven to have a revolutionary effect on the functionality of the entire system of finance by solving various problems faced in today's date. Hence, boosting the digital economy and paving a new direction to the existing financial system. The Union budget proposal 2020, provided an outlay of ₹ 80,000 million for quantum computing technology development. Experts state that the investment may help India become the world's third largest country in this sector after the United States of America and China. The upcoming quantum leap and revolutionary transformation are eagerly awaited. The lack of information on India's preparation and approach towards quantum computing in finance as compared to its competitors forms a research gap. Research on this topic will provide useful insights about the future and an understanding of the awareness of quantum computing among the nation's common people, as well as the position of India, in this global tech race.

OBJECTIVES

- To study the application of emerging quantum technology to solve financial sector problems, in the Indian context.
- To study the potential effects of quantum computing on cryptocurrency and blockchain.

- To explore possible uses of quantum computing for financial services.

RESEARCH METHODOLOGY

Qualitative and quantitative research design has been adopted, from which an exploratory and descriptive method is used to gain an in-depth understanding of the questions, how, why, who, when, as well as survey research, has been conducted to understand the population trend and the awareness of the above-stated topic. Primary data was collected via an online survey that targeted a random sample of people from all walks of life, categorized into four categories: students, working professionals, entrepreneurs, and others. The secondary data was collected from various journals, articles, research papers, blogs, et al. A non-probability convenience sampling method was chosen as per the need of the research and a sample size of 106 respondents was collected.

BENEFITS TO THE FINANCIAL SERVICES

(According to the article 'Quantum Computing in Banking- How far are we from Day Zero?' published by the State Bank of India (SBI) in The Indian Banker Magazine, in late 2019)

Improving cyber security issues by the introduction of quantum cryptography to protect financial data increase digital security.

1. More efficient detection of frauds by recognition of behavioural patterns.
2. Better portfolio optimization management
3. Increased accuracy of customer predictive analysis.
4. Hackproof technology for platforms like blockchain.
5. Increased rate of transaction speed and reduction in the cost of processing.

Benefits to the banking sector (According to RBI)

1. It will provide efficient fraud detection.
2. Potentially reduce cyber security threats

3. Analysing huge data sets and categorizing as per the need.
4. Effective customer engagement.
5. Provide high-tech AI.
6. Scope for more accurate error detection.
7. Introduction of quantum-proof cryptography.

RISK TO CRYPTOCURRENCY

It can be a risk to approximately 500 Indian cryptocurrency traders and 30,000,000 users as it can cause huge monetary losses and breach data security if in the wrong hands, like that of hackers. It also poses a threat to cryptocurrency networks and new-age digital currency by breaking the cryptography or circumventing it. Another such danger is to cryptographic encryption codes and security, as this technology can break online transaction encryptions and it could happen in the next few years i.e., in the Gen Beta Era (2025–2039). This is, therefore, considered very dangerous and jeopardizes security.

RISK TO BLOCKCHAIN

According to researchers, quantum computers are a million times faster than super computers or classical computers and have the capability to increase the speed of solving mathematical equations thereby decrypting the private keys, which would result in the exploitation of blockchain. Quantum computing would pose a huge threat to blockchain by impacting its key features such as data and security. Hence, making it extremely vulnerable. Hackers and scammers can use quantum computing for the wrong purposes and hack into the cryptocurrency ledger, crack all security and ultimately gain complete access to blockchain technology.

INDIA'S POSITION

The Indian Government launched QuST (Quantum Information Science and Technology) in the year 2017. The roadmap stated the development in different

phases. Indian government's investments for the phases areas follows: first phase- 80 million; second phase- 3,000 million. This was sanctioned in 2019. According to the 3-year plan, India plans to develop a small quantum computer of its own by the end of 2022 if the plan is followed. Multiple quantum computing courses are offered by various institutions across India. Numerous quantum-tech start-ups in India have been initiated. Indian Space Research Organization (ISRO) is focusing on the developments of quantum communications. Recently in 2021, The Ministry of Electronics and Information Technology (MeitY), Government of India, launched the country's very first quantum computer simulator known as the QSim toolkit. It is the first of its kind to be developed and is a useful tool for learning and understanding quantum computing technology.

According to Mr. Vijay Raghavan, the scientific adviser of the Indian Government, they will try to reach their goal of building functional quantum computers, which will be achieved in a period of ten years and compete with the rest of the world.

Therefore, giving us a scope to see financial improvement due to quantum technology in India in the coming Gen Beta Era (2025-2039).

ANALYSIS

Segment A: Knowledge of quantum computing

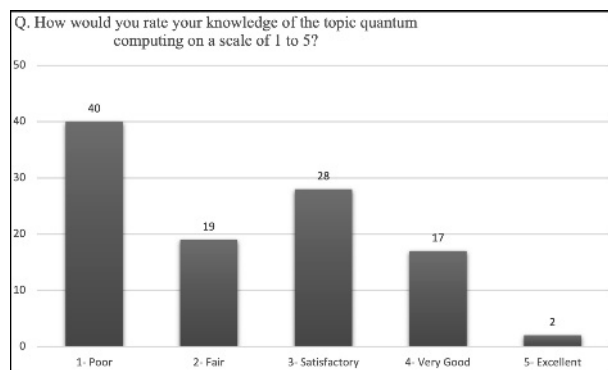


Figure 1: Showing the Rating of the Knowledge of Quantum Computing on a Scale of 1 to 5, by the Respondents.
(Source: Primary Data)

Inference: In figure 1, maximum respondents have poor knowledge of quantum computing and 26.4 per cent stated their knowledge to be satisfactory and a small fraction of people (1.9 per cent) were excellent in this field.

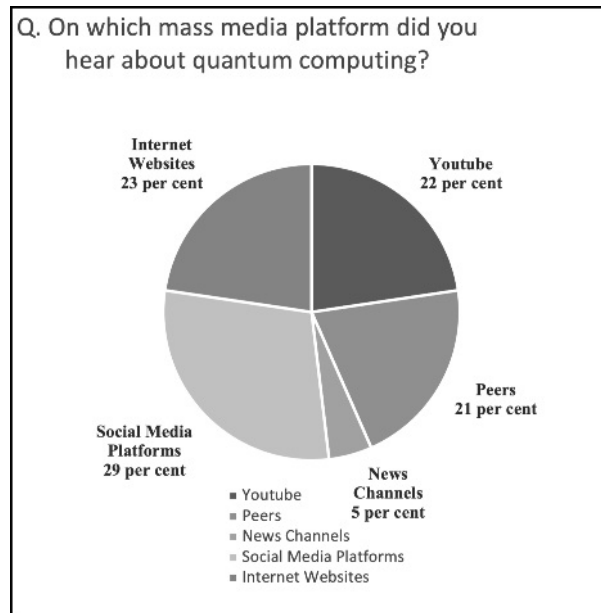


Figure 2: Showing Popularity of Quantum Computing on Different Mass Media Platforms.
(Source: Primary Data)

Inference: In figure 2, according to the data collected, the maximum information is available on social media platforms as compared to the rest of the mass media platforms. The rest of the information is almost uniformly found on YouTube, internet websites, and among peers. The least information found on news channels as mostly the developments in new technologies are not broadcasted on TV until major breakthroughs reach the headlines.

Personal Investment Preference in Quantum Computing Stocks

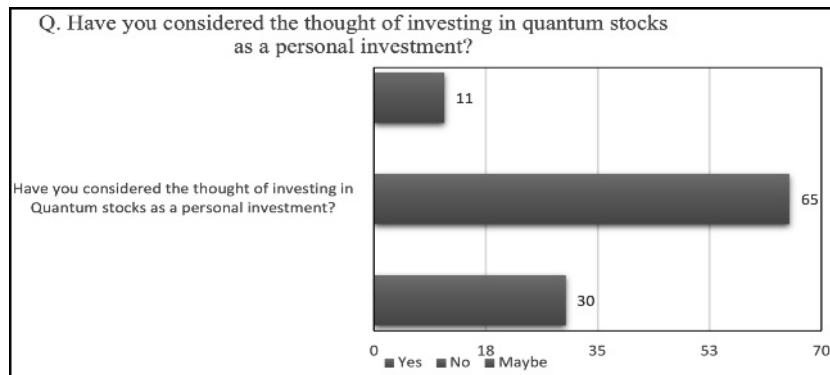


Figure 3: Showing the Opinion toward Investing in Quantum Computing Stocks.
(Source: Primary Data)

Inference: In figure 3, most of the respondents (61.3 per cent) do not consider investing in quantum stocks as a personal investment as the developments in this field is uncertain and unknown to people. A total of 38.7 per cent of respondents are positive about investing in such stocks as they are aware of its potential.

Inference: In figure 4, as per the data collected, 41 out of 106 respondents, have a positive attitude towards investing in quantum stocks. Of these 41, most respondents (36.6 per cent) prefer to invest in Google due to its popularity by the recent developments and quantum supremacy announcement. The second-best preference of the respondents is to invest in Microsoft.

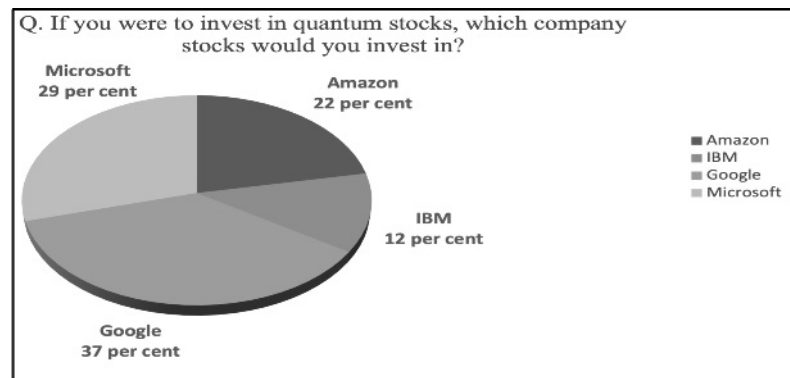


Figure 4: Showing the Company-Wise Investment Preference of Respondents.
(Source: Primary Data)

Segment B: Positive Effects of Quantum Computing on Finance

Category	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
Trading and Portfolio Management	11	12	38	33	12 (11.3 per cent)
Targeting and Predictions	5	13	38	34	16 (15.1 per cent)
Risk Profiling	5	11	48	28	14 (13.2 per cent)
Accurate Fraud Detection	4	10	54	23	15 (14.1 per cent)
Strengthen Cryptographic Encryption	8	12	47	24	15 (14.1 per cent)
Higher computational Power	3	12	46	28	17 (16.0 per cent)
Accurate Error Detection	4	13	42	30	17 (16.0 per cent)
Accurate customer behavior analytics	3	11	43	29	20 (18.8 per cent)
Increasing Efficiency manifold and reducing cost	8	15	47	23	13 (12.2 per cent)
Analyzing huge datasets with ease	9	7	41	28	21 (19.8 per cent)

Table 1: Table Showing the Opinion of the Respondents on the Positive Effects of Quantum Computing on Finance
(Source: Primary Data)

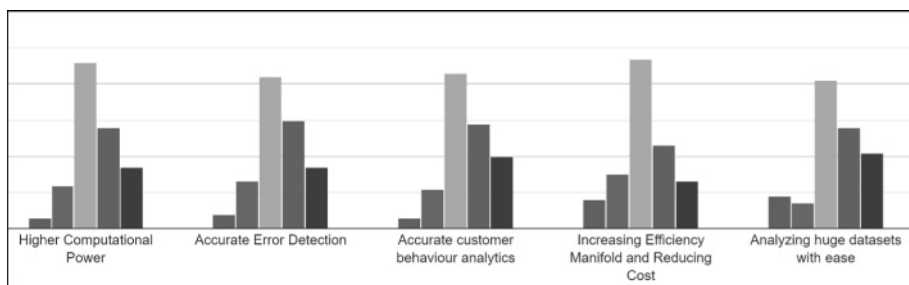


Figure 5: Figure Showing the opinion of the respondents on the positive effects of Quantum Computing on Finance.
(Source: Primary Data)

Inference: In figure 5, from the chart, it is evident that a small percentage of people strongly agree with the listed positive effects like trading and portfolio management, targeting and predictions, risk profiling, accurate fraud

detection, stronger cryptographic encryption, computational power, accurate error detection, accurate customer behaviour analytics, efficiency, and cost reduction, as well as analysis of huge data sets, will be achieved.

Although, most of the respondents are unsure of the potential of this technology, due to the slow rate of significant developments in India and so maximum respondents are neutral to its positive effects.

Segment C: Understanding the threats

Category	Not Aware	Less Aware	Somewhat Aware	Aware	Very Aware
Data Security	31 (29.2 per cent)	18	25	24	8 (7.5 per cent)
Today's Date Encryption	31 (29.2 per cent)	24	30	14	7 (6.6 per cent)
Cryptocurrency	28 (27.5 per cent)	15	21	26	16 (15.1 per cent)
Blockchain	25 (23.5 per cent)	21	27	18	15 (14.1 per cent)
Cybersecurity	21 (19.8 per cent)	12	23	28	22 (20.7 per cent)

Table2: Table Showing the Understanding of the Respondents towards the Threats related to Quantum Computing.
(Source: Primary Data)

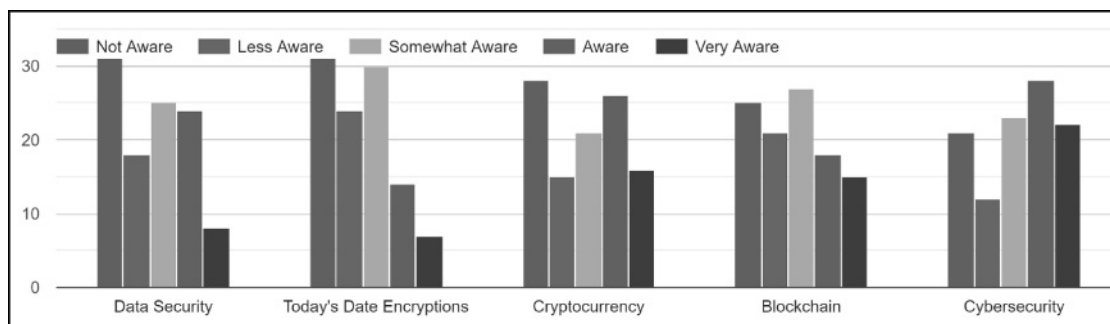


Figure 6: Figure Showing the understanding of the respondents towards the threats related to quantum computing.
(Source: Primary Data)

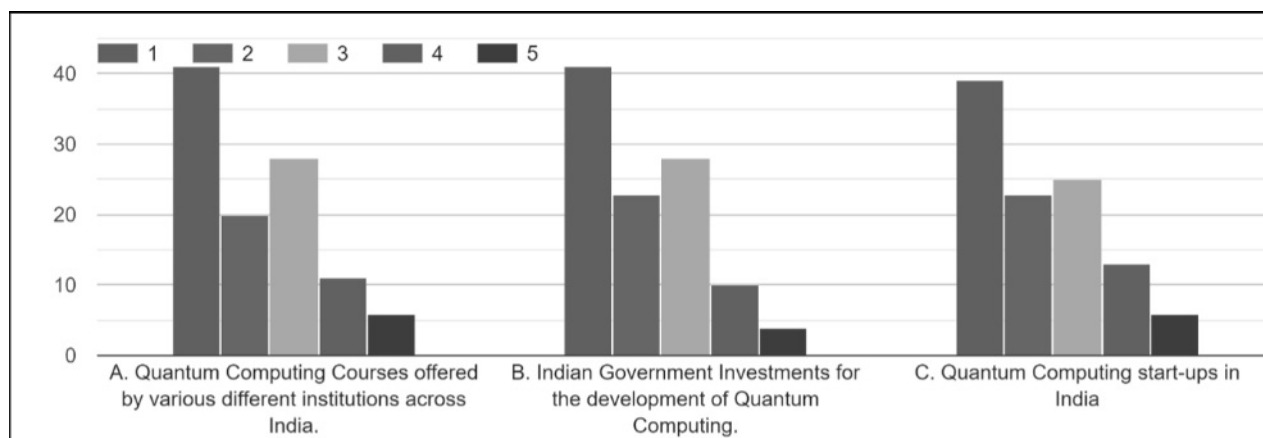
Inference: In figure 6, majority of the respondents (29.2 per cent) are not aware of the threat to data security as well as today's data encryption, followed by respondents not aware of the threat to cryptocurrency (27.5 per cent). The risk to blockchain is acknowledged

by the respondents as a large number of them (25.4 per cent) are somewhat aware of it. A major bulk of the sample (26.4 per cent) collected are aware of the danger to cybersecurity.

Segment D: Awareness of the quantum developments in India.

Category	1 Not Aware	2	3	4	5 Very Aware
Quantum Computing Courses offered by various institutions across India.	41 (38.6 per cent)	20	28	11	6 (5.6 per cent)
Indian Government Investments for the development of Quantum Computing.	41 (38.6 per cent)	23	28	10	4 (3.7 per cent)
Quantum Computing start-ups in India	39 (36.7 per cent)	23	25	13	6 (5.6 per cent)

*Table3: Table Showing the general awareness of the respondents.
(Source: Primary Data)*



*Figure7: Figure Showing the general awareness of the respondents.
(Source: Primary Data)*

Inference: In figure 7, the bar graph represents a comparison of the general awareness of the respondents on quantum computing developments. A large number of the sample collected are not aware of

the quantum computing courses offered by various institutions across the country nor of the Indian government's investments towards the development of this technology or the start-ups established in this field.

Segment E: Final outlook towards this technology

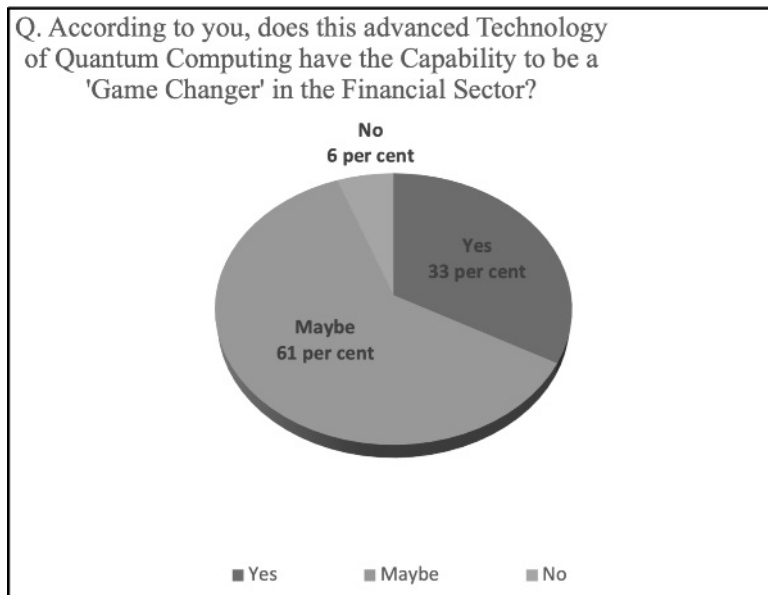


Figure 8: Figure Showing the attitude of the respondents towards Quantum Computing in being a 'Game Changer' in the financial sector.
(Source: Primary Data)

Inference: In figure 8, most of the respondents (61.3 per cent) are not entirely sure that this technology will be a game-changer in the financial sector, the rest of the respondents are divided between people having a positive outlook (33.0 per cent) and people who do not consider quantum computing to be a game-changer (5.7 per cent).

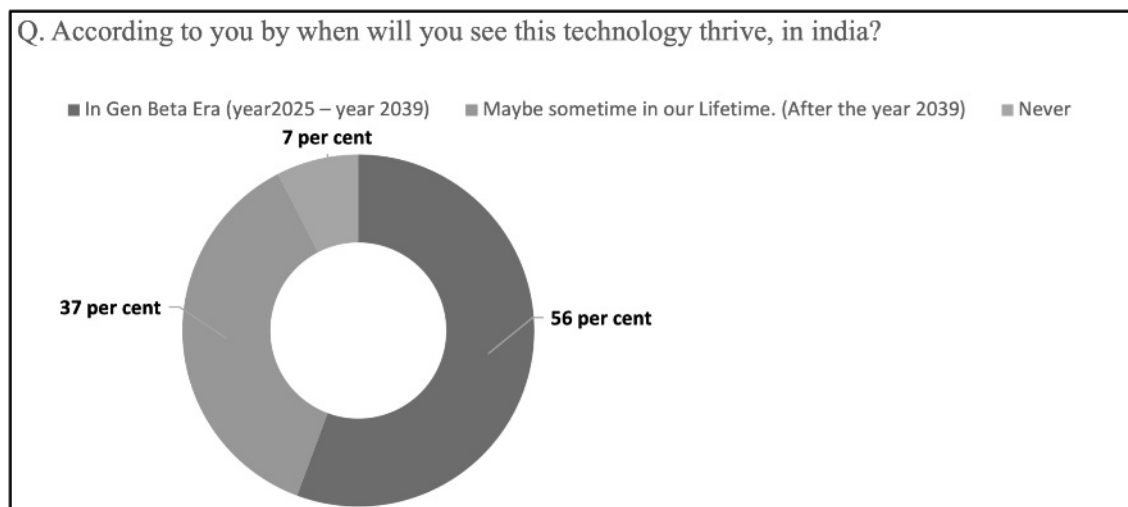


Figure 9: Figure Showing the Opinion of respondents with respect to the thriving of this technology in India.
(Source: Primary Data)

Inference: In figure 9, a large chunk of the sample collected is sure that this technology will thrive in the Gen Beta Era due to the government's initiatives and funding towards the development of this technology, followed by respondents who think this technology will

be seen functioning after the year 2039 due to the COVID-19 pandemic, which has hampered the rate of growth. Therefore, the respondents are not absolutely sure as to when exactly will this technology flourish.

FINDINGS

As Per the Data Analysis

1. The results show that majority of respondents are unfamiliar with this topic. We can see that surveys are a great method of spreading awareness about this incredibly significant concept.
2. Mass media platforms prove to be a major source of providing knowledge to common people.
3. Maximum respondents do not choose to invest in quantum stocks as a personal investment. However, among the people who wish to invest, their most popular choice is Google.
4. Most respondents are neutral about the positive effects of quantum computing technology. But a large number of the sample believe that countless benefits can be derived from this technology.
5. A large number of people are unaware of the threats, developments, start-ups, courses, and government initiatives.
6. Most of the respondents are not entirely sure that this technology will be a game-changer in the financial sector.
7. A large chunk of the sample collected is sure that this technology will thrive in the Gen Beta Era (2025–2039).

RECOMMENDATIONS

1. More awareness must be spread among the citizens of India, especially the youth, as they are the future of the nation.
2. Banks and other financial institutions should experiment more with open-cloud quantum computing applications to improve the ability to provide better services.
3. Government should take more initiatives to promote the uses of this technology as people are unaware of it as well as increase the funding in the budget for large-scale development.
4. Private sector investors and entrepreneurs should invest in this technology to help India reach a substantial mark among its competitors.

5. In order to gain complete access to the quantum technology ecosystem, it is important to consider the option of partnering with various similar-minded tech developers, institutions, and organizations that will open doors to solving similar challenges with a broader mindset and outlook.

CONCLUSION

India is working hard in the technological race of quantum development. Even though it is quite behind in the race as compared to its competitors around the world, India continues to strive towards attaining quantum knowledge. The setback caused to the country due to the pandemic has resulted in a slow rate of development in this field. Even though quantum computing is not completely developed, researchers are still trying to harness the potential it holds. The constant progress is initiating the reduction of the gap between laboratories and its applications in the real world. This technology has the ability to benefit the country's economy and boost the development of various fields, as well as change the entire functionality of the finance sector. India has developed its first Quantum Computer Simulator (QSim). Therefore, it can be concluded that a quantum computer of its own is on the way soon. By the start of the Gen Beta Era (2025–2039), India will have reached much ahead in this field. Financial institutions can seize many major competitive advantages and become market leaders if they utilize the potential of this technology.

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In today's world, artificial intelligence and auditing should go hand in hand wherein the data cross-checking elements are to be done by Artificial Intelligence (AI) processes.

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The Impact of Artificial Intelligence on Auditors

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ABSTRACT

In the twenty-first century, artificial intelligence has immensely affected every life, and Chartered Accountants are no exception. Several articles and newspapers have surfaced recently, which talk about how auditors of the Chartered Accountants fraternity have been replaced by auditing bots with inbuilt artificial intelligence technology along with automated robotics processes. When a professional is asked about the impact of artificial intelligence on auditors or accountants, the first response is about the increase in speed, quality, and efficiency. But amidst all this, are auditors seeking a helping hand at the cost of losing their livelihood?

In the history of accounting in India, one of the major milestones is the introduction of the flagship accounting software 'Tally ERP' in October 1991. Since then, we have seen a constant growth and development in this sector, leading to artificial intelligence and the accounting department working cordially.

KEYWORDS: Auditors, Chartered Accountancy, Artificial Intelligence, Audit Bot, Automation.

INTRODUCTION

With the advancement of technology, artificial intelligence has taken a bigger leap forward. Nowadays, it is being incorporated in all the industries, and therefore in the accounting industry as well, the audit work done by Chartered Accountants has had to be modified with further introductions being made. In today's world, artificial intelligence and auditing should go hand in hand wherein the data cross-checking elements are to be done by Artificial Intelligence (AI) processes. It is an augmented version of the old-school technique in which the auditor initially verified the entries made in the books and prepared evidential documents to support them. The only difference is the audit quality, efficiency and speed which helps the

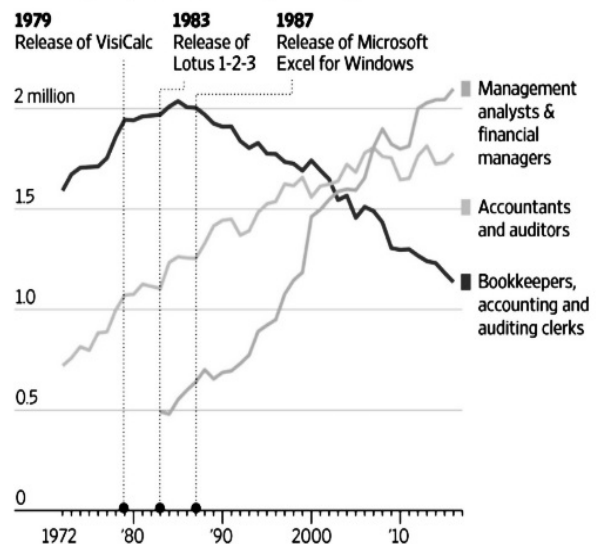
auditor save time and focus on other issues. Moreover, it has been found that all types of audits are covered in the transition to AI-powered systems by introduction of audit bots.

However, the question remains - is the accounting department ready to accept artificial intelligence?

RATIONALE

The Spreadsheet Apocalypse, Revisited

Jobs in bookkeeping plummeted after the introduction of spreadsheet software, but jobs in accounting and analysis took off.



THE WALL STREET JOURNAL.

Figure 2: Trends of the Impact of Spreadsheets for Bookkeeping Jobs
(Source: The Wall Street Journal)

The graph shows the effects of the introduction of spreadsheets in bookkeeping related jobs. In the mid-1980s, bookkeeping was at its peak but had started to decline gradually with the release of electronic spreadsheets. During the same time period, analysts and managers were introduced to the industry. Accountants and auditors were steadily growing, the future of whom might look bleak now.

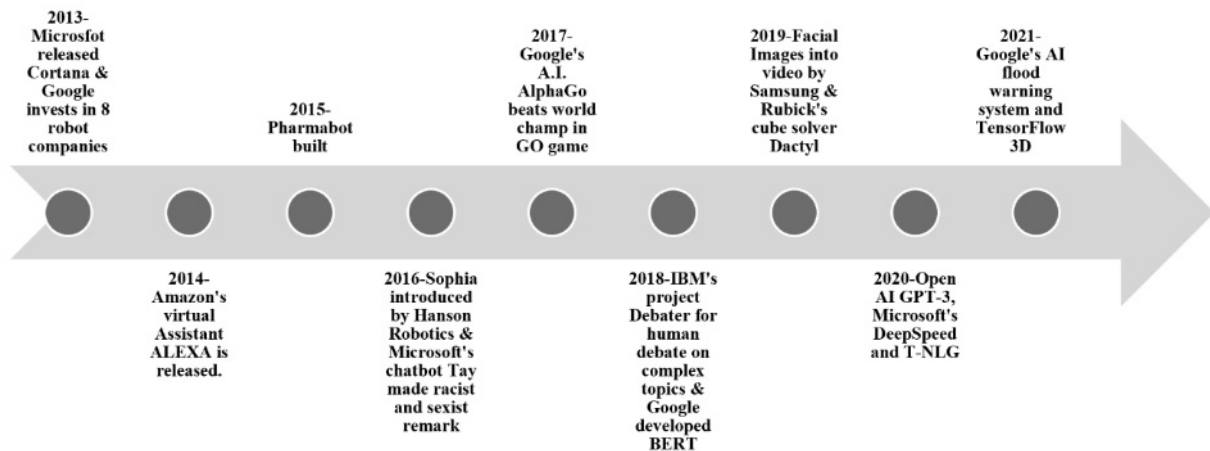
This study provides us with the possibility of artificial intelligence taking over the job role of an auditor in the



Figure 1: News Article about Sophia
(Source: UAE Forsan)

near future, and shows us how artificial intelligence is gradually impacting the auditing and assurance domain. Causing a decline of auditors in the industry may be the very reason for their further growth potential. The data extracted from various sources have been used to make this paper conclusive, summing up all the profound statements made to show AI vs auditors cum CA fraternity- for better or for the worse.

History -

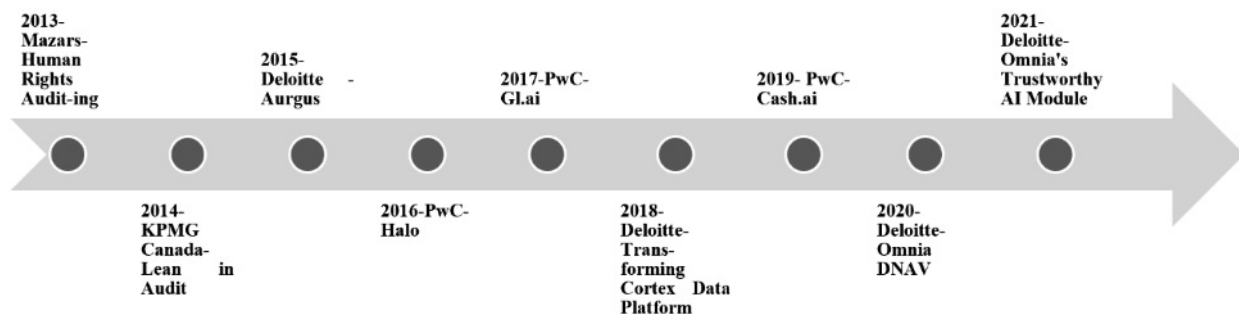


*Figure 3: Timeline of the Journey of AI in the Past 10 Years
(Source: Primary Data)*

Auditing

Definition - In accounting terms, it means to cross-check all the information recorded in the books of accounts and going through the financial statements in order to gain a fair and true understanding of one's profitability and financial position.

History -



*Figure 4: Timeline of the Journey of Auditing in the Past 10 Years
(Source: Primary Data)*

Impact of Artificial Intelligence in Auditing

Definition: A combination of AI with audit gives birth to Audit Bots.

Using the robotics automation processes, a black box can now imitate the behaviour and activities of mankind in order to assist the organisation in the repetitive tasks performed manually. This bot is an evolution of artificial intelligence which is post the Cognitive Automation Process and RAP stage, enabling

the extensive work of machine learning, data feeding and deep learning after making a chatbot, Computer Vision, and Natural Language Processing.

Bot auditors meet with the managers of the different businesses to comprehensively evaluate the value proposition, prepare each step with essential hypotheses, understand the structure of the bot ecosystem inside the organisation, and review prior audits and bot progress reviews.

Phases of Audit Bot

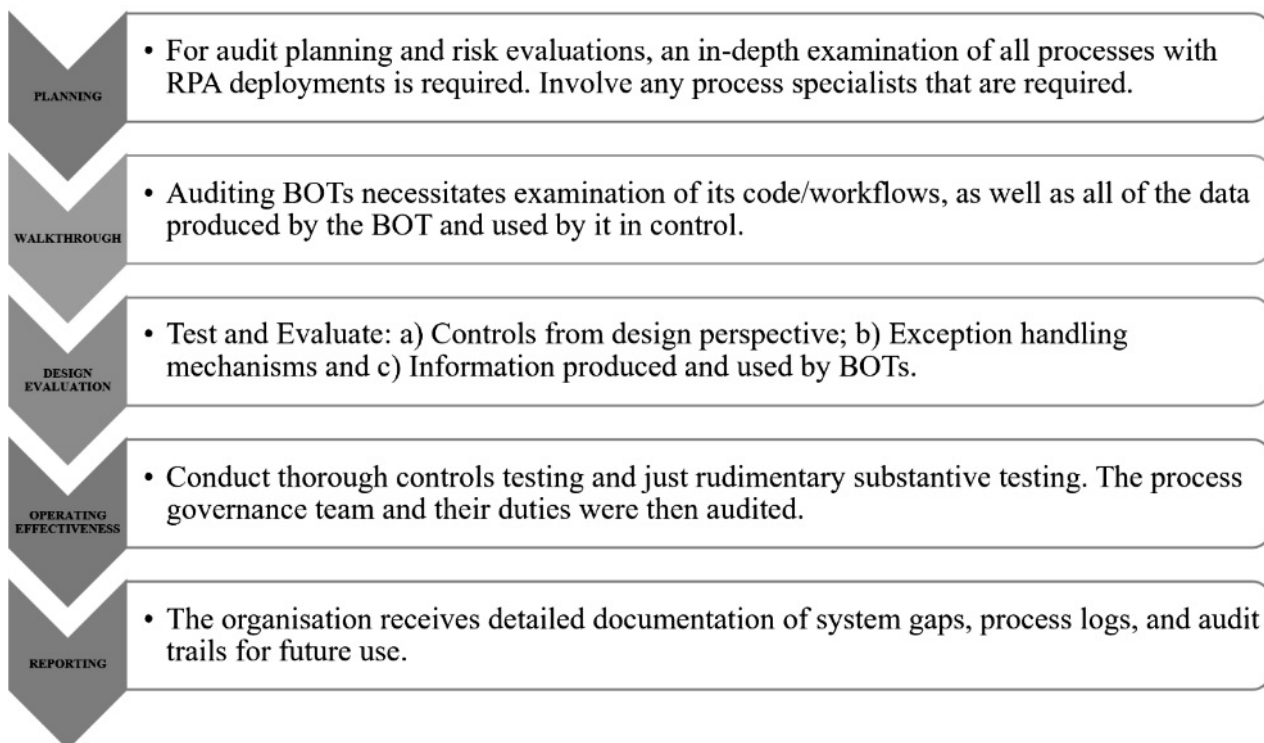


Figure 5: Phases of Audit Bot
(Source: Primary Data)

Year	Title/Heading	Issued by	Summary
2022	Technology enabled Internal Audit	KPMG	Strategical cosourcing is used to improve planning and assist contacts with administration outside of audit implementation, demonstrating its integrity.
2021	ICAI mulls to use AI to identify Non-compliances in Financial Statements	The Institute of Chartered Accountants of India	System's capability to flag common non-compliances, automate the flow of work by its Financial Review Reporting Board, keep records of all non-compliances found by the board in one place, and observe the work done at review through web portals.
2020	The Data Driven Audit	The Chartered Professional Accountants (CPA) of Canada and The American Institute of CPAs (AICPA)	How much can auditors do to have a leg up on the competition? 1. Educate yourself on AI-related commercial prospects and technologies. 2. AI professionals at your corporation. 3. Identify possibilities for automation and AI.
2019	How Artificial Intelligence will impact accounting	Economia by The Institute of Chartered Accountants of England and Wales (ICAEW)	Because AI empowers us to pose a number of questions, it will enhance the quality of our audits. Only seven per cent of professional services participants stated that

	will impact accounting		<p>Only seven per cent of professional services participants stated that breakthroughs in Machine learning and artificial intelligence are providing an opportunity to automate wisdom jobs that were previously thought to be unattainable or prohibitive for machines to execute, according to a World Economic Forum report. Only five per cent indicated these things were agents of growth elsewhere, a small percentage in compared to the 63 per cent who anticipate versatility and the changing nature of work will create innovation, led by big data processing (40 per cent) and mobile networks and cloud technologies (38 per cent).</p>
2018	Confidence in the future	PricewaterhouseCoopers (PwC)	<p>Machines will not replace human auditors; rather, they will augment them as its employed at lower cost, make fewer errors, never gets exhausted. Operate inside a defined set of configurable constraints and on rationality which is trained Algorithm.</p>

2017	Harnessing the power of AI to transform the detection of fraud and error	PricewaterhouseCoopers (PwC)	Poised to revamp auditing by improving customer experience, quality, and performance while also offering employees more opportunities to just do what machines can't: make decisions and engage, interact, and establish the associations allowed to transform data information on business action.
2016	Professional accountants – the future	The Association of Chartered Certified Accountants (ACCA)	Trends in digitalization and <u>their</u> influence on enterprise <u>are</u> also reshaping accounting practice and the abilities required of CAs. IT will be transformative during the next decade. With growing emphasis on the use of "robotic" tools in the workplace, this is a new wave that expects to have some more mechanization in the future.
2015	How Artificial Intelligence Can Boost Audit Quality	Deloitte & Touché and Jon Raphael	ML might be seen in the years to come to detect, retrieve, and interpret numbers from the multiple supporting papers that are routinely linked to an endorsement, allowing the transaction to be asynchronously confirmed without the need for considerable auditor engagement.

			Auditors may shortly be capable of giving users with unique approaches to discover vulnerability hidden from the public in accounting records owing to cognitive technology.
2014	The Future of Audit	KPMG LLP US	Prospective audits will also make utilization of modern data and analytics abilities to see outside a firm's lining and assess the influence of external factors in techniques that we have never been able to previously.
2013	The Predictive Audit Framework	The International Journal of Digital Accounting Research	Physical work for financial paperwork that appears in hard copy is tedious and takes up time in conventional audits. Auditors can extract information straight from a firm's ERP software or an audit centralized data. The data may then be analysed using a variety of audit-aid algorithms
2012	The application of artificial intelligence	Expert Systems with Applications	As pressure mounts on auditors to take a more active part in the governance and control of corporate organisations, ICT-based decision aids are currently making

	in auditing: Looking back to the future		waves in the modern business world. In order to forecast future directions of research and software development in the field, this study attempts to evaluate the major research initiatives and current discussions on auditors' use of artificial intelligence systems. In light of its uncovered advantages and disadvantages, the study maps the development path of artificially intelligent systems in auditing.
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OBJECTIVES

- The alignment of professional's work with the new AI systems
- Redesigning the whole idea and constitution of technical know-how for auditors.
- To reinstate the working procedures and guidelines for auditors.
- Understanding the impact of such a change by taking instances from the past and planning accordingly for the future.
- AI might reveal scope for other departments and at the same time affect the accounting department.
- Study of the history of artificial intelligence and its need of the hour.

DATA ANALYSIS

Demographics

Age Group of the Respondents

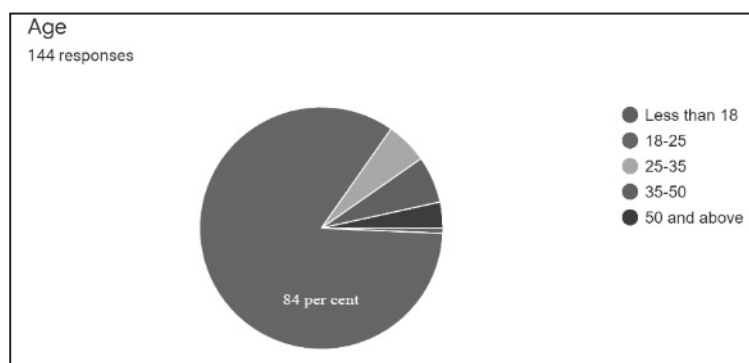


Figure 6: Pie-Chart of the Age Distribution
(Source: Primary Data)

Age Group	Count	Percentage
Less than 18	1	0.1
18-25	121	84
25-35	8	5.5
35-50	9	6.2
50 and above	6	4.1

Figure 7: Age Distribution Data
(Source: Primary Data)

There exist mindset variations as majority of the respondents are entry-level professionals into the market and youth students so the responses are likely to be more academic centric and progressive as is imparted in our educational institutions.

Background of the Respondents

Background	Count	Percentage
Professional course Students	75	52.1
Non-Professional course students	34	23.6
Professional Other	21	14.6
	15	9.7

Figure 8: Respondent Background Data
(Source: Primary Data)

With regards to the responses, professional and non-professional course student combined stands at 85.7 per cent, so it is noticed that a majority of responses recorded were from students from different age groups pertaining to the college level.

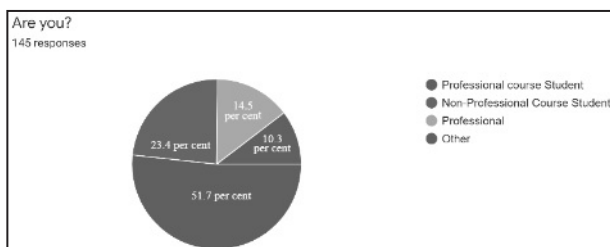


Figure 9: Pie-Chart of Respondent Background
(Source: Primary Data)

We can infer that the survey-takers are mostly students, especially from a professional course. Thus, they have a structured manner of thinking. This shows us that there are still a lot of people who are either involved in professional courses or not, making the difference of thought processes be a likely factor along with the educational qualifications of the respondents. This is sufficient to understand the current knowledge level and industry experience of the respondents are skewed in one direction.

Awareness of Artificial Intelligence and Auditing

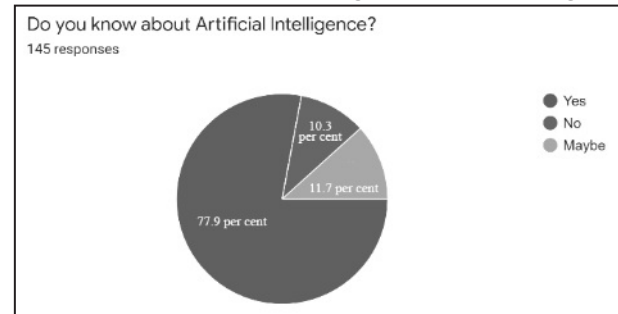


Figure 10: Pie-Chart of the Awareness of Artificial Intelligence
(Source: Primary Data)

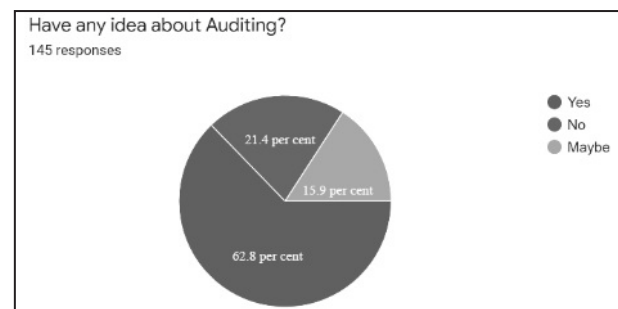


Figure 11: Pie-Chart of the Awareness of Auditing
(Source: Primary Data)

Using Countifs, we have cross-analyzed the responses of both the questions. In this way, we have understood that most of the respondents who took the survey were already educated about the topic. In the survey conducted, it was found that majority of the people knew about artificial intelligence previously. Despite this, the number of people who were not clear or aware about AI came to around 22 per cent combined.

Similarly, it was found that our respondents were aware about audits but a lot of them did not know or have any idea about auditing. This data amounts to 37.3 per cent of the respondents.

		Auditing		
		Yes	No	Maybe
Artificial Intelligence	Yes	79	19	15
	No	7	8	1
	Maybe	5	5	7

Figure 12: Matrix of the Awareness of Artificial Intelligence and Auditing
(Source: Primary Data)

In the set we see that (Yes, Yes) is equal to 79, which is the highest, so we know that responses are considered accordingly. Very few totals of 26 were not educated enough of either, only eight did not know anything about the topic, while the rest were not sure about it.

Artificial Intelligence and Auditors-Work Relation

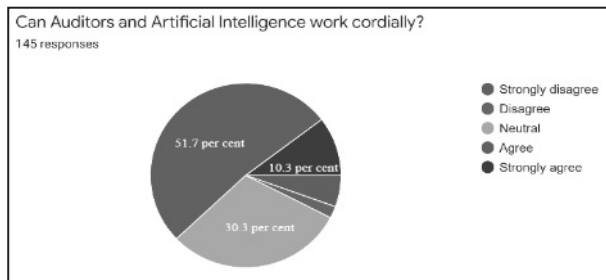


Figure 13: Pie-Chart of Artificial Intelligence and Auditors-Work Relation
(Source: Primary Data)

A lot of the uncertainty, or in some cases, even certainty may be because of lack of complete information. Since a lot of the respondents are students, they target safe and well-paying industries which may not be hit the hardest by AI and automation. However, all of them may not work in their industry of choice and may end up in different industries.

On converting our data from qualitative to quantitative, we are getting a Likert scale wherein 'Strongly Agree' = 5, 'Agree' = 4, 'Neutral' = 3, 'Disagree' = 2 and

Mean	3.57931
Standard Error	0.074964
Median	4
Mode	4
Standard Deviation	0.902689
Sample Variance	0.814847
Kurtosis	1.703617
Skewness	-1.0733
Range	4
Minimum	1
Maximum	5
Confidence Level(95.0%)	0.148172

Figure 14: Statistical Data of the Survey Responses
(Source: Primary Data)

'Strongly disagree' = 1. Using descriptive analysis, we find that, on an average, the respondents overall have a neutral to agree likeliness. The mid-point of this statement and highest votes were casted for 4, i.e., 'Agree'. Kurtosis is above zero indicating positiveness. The skewness shows a negative value and thus the distribution points towards the left. The deviation and variance are also minimal, so it is not a scattered opinion.

Replacement of Auditors to Audit Bots

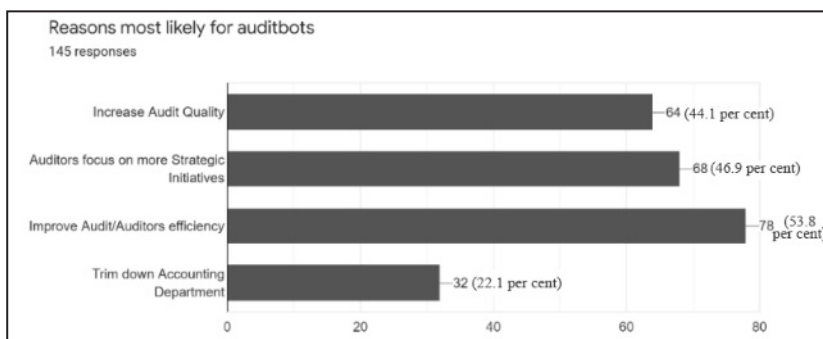


Figure 15: Bar Chart of the Reasons for Replacement of Auditors to Audit Bots
(Source: Primary Data)

General reasoning provided by the respondents -

'Machine Learning and AI can be used to automatically code accounting entries. By creating sophisticated machine learning-based models, auditors can also improve fraud detection. However, absolute replacement of AI and humans would boil down to dependency. Companies will take ages to trust something as important as this to be led by bots, while someone needs to run the bots as well. Full replacement is difficult.'

Impact and Transition Phase Review

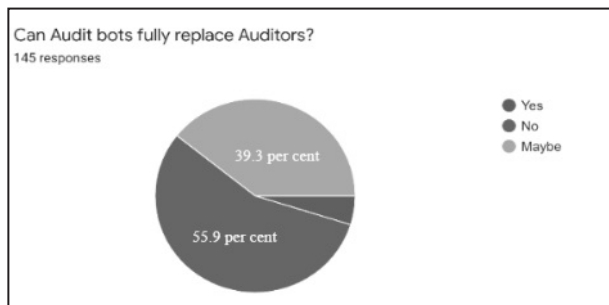


Figure 16: Pie-Chart of Survey Data – Can Audit Bots Fully Replace Auditors
(Source: Primary Data)

	Positive	Cannot Say	Negative
Count of what do you think audit to AI transition is	67	59	19

Table 2: Number of counts on opinion on the transition
(Source: Primary Data)

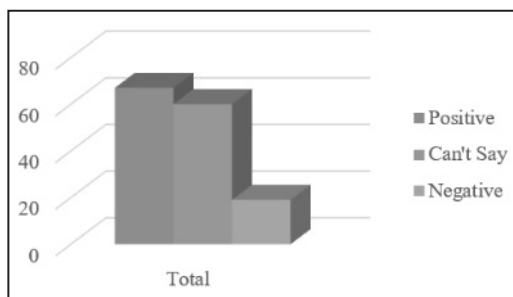


Figure 17: Opinion on audit to AI transition
(Source: Primary Data)

Count of Impact of AI on Auditors	
Medium	81
Heavy	48
Light	16

Table 3: Impact and Transition DataPhase Review
(Source: Primary Data)

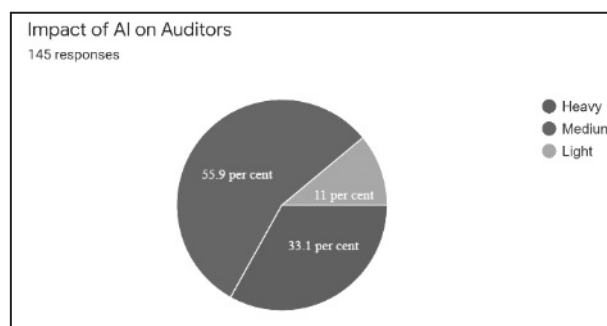


Figure 18: Impact and Transition Phase Review
(Source: Primary Data)

Comments - To what extent did our respondents think that AI impacted auditors. The judgement given is as 'Medium' with majority votes.

As per the responses obtained, 46.2 per cent think that the transition from audit to AI is positive, 40.7 per cent cannot really say whether it is good or bad, and 13.1 per cent feel that it is negative. In short, the generation seems to have a positive opinion in favour of auditors.

ANALYSIS OF ALL QUESTIONS

Anova: Single Factor				
SUMMARY				
Groups	Count	Sum	Average	Variance
Do you know about Artificial Intelligence?	145	192	1.324138	0.428927
Have any idea about Auditing?	145	230	1.586207	0.674808
Can Auditors and Artificial Intelligence work cordially?	145	211	1.455172	0.40249
Can Audit bots fully replace Auditors?	145	364	2.510345	0.348851
What do you think Audit to AI transition is	145	242	1.668966	0.486877
Impact of AI on Auditors	145	258	1.77931	0.395402

Figure 19: Table of Survey Data Analysis
(Source: Primary Data)

Taking the above retrieved data into account, ANOVA single factor analysis was conducted wherein it was used to test the null hypothesis which means that all the several populations are equal.

The value of F Statistic being greater than the F Critical value is significant for the test. It is a null hypothesis where value of 'p' is to be greater than 0.05, or else it is an alternative hypothesis.

In our case, we successfully have proven null hypothesis.

ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	126.9483	5	25.38966	55.65148	3.44E-50	2.224465
Within Groups	394.1793	864	0.456226			
Total	521.1276	869				

*Figure 20: Table of Survey Statistical Data Analysis
(Source: Primary Data)*

RECOMMENDATIONS

To be better prepared for the changes in the auditors' market of the future, the policymakers and corporations should ensure the following -

- **Upskilling Programs** - New positions generated require a high level of technical knowledge and employees of such firms that are strongly impacted by technological transformation will need to spend heavily on workplace upskilling initiatives, resulting in a multifold increase in their output as well as an increased aggregate demand in the macro-economic framework.
- **Grassroot Institutional Changes** - Educational investment is essential for maintaining the labour market and avoiding exponentially rising unemployment rates. Curriculum changes make students more equipped to work. Furthermore, supportive educational programmes for the already educated middle-level workers in companies will ensure that they are future-ready and that the workforce is not overworked. This is critical in order to keep the personnel in place and ensure a seamless transfer to future positions.
- **Need for Proactive Policy Efforts** - The economy suffered heavy losses due to the recent pandemic and when combined with the impacts of technology, it has had disastrous consequences for the future. As a result, officials must make a concerted effort.

LIMITATIONS

- **RAP (Reconciliation Action Plan) Governance** - Identification of distribution patterns of bots by installation of RAP for the company's steering committee as well as its center of excellence.

- **Selection** - Identifying which operations are truly automated. As there are dangers associated with adopting bots, the operation's efficacy may be harmed.

- **Design** - Procedural creation to manage data sets, preserve data developmental stages, and ensure integrity and privacy for the bot to operate efficiently.

- **Development and Testing** - Programming flaws can cause bots to fail. As a result, the designer along with their members should follow the institution's technological advancement guidelines and evaluate the bot before deploying it.
- **Live Monitoring** - Personal monitoring by the compliance officer is required based on the extent of vulnerability. Audit team create new measures based on the needs of the company in order to be notified when the parameter is assessed.
- **Change Management** - Adjustments to the device might jeopardize its effectiveness. A fluctuating enterprise strategy or working nature may cause the bots to cease to operate as expected.

CONCLUSIONS

- **Hourglass Structure** - There are many new organizational structures resembling hourglasses as a result of automation, with multiple levels. However, as to when it reaches its peak is mostly determined by technical feasibility, associated costs, labour dynamics, and regulatory scenarios.
- **Future Of Work** - Technology has a significant impact on how we work and what we do, but complete substitution is unlikely in the foreseeable future. The employment market is predicted to remain steady as more individuals opt for new jobs and industries.
- **Jobs Of Tomorrow** - Auditors in the information technology profession are being generated at a quicker rate than they are being eliminated; new technology is allowing for the creation of new positions, and jobs requiring human intuition, particularly in data science and creativity, will be in

high demand in the foreseeable future. As a result, fears about job security are unjustified.

Artificial intelligence plays a major role in the accounting department and its functioning. New accountants should be aware of what is happening and how to handle it – and for this we need a more holistic education system. This allows the students of the IT industry to get involved in the department for implementing and maintaining the software, but the change would be effectuated gradually as the software needs to be fed with the technical accounting guidance i.e., GAAP (IFRS or both). It is on the upcoming generation to decide whether auditing turned digital was a boon or a bane.

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“

There are many different types of insurance policies to choose from, and ULIP is one of them.

”

A Study on Investors' Perception Towards Unit Linked Insurance Plan (ULIP)

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Kritika Agarwal
Department of Commerce (Evening)

ABSTRACT

Unit Linked Insurance Plans (ULIPs) are the most innovative plan of the era, incorporating investments into the mundane and old concept of insurance. Following the liberalization of India, the GDP of the country has seen a significant increase, reflecting an increase in the income of the average

person. This increased level has prompted consumers to seek out a variety of investment possibilities. This paper explains the concept of ULIP, its features and how they impact investment decisions. It also analyzes the perception of investors investing in ULIPs. To identify the factors, the study has used raw data from the general public belonging to different social and income groups. The outcome of the study suggests that the unique features of ULIP do have a considerable impact on investment decisions.

KEYWORDS: ULIP, Investor, Risk, Insurance, Transparency, Flexibility, Returns.

INTRODUCTION

Insurance is described as a social tool for reducing or eliminating the risk of loss of life or property. Under an insurance plan, a large number of people associate themselves by sharing the risk of an individual. There are many different types of insurance policies to choose from, and ULIP is one of them.

A ULIP is a product offered by insurance companies that combines insurance and investment into a single plan. ULIP was first used in the 1960s and is now widely used in various countries throughout the world.

Investors benefit from life insurance coverage, and their investments in the market are closely monitored by a certified fund manager using a variety of features such as liquidity, switching between funds, and the ability to invest in multiple funds. It gives the option to choose a fund with a varied percentage of equity, riders, and tax benefits under Section 80C, among other things, to make them more appealing. ULIPs have been an attractive investment option for retail investors who desire to increase their wealth in the long run.

The policyholder has the risk of losing money and failing to meet his financial goals but also has the opportunity to earn high returns, which is not possible under conventional policies.

The value of the fund fluctuates depending on market conditions. They allow investors to diversify their investments across multiple sectors, something that an individual investor in the stock market may not be able to achieve.

ULIPs, like any other investment option, have their advantages and disadvantages, depending on how individuals perceive and make investing decisions. ULIPs are now making waves in the insurance business.

LITERATURE REVIEW

- Agarwal (2010) has expressed that ULIP helps to manage the risk-return profile. Traditional insurance products face tough competition from ULIPs, which offer a greater rate of return. The main rationale for choosing policies other than term insurance is to ensure the highest maturity value for the money invested, as well as mortality benefits. The internal rate of return (IRR) on investment is a key aspect to consider when evaluating the maturity value.
- Ranu Amar (2010) has pointed out in his research paper that ULIPs have a higher long-term return, confirming that ULIPs are an effective investment vehicle for long-term wealth generation. In terms of returns and other benefits such as insurance coverage, ULIPs outperform other products.
- Gupta (2012) analyzed ULIP plans from ten life insurance companies which showed that the mortality-adjusted rate of return for Type 1 ULIP plans is slightly greater than the unadjusted rate of return. When compared to Type 1 ULIP plans, this distinction is observed to be greater for Type 2 ULIP plans.

OBJECTIVES

- To understand ULIP, related underlying terms and features and its working mechanism.
- To understand the perception of the investor and attitude towards investing in ULIP.
- To analyze the factors affecting decisions of investors.
- To create and test a certain hypothesis for a better understanding of the study.

RESEARCH METHODOLOGY

This research paper deals with primary data collection for a transparent and authentic data capture. The study was empirical in nature and the survey method was used to collect the data. A structured questionnaire in Google Forms was circulated in February - March 2022 and the data was collected in the city of Kolkata, West Bengal, India. The sample size was 100 individuals including both males and females. Default Google Form charts were used to represent the visuals. The first part of the study contains a demographic profile of the investors, whereas, the second part consists of questions related to ULIP. The hypotheses created are tested by using the chi-square goodness of fit test and are interpreted using p-value at 5 per cent level of significance. The formula to calculate the chi-square test statistic value is

$$\sum \frac{(\text{Observed} - \text{Expected})^2}{\text{Expected}} \sim \chi_{n^2 - 1}^2$$

where n is the number of categories

After the calculation of critical values of chi-square, p-values are calculated. If the p-value is less than 5 per cent, then the null hypothesis is rejected, otherwise, it is accepted.

BACKGROUND

What is ULIP?

Unit Linked Insurance Plan (ULIP) is a life insurance solution that provides the benefits of protection and flexibility in investment. The investment is denoted as units and is represented by the values that it has attained, called Net Asset Value (NAV). The policy at anytime varies according to the value of the underlying assets at the time.

Types of ULIP

There are two types of ULIPs -

Type I ULIP- Returns the higher of the fund value or the sum assured upon the death of the policy holder during the term of the policy.

Type II ULIP- Returns both the sum assured and the fund value upon the death of the policy holder.

The policyholder gets only the fund value on maturity if he survives the term in both types of plans. Type II ULIP is generally costlier in terms of premium than Type I ULIP.

Benefits of ULIP

- Life Protection - ULIPs provide life insurance as well as investment opportunities. It provides security to the family of a taxpayer in the event of an emergency, such as the untimely death of a taxpayer.
- Flexibility - ULIPS are often designed in a way to allow one to switch between debt and equity based on their risk appetite and understanding of market performance. On the other hand, insurance companies only allow very few numbers of free swaps.
- Transparency - Before one buys a product, one will learn about the charge structure, the value of an investment, and the expected rate of return over the entire term of the policy. It is usually a good idea to learn about the product into which one will be investing their hard-earned money. The annual account statement and quarterly investment portfolio, as well as daily NAV reporting, will keep one informed about the status of their investment portfolio at all times.
- Liquidity - In the event of unanticipated future circumstances, ULIPs also allow the policy holder to make a partial withdrawal.
- Risk - Risk is spread over with ULIPs as one can benefit from market-linked gains without having to invest in the stock market directly, as well as the added benefit of life insurance.
- Long-term investment - If one has long-term goals, ULIPs are a smart investment option because the money gets compounded. As a result, net returns are higher in general. In order to get the most out of ULIPs, it is best to keep the policy active for a longer period of time.

Insurance Players in India

Life Insurance Corporation (LIC) was the only insurance company in India before the industry was opened to the private sector. There has been a plethora of insurance businesses in India since the insurance sector opened up to the private sector. These companies have devised flexible and innovative insurance products to meet the varied demands of individuals.

The Insurance Regulatory and Development Authority of India (IRDAI) is a regulatory body in India that is responsible for regulating and licensing insurance and reinsurance businesses in India. As of July 2019, the total number of Life Insurers registered with IRDAI is 24 and as of December 2020, the total number of General Insurers registered with IRDAI is 33. A wide range of insurance products is available in the market. Each insurance product is different from others having some unique attributes which are devised to meet the specific needs of different individuals. However, with such a wide range of products available, it becomes very difficult for an individual to choose an insurance plan that is best suited to meet his requirements. Based on financial plans and the needs and affordability of an individual to pay premiums, an individual can choose any of the plans available in the market.

Between 2019 and 2023, the life insurance industry is predicted to grow at a Compound Annual Growth Rate (CAGR) of 5.3 per cent. In FY21, the insurance penetration of India was 4.2 per cent, with life insurance accounting for 3.2 per cent and non-life insurance accounting for 1.0 per cent. The life insurance industry grew at a rate of 5.8 per cent in the first half of FY22, compared to 0.8 per cent in the same period the previous year.

ANALYSIS OF DATA

On the basis of responses, tables and figures were prepared to extract results from the sample population.

Demographic Profile of Respondents

1. Gender

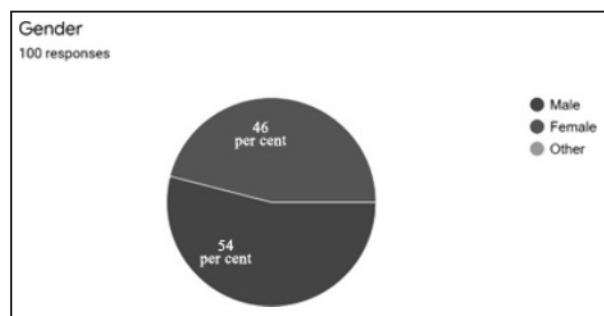


Figure 1: Pie Chart showing the Gender of Respondents
(Source: Primary Data)

The number of males (54 per cent) and females (46 per cent) that participated in the survey are nearly equal. Hence, the study is free from any gender bias.

2. Age

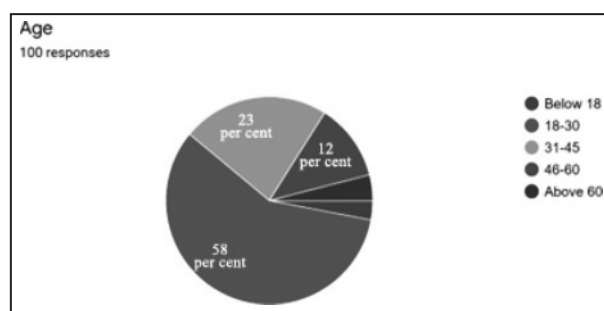


Figure 2: Pie Chart showing the Age of Respondents
(Source: Primary Data)

Age (in years)	No. of responses	Percentage
Below 18	3	3 per cent
18-30	58	58 per cent
31-45	23	23 per cent
46-60	12	12 per cent
Above 60	4	4 per cent

Table 1: Age of Respondents
(Source: Primary Data)

The study takes all age groups into account, but the survey result shows that a majority of the respondents belong to the age group of 18 to 30 years (58 per cent).

3. Occupation

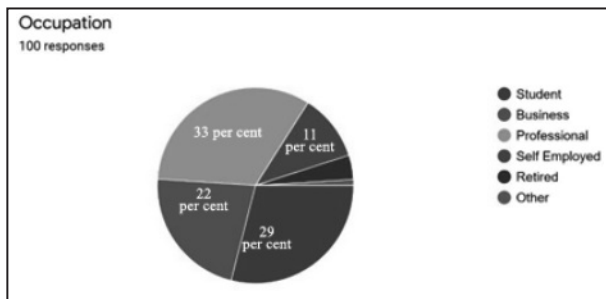


Figure 3: Pie Chart showing the Occupation of Respondents
(Source: Primary Data)

Occupation	Number of Responses	Percentage
Student	29	29 per cent
Business	22	22 per cent
Professional	33	33 per cent
SelfEmployed	11	11 per cent
Retired	4	4 per cent
Other	1	1 per cent

Table 2: Occupation of Respondents
(Source: Primary Data)

The study incorporates people from all occupations of life. But the majority of the respondents were professionals (33 per cent) followed by students (29 per cent).

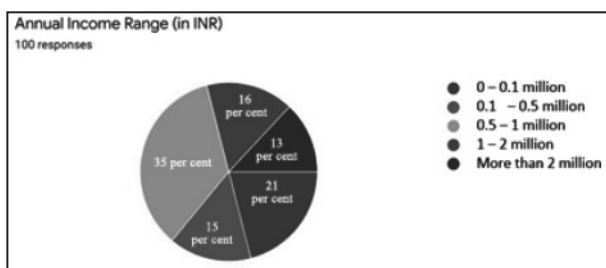


Figure 4: Pie Chart showing Annual Income Range
(Source: Primary Data)

The majority of the respondents belong to the 0.5-1 million income group (35 per cent) which is followed by the 0-0.1 million income group (21 per cent). This is justified as a significant percentage of the respondents were students who are currently not earning.

Questions Related to ULIP

1. Are you aware of Unit Linked Insurance Plan (ULIP)?

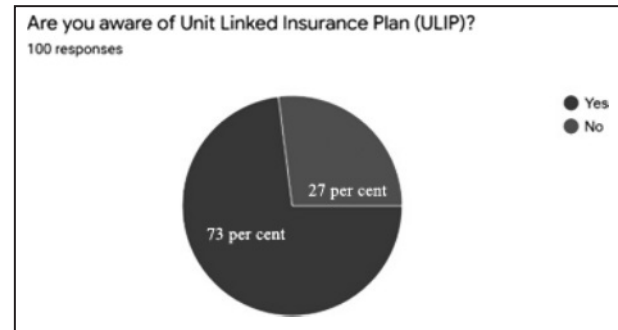


Figure 5: Pie Chart showing respondents aware of Unit Linked Insurance Plan
(Source: Primary Data)

The majority of the respondents (73 per cent) are aware of what a Unit Linked Insurance Plan (ULIP) is.

2. Do you invest in ULIPs?

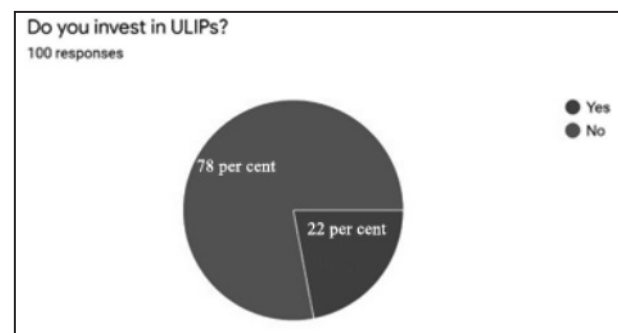
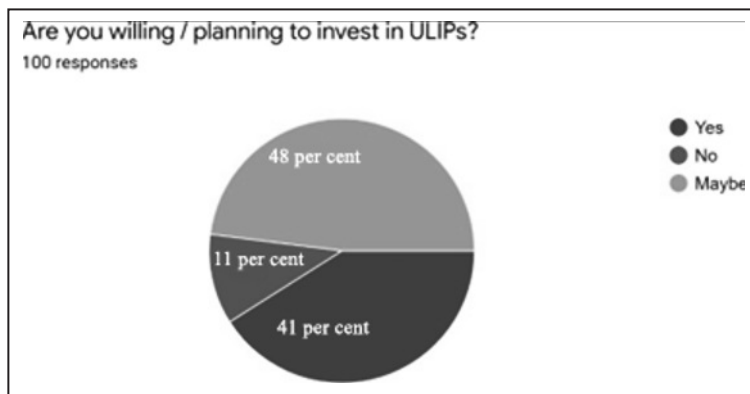


Figure 6: Pie Chart showing Respondents Who Invest in Unit Linked Insurance Plan
(Source: Primary Data)

The majority of the respondents (78 per cent) do not invest in ULIPs.

3. Are you willing or planning to invest in ULIPs?



48 per cent of the respondents might be willing or planning to invest in ULIPs but they are not sure yet. This is followed by 41 per cent of respondents who are definitely willing or planning to invest in them.

Figure 7: Pie Chart showing Respondents who Plan to Invest in Unit Linked Insurance Plan
(Source: Primary Data)

4. What are your main sources of knowledge of ULIPs?

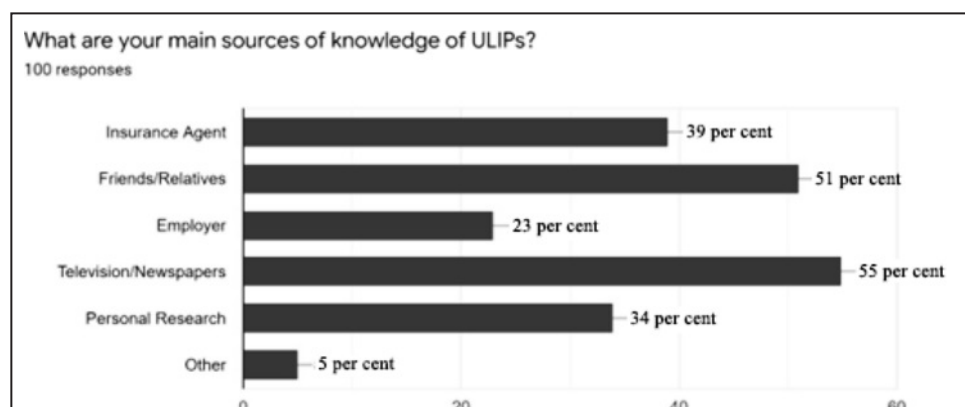


Figure 8: Bar Chart showing the Main Sources of Knowledge of Unit Linked Insurance Plans of Respondents
(Source: Primary Data)

Here, respondents had the option to choose multiple sources. Television or newspapers are the most common source of knowledge of ULIPs which is followed by friends or relatives. Only 34 per cent of them do their personal research to gain knowledge of it.

5. What are your main reasons for investing in ULIPs?

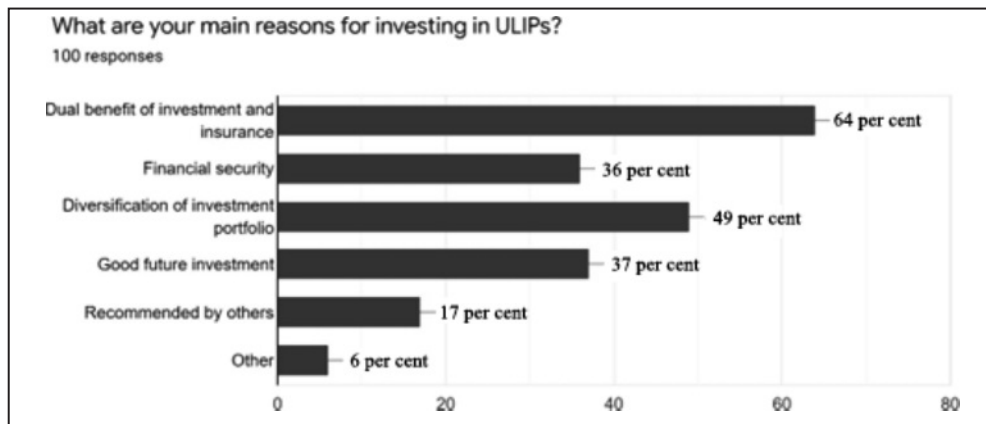


Figure 9: Bar Chart showing the Main Reasons Why Respondents Invest in Unit Linked Insurance Plans
(Source: Primary Data)

Here too, the respondents had the option to select multiple reasons. The study shows that the majority of them invest or want to invest in ULIPs because of the dual benefit of investment and insurance that it offers. A significant number of them also want to diversify their investment portfolio by investing in ULIPs.

6. Do you conduct your own research before investing?

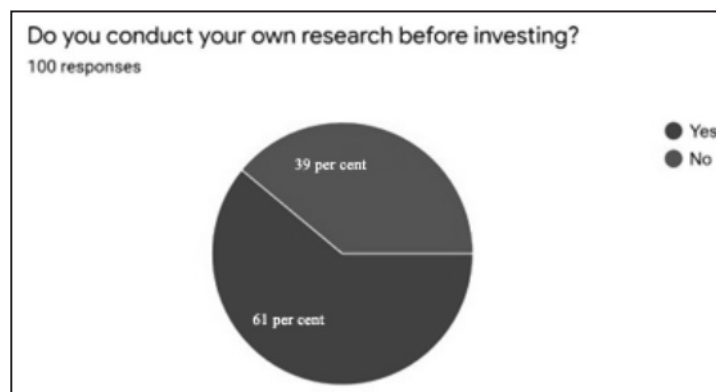


Figure 10: Pie Chart showing the number of respondents who conduct their own research before investing in ULIPs.
(Source: Primary Data)

The majority of the respondents (61 per cent) do conduct their own research before investing and not only depend on external sources while making investment decisions.

7. How would you rank the importance of these factors while investing in ULIPs?

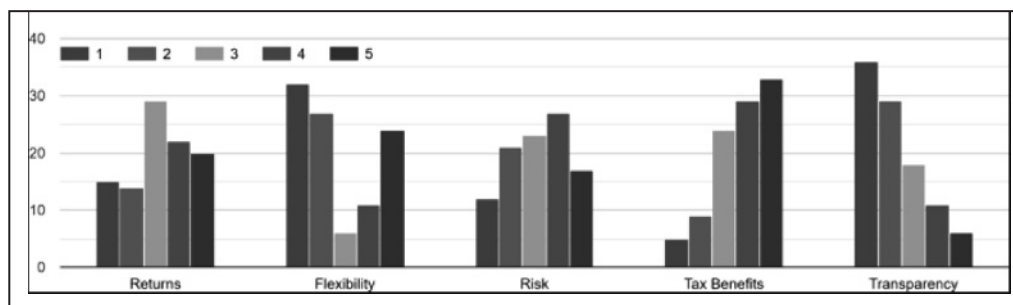


Figure 11: Multiple Bar Charts showing the Main Reasons Why Respondents Invest in Unit Linked Insurance Plans
(Source: Primary Data)

Factor or Rank	1	2	3	4	5
Returns	15	14	29	22	20
Flexibility	32	27	6	11	24
Risk	12	21	23	27	17
TaxBenefits	5	9	24	29	33
Transparency	36	29	18	11	6

The majority of the respondents ranked transparency as the most important factor while investing in ULIPs which is followed by flexibility. These two are the key characteristics of ULIP that differentiates it from traditional insurance policies.

Table 3: Factors Affecting Investments in ULIPs
(Source: Primary Data)

8. Which factors prevent you from investing in ULIPs?

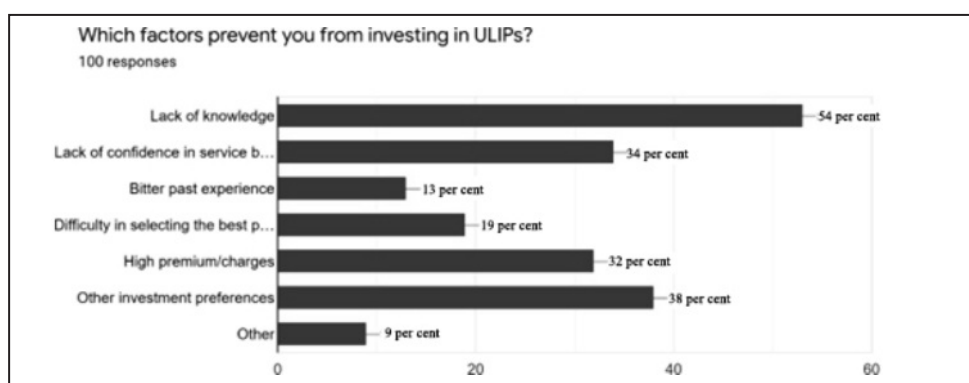
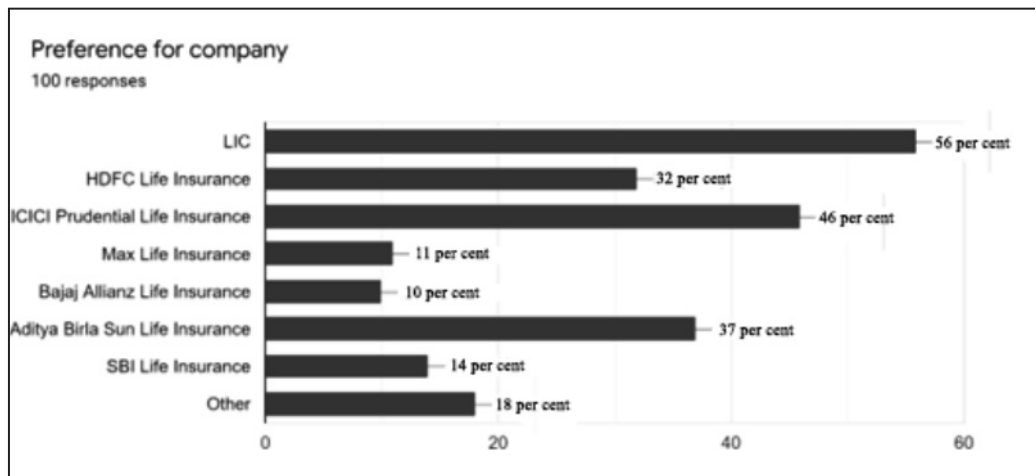


Figure 12: Bar Chart showing Factors that Prevent Respondents from Investing in ULIPs
(Source: Primary Data)

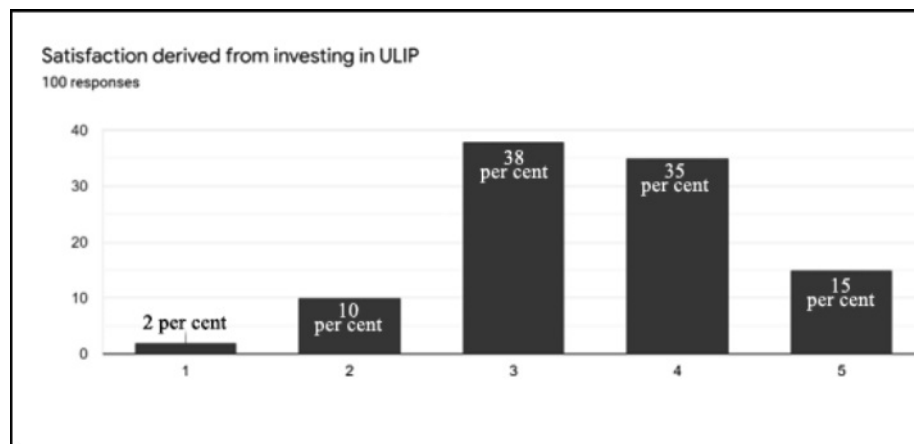
The majority of the respondents cited a lack of knowledge (53 per cent) as the main factor that prevents them from investing in ULIPs. When individuals do not have complete knowledge of a product, they avoid investing their hard-earned money in them and go for other investment opportunities.

9. Preference for Company



*Figure 13: Bar Chart showing the Preference of Companies for Respondents
(Source: Primary Data)*

Here, the respondents had the option to select multiple insurance companies as their preference. LIC (Life Insurance Company) (56 per cent) is the most preferred company for insurance in India as it is a government-owned company. Hence, respondents have more trust in it as compared to private insurance companies. Amongst the private businesses, ICICI Prudential Life Insurance (46 per cent), Aditya Birla Sun Life Insurance (37 per cent) and HDFC Life Insurance (32 per cent) are the most common ones preferred by the respondents.



*Figure 14: Bar Chart showing Satisfaction Derived from Investing in ULIPs
(Source: Primary Data)*

The satisfaction derived from investing in ULIP is measured on a 5-point Likert scale, where 1 signifies dissatisfied and 5 signifies highly satisfied. The majority of the respondents have selected 3 which signifies that they are neutral towards it. One of the main reasons for this could be that they have not ever invested in ULIPs to be able to determine their satisfaction level from it.

HYPOTHESIS

1. H0: Investors do not rank the importance of factors while investing in ULIPs. H1: Investors do rank the importance of factors while investing in ULIPs.
2. H0: Companies providing ULIP face perfect competition.
3. H0: There are no significant factors that prevent people from investing in ULIPs. H1: There are significant factors that prevent people from investing in ULIPs.

Variables	Categories	Observed	Expected	$\frac{\{(Observed-Expected)^2\}}{Expected}$	Degree of Freedom	p-value
1. Ranking the most Important factor	Returns	15	20	1.25	4	< .00001
	Flexibility	32	20	7.2		
	Risk	12	20	3.2		
	Tax Benefits	5	20	11.25		
	Transparency	36	20	12.8		
	Total	100	100	35.7		
2. Preference For company	LIC	25	12.5	12.5	7	< .00001
	HDFC	14	12.5	0.18		
	ICICI	21	12.5	5.78		
	Max	5	12.5	4.5		
	Bajaj Allianz	4	12.5	5.78		
	Aditya Birla	17	12.5	1.62		
	SBI	6	12.5	3.38		
	Other	8	12.5	1.62		
	Total	100	100	35.36		
3. Factors preventing from investing in ULIP	Lack of knowledge	27	14.29	11.31	6	.000244
	Lack of confidence	17	14.29	0.51		
	Bitter past experience	7	14.29	3.72		
	Difficulty in selecting	10	14.29	1.29		
	High Premium or charges	16	14.29	0.21		
	Other investment preferences	19	14.29	1.55		
	Other	4	14.29	7.41		
	Total	100	100	25.79		

Table 4: Chi-Squared Goodness of Fit Test to carry out Hypothesis Testing
(Source: Primary Data)

For variable (1), the chi-square goodness of fit test has been performed only for the factor which has been ranked 1 (most important).

For variables (2) and (3), the respondents were allowed to select multiple options at once. So, the observed number of frequencies were expressed in terms of 100 respondents in order to successfully carry out the chi-square goodness of fit test.

FINDINGS

From variable (1) in Table 4, it is observed that the critical value of chi-square is 35.7 and for the corresponding degree of freedom 4, the p-value is less than 0.00001 which is very much less than the selected significance level of 5 per cent. So, the first null hypothesis is rejected, which means that investors do rank the importance of factors while investing in ULIPs.

From variable (2) in Table 4, it is noted that the critical value of chi-square is 35.36 and for the corresponding degree of freedom 7, the p-value is less than 0.00001 which is very much less than the selected significance level of 5 per cent. It is also observed from the graph that LIC is preferred by the majority of the respondents followed by ICICI Prudential Life Insurance in the private insurance industry. Hence, the second hypothesis is also rejected, which signifies that perfect competition does not exist in the insurance industry for ULIPs.

From variable (3) in Table 4, it is analyzed that the critical value of chi-square is 25.79 and for the corresponding degree of freedom 6, the p-value is 0.000244 which is much lesser than the selected significance level of 5 per cent. Hence, the third hypothesis is also rejected, which implies that there are certain significant factors that prevent people from investing in ULIPs, the most common one being 'lack of knowledge'.

RECOMMENDATIONS

1. The study has been done by taking only a sample of 100 respondents only. It is suggested to take a larger sample size as well to obtain more accurate results.

2. The study has been done in the Kolkata region only so it is suggested to take a larger area or other regions so that more appropriate results can be obtained.
3. It is also recommended to focus more on respondents belonging to the age group of 30-55 years since those account for the majority of the working population in India.
4. Proper awareness has to be spread about ULIP as an investment tool to help investors in making better investing decisions.

LIMITATIONS OF THE STUDY

The study suffers from certain limitations which are stated as follows-

1. The study is limited only to a specific city, that is, Kolkata and does not take the entire country into account. India is a diverse country and investors in other parts of it might have a different perception and attitude towards ULIP.
2. The sample size of the study is 100 individuals only which is very small and does not take into account the perception of the entire population of the city.
3. Majority of the individuals who participated in the survey are within the age group of 18-30 years.

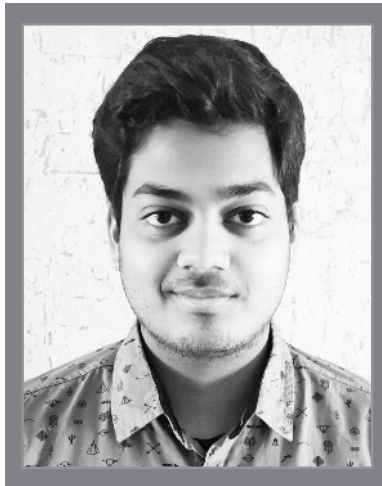
CONCLUSION

It can be concluded that the ULIP market is relatively thin and we are still in the development stage, but it has been observed that investors consider a variety of variables before spending their hard-earned money. According to the research, the majority of people know what ULIPs are but do not have complete knowledge about the different products and the benefits of ULIPs. Only 22 per cent of the respondents currently invest in ULIPs, but 89 per cent of the respondents are interested in ULIPs. The marketing activities of insurance companies have influenced the general public. During the research, it was discovered that the primary elements that influence the decision of investors to invest in ULIPs are flexibility, transparency, returns,

benefit and the ability to switch between funds. As an investment alternative, ULIPs are becoming increasingly popular. ULIPs have both a lot of advantages as well as disadvantages. ULIPs are a great option for those looking to invest in products that offer a range of benefits all under one roof, such as good returns, tax savings, and life insurance.

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“

Shareholders are always advised to study the company's performance and purpose of raising funds before subscribing to the issue or trading on the rights entitlement shares.

”

Analyzing the Impact of Rights Issue: From An Indian Stock Market Perspective

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ABSTRACT

A right issue is one of the most popular modes of fundraising used by a company. The shares are offered at a predetermined ratio at a predetermined price to the company's existing shareholders. It was found that many shares show an upward trend post-announcement of rights issue and have a larger market capitalization than the date on which the rights issue was announced. It was also found that after the initial decline at the ex-date, the prices returned to the record level after about a month in most cases, indicating a positive sentiment towards the rights issue.

KEYWORDS: Rights Issue, Record Date, Ex-date, Share Price.

INTRODUCTION TO RIGHTS ISSUE

Companies, particularly in India, employ rights issue offerings as one of the most common methods of collecting additional funds from existing shareholders. The company makes an offer to the shareholders to acquire additional shares of the corporation at a predefined ratio at a price which is usually less than the market price (the rights offer price) within a certain time frame. Unlike Initial Public Offerings (IPOs) on the primary markets, a rights issue is limited to the existing company's shareholders at a specified ratio. Eligible shareholders are given the choice to fully or partially subscribe to the rights issue, transferring their entitlement to another person who may not be an existing shareholder at a predetermined rate or letting the offer expire.

Reliance Industries Limited was the first company to follow the Securities and Exchange Board of India (SEBI) mandate and credited the right entitlement as tradeable shares in the demat account which enabled traders to trade in the entitlements and freely transfer them. Shareholders are always advised to study the company's performance and purpose of raising funds before subscribing to the issue or trading on the rights entitlement shares.

This paper also aims to establish any trends or patterns in the rights issue of different companies and the related price movements and if there have been any changes or reversals in the trends.

RESEARCH GAP

There has been no significant research work carried out in this field of study that is analyzing the effects of a rights issue on the share price of a company in the Indian stock market. The research work which was conducted is old and no work has been done to analyze the recent rights issues and to determine whether there have been any significant deviations from the trends and analysis which were established earlier. This research paper aims to fill that gap.

OBJECTIVES

1. To understand the effects a rights issue brings about to the company's image in terms of the volume traded.
2. To establish and understand the relationship between the rights issue of a company and the share price of the company.
3. To understand how much time, it takes for the share price of the company to stabilize after major fluctuations.

LITERATURE REVIEW

'In Price Reaction to the Rights Issues in the Indian Market'- Vijaya Marisetty, Alistair Marsden and Madhu Veera Raghavan (2007) the study tries to determine the share price reaction to the announcement of rights offering by companies whose shares are being traded in the Indian stock market for the period of 1997 to 2005. The paper documented a positive but mathematically small price reaction to such rights issue offerings. The paper documented that for firms affiliated with a family group, the investors perceived that the proceeds of the rights issue may be misused for the benefit of the group and thus there was a notable price reaction difference from other firms.

'In an Analysis of the Share Price and Accounting Performance of Rights Offerings in China'- Junbo Wang, K.C. John Weiland Stephen W. Pruitt (2005), the research paper examines the short-term and long-term share price and financial performance of rights issue offered by Chinese firms. The study uses data from 432 companies which announced a rights issue during the period of 1994 to 1999. This study found that investors in China under reacted to the initial announcement of new offerings in the opposite direction. The paper finally concludes that the long-term stock performance of rights issuing firms are positively correlated with changes in the post-issue accounting performance. 'A Study of Dividend Policy and its Effects on Market Value of Shares of Selected Banks in India' - Vinay Kandpal and P C Kavidayal (2015), though this research paper is not directly related to the topic of this research paper, it

has been observed that the effects of a dividend announcement are similar to the rights issue (i.e., a decrease in the prices of the securities is observed). The paper attempts to analyze the effect of dividend policy on shareholder wealth of thirty selected Indian banks listed and traded in the Bombay Stock Exchange (BSE). The analysis of data revealed that there was a significant effect of dividend policy on the share prices of the securities. 'The Impact of Rights Issue Announcements on Share Price', examines rights issued by companies listed under the financial and industrial sectors of The Johannesburg Stock Exchange (JSE) during the period 1986 to 1992. Only rights issue of ordinary shares are included and various other restrictions are imposed to improve the reliability of the study. The event study methodology is used to calculate abnormal price returns over a market index. 'Can The Stock Market Anticipate Future Operating Performance? Evidence From Equity Rights Issue', examines whether the stock market valuation impact is consistent with the subsequent operating performance of firms. Additional investigation of both stock and operating performance decline provides full support for the information asymmetry hypothesis, and partial support for the free cash flow hypothesis but no support for the window of opportunity hypothesis. 'Alternative Methods for Raising Capital: Rights Versus Underwritten Offerings', provides an analysis of the choice of method for raising additional equity capital by listed firms. The underwriting industry, finance textbooks, and corporate proxy statements offer several justifications for the use of underwriters. 'In The Effects of Rights Issue Announcements on Stock Returns for Firms Listed at the Nairobi Securities Exchange', the study establishes that stock prices and returns change significantly in the post-announcement period than in the pre-announcement period. Analysis of mean abnormal return reveals that rights issue announcement results in either positive or negative stock return. Based on the Cumulative Average Abnormal Return (CAAR), the study concludes that rights issue announcement results in a negative abnormal stock return for the listed firms.

RESEARCH METHODOLOGY

The research work has been conducted based on secondary data collected from various financial and news websites. 15 shares having different characteristics like market capitalization, holding structure, business types, and organizational structure that have announced rights issue recently have been identified for the purpose of the study. Then the data relating to the rights issue i.e., the date of announcement of rights issue, the record date of the rights issue, ratio, price at which the shares are offered have been collected from company websites and certain financial news sources. Then, the data relating to the prices on the date of announcement, the price on the record date, the highest price and the lowest price recorded in between the announcement and the record date; and the associated trading volume on both dates is collected. Further, using the data obtained previously, certain calculations are made relating to the change in market capitalization comparing the price on the date of announcement with the price on the record date. Then the price chart is obtained for the period between the date of announcement and the record date and a period little further highlighting the two dates and prices; available on the financial websites and visually inspect any significant price movement in the intervening period and analyze any significant shift in the trading volume of the shares under inspection post announcement and record date. Using the price data available, the outliers i.e., the extreme values are analyzed and reasons for the same are sought. The price line chart available is again visually inspected to identify the time taken for the line to smoothen out (stabilize) and for the share price to recover post any new highs or lows (if there is any recovery). The same mentioned process is carried out for all the identified shares (the samples) and the data collected is put together and analyzed to draw conclusions and to find out if there are any trends established post announcement of rights issue and whether the trends have reversed or changed from what previous studies identified.

DATA

For the purpose of this study, 14 companies have been identified that announced their rights issue in the year 2021 or 2022 and the rights issue was not withdrawn by the company and there was substantial investor participation in the rights issue offerings. These

companies are of different financial backgrounds, different sizes, different businesses and holding structures.

An attempt has been made to bring about the complete scenario of rights issue offerings in the Indian stock market.

1. Wardwizard Innovations and Mobility Limited

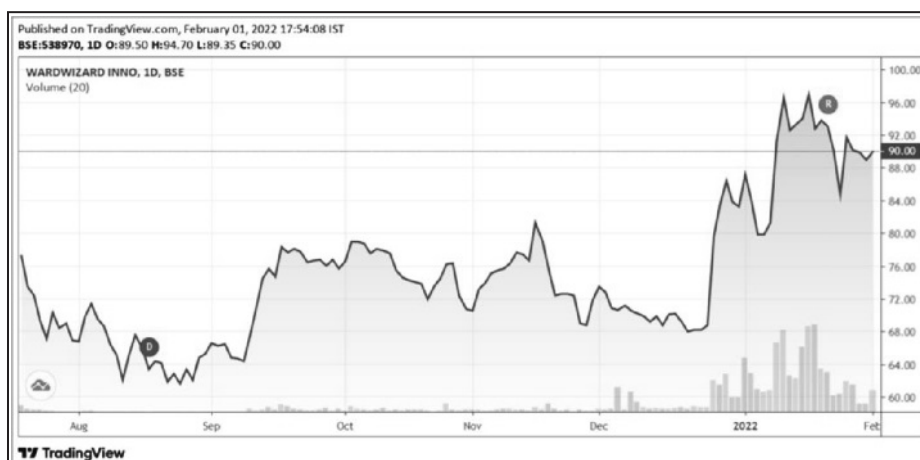


Figure 1: Wardwizard Innovations and Mobility Limited
 (Source: moneycontrol.com)

2. Bharti Airtel Limited



Figure 2: Bharti Airtel Limited
 (Source: moneycontrol.com)

3. Vodafone India Limited



Figure 3: Vodafone India Limited
(Source: moneycontrol.com)

4. Reliance Industries



Figure 4: Reliance Industries
(Source: moneycontrol.com)

5. Joonktollee Tea Limited

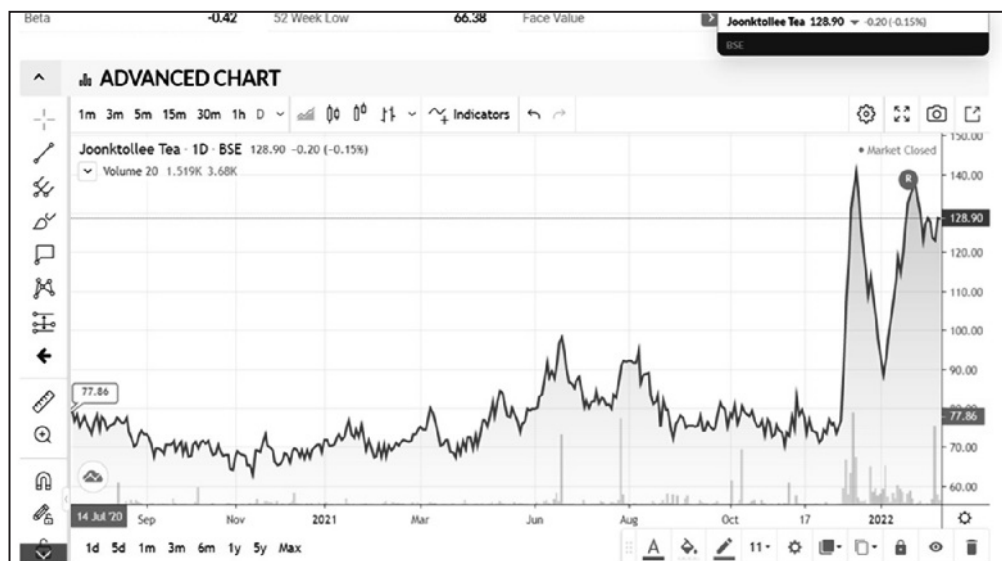


Figure 5: Joonktollee Tea Limited
(Source: moneycontrol.com)

6. Som Distilleries and Breweries Limited

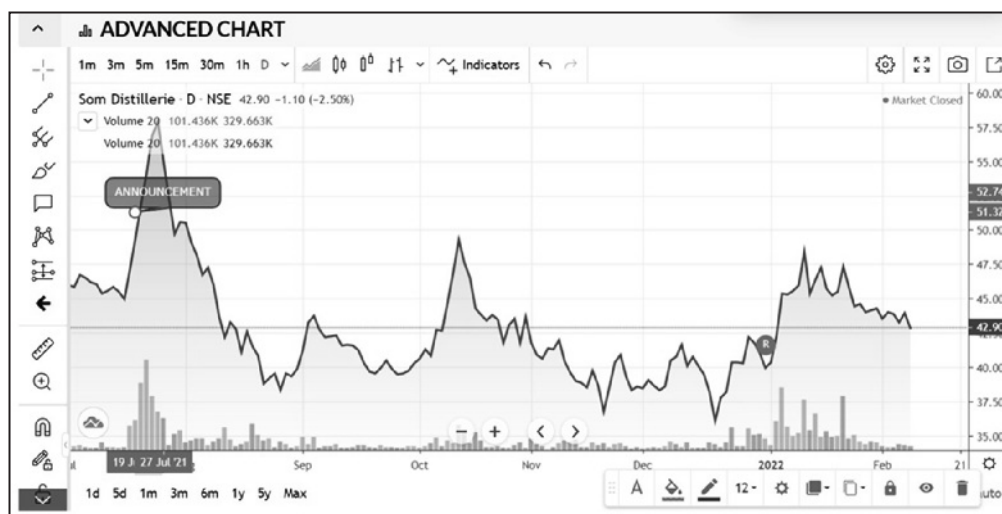


Figure 6: Som Distilleries and Breweries Limited
(Source: moneycontrol.com)

7. Veer Global Infraconstruction Limited



Figure 7: Veer Global Infraconstruction Limited
(Source: moneycontrol.com)

8. Wockhart Limited



Figure 8: Wockhart Limited
(Source: moneycontrol.com)

9. BN Rath Securities



Figure 9: BN Rath Securities
(Source: moneycontrol.com)

10. Choice International Limited

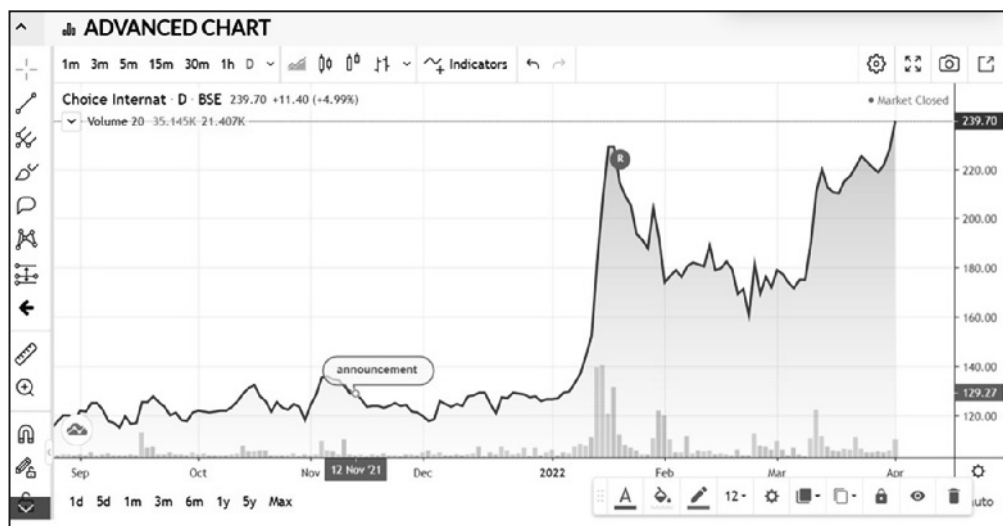


Figure 10: Choice International Limited
(Source: moneycontrol.com)

11. Texmaco Rail and Engineering Limited



Figure 11: Texmaco Rail and Engineering Limited
(Source: moneycontrol.com)

12. Asian Granito India Limited



Figure 12: Asian Granito India Limited
(Source: moneycontrol.com)

13. Kesoram Industries Limited



Figure 13: Kesoram Industries Limited
(Source: moneycontrol.com)

14. Indian Hotels Limited



Figure 14: Indian Hotels Limited
(Source: moneycontrol.com)

15. Nxtdigital Limited

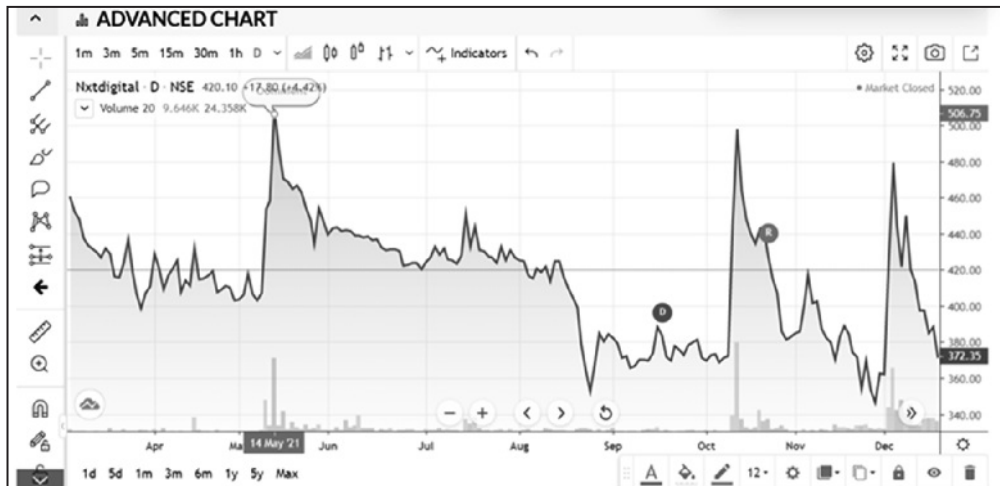


Figure 15: Nxtdigital Limited
(Source: moneycontrol.com)

FINDINGS AND ANALYSIS

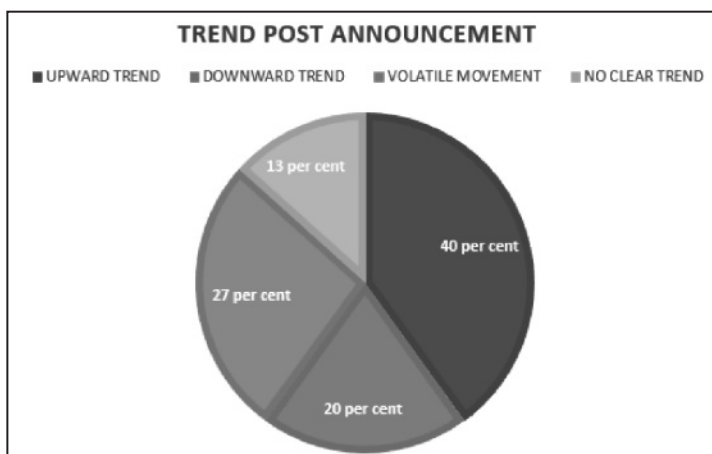


Figure 16: Trend Post Announcement
(Source: Author's Compilation)

It can be seen that after the announcement of rights issue by a company most of the companies registered an upward price movement (40 per cent of the companies in the given sample). This shows that a rights issue is mostly favoured by an investor and viewed favourably. However, if the company is a heavy loss-making company, then, the investors view the rights issue unfavourably and the prices slide signalling that investors do not want to further invest in such companies or dilute their shareholdings by not participating in the rights issue as clearly seen in the case of Vodafone Idea Limited. This thus shows that investors only prefer rights issue when they believe that their investments will grow (as indicated by the downward movement post announcement of rights issue).



Figure 17: Change in Market Cap
(Source: Author's Compilation)

Trends post announcement of rights issue reveals that there was a large positive change in market capitalization in most of the shares (nine shares) highest being 276.41 per cent followed by a large negative change in three shares. Here, large changes are defined by a movement of ± 4 per cent (mean interest rates of banks).

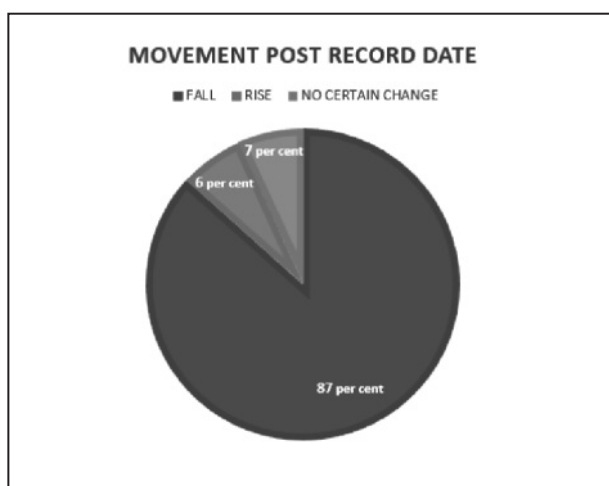


Figure 18: Movement Record Date
(Source: Author's Compilation)

The most evident reaction in the share prices of the company in response to the record date is a big fall in

the share price irrespective of the market capitalization. As we have seen in the findings that 86 per cent of the companies in the sample registered a decline in the share price post the record date and there was only one outlier in the data that registered a rise in the share price post record date i.e., Som Distilleries and Breweries Limited. Barring that shares price of Reliance Industries Limited (large cap 6445 crore equity shares capital and a blue-chip company) fell about ₹ 100 (6.5 per cent) immediately after the ex-date, and Joonktollee Tea Limited (small cap company with an equity share capital of four crores) fell about ₹ 10 (9 per cent). This may be correlated to the theoretical price difference that occurs after the record date. However, it cannot be said that the fall in price is equal to the theoretical fall in the share price. It can also be said that some investors exit the shares after becoming entitled to participate in the rights issue, to maybe trade in the RE (Right Entitlement shares credited to their demat accounts)



Figure 19: Time Taken for Price to Recover
(Source: Author's Compilation)

Here, it can be seen that more than half of the shares under study returned to their record date price post-fall within a span of one month. There were also a few cases where the prices reached the record date price almost immediately but that price was not sustained and there was a downward trend post that. It can also be seen that in most cases the price level set on the record date established a future trend when the prices reversed.

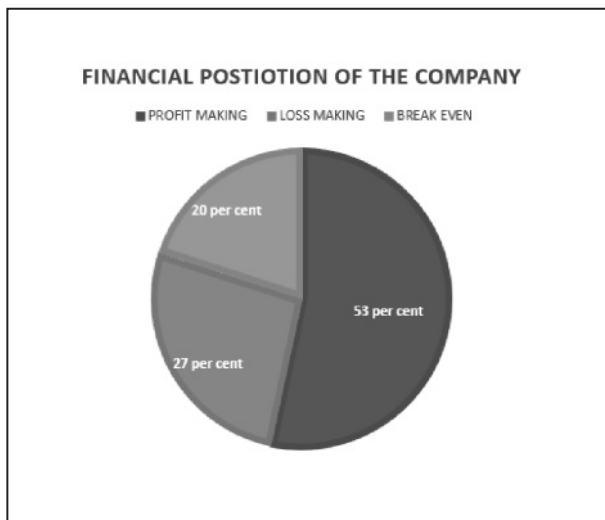


Figure 20: Financial Position of The Company
(Source: Author's Compilation)

1. Here, it can be seen that companies of all types of financial health have issued rights issue. There were eight companies in the sample that were making a profit of any size (the largest profit being made by Reliance Industries Limited) that issued a rights issue and did not cancel or withdraw the issue. It can also be seen that four companies were making a loss of different magnitudes (the largest loss being made by Vodafone Idea Limited) and still went ahead with the rights issue (which might have been due to wanting of funds). There were three companies which were at breakeven in the comparative period and still went through with the rights issue.
2. There were high price movements noticed in the intervening period between the date of announcement and the record date and in all the samples it can be seen that the record date price was never the highest price recorded for that particular share. The outlier (highest price recorded) was many times very close to the record date price but never equal to it.
3. As indicated in the findings section, it can be concluded that after the announcement of rights issue, the record date price is mostly higher than the price at the date of announcement as 67 per cent indicated a positive change in the market

capitalization post announcement. In some cases where investors are ecstatic about the rights issue, the prices can rise to as high as 276 per cent the price at the date of announcement. This indicates that shareholders have an opportunity to increase their wealth post the rights issue announcement because increase in the price until the record date and post that by holding the shares for about two months until the prices return to the record date high as the prices post this is mostly higher than the announcement date price after they reverse.

4. It can be concluded that most of the shares return to their record date prices in almost two months from the record date (as seen in almost 70 per cent of the cases in terms of our sample) and in other cases the time taken might be longer than four months as well. It is also seen that post-recovery, the prices seem to move in an upward direction, thus setting an upward trend and a chance for investors to increase their wealth.
5. It was seen that there was a higher buying volume near the record date indicating that many investors who might not have been the shareholders when the rights issue was announced by the company tried to participate by buying shares close to the record date to benefit off the price difference of the issue price and market price which raises the share prices near the record date. However, it is also seen that the record date price is not the highest price recorded indicating that a few investors exit the shares before the record date indicating that they are not keen to hold the shares of the company.
6. It was seen that trading volumes increased post announcement of rights issue in many cases indicating greater participation by the public but remained very volatile in the intervening period indicating there is no conclusive trend. This is because the trading volumes are driven by many other factors.

CONCLUSION

A right issue is one of the most popular modes of fundraising used by a company. The shares are offered

at a predetermined ratio at a predetermined price to the existing shareholders of the company. This study attempted to show and understand the effects of a rights issue from an Indian stock market perspective, to understand if there are any effects on the traded volume, and find the time taken for the trends to normalise post issue. The study identified a sample of 15 shares of different backgrounds, financial conditions and business models to get an overview of the Indian financial market. The two most important dates in respect of a rights issue are the date of announcement and the record date which have been taken into consideration and the intervening period to analyze the effects.

The study found that many shares show an upward trend post announcement of rights issue and have a larger market capitalization than the date on which the rights issue was announced (i.e., the share price is higher on the record date); the prices tread to a new high close to the record date. The study also found that there was a sharp decline in the share prices post the record date indicating that some investors exited the stock and that there was a price adjustment in the price indicating the difference between the cum-right and ex-right share price. It was also found that after the initial decline at the ex-date, the prices returned to the record date levels after about a month in most cases indicating a positive sentiment towards the rights issue. The study found that almost all types of companies of different financial health, tend to raise capital through rights issue for different purposes and the investors tend to react positively to the rights offerings by companies of sound financial health and see it as an opportunity to increase their wealth.

PRACTICAL IMPLICATIONS

This study has made use of original data from secondary sources. A study on rights issues and related price movements is important for investors and traders to know and analyze the situation of a rights issue and what to do in case of one. The study also aims to analyze the information efficiency of the Indian equity market using rights issue as the basis.

LIMITATIONS AND SCOPE FOR FURTHER RESEARCH

The sample size taken is small due to limited sources of information. Some companies which had announced rights issue had to be kept out of the scope of the study due to the unavailability of information. In the time frame of the study, no public sector undertaking announced their rights issues and thus that sector had to be kept out of the scope of the study.

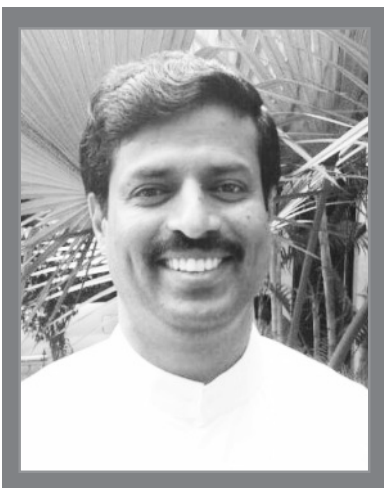
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3. <https://www.chittorgarh.com/report/latest-rights-issue-in-india/75/>
4. <https://economictimes.indiatimes.com/>
5. <https://www.moneycontrol.com/>



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The landscape of India is witnessing fast-changing gears in the ambit of higher education to perch itself as a renowned educational hub.

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Antecedents Influencing Choice and Selection of a Jesuit Higher Educational Institution Among Graduates: A Study in Kolkata Metropolis

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ABSTRACT

In the backdrop of the ultra-competitive globalized era, the challenges faced by Higher Educational Institutions (HEIs) are monumental. HEIs, particularly in the context of India, stare at the barrel of such daunting challenges. For the purpose of keeping buoyancy upbeat, such institutions have prodigious expectations of providing value to their students which calls on them to adapt

to a plethora of changes on their part. In this light, Jesuit HEIs have become an interesting subject of study in the context of students' choice of HEIs. The current research endeavour is aimed at mapping the perception and expectations of the young graduates of Kolkata towards Jesuit HEIs, where the essence lies in exploring the various factors which influence such perceptions and the ultimate choice of a Jesuit HEI. The study categorically has been split into two chunks, the first part seeks to examine and analyze the crux factors influencing the perception of a Jesuit HEI, and the second part seeks to figure out the best combination of factors which the student respondents of Kolkata feel are most significant in selecting a Jesuit HEI.

KEYWORDS: Jesuit HEIs, Graduate Students, Attitudes, Behaviour, Kolkata.

INTRODUCTORY CONTEMPLATIONS

The landscape of India is witnessing fast-changing gears in the ambit of higher education to perch itself as a renowned educational hub. HEIs in India have experienced a bewildering turnaround in their ways of working and the development activities which have followed. It is imperative for students to get an in-depth understanding of the key parameters for selecting the correct HEIs. The various parameters include location, pedagogy, faculty quality, placements, fees, et al. In this light, the performance of HEIs needs to be comparatively evaluated on the basis of such parameters. This is actually a multifarious and tedious process that requires a host of information and analysis to be made about HEIs. Young Graduates are in the quest for a self-confessed aim of making the right choice of appropriate HEIs without having to be swayed by vague claims. Amidst this, the baptism of a sacrosanct brand of education has been evidenced as a much-needed tonic to set the tone and offer a one-stop solution. Jesuit education has emerged as a catalyst which has transcended the Indian education sector at the apex. The hallmark of Jesuit Education exists in providing education of the highest quality to its students as well as laying a holistic emphasis on 360-degree development of the students making them individuals

of 'Competence', 'Conscience', 'Compassion' and 'Commitment' (4Cs of Jesuit education). 'Jesuits' are actually the Catholic priests who belong to the 'Society of Jesus', the highest religious order of the Catholic Church. The present research study is attempted towards examining and analyzing the perceptions of graduate students of Kolkata towards Jesuit HEIs and the factors which influence their choice of such institutions.

REVIEW OF BACKGROUND LITERATURE

Prevalence of higher education in a contemporary society is aimed at dissemination and advancement of knowledge to bring a change, Faruqui and Qureshi (1999).

Kozinets (2002), students are the ultimate consumers in the ambit of higher education marketplace. The branding of HEIs is quite significant and play a gargantuan role.

As per Bok (2003), the administrators of HEIs are often oblivious that such educational establishments are on the marketplace.

A deeper survey of literature would explore that there hardly exists any in - depth research emphasizing Jesuit HEIs let alone students' preference and choice towards Jesuit HEIs. The crux belief in a Jesuit institution focuses on curriculum not only being centred towards sound academic excellence among its students but also excellence in non-academic spheres of life, thus shaping the agents of change in society. It has been noticed that Jesuit HEIs are offering a plethora of management, technical and career-oriented courses which have been embraced by students in large numbers.

Sidin et al. (2003), concluded that students' selection of colleges is dependent on several criteria like academic quality, campus area, facilities and personal traits. They further asserted that factors such as costs, academic quality and duration of the study were significant variables for students as well as for their families.

Ming (2010), revealed the various determinants which affect the decision of students regarding the selection of

HEIs are college reputation, educational facilities, employment opportunities, academic programmes, price, financial aid and a visit to campus.

RESEARCH OBJECTIVES

1. To explore the dominant factors influencing the perception of a Jesuit HEI by conducting Factor Analysis.
2. To prune out the best combination or utilities for factors affecting the preferences and choice of Jesuit HEI by conducting a Conjoint Analysis.

DATA AND METHODOLOGY

Both primary and secondary data have been used to conduct the present research study. Secondary data has been collected from various authentic reliable data bases like INFLIBNET, JStor, BASE, Google Scholar, et al. The information collected has been used to build a robust conceptual base and understanding of the research study. For the purpose of primary data collection, a structured questionnaire has been used. The questionnaire is a moderately draw none. The sampling area is purely in Kolkata which includes localities of Taltala, Beckbagan, Park Street and Khidderpore. The sample size is 260 respondents who are all graduates belonging to a very young age group of 21-24 years of age. It is note worthy to mention that the data collection has been undertaken in two phases in our current research study. This is because of our twin objectives of exploring the crux factors of Jesuit HEI which summarize the motivations and expectations of a Jesuit HEI aspirant along with investigating the best combination of factors affecting the preference and choice of students towards

a Jesuit HEI. In the first phase, data collection has been done primarily to identify the dominant factors and in the second phase of the data collection, the best combinations have been found through conjoint analysis which has been drafted as a questionnaire and presented to the same respondents again. Initially, the data collection took place by administering more than 300 respondents, but the number of final responses was reduced to 260 due to certain erroneous and incomplete responses by the participants. Finally, after the rejection of such responses, the final responses stood valid at 260. For measuring the concepts, a 'Five-Point Likert' scale has been used. The data collected has been processed by using 'IBM's SPSS' 23.

ANALYSIS AND PRESENTATION OF DATA

We have used 'IBM's SPSS' 23 to process and analyze the data. The analysis consists of demographic profiling, factor analysis and conjoint analysis.

Demographic Profiling

Our demographic statistics consist of gender, age, occupation and income classification which has been captured below in the form of a table.

Demographic Construct	Classification	Population Statistics	Percentage
Gender	Male	132	0.51
	Female	128	0.49
	TOTAL	260	1.00
Age	21 years	23	0.09
	22 years	68	0.26
	23 years	80	0.31
	24 years	89	0.34
	TOTAL	260	1.00

Table 1: Demographic Statistics
(Source: Primary Data)

The above table is a representation of various demographic variables which has been taken into consideration for our present research study. We observe that the male and female ratio is balanced

moderately accounting for 51 per cent and 49 per cent of the total respondents respectively. Most of the respondents belong to the age bar of 23 years and 24 years.

Exploratory Factor Analysis

Conducting an 'exploratory factor analysis' is crucial to explore the relevant factors that shape the perception of consumers towards shopping malls. However, before that, the 'KMO and Bartlett's Test of Sphericity' has

been conducted for checking whether the sample size is adequate, which will further indicate if it is worth while to run a Factor Analysis.

The KMO Bartlett's Test of Sphericity gives confirmation to the fact that running the Factor Analysis test was appropriate. The ideal values should exceed 0.6, which is explained by the KMO Test Statistic reporting figure of 0.797 (>0.6). The significance shows a value of 0, ($p=0.000$, $p<0.05$). This is a confirmation of the fact that Factor Analysis can be performed.

The KMO and Bartlett's Test has been followed up by Total Variance Explained (TVE).

Four factors have been obtained; each of these four factors together explains 67.439 per cent of the variance explained. 'Principal Component Analysis' indicates the extraction of the variables provided that the Eigen values exceed 1 (Eigen values $= > 1$).

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.797
Bartlett's Test of Sphericity	769.659
Approx. Chi-Square	
df	55
Significance	.000

Table2: KMO and Bartlett's Test of Sphericity
(Source: Primary Data)

Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	Percentage of Variance	Cumulative Percentage	Total	Percentage of Variance	Cumulative Percentage
1	2.464	33.617	33.617	2.464	33.617	33.617
2	1.883	22.581	56.197	1.883	22.581	56.197
3	1.327	11.242	67.439	1.327	11.242	67.439
4	1.251	8.653	76.092			
5	1.011	8.166	84.259			
6	0.813	4.649	88.908			
7	0.604	4.258	93.165			
8	0.538	4.022	97.187			
9	0.492	1.724	98.911			
10	0.345	0.867	99.778			
11	0.272	0.221	100.000			

Table 3: Total Variance Explained
(Source: Primary Data)

Below is the Rotated Component Matrix. The rotation has been done using 'Varimax with Kaiser Normalization in six iterations'. The 11 variables observed are disintegrated into 3 factors. Component 1 can be recalled as 'Primary Factor' which comprises 3 variables namely, 'Quality of Faculty', 'Industry Interface' and 'Quality of Placement'. Component 2 can be renamed as 'Secondary Factor' which comprises 4 variables namely, 'Pedagogy and Course Strength', 'Fee Structure', 'Global Affiliation' and 'Accreditation and Infrastructural Facilities'. Component 3 can be renamed as 'Tertiary Factor' which comprises 4 variables namely, 'Nature of Degree Offered', 'Residential Facilities', 'Locational Advantage' and 'Alumni Strength and Network'.

	Component		
	1	2	3
F1	-0.786	0.213	0.066
F2	0.692	0.245	
F3	-0.228	0.456	0.472
F4	0.573	0.215	
F5	-0.569	0.078	0.141
F6	0.715	-0.098	0.342
F7	-0.434	0.618	0.382
F8	0.357	0.728	0.165
F9	-0.141		0.692
F10	-0.063	0.749	-0.077
F11	0.182	-0.114	0.636

Table 4: Rotated Component Matrix'
(Source: Primary Data)

(Note: Extraction Method: Principal Component Analysis Rotation Method: Varimax with Kaiser Normalization

a. Rotation converged in 6 iterations.)

Conjoint Analysis

It has been identified that there are 4 attributes with multiple levels: Service Experience (3 variables), Mall Infrastructure (4 variables), Convenience and Utilitarian Factors (4 variables). The total possible combinations across the following three attributes are:

$$8 \times 5 \times 7 \times 4 = 1120 \text{ combinations.}$$

The total possible combinations are actually a representation of a set of possible decisions available to participants, among which the respondents should make a decision of picking up one combination.

The impractical task of asking such respondents for ranking the mammoth 1,120 combinations calls for designing an orthogonal framework for generating sample profiles on the basis of the random seed number entered (50,000 in this case). Accordingly, 16 cards have been generated from the system representing various combinations of variables drafted as a questionnaire and presented to the same number of respondents who were asked to rank 'the most preferred combination' on a scale of 1-16.

	Number of Levels	Relation to Ranks or Scores
Primary Factors	3	Discrete
Secondary Factors	4	Discrete
Tertiary Factors	4	Discrete

Table 5: Description of Model
(Source: Primary Data)

The table displayed below is of extreme importance, as it represents the 'utility coefficients' for each factor level. The preference for a particular factor level depends upon the utility coefficients. As per the results obtained, Quality of Faculty (0.692) possess the highest utility or preference in the case of Primary Factor, Global Affiliation and Accreditation (2.244) has the highest utility or preference the in case of Secondary Factor, while in the case of Tertiary Factor, Locational Advantage (2.132) has the highest utility.

		Utility Estimate	Standard Error
Primary Factor	Quality of Faculty	0.692	0.930
	Industry Interface	-0.105	0.870
	Quality of Placement	-0.555	0.930
Secondary Factor	Pedagogy and Course Strength	-1.082	1.017
	Fee Structure	1.117	1.017
	Global Affiliation and Accreditation	2.244	1.017
	Infrastructural Facilities	-2.297	1.017
Tertiary Factor	Nature of Degree Offered	-0.685	1.017
	Residential Facilities	-0.663	1.017
	Locational Advantage	2.121	1.017
	Alumni Strength and Network	-0.826	1.017
(Constant)		8.679	0.612

Table 6: Table of Utilities
(Source: Primary Data)

It can be inferred that the graduate respondents in Kolkata give preference to Jesuit HEIs with an impeccable quality of faculty, which has a robust global affiliation together with locational advantage. In fact, this is the ideal prerequisite a shopping mall should have. The table portrayed below represents some pertinent aspects which are also of relative significance among the attributes. In the present research study, secondary factors are the most important consideration for students (51.389), followed by primary factors and tertiary factors according to the values obtained.

PrimaryFactor	36.491
SecondaryFactor	51.389
TertiaryFactor	12.120

Table 7: Importance among Attributes
(Source: Primary Data)

Below is a correlation table representing the correlation between 'observed preference scores and the conjoint model estimated preference score'.

	Value	Significance
Pearson's R	0.816	0.000
Kendall's Tau	0.749	0.000

Table 8: Correlations^a
(Source: Primary Data)

(Note: a. Correlation between observed and estimated preferences)

The importance of correlation coefficient (0.000) is an indication that the above model is robust enough for predicting the respondent's preference for different attributes towards a Jesuit HEI.

DELIBERATION OF RESEARCH FINDINGS

The current research study seeks to examine and analyze the perception of higher secondary students towards Jesuit HEIs. To serve this purpose, we have conducted a Factor Analysis to first explore the most dominant factors which shape up the perception of such students in the metropolitan city of Kolkata towards Jesuit HEIs. As per our results, we have found that 'Quality of Faculty, Industry Interface and

Placement Standards' were closely knitted. Similarly, 'Pedagogy and Course Strength, Fee Structure, Global Affiliation and Accreditation and Infrastructural Facilities' are close-knitted variables and can be categorized into one group labelled as Secondary Factors. The same is evident in the case of Tertiary Factor which includes variables like 'Nature of Degree Offered, Residential Facilities, Locational Advantage and Alumni Strength and Network' which are closely knitted to one another. We have also conducted a Conjoint Analysis to prune out the best combination of factors which are most prominent when choosing a Jesuit HEI. As per our results, students opted for a highly active functional placement department, coupled with global affiliation and accreditation along with 'locational advantage' when selecting a Jesuit HEI. Students opine and perceive that Jesuit HEIs not only meet their needs for rich quality education but also in still in them capable leadership skills and competence. The research also revealed the association among the factors influencing the decision of students. As a Jesuit institution aims not only to provide high quality education but also in the overall development of its students, this noble intention has a high preference among students of Kolkata who are not only satisfied with mere classroom lectures and delayed academic excellence but also would like to embrace their overall personality development.

CONCLUSION

The current research endeavour has been fruitful in unearthing the relevant factors which guide the perception of graduates and their ultimate choice towards a Jesuit HEI. There is further scope of this research study for future research as well. A similar research study based on an exploratory research design can be conducted where other aspects of student decision making can be taken into consideration like personal factors, demographic variables like age and gender, socio-economic status, et al. The research can also be conducted on students at the undergraduate and post-graduate level, as well as among research scholars as to how they perceive Jesuit HEIs as well as other institutes of higher learning. The present research study would be essential not only for the Jesuit HEIs but

also for the administrators of other HEIs who could emphasize more on the factors explored in the current research study to raise their standard and excellence in academics and other non-academic milieu.

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The segregation of gender-based products is a new trend.

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Gender Price Discrimination and its Marketing Gimmick: A Study on the Presence of Pink and Blue Tax in the Indian Market

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ABSTRACT

Women have been oppressed for centuries and the struggle to eradicate this discrimination is never-ending in society. Nevertheless, female representation in the professional world is gradually increasing; people have changed their mindsets and the world is progressing. Despite this, sexism is practised in direct or indirect ways. Gender price discrimination is one of the key areas where women are discriminated against. 'Gender price discrimination' occurs when one gender is charged a higher price for equivalent products and services than the other. Price discrimination is also based on market power and economic class. This economic condition has led to factors that theoretically do not exist, however, are certainly practised. Digitization has played a major role in exaggerating this discrimination across genders and economic classes. This research intends to study the patterns of consumption of the gender-based consumption practices available in the market. The study focuses on various groups of consumers, according to their income, tastes and preferences, willingness to pay, and type of need, evaluating consumer behaviour concerning gender price discrimination and the possible factors that influence such practices. The paper will include the 'taxes we think we do not pay' which lead to such price discrimination.

KEYWORDS: Gender Price Discrimination, Pink Tax, Blue Tax, Marketing, Personal Care Items.

INTRODUCTION

Price discrimination is among the most common types of marketing strategies. A recent trend is that commodities are bought and sold not on the basis of the consumer's demand or willingness to purchase out of a need, but on other factors of purchase that are created by the sellers or the market itself. 'Gender price discrimination' occurs when a gender-specific item is charged with a higher price for equivalent products and services than an item of the other gender. This has led to factors that theoretically do not exist but are introduced as gimmicks that consumers fall for. The pink tax, blue tax, and other taxes that we believe we do not pay are strategies of business organizations to exploit

consumption which results in gender price discrimination. This topic is mostly concerned with personal care items that may be primary, secondary, or luxury goods such as personal grooming items, clothing, et al. The 'pink tax' is a concept where items are specifically meant for women, mainly pink in colour, and are over-priced. 'Blue tax' is a similar concept where men may pay less for the same good, which may be blue in colour. Both the blue tax and pink tax cater to gender-specified products as well. Therefore, the question here is, 'why are consumers willing to pay such differentiated prices or purchase such discriminated goods and services?'

Regardless of geography or ethnicity, the gendered conditioning of pink with women and blue with men has become a part of global consumer culture. When the history of the relationship between colour and gender is examined, no background is found to have deep roots. However, with the advent of globalization and dependence on visible culture, there is a broad tendency toward sexuality. Even before the kid is born, the custom of labelling pink for girls and blue for boys has had its toll on the respective genders. Gender-based pricing for items in numerous industries has been proven in studies. Prices for personal care items, clothes, health care, toys, and adult goods, as well as children's apparel, to mention a few, may vary. In certain circumstances, women not only pay more for items than men, but they also pay more for services. With the advent of various advertising tactics, this scenario has begun to improve, if slowly, in several supermarkets in the West. It is always simple to fool customers and mould their notions to fit the corporate environment. Just like how the Unilever product 'Fair and Lovely' exists for women, 'Fair and Handsome' exists for men. Business organizations are creating a want among the genders by manipulating them into consuming products that are marketed specifically for their genders even if they can be gender-neutral. Companies have easily been able to increase their profits through gendered marketing without informing their customers of this discriminatory behaviour.

The segregation of gender-based products is a new trend. Many items sold and promoted by women are more expensive than those marketed by men. Hygiene

products such as razors, cosmetics, shampoos, and other hair care products, for example, are more expensive for women than men. Salons charge women extra money for the same treatment as men. Similarly, personal care items such as bath towels, soap, and cream. The personal care business has had the largest number of women among all the other industries studied. The shaving razor is the one product that became controversial behind pricing the same products differently just because it caters to different genders. Gillette itself practices this by selling a simple razor for men, named Gillette Presto 3 blade Razor, which is blue selling at 30 whereas the same product in pink, named Gillette Simply Venus, is sold at 70.

LITERATURE REVIEW

International

Megan Duesterhaus, Liz Grauerholz, Rebecca Weichsel, and Nicholas Guittar (2011) have published a paper about the pricing of personal care items and services leading to gender disparities. The paper includes an analysis of the prices of personal care items such as beauty products along with services such as hair salons, concluding that for most of these products the pricing gap between a male product and a female product is more than 94 per cent, according to the research.

Gema Martinez, Roberto Manzano, and Diana Gavilan (2018) have researched about the changes in consumer behaviour due to price discrimination. The paper explains gender discrimination and talks about the media playing a huge role in gender construction. The scholars researched product price differences for identical or similar products as well as the price gap between a product meant for a man and one meant for a woman.

Doaa Salman and Sarah El Ayoubi (2019) is a revolutionary article that made most researchers, activists and media call out gender price discrimination. This paper has reviewed price discrimination and its three degrees and related it with the practice of bundling and inter temporal discrimination. The paper also explains game theory and kinked demand curve as

the economic principles through which the study of gender price discrimination is evaluated by major companies.

Mackenzi Lafferty (2019) has spoken about the persistent and re-occurrence of gender price disparity and defines the theories of pink tax and luxury tax. Society makes it impossible for companies not to exploit the phenomenon of pink tax because of gender expectations throughout these years. The paper has also analysed gendered marketing by companies and the need for the government to intervene and establish probationary rates against gender-based price determination and standard tariff rates.

Elina Magnusson and Maja Eriksson (2020) have illustrated the consumer's perspective on the pink tax. It has analysed the phenomena of price sensitivity, the factors that affect a consumer's perception, and credited it through the attribution theory. It also talked about the dual entitlement theory, where consumers might evaluate a product based on which company it is from, and hence the transaction value will differ for differentiated products from various companies.

India

Shereen Ataur Khan (2017) has extensively studied the potential background and history of gendered consumerism. The paper talks about the occurrences due to the influence of gender-specific colour and talked about the industries in which this discrimination is practised. The paper majorly focuses on the practices of the Fast-Moving Consumer Goods (FMCG) industries and Bollywood in India and how these industries manipulate consumers and their purchasing behaviours.

Svasti Pant (2021) published her research on pink tax. The paper talks about pink tax related discrimination practised by major multinational companies that have set up various marketing campaigns, including Burger King. These companies have practised gender price discrimination and labelled genders according to the colour reference, which is blue for men and pink for women.

OBJECTIVES OF THE STUDY

- The paper focuses on gender price discrimination, the third-degree of price discrimination, that is created out of pricing goods and services based on whether the product is meant for a man or woman. The paper analyses various factors, including income, taste and preferences, location, et al., to evaluate potential factors that lead to such practices.
- To recognize the presence of pink and blue taxes and identify the consumer's background and preferences towards such products.
- To study the role of digitization in their preferences.
- To analyse consumerism under the said parameters as to why are consumers willing to purchase such commodities which are backed by specificity and discrimination.

RESEARCH METHODOLOGY

For the study, observations were made by examining a sample size of 250 respondents who belong to various age groups, income groups, and occupations with different tastes and preferences. A structured questionnaire was created for the survey with both qualitative and quantitative questions such as predictive and comparative questions. The questionnaire prepared for the purpose was distributed among a random sample of respondents to obtain a perspective of the research problem. The research was conducted in India and the respondents belonged mainly to the urban population.

CONCEPTUAL FRAMEWORK

When different buyers are charged different prices, even though each buyer pays the same purchase unit price, this is called third-degree price discrimination. Gender-based discrimination, a type of third-degree price discrimination, is referred to as a method of economic discrimination in which a product is usually charged at a higher price just because it is specific to a gender. Those products could be almost equal to other competitive goods or services and are however priced

higher, usually because it is a female-required product. Consumers may be unaware that they are paying more for their products and services because of gender-based pricing.

Gender-based prices, sometimes known as the pink tax, refer to the additional cost of items produced and developed specifically for women. According to an international study, women's products cost 7 per cent more than the average, with the difference in personal care items rising to 13 per cent. It is a lucrative business strategy for private companies that have found a way to make their products seem more or less acceptable to the people who buy them and see them as a way to make money. Gender-based discrimination affects everyone differently as it happens in a variety of industries, including personal care items, clothing, toys, equipment, and services such as insurance and hairdressing. For example, HDFC bank has a policy of savings accounts for women that are advertised in pink and used for shopping purchases only.

Product segregation is a common marketing strategy used by retailers to promote their goods or services to a specific target market. Changing the product packaging and/or colour to make such a difference will ultimately increase production costs. The decision to separate packaging for the same goods to target gender by cultural speculation will raise costs. Although the stretch of the pink tax is based on social and cultural norms, companies directly convey economic differences to customers. This is not to say that companies actively seek specific attempts to discriminate based on gender when advertising to customers. Often, businesses simply accept the opportunity to increase the prices of women's products to advance what has become a standard for women's consumption.

DATA ANALYSIS AND OBSERVATIONS

The analysis will be based on the survey conducted through a questionnaire with both quantitative and qualitative questions. The analysis will be based on 250 respondents of various backgrounds, and income groups, with different tastes and preference patterns.

Quantitative Analysis

1. Age

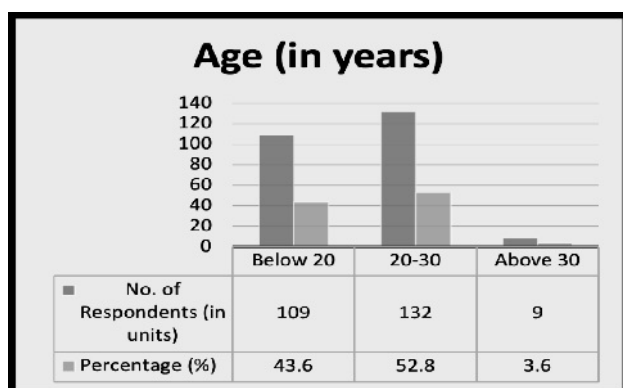


Figure 1: Age Distribution
(Source: Primary data)

43.6 per cent of the participants were below the age of 20, while 52.8 per cent of the participants were between 20-30 years and around 3.6 per cent of the participants were above 30 years old.

2. Gender

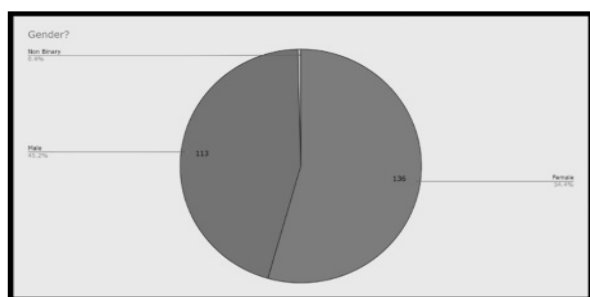


Figure 2: Gender Distribution
(Source: Primary data)

Out of 250 participants, 136 responses which is about 54.4 per cent, were from females; 113 responses which is about 45.2 per cent, were from males; and one response which is about 0.4 per cent, was from a non-binary person.

3. Occupation

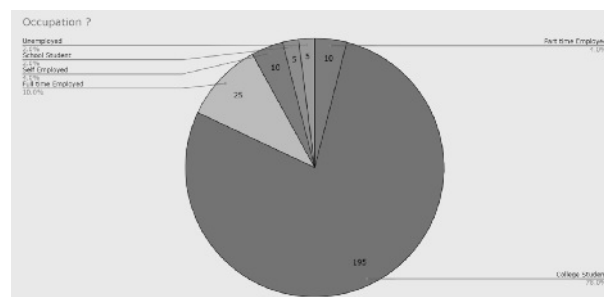


Figure 3: Occupation Distribution
(Source: Primary data)

2 per cent of the participants were school students, 78 per cent were college students, 4 per cent were part-time employed, 10 per cent were full-time employed, 2 per cent were unemployed, and 4 per cent were self-employed.

4. Annual Family Income

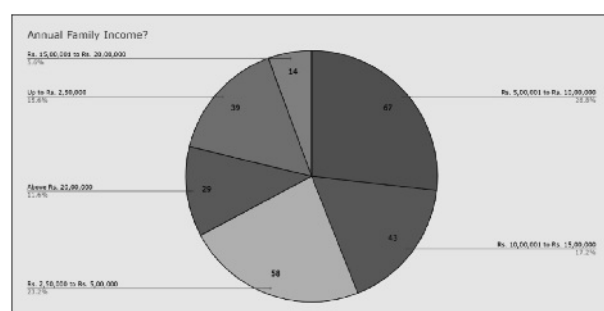


Figure 4: Income Distribution
(Source: Primary data)

The participant's annual family income is as follows:

- Up to 250,000 - 15.6 per cent of the participants.
- 250,000 to 500,000 - 23.2 per cent of the participants.
- 500,001 to 1,000,000 - 26.8 per cent of the participants.
- 1,000,001 to 1,500,000 - 17.2 per cent of the participants.
- 1,500,001 to 2,000,000 - 5.6 per cent of the participants.
- Above 2,000,000 - 11.6 per cent of the participants.

5. Consumption Behaviour- Purchases Preferences

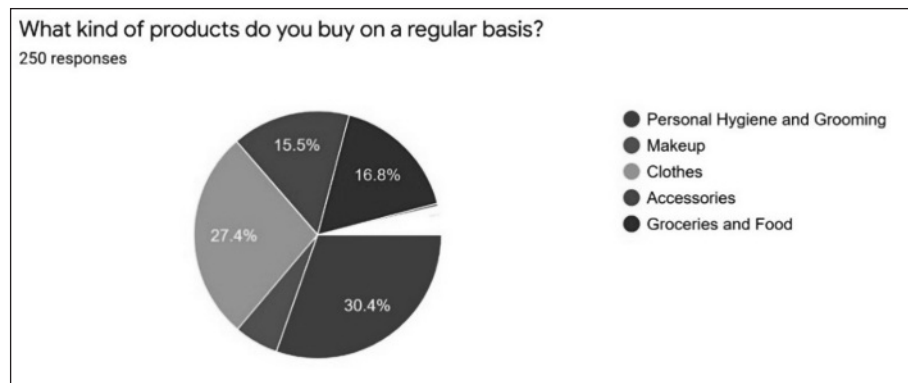


Figure 5: Consumption Behaviour- Purchases Preferences
(Source: Primary data)

About 30.4 per cent of the participants purchase personal hygiene and grooming products, 5.8 per cent purchase makeup items, 27.4 per cent of the participants purchase clothes, 15.5 per cent purchase accessories, 16.8 per cent purchase groceries and food, and the rest 4.1 per cent purchased items such as shoes, stationery, books et al.

6. Consumption Behaviour- Understanding of Gender Price Discrimination

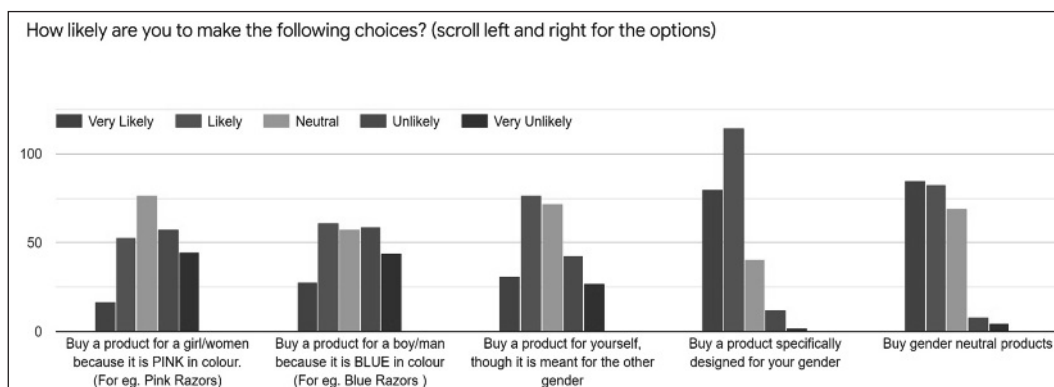


Figure 6: Consumption Behaviour - Understanding of Gender Price Discrimination
(Source: Primary data)

The questions analyze the participant's willingness and mindset while purchasing a product that may or may not be gender-based. The analysis is as follows:

Buy a product for a girl/woman because it is pink in colour. (For example, pink razors)- 17 respondents are very likely to purchase such a product whereas 45

respondents are very unlikely towards it. 53 respondents are likely to purchase such a product whereas 58 respondents are unlikely to purchase such a product. 77 respondents are neutral towards such behaviour.

Buy a product for a boy/man because it is blue (for example, blue razors) - 28 respondents are very likely to purchase such a product whereas 44 respondents are very unlikely towards it. 61 respondents are likely to purchase such a product whereas 59 respondents are unlikely to purchase such a product. 58 respondents are neutral towards such behaviour.

Buy a product for yourself, though it is meant for the other gender - 31 respondents are very likely to purchase such a product whereas 27 respondents are very unlikely towards it. 77 respondents are likely to purchase such a product whereas 43 respondents are unlikely to purchase such a product. 72 respondents are neutral towards such behaviour.

Buy a product specifically designed for your gender- 80 respondents are very likely to purchase such a product whereas two respondents are very unlikely towards it. 115 respondents are likely to purchase such a product whereas 12 respondents are unlikely to purchase such a product. 41 respondents are neutral towards such behaviour.

Buy gender-neutral products- 85 respondents are very likely to purchase such a product whereas five respondents are very unlikely towards it. 83 respondents are likely to purchase such a product whereas eight respondents are unlikely to purchase such a product. 69 respondents are neutral towards such behaviour.

7. Consumption Behaviour due to Marketing and Digitization

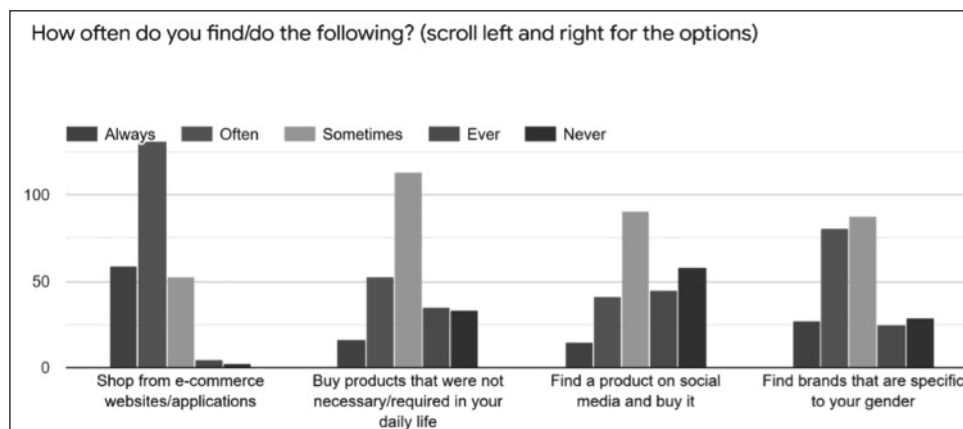


Figure 7: Consumption Behaviour Due to Marketing and Digitization

(Source: Primary data)

The questions examine the cognitive process that leads to the consumption of a product as well as the environment to which they are exposed while acquiring it. The analysis is as follows:

Shop from e-commerce websites/applications- The data says 59 respondents always practice shopping from e-commerce websites. 131 respondents often do so, 53 respondents have selected sometimes, five have chosen ever whereas only two have selected never.

Buy products that were not necessary/required in your daily life- Only about 16 respondents always purchase products seldom required, 53 respondents often do so, and 113 respondents practise it sometimes. However, 35 respondents ever do so while 33 respondents have never done it.

Find a product on social media and buy it - 15 respondents said that they always purchase a product that they found on social media, 41 respondents often do, 91 of them do it sometimes, 45 of them ever do it and 58 of them have never done it.

Find brands that are specific to your gender- for this question, around 27 respondents have selected always, 81 of them have selected often, and 88 of them have selected sometimes. 25 respondents say they ever do it while 29 have said that they never found such products.

8. Awareness of Gender Price Discrimination

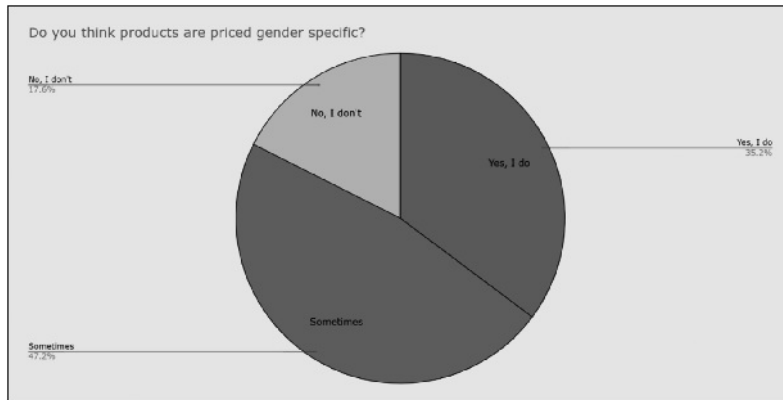


Figure 8. Awareness of Gender Price Discrimination
(Source: Primary data)

88 respondents which is 35.2 per cent, acknowledge that products are priced according to the gender it is catering to. 118 respondents, which is 47.2 per cent, believe that products are sometimes priced gender specific while 44 respondents, which is 17.6 per cent, do not agree with such practices.

9. Perception of Gender Price Disparity

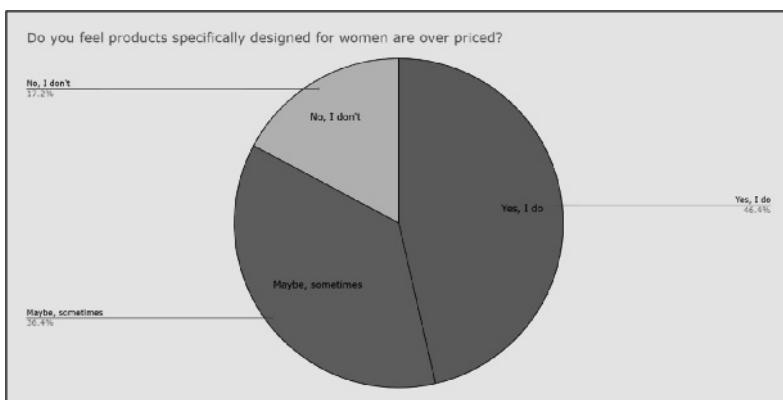


Figure 9: Perception of Gender Price Disparity
(Source: Primary data)

116 respondents, which is 46.4 per cent believe that products are specifically designed for women and are often overpriced. 91 respondents which is 36.4 per cent, agree that such practices happen sometimes while 43 respondents, which is 17.2 per cent, have selected that nothing as such occurs.

Qualitative Analysis

A question was put up for an open discussion, to which around 132 respondents had a series of opinions.

‘What do you think about gender-based price discrimination?’

To analyse the study on a qualitative basis, the opinions of the respondents were thoroughly scrutinized. The quantitative analysis was also assessed and a few probable hypotheses were concluded. Most respondents are aware of price discrimination and acknowledge that gender price discrimination exists and is practised. However, it is not the ideology with which the companies are pricing their products. The majority of it is determined by consumers' purchasing power and willingness to pay the prices of the goods and services they use. Products specifically meant for women are priced higher than similar goods and services which cater to men. However, the buyers of such products tend to have higher purchasing power, and hence, these customers are exploited into paying higher prices, along with which they are served with more product variety, thus creating an artificial or rather, induced need for such unnecessary products. There is also a certain consumer behaviour towards purchasing colour-specific products, that is, pink for women and blue for men. Most respondents are also likely to purchase gender-neutral products yet, buy products that are specifically designed for their gender. This means that it is an individual choice as well as the purchasing

power of the consumer whether they are willing to purchase gender-specific products. However, such choices may or may not be through gendered conditioning. There are also more unconscious customers than conscious ones. While making a purchase, most purchasers do not evaluate the purchase, its value, use or the consequences of the purchase. If so, conscious consumers are already shifting to more gender-neutral products or products that may be priced lower.

LIMITATIONS OF THE STUDY

The research argument is a fairly new concept. The pink and blue tax do not exist theoretically; they are hypotheses and market conditions that are being investigated. The study also took place during the pandemic, and hence the study was not able to cover a large geographical area to provide a holistic idea of the study, especially concerning the population of India. The sample size was restricted to the urban population. A time constraint also serves as a major difficulty for the research paper and collecting enough data for the argument.

RECOMMENDATION

There is a long way to go for companies to change and not capitalize on price discriminatory practices. This study was a conscious effort to evaluate the possible reasons why companies practise gender price discrimination for their products and services. When a consumer makes conscious choices and evaluates their consumption behaviour, it will automatically make us question the need for the products and whether the price that we are paying for those products is worth it or not. Since paying for the product is a consumer choice, whether to pay a higher price or not, as conscious consumers, we need to stop purchasing products unnecessarily. As per the theories of economics, supply should arise from demand. Consumer companies should not be creating demands and wants for consumers to purchase; rather, the consumer demand should make the companies serve the consumer's needs. Although companies are supposed to make

profits and will capitalize on every possible sales strategy, this capitalistic movement can hamper the purchasing behaviour of consumers. Real change may begin to take place, promoting gender equality thanks to increased knowledge and awareness. Sexual discrimination in the pink tax begins with the lack of strict laws. Government intervention is highly required as well. Such practices should be evaluated by the government and should be illegal. An active movement toward such practices can take us a long way toward fighting against gender price discrimination. A recent trend is to produce products that are specifically designed for men. However, this is the same practice that was done for female products. Although such products are meant for a niche market, and only a certain income group can engage in such conspicuous consumption behaviour, there is a need to build awareness about such malpractices of gender-based price disparity and change the mindset of consumers to be more conscious about the purchases they make.

CONCLUSION

While it is true that the willingness of female consumers who switch to men's items will ultimately have an impact on businesses, it is not a quick response and does not respond to other female consumers to actively participate in this change. Moreover, buying men's items does not fully meet the needs of consumers. While men's packaging is often black or blue, so are other features, such as scents. Simply put, female consumers should be allowed to buy items targeted at them at comparable prices to men's products. No problems will be solved if women choose to purchase things that are man-directed. While many may think that the pink tax is an unnecessary amount because women have a preference more than men would; the customer who chooses to buy 'blue products' rather than 'individual' personal needs is unfairly bound. If a customer finds a 'pink' product they like, they should be free to buy it as a consumer without fear of a price increase, simply because the product is gendered. The government and the people should make a concerted effort to combat these practices, not just in India but globally.

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“

It is going to change a lot of things around us and it is going to be all around us as its applications range from smart cities, smart contracts and many more.

”

Whether Blockchain is a Threat or Stepping Stone for Giant Companies and General Awareness about Blockchain among Common People

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ABSTRACT

In this article, we investigate how blockchain has affected industries and its future scope in post-pandemic times. Many multinational companies like Amazon, Microsoft, Tencent, J.P. Morgan, Walmart, PayPal, Samsung and many others have started to use blockchain technology, which bring us to the fact that blockchain may be helping these companies with its unique technology. We have used secondary data in order to compare the net income of companies before and after using this technology, and then performed a t-test and a one-way ANOVA test. Another aspect of this research work is to find if people feel threatened for their jobs because of blockchain technology and what their investment opinion about blockchain is. For this, we have used primary data and we have performed various graphical representations to analyze our data.

KEYWORDS: Blockchain, Cryptocurrency, T-Test, ANOVA.

INTRODUCTION

Many researchers often say that Airbnb, Uber, Lyft, TaskRabbit and many other platforms like these are for the purpose of 'sharing economy'. Well, it is a nice notion that peers will create value and share it. However, if we look carefully then we will realize that these businesses have very little to do with sharing, but aggregating. In fact, these businesses are successful because they do not share but aggregate, and create an 'aggregating economy'. For example, Uber is a \$65 billion corporation which is aggregating driving services and showing as if they are sharing. Let's take another example of Airbnb which is at a valuation is \$25 billion that is aggregating vacant rooms.

As a new technology emerges, it threatens many companies and job seekers, as many can lose their jobs because of the same. Just like when computers were introduced, many people lost jobs and it is researched that 35 per cent of all jobs could become obsolete by the year 2030 due to technology, which is almost 57 million employees facing job losses. For instance, The Tale of Two Film Companies, 'Kodak' and 'Fujifilm' where the technology led to the downfall of one giant

and other rose to a high level. In 2010, the film market dropped to less than 10 per cent compared to 2000. But Fujifilm, which once made 60 per cent of its sales with film, diversified successfully and managed to grow its revenue by 57 per cent over this ten-year period while Kodak's sales fell by 48 per cent.

In case of the transportation application named Uber, it connects two people, say Ms. S, our traveler, and an Uber driver, Mr. D. Ms. S sets her destination and current location and the nearby driver accepts it and drops her at the destination while Uber takes the commission for connecting them. Now when blockchain enters this cycle, it eliminates Uber. With the help of blockchain, we can directly book a taxi driver for us without paying any extra charges to Uber-like intermediaries and enjoy the ride.

Blockchain is a shared, immutable database ledger that facilitates us to record the transactions, track assets as well as add anything and everything of value. Blockchain is basically a decentralized, distributed and digital ledger consisting of blocks (as the word blockchain suggests there exist a series of blocks, connected to each other containing data) to record transactions. Now the key feature about blockchain here is that it is encrypted, making them really special and the chain of blocks are connected to each other in a chronological format with a single source of truth for the data. Now as it has been mentioned, the blocks are encrypted which makes blockchain difficult or impossible to change or hack or cheat the system. The decentralized database managed by multiple participants is known as Distributed Ledger Technology (DLT).

We continue our example of the Uber driver Mr. D and Ms. S, our traveler. Since blockchain contains blocks which then contain data, this data could be about the Uber driver Mr. D and our Ms. S in need of a driver, so now instead of Uber connecting them, blockchain connects the two.

So now the question arises that how blockchain differs from Uber. To answer this, we have to understand another aspect of blockchain which will be further discussed in detail, that is about its peer-to-peer network technology and proof of work. In simple

words, blockchain does not have any owner, it is decentralized and therefore no one controls them, there's no third-party involvement. The miners create the blocks with codes and the data is super safe.

Furthermore, the data in any block cannot be changed, for example, a blockchain contains information about our example as follows-

Driver - Mr. D, Passenger - Ms. S, Date - 01.04.2022, Time of booking - 10:00 a.m., Time of arrival of driver - 10:15 a.m., Duration of journey - 30 minutes, Time of arrival at the destination - 10:45 a.m., Distance traveled - 17 km.

Now if Mr. D wants to change his time of arrival, he cannot do so. So instead of changing the data in a block, blockchain will further add another block, for example, Ms. S books another cab on 2nd April, 2022, then another block will be generated.

This being one example, blockchain can have multiple such uses. At present, there is very little awareness among people and has just as many misconceptions. So, one of our objectives is to check the awareness of it amongst the general public. The article is divided as follows: in the next section, a brief literature review of recent articles is done followed by the objectives of our study. Then the research methodology is written followed by the analysis and findings. Lastly, the conclusion is presented.

LITERATURE REVIEW

Recently Singh (2022), investigated Application of Blockchain Smart Contracts in E-commerce and Government using qualitative interviews. His study had the opinions of eleven industries and found that the technology, though new, is slowly increasing in usage in e-commerce, particularly in financial transfers, record-keeping, real estate and property management, insurance, mortgage, supply chain management, data storage, authorization of credit, denaturalized intelligence, aviation sector, shipping of products, invoice financing and other domains.

In an interesting study by Gandhi et al. (2022), the use of a blockchain-based electronic voting mechanism is

discussed as an alternative to physically going to a voting center and casting vote. This is proposed as a secure and transparent with ease of access in a democratic country like India, where many people do not cast their votes due to some constraints.

Cahill et al. (2020) had investigated the price reaction of listed companies in response to blockchain-related announcements. They claimed that investors have confused bitcoin and blockchain, and have used the performance of bitcoin as an indicator of the expected success of the blockchain technology.

Satoshi Nakamoto (2009) in his paper has tried to prove how blockchain is reliable and can become the future of the world, as a system for transactions to be done electronically without relying on trust. He proposed a peer-to-peer network to record a public history of transactions which is impractical for an attacker to change the moment it is created. The network is robust in its unstructured simplicity. He described the mechanisms implemented in this decentralized, distributed, anonymous, and immutable technology.

According to the research work done by Sharma et al. (2019), blockchain technology is currently used and actually should be used and implemented in industries where it is a good fit. As we know technology is something that is prone to change, which means that there has been evolution over time, and there is more coming. Although researchers like Wang Chen and Xu concluded that blockchain technology is not mature enough to be adopted widespread, we can very well say that there are certain areas where blockchain can be adopted for example smart city, and smart contracts, while others are in a development stage.

Casino et al. (2018), suggested that blockchain application addresses issues due to which it is not widely in use and not very durable. The features that they offer are not intellectual if judged individually. Moreover, individual characteristics are mostly required per application domain which facilitates the choice of proper blockchain and comparable mechanism to the actual needs of the application.

OBJECTIVES OF THE STUDY

The objectives of the study can be summarized in the following key points:

- To investigate the general awareness about blockchain among common people.
- To understand whether people feel threatened about their jobs because of it.
- To check whether blockchain is a threat to big giants.
- To study the effect of blockchain on different industries.

RESEARCH METHODOLOGY

The primary data collected is from a questionnaire with 105 responses. Secondary data were collected from articles and journals on the internet. The area of study is blockchain technology awareness amongst common people in India and whether blockchain technology is a threat or a stepping stone for giant companies. First of all, in order to confirm the viability of the research and analysis, a study is conducted on how many people in the population have heard about blockchain, which turns out to be more than 50 per cent of the sample. Another part is how many people feel threatened about blockchain, i.e., if it is going to snatch their jobs or not. Also, a thorough study has been conducted taking the net incomes of some of the large multinational companies of before and after their application of blockchain technology and analyzing how it affects them. For the purpose of the study, the statistical tool used was Microsoft Excel. The analysis is done by descriptive statistics, graphs, t-test and one way-ANOVA.

ANALYSIS AND FINDINGS

Analyzing General Awareness about Blockchain among Common People.

We firstly begin with the very basics of blockchain technology: cryptocurrencies. We enquired as to which cryptocurrency is the most known amongst the public. Our results, as per Figure 1, have been mentioned to

note their awareness and it is evident that Bitcoin is the most popular.

From Figure 2 we can observe the investment preferability of the public. 27.6 per cent of the people

Name of Cryptocurrency	Frequency
Bitcoin	29
Ethereum	9
Dogecoin	3
Litecoin	1
Binancecoin	1
Cardano	1
Cream	1
Avalanche(Avax)	1
Mixed	1
None	1
Not sure	1
Not investing	55

Figure 1: General Awareness of Cryptocurrencies
(Source: Primary Data)

go for Bitcoin whereas 8.6 per cent for Ethereum. These two crypto currencies have been observed to be the most popular ones as compared to others. But we also observe that more than half of the people prefer not to invest or have not invested which is 52.4 per cent of the population

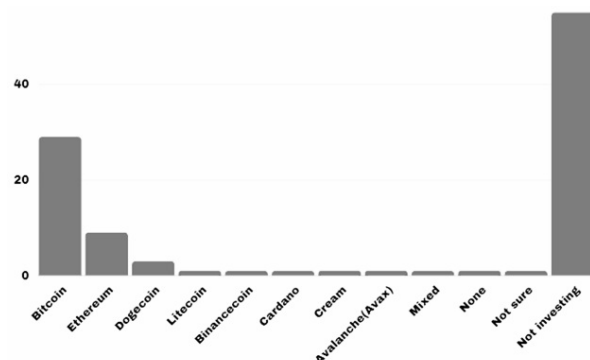


Figure 2: Investment in Cryptocurrencies
(Source: Primary Data)

How Likely are You to Invest in Cryptocurrency compared to the Pre-pandemic Time?

Primary respondents rated the (5 being highest, and 1 lowest) sector in which they are most likely to invest in cryptocurrency as compared to the pre-pandemic time. As we see from figure 3, the graphical analysis suggests there is almost 50 per cent chance of people investing in cryptocurrency now, compared to the pre-pandemic time. Almost 36.5 per cent people voted 3, that means they prefer investing now, that is, after the pandemic, which shows how this pandemic has influenced us to go for technological upgradations.

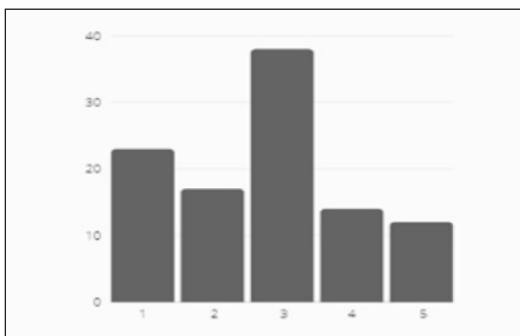


Figure 3: Graphical Representation of How Likely are You to Invest in Cryptocurrency Compared to The Pre-pandemic time
(Source: Primary Data)

Do People Think Blockchain will Snatch Your Job if It Enters Your Industry?

From figure 4, our primary data results are shown using a pie chart. We find more than 50 per cent of people believe blockchain will not snatch their job if it enters

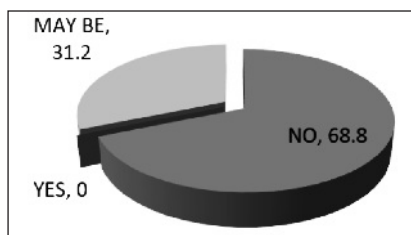


Figure 4: Do People Think Blockchain Will Snatch Your Job if it Enters Your Industry?
(Source: Primary Data)

their industry. To be precise 68.8 per cent people do not believe.

Analyzing Whether Blockchain Technology is a Threat to Giant Companies or Not?

Secondary data from articles is used to collect the net incomes of various multinational companies who have adopted blockchain technology. Their net incomes of before and after blockchain technology has been tabulated in figure 5 and graphically analyzed in figure 6.

Companies	Adoption of Blockchain Technology	
	Before	After
(Net income in US Dollars in million)		
Amazon	3,033	10,073
Tencent	6,185	10,583
JP Morgan	22,567	30,709
Walmart	17,099	15,080
Paypal	4,202	4,169
Microsoft	21,863	16,978

Figure 5: Comparison of Net Income Before and After Adoption of Blockchain Technology
(Source: <https://companiesmarketcap.com>)

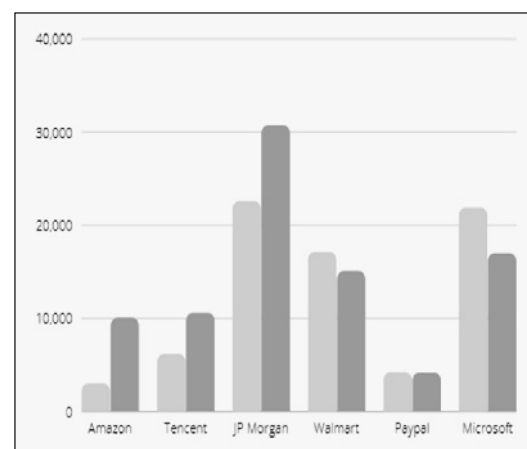


Figure 6: Graphical Comparison of Net Income Before and After Adoption of Blockchain
(Source: <https://companiesmarketcap.com>)

	Variable 1	Variable 2
Mean	12491.5	14598.66667
Variance	81704148.7	82164186.67
Observations	6	6
Hypothesized Mean Difference	0	
df	10	
t Stat	-0.403206005	
P(T<=t) one-tail	0.347641307	
t Critical one-tail	1.812461102	
P(T<=t) two-tail	0.695282615	
t Critical two-tail	2.228138842	

Figure 7: Result of Paired T-test
(Source: Author's Computation)

Then the analysis is done by performing paired samples t-test in Figure 7, to test whether the difference between the mean net income before and after the adoption of blockchain is significantly different. The null hypothesis is that the means of two populations are equal. Here, $-2.228138842 < -0.403206005 < 2.228138842$, therefore we accept the null hypothesis concluding that the means of the two populations are equal.

How Does Blockchain Effect Different Industries?

H0 : The means of all the sector is same that is the belief about all the sectors is same

H1 : The means of all the sector is not same that is the belief about all the sectors is not same

The above consists of values collected from primary data. It represents people's opinion about how blockchain is affecting different industries. To analyze the information obtained, we will use ANOVA table in Figure 9.

In this case, our F is less than F-crit so we do not reject the null hypothesis. The calculated value does not lie in the critical region, hence there is evidence at the 5 per cent significance level the means of all the seven sectors are equal.

Sectors	RATINGS				
	5	4	3	2	1
Healthcare	19	21	42	14	9
Banks	50	23	20	7	5
Insurance	29	35	27	9	5
Aerospace & Defence	24	28	33	15	5
Cybersecurity	54	28	9	8	6
Supply chain management	25	38	27	10	5
E-commerce	44	36	17	5	3

Figure 8: ANOVA Table: How industries are affected by block chain in current scenario
(Source: Primary Data)

Anova: Single Factor						
SUMMARY						
Groups	Count	Sum	Average	Variance		
Row 1	5	105	21	159.5		
Row 2	5	105	21	324.5		
Row 3	5	105	21	174		
Row 4	5	105	21	123.5		
Row 5	5	105	21	419		
Row 6	5	105	21	179.5		
Row 7	5	105	21	337.5		
ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	0	6	0	0	1	2.4452594
Within Groups	6870	28	245.357143			
Total	6870	34				

Figure 9: ANOVA Table
(Source: Author's Computation)

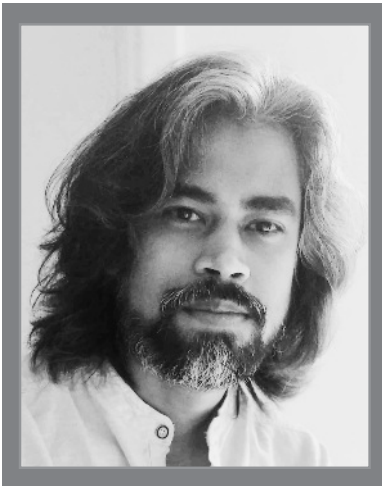
CONCLUSION

Blockchain technology is revolutionary. It is going to change a lot of things around us and it is going to be all around us as its applications range from smart cities, smart contracts and many more. All our data to be stored in it or our digital transactions can become its application as well. Before everything, we need to assess the industries' needs and accordingly figure out how blockchain and various giants can collaborate together. As we have observed in our study, there are many people who are unaware of blockchain technology and so it is recommended to bring blockchain in day-to-day life, for example in implementing smart contracts, which will bring awareness amongst the common citizens. According to my research, many people are aware about this new

technology, blockchain. Companies are not to be threatened by it. However, many data sources do say a lot about how blockchain might replace big giants. So, this area is yet to be explored and assumptions can just give a rough idea about how blockchain is going to shape our future and what are its applications. Nonetheless, its consequences can be seen when it is actually implemented around us. Although everything has its own good side and bad side, just like the two sides of the coin. But the point here is not to eliminate the technology but to minimize the disadvantages. Blockchain is going to shape our future for the better when used in the right and effective form. Blockchain was first created to enable the use of cryptocurrency but since then it has been seen with its huge potential to transform the industries.

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“

However, this has brought about an insidious design philosophy that seeks to ever so gently push, prod and poke a player to open their wallets.

”

A Study into the Predatory Nature of Monetary Mechanisms Prevalent in Video Games

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ABSTRACT

In a contemporary setting, the video gaming industry is dominated by free-to-play video games with additional, 'optional', purchasable items or currency. However, this has brought about an insidious design philosophy that seeks to ever so gently push, prod and poke a player to open their

wallets. The systems used to achieve this goal have been studied and verifiably linked to problem gambling, and run the risk of causing significant and life-altering financial and mental harm.

KEYWORDS: Video Gaming, Gambling, Predatory Monetization, Micro-Transactions, Loot Boxes, Addiction.

INTRODUCTION

The video game industry is a colossus in the modern entertainment sector. In fact, it stands as the second-highest revenue earner in entertainment, surpassed only by television. A large part of this growing popularity in video games is due to the blinding rate of innovation, parallel to the wider technological sector. Another, more direct factor, is the similar innovation in monetization models. Gone are the days when you could simply buy a game once and be done with it. Now, the market is dominated by free-to-play or freemium games.

How then are video games such high earners? The answer to that would be micro-transactions or MTX. Micro-transactions are purchases of in-game items – whether that be an in-game currency, items, or even a roll on a virtual slot machine. Micro-transaction model systems are widely spread and, ironically, almost universally dislike. This is due to the perception of MTX as inherently anti-consumer, and promoting harmful spending habits to players, which often include children.

CONTEMPORARY MONETIZATION SYSTEMS

- i. One-time payments – The traditional means of monetization in video games, a one-time payment which provides the customer access to the game, either through a physical disc or a digital download.
- ii. Subscription – A subscription-based monetization model is one where a player is given access to a video game for a set period of time, and is able to repurchase this subscription package at any time.
- iii. In-game advertisements (IGA) – This system of

advertising is similar to television advertisements. A company or media outlet contracts a publisher, during the production of the game, to place an advertisement of the company or its products in the game for a fee.

- iv. Battle passes – A battle pass is a type of subscription where a player can purchase access to a tiered system of rewards, most often only cosmetic in nature. These rewards are dependent on whether a player can complete daily, weekly, or seasonal challenges. Battle passes hold unique cosmetics which can't be obtained once the subscription period passes, driving Fear of Missing Out (FOMO).
- v. In-game purchases – A person can use real-world currency in order to purchase an amount of virtual in-game currency for the purpose of enhancing player experience, whether to buy an exclusive item, a battle pass, or to buy a loot box or roll on the gacha.
- vi. Loot box - Loot boxes can be likened to slot machines, where a person 'rolls' to get some desirable outcome. In the case of loot boxes, this outcome may be virtual skins or cosmetics. The random outcome nature of loot boxes may induce problem gambling and overspending. A version of a loot box is gacha, which locks core gameplay aspects such as characters behind a loot box-like system.

Generally speaking, most modern games that adopt a micro-transaction model usually have multiple such systems baked into the game. For example, Genshin Impact is a free-to-play game designed around the gacha system, but it includes in-game purchases, IGAs and a battle pass.

RESEARCH PREMISES

Objective

The study's objective is to explore the types of monetization systems common in modern video games and study their effects on consumers – to investigate the causes of induced behaviour that encourages unrestrained spending habits, and whether such

systems create a dependency on making regular, cyclical purchases.

The study also seeks to highlight observed similarities between certain systems and real-world gambling and further investigate induced behaviour in this context.

Education about predatory monetization practices and their effects on consumers – up to and including the deterioration of consumer psychology by passively promoting impulse spending, and possibly gambling addictions – is an important topic in the modern entertainment industry, and the study aims to highlight laws and recommendations that may mitigate the harm of these systems.

Research Methodology

Research for this paper was carried out primarily in the form of an extensive literature review. Keywords such as 'micro-transactions', 'loot box', or 'monetization in video games' were researched through Google Scholar and the internet, and relevant articles were found and read through. The citations of these articles were checked and cross-referenced through other articles and news media outlets, to determine the veracity of claims and make accurate conclusions.

Research Questions

The common research questions posed in the study are

1. Are monetization systems prevalent in modern-day video games?
2. Are these systems malignant or predatory?
3. Why are these systems so prevalent? Are they more lucrative than traditional monetization systems?
4. How are they harmful?
5. To whom are they harmful?
6. Can they be likened to real-world gambling?
7. Do they induce or promote real-world mental illnesses such as gambling addiction?

8. What, if any, regulation exists to mitigate these harmful effects?

Literature Review

Dr. Davide Zendle, et al. in [13] note the evolution of revenue models in games published on Steam, a digital video game marketplace. They noted the types and extent to which monetization systems were being

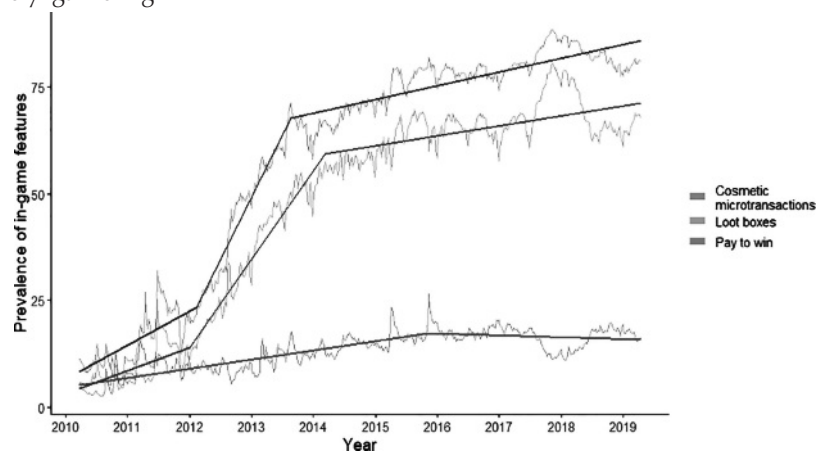


Figure 1: Distribution of Extent of Monetization Types
(Source: Zendle, Meyer and Ballou[11])

encouraged among the sample data set and concluded that while there was a low incidence of genuine pay-to-win systems, a vast majority (approximately 75 per cent) of sampled video games had cosmetic microtransactions or the inclusion of loot boxes.

Dr. Daniel L. King and Prof. Paul H. Delfabbro made a study into the predatory nature of monetization

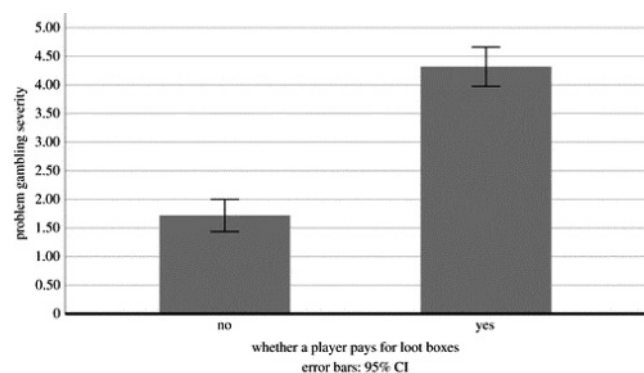


Figure 2: Problem Gambling Severity of Gamers, Split by Whether They Pay for Loot Boxes
(Source: Zendle, Meyer and Over [12])

models. It analyzes the types of monetization systems commonly seen in video games and the tactics each employs in order to create a feeling of entrapment and 'sunk cost', as well as the collection and use of player data in order to fabricate the method of presenting the offer for purchase in a manner most appealing.

Zendle, et al. in [14] conducted a large-scale survey of adolescents (n=1155) aged 16-18 to study linkages between spending on loot boxes and problem gambling. Results showed a higher linkage between loot boxes and problematic gambling.

ANALYSIS AND FINDINGS

The Harm Posed by These Systems

While the topic of monetization, especially micro-transactions, in video games is a relatively new field of study, a substantial amount of research has been conducted into the matter to understand its harmful effects.

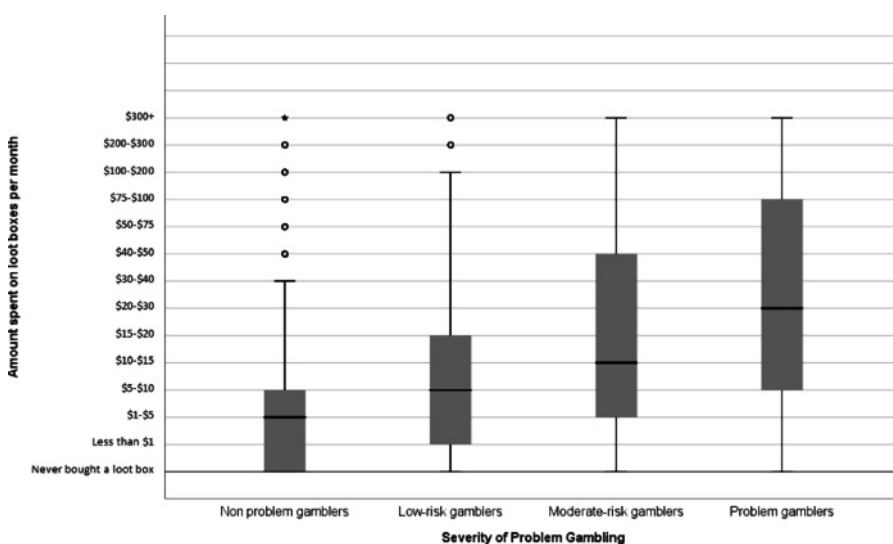


Figure 3: Box Plot of the Amount Spent on Loot Boxes, Classified by the Severity of Problem Gambling
(Source: Zendle and Cairns [9])

Zendle, Cairns in [12] concluded empirically through a survey with 14,182 respondents from various online gaming-related forums that there was significant evidence of a relationship between loot boxes and problem gambling. The survey determined the extent

to which participants had partaken in gambling-related activities and had actively purchased loot boxes. The result of these respondents showed a high correlation between problem gamblers (i.e., with a higher score on the Problem Gambling Survey Index, or PGSI) and those who had purchased in loot boxes.

In Figure 3, we can see a direct correlation between problem gambling and the amount spent on loot boxes. From the graph, we can surmise that a causal relationship may exist between the two indicating that spending on loot boxes may cause the development of problem gambling and its symptoms. However, the data may also indicate that people with a high severity rating on the PGSI scale may be more drawn to video games with loot box mechanics. Loot boxes are often noted to have a similar nature to gambling [2, 14], which is characterized by poor self-control and uncontrollable urges to spend.

A possible interpretation of the data may suggest a two-way street, where spending on loot boxes encourages problem gambling, and problem gambling thus cultivated may result in higher spending on loot boxes.

Psychological Tactics used in Micro-Transaction Models

An analysis of the systems and revenue models prevalent in the video game industry highlights patterns of behaviour that are encouraged and even induced by the game among the player base, negatively affecting the player's self-control and mental health. A few of these methods have been noted below:

1. **Impulse Spending** – Impulse spending is a phenomenon when a consumer buys an item without any pre-determined intention to. While it may not seem particularly malicious at first glance, Impulse

spending can be linked to lowered self-control and may lead to excessive overspending, especially considering the limitless nature of micro-transactions.

2. Fear of Missing Out (FOMO) – This tactic places the consumer in a situation of artificial scarcity, inducing a feeling that if a player does not make an immediate purchase, he might lose out on a great deal or the item in question will never be available for purchase again. A common situation that promotes FOMO is a limited time offer.
3. Chasing [1] – Chasing is a phenomenon observed among pathological gamblers where they continue to gamble on the chance that they can recover their losses. If an individual has lost \$1000, he may continue to gamble in order to gain back this lost amount. Similar behavioural patterns are also noted in the context of micro-transactions.
4. Sunk Cost Fallacy – This is a phenomenon where a person refuses to abandon a course of action, because they have invested in it too heavily, even in cases where abandoning it would be more beneficial. In models like gacha, if a player overspends to get a character without obtaining it, he may continue to spend even more.

Case Studies

Singaporean Dad saddled with \$20,000 after daughter's spending spree on Genshin Impact -In December of 2021, Singaporean resident Lin Cheng Mong found credit card charges amounting to SGD 20,000 over a six-week period. When he approached the bank suspecting fraud, he found that the charges traced back to his daughter's e-wallet which he had authorized previously. His daughter had been going on spending binges, burning up to \$300 at a time on Genshin Impact, a gacha game.

Indian Teen Spends ₹ 1.6 million playing PUBG Mobile - In 2020, it was reported that a 16-year-old boy from Punjab had spent an amount exceeding ₹ 1.6 million on in-game transactions and loot boxes in the popular freemium game PUBG Mobile. His addiction to the game and in-game transactions was so strong, he had

once transferred ₹ 1 million from the family's account to his own.

Meet the man who's spent \$70,000 playing a mobile game - Daigo, 31, is a Japanese 'livestreamer' who has reportedly spent over USD 70,000 on Fate Grand Order, a mobile gacha Role-Playing Game (RPG). He claims to have spent up to \$500 to obtain one character and a further \$2,500 right after to make them stronger, citing his love for the game as the reason for his spending.

These cases highlight how micro-transaction systems prey on children and at-risk individuals such as problem gamblers. There is practically no check against the limitless amount of money someone could theoretically spend on a game such as this, and the game heavily incentivizes the player to spend more and more.

RECOMMENDATIONS

These monetization systems have been verifiably linked, even if only in a correlational sense, with problem gambling, with gacha and loot boxes functionally being the same as a slot machine [7, 11]. As such, a few ways to mitigate the harmful effects on customers are:

1. Education - The most effective weapon is education. If customer bases are properly educated about the tactics employed in micro-transaction systems, they will have a higher likelihood to avoid disastrous and crippling spending.
2. Adults-only Rating - A possible solution to this situation is if games operating under the micro-transaction revenue model be restricted only to players who have reached majority and become legal adults. This, however, does not address the issue of those who are legal adults but may have poor impulse control or a high severity on the PGSI scale.
3. Spending Limit - Another solution that can be discussed is laws that prevent a player from spending money on micro-transactions beyond a previously set amount. This limit can be weekly, monthly, or even for the lifetime of the game.

4. Self-Exclusion - There is a system offered by some casinos where an individual may approach the staff and ask to be banned by the casino. This may prevent further lapses into gambling addiction. A similar system in video games might prove useful to a subset of players.

Legal Regulation

To date, only four countries around the globe have made any active legislation to counteract the harmful effects of the micro-transaction model.

Belgium and the Netherlands have outright banned games having these systems in them. Publishers have to remove any form of micro-transactions to sell games in these regions.

China has made it a regulation that publishers who include gacha or loot box mechanics are required to disclose the probabilities of all items offered in the loot box.

Japan is a bit more receptive to the micro-transaction system. While most forms of gacha or loot boxes are permissible, Japan has fully banned 'complete gacha', where the player is entirely unable to progress unless they obtain all items in the gacha pool.

Limitations

Even if there were a significant pushback against micro-transactions, there are a few reasons that greater regulation may be met with reluctance

1. Businesses - The most obvious limitation is that video game publishers are businesses whose main concern is increasing profit margins and micro-transactions are a huge source of revenue. Greater regulation would eat into these profits and so publishers might be averse to it.
2. Lower Prices - An often-overlooked point is that these micro-transaction systems are what have allowed the free-to-play and freemium market of games to thrive. Untested regulation may cripple this new and developing market.

3. Difficult to Enforce - Yet another practical limitation is that some possible forms of regulation thus far are simply impossible to carry out in a practical scenario. As far as age-based gatekeeping is concerned, children may simply ask someone to purchase physical copies of the game.

It is clear that many proposals offered against micro-transactions boil down to having greater self-control. It falls upon the customers to educate themselves about the predatory nature and tactics employed, and how to avoid them.

CONCLUSION

It is undeniable that the video gaming industry occupies a major portion of the entertainment sphere. The revenue and annual growth of gaming as an industry are exceedingly high and eclipse most other forms of media.

The research conducted in this paper shows conclusively that the lion's share of the earnings in the video game industry is due to various micro-transaction systems. With the shift away from arcade cabinets and one-time purchases to free-to-play, subscriptions and MTX, there has been a shift in the philosophy of game design. Modern games heavily incentivize daily play, and consequently, are able to bombard players with innumerable opportunities to indulge in micro-transactions.

Since we can conclude that loot boxes are somewhat correlated to problem gambling - and to follow this idea, modern game design is constructed to induce a strong desire to spend, and normalize a cycle of regular spending, creating a sense of entrapment and sunk cost- we can argue that monetization systems in video games are often predatory and anti-consumer.

Consequently, it is imperative that players, and society as a whole attempt to learn about these systems so as to protect themselves against them. Further more, governments must also take steps to mitigate the exploitative nature of some of these models.

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The development of FinTech industry is offering improved functionality, more flexibility, and better combination of services.



A Study on the Journey of Fintech in the Future

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ABSTRACT

The technological sector is growing at a rapid pace and the offerings by the FinTech sector are expansive for individuals as well as corporates, but the primary objective consists of changing the way consumers and corporates access their monies and compete with the traditional system. An assortment of machineries like Artificial Intelligence (AI), Big Data, Blockchain and Robotic Process Automation (RPA) are being used by FinTech companies contributing to the financial sector in aspects such as money lending, payment processing, insurance and more. This paper is aimed to evaluate the advantages and the challenges of FinTech, the degree to which

consumers are affected by these challenges, the growth of FinTech in recent years and finally, the survival of FinTech in the long term.

KEYWORDS: Financial Technology, FinTech Services, Financial Inclusion, Financial Stability, Global Imbalance.

INTRODUCTION

Financial Technology (abbreviated as FinTech) refers to the use of technology and innovation in providing automated and improved delivery of financial services. This sector is growing rapidly as banks and financial institutions have started investing in FinTech companies, the government is providing incentives to promote the FinTech ecosystem and the consumers are enjoying a smooth, hassle-free, and unique experience.

By 2023, the global FinTech industry is estimated to be valued at \$305.7 billion, growing at a Compound Annual Growth rate (CAGR) of 22.17 per cent between 2018 and 2023. In this global estimation, the Indian FinTech sector (currently assessed at \$31 billion) is predicted to grow at a CAGR of 22 per cent to \$84 billion by 2025.

LITERATURE REVIEW

1. Dr. P. Rajeswari and Dr. C. Vijai (2021) in 'Fintech industry in India: The revolutionized finance sector' analyzed the trends of FinTech, challenges in harmonizing the advantages with the risks of technological innovations in the finance sector, and, the structure of Indian industry.
2. Sudiksha Shree, et al. (2021) highlighted how aspects such as perception, trust and previous experiences with frauds affect the payment behaviour of consumers in 'Digital payments and consumer experience in India: A survey-based empirical study'.
3. Jonathan Fu and Mrinal Mishra (2021) in 'Fintech in the time of COVID-19: Trust and technological adoption during crises' and, Ratna Sahay, et al. in 'The promise of Fintech: Financial inclusion in the

post COVID-19 era' observed the prospects and effects of COVID-19 on adoption of digital payments and boosting financial inclusion.

4. Milena Vučinić (2020) in 'Fintech and financial stability: Potential influence of FinTech on financial stability, risks and benefits' and Dr. Mugdha Kulkarni and Pallavi Lakhe (2020) in 'Fintech regulations: Need, superpowers and bibliometric analysis' presented implications of Fintech developments to financial stability, market structure, the necessity for rules and regulations, and international cooperation of regulators.
5. Brij Raj and Varun Upadhyay (2020) in 'Role of FinTech in accelerating financial inclusion in India' highlighted the revolution of technological advancements with government programmes, influencing the prospect of financial services in the market and financial inclusion in India.
6. David Varga (2017) in 'Fintech, the new era of financial services' and Professor Douglas W. Arner (2016) in 'Fintech: Evolution and regulation' provided an in-depth understanding of the background, evolution, regulations, drivers of fintech, global trends and linkage with social, economic, and environmental aspects
7. 'Fintech - the digital (r)evolution in the financial sector' by Thomas F. Dapp, Lars Slomka, Ralf Hoffman (2014) described the evolution, the economic forces, structural change, vulnerabilities of digitization and recommendations for actions in the financial sector.

OBJECTIVES OF THE STUDY

1. To understand the level of awareness among the public and to know if the consumers trust FinTech companies or are willing to trust them soon.
2. To survey the growth of the FinTech industry in India for the past decade and observe the impact of FinTech globally.
3. To ascertain the role of the FinTech industry in the pre-Covid and post-Covid era.

4. To deduce if the FinTech industry will contribute to financial stability.
5. To determine if the global imbalance in the usage of FinTech services can be solved.

RESEARCH METHODOLOGY

Primary and qualitative research methods with non-probability sampling design (i.e., a convenient sample consisting of friends, family, and work colleagues) have been used in the research to collect data directly from the population residing in India, understand their perceptions and reasoning through figurenaire in the

first transatlantic cable (1866), Fedwire (1918), Diner's Club (1950), Telex (1966), et al.

- 1967-2008: FinTech 2.0 - the phase showing transformation from analogue to digital led by Banks. Inventions- the first ATM (1967), Mobile Phone (1983), Internet (1999), Global Financial Crisis (2008), et al.
- 2008-Present: FinTech 3.0 and 3.5 - the phase where new players have emerged alongside large enterprises in the industry and, financial inclusion and economic development have been encouraged. Inventions - iPhone (2007), Bitcoin (2009), Alibaba (2010), et al.

Date	1866 – 1967	1967 – 2008	2008 – Current	
Era	Fintech 1.0	Fintech 2.0	Fintech 3.0	Fintech 3.5
Geography	Global / Developed	Global / Developed	Developed	Emerging / Developing
Key Elements	Infrastructure / Computerization	Traditional / Internet	Mobile / Start-ups / New Entrants	
Shift Origin	Linkages	Digitalization	2008 Financial Crisis / Smartphone	Last Mover Advantage

Table 1: The Phases of The Evolution of FinTech

(Source: Author's Illustration based on FinTech: Financial Inclusion or Banking Disruption)

form of a Google Form consisting of close-ended figures. Secondary and quantitative research methods have also been used to understand the role and growth of the FinTech industry using various segregations through conceptual research and papers and archives. The duration for this research lasted around three months. The sample consists of 106 people and based on their opinions, analysis and inferences have been concluded using statistical graphs and pie charts.

CONCEPTUAL FRAMEWORK

Evolution of FinTech

- 1866-1967: FinTech 1.0 - the early stage in which finance and technology combined to form the 'first period of financial globalization'. Inventions - the

ADVANTAGES OF FINTECH

People are preferring FinTech companies over banks because of various reasons like greater accessibility, i.e., anyone with internet access can use the services, time is reduced as all processes are automated, a wider range of services are offered at lower prices, faster movement of payments, more customer retention and profits through better user-experience, transact at any place, any time using mobile phones, tablets, wireless devices, et al., improved security with measures like data encryption, valuable advice and increased transparency with real-time updates.

LIMITATIONS OF FINTECH

People are still facing challenges and are skeptical about using FinTech services because of various reasons like

lack of physical branches which can take a lot of time and prove as a hindrance if customers do not get immediate solutions to their issues, privacy and security issues, lack of regulation due to which there is a huge possibility of potential fraud, lack of in-depth information, aids global imbalance by acting as a growth element for the developed countries and further widens the global gap, high costs, trustworthiness in the eyes of the public, high risks like system failure, data leakage, virus attacks, technical issues, et al., lack of uniformity and lack of personal relationship which creates a hindrance in building long term relations.

DATA ANALYSIS AND FINDINGS

The purpose of figure 1 and 2 were to ascertain the depth of engagement of an average Indian consumer with the FinTech and it is observed that the consumers are aware of the FinTech services offered and have been using the digital payment methods from the range of very frequently to moderately. Since the data has been collected majorly in the urban areas thus, it can be concluded that the urban masses have seemed to adopt FinTech services and use it frequently. Through count of age analysis, it is observed that majority of the youth has adapted to the FinTech services.

How often do you use Digital Payment methods?

106 responses

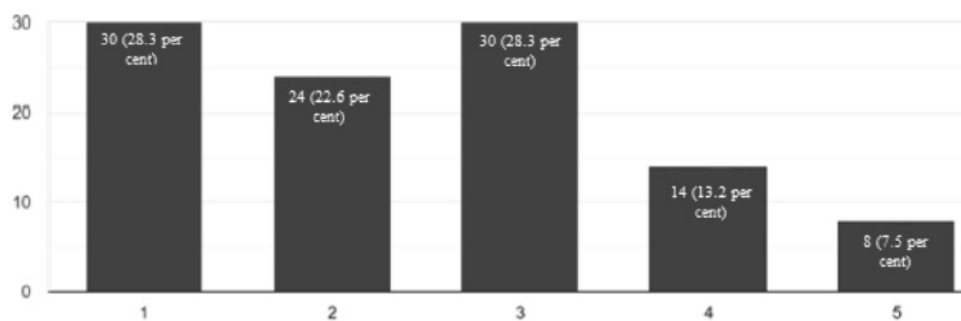


Figure 1: How Often Do You Use Digital Payment Methods?

(Source: Primary Data)

Which of the following FinTech services have been used by you?

106 responses

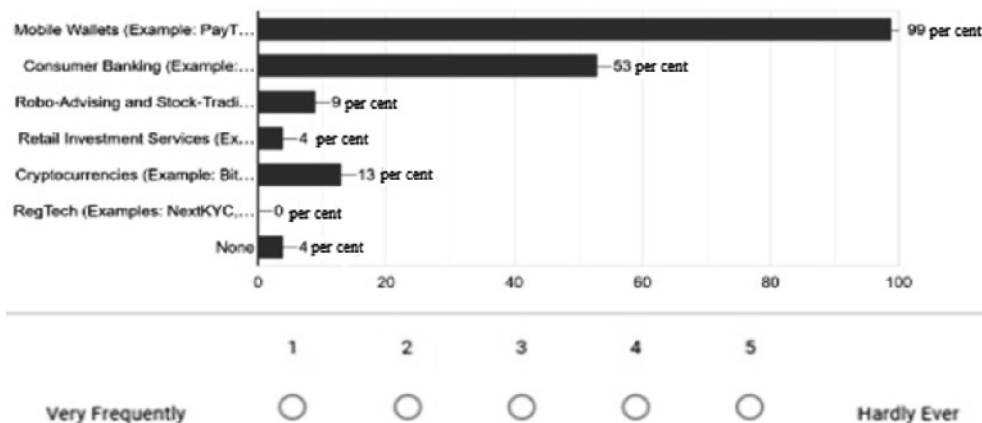


Figure 2: Which of the Following FinTech Services Have Been Used by You?

(Source: Primary Data)

Qualitative analysis of the results can also be drawn that the advanced concepts like RegTech, Retail Investment Services, Robo-Advising and Stock Trading Application and Crypto currencies have not yet ingrained

themselves fully despite the seamless benefits they provide on account of limited application, whereas mobile wallets and consumer banking have received promising responses.

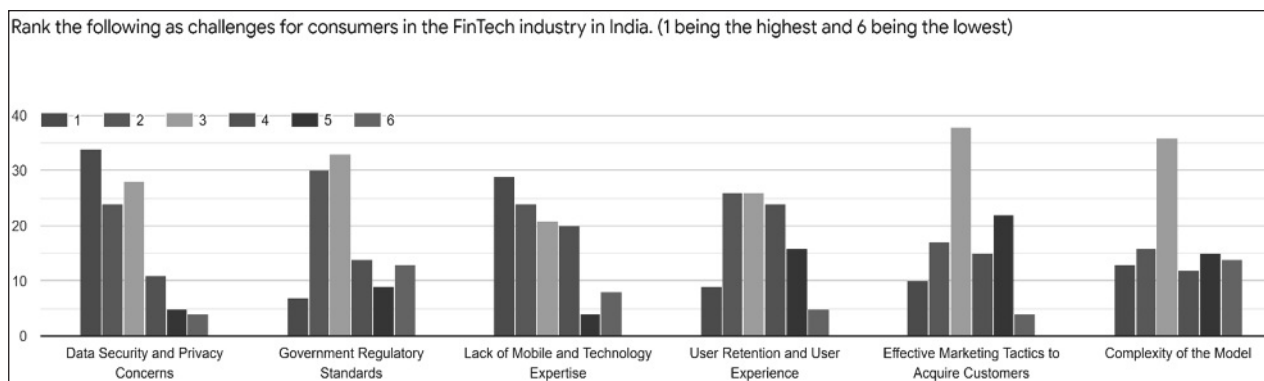


Figure 3: Rank the Following as Challenges for Consumers in The FinTech Industry in India.

(Source: Primary Data)

Data security and privacy concerns' and, 'Lack of mobile and technology expertise' have been observed as to what concerns an average investor most. Following which the 'Lack of government regulatory standards', 'User retention and user experience' and 'Effective marketing tactics' pose threats to the investor. They prefer the traditional methods as they have a personal experience at the bank branches and, do not have to worry about the data security.

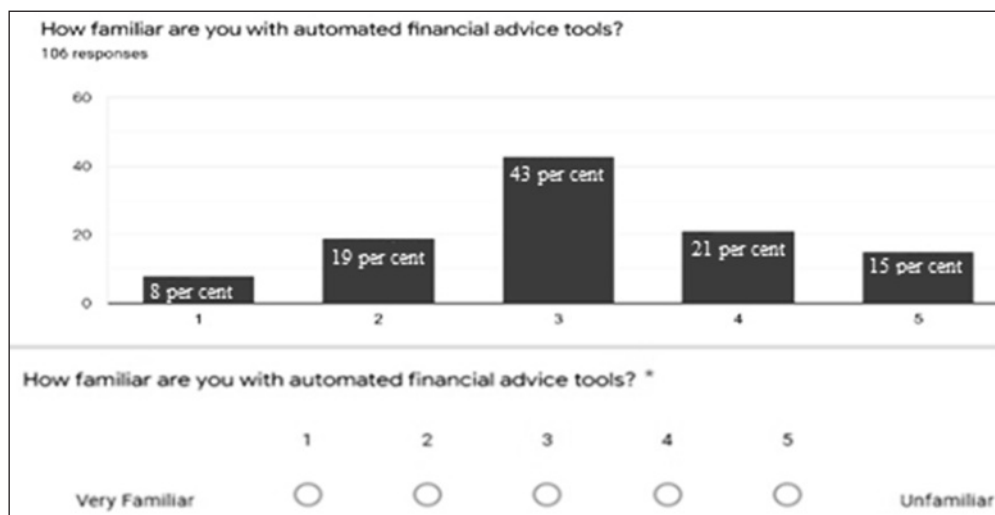


Figure 4: How Familiar Are You with Automated Financial Advice Tools?

(Source: Primary Data)

Majority of the respondents claim to be 'somewhat familiar' with the concept of automated financial advice tools which implies moderate level of awareness but, the number of people familiar and unfamiliar to the concept are almost equal which means that knowledge on the subject is inconsistent even within the urban masses.

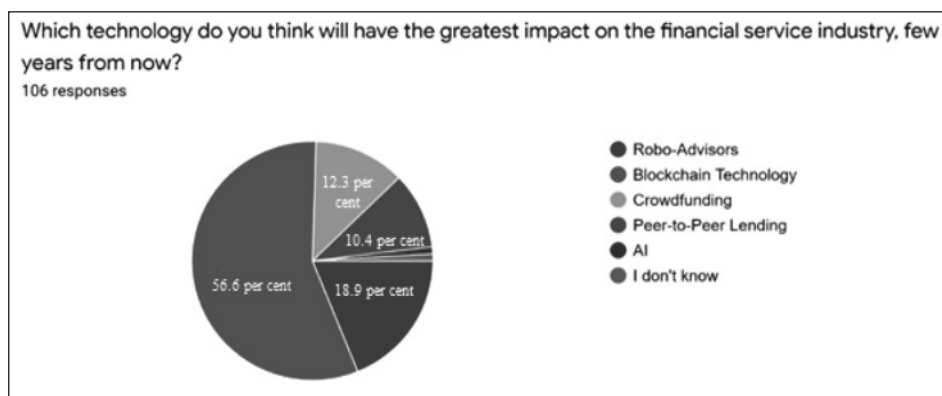


Figure 5: Which Technology Do You Think Will Have the Greatest Impact on The Financial Service Industry, Few Years from Now?
(Source: Primary Data)

It is seen that Blockchain technology is quickly entering the people's minds while recently even robo-advisors, crowd funding and peer-to-peer lending have started dominating the investment management, banking, and insurance industry. AI has received minimum vote, but people are also not properly aware of the terms 'Crowd funding' and 'Peer to peer lending' as they are newer technologies.

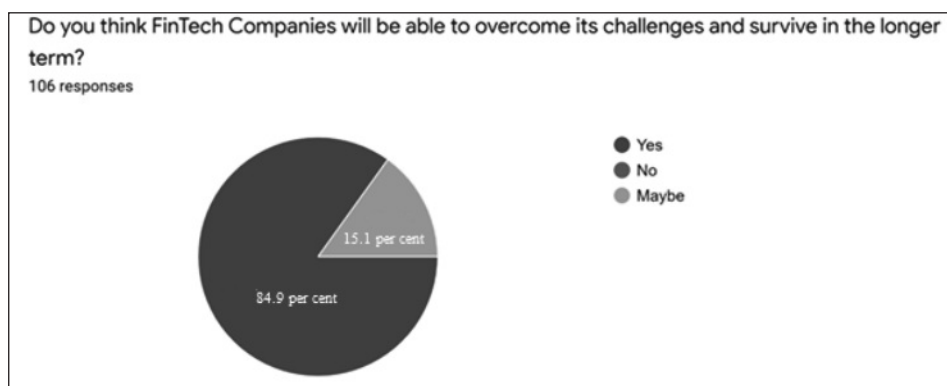


Figure 6: Do You Think FinTech Companies Will Be Able to Overcome Its Challenges and Survive in the Longer Term?
(Source: Primary Data)

It is observed that majority of the respondents claim that FinTech companies will be able to overcome its challenges and survive in the longer term and there is no one who thinks the challenges cannot be overcome. Despite the challenges, majority of the respondents would not switch over to the traditional methods of payment. People are skeptical about the switch but only a few would prefer the traditional methods of payment.

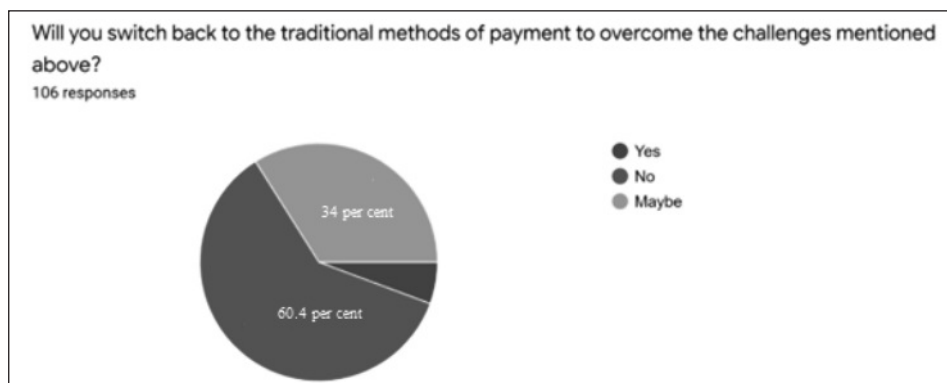


Figure 7: Will You Switch Back to the Traditional Methods of Payment to Overcome the Challenges Mentioned Above?
(Source: Primary Data)

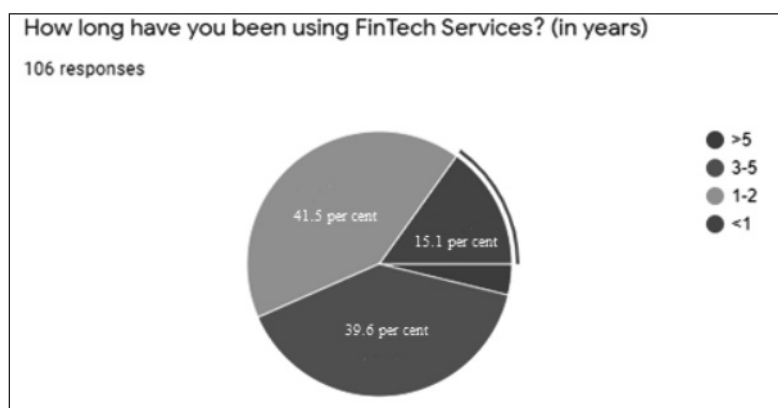


Figure 8: How Long Have You Been Using FinTech Services?
(Source: Primary Data)

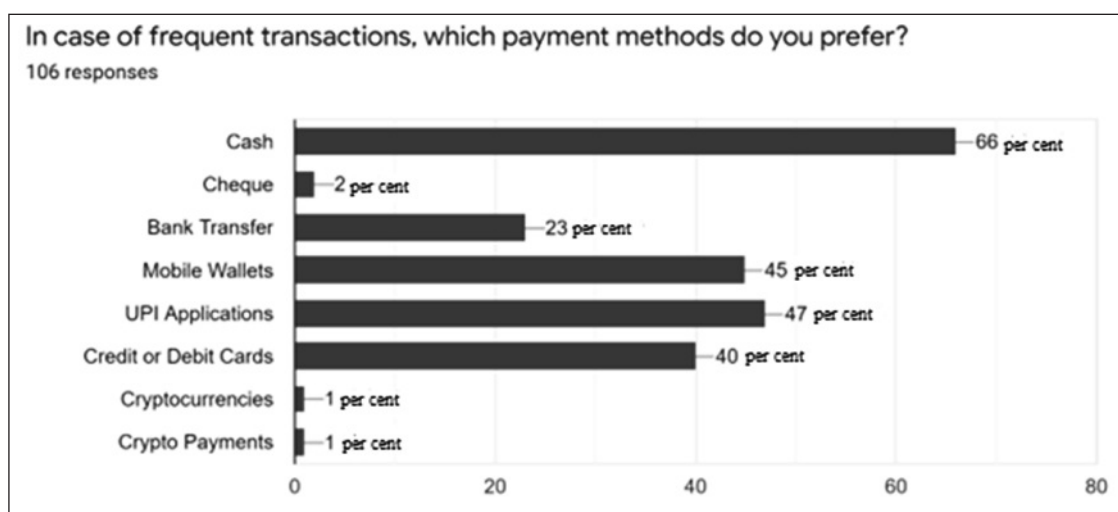


Figure 9: In Case of Frequent Transactions, Which Payment Methods Do You Prefer?
(Source: Primary Data)

The purpose of these figure 8 and 9 were to ascertain the time and pattern of usage of an average Indian consumer. The respondents have been using FinTech services at an average of one-five years which means the period of adoption has been from 2016 to 2021.

Cash remains among the most preferred mode for frequent transactions, but UPI (Unified Payments Interface) applications, mobile wallets, credit or debit cards et al. have fared better than conventional methods of cheque and bank transfer which indicates that companies like Paytm, PhonePe, Amazon Pay have been able to create a good market for themselves and

people have started using it frequently. On the other hand, cryptocurrencies which are the latest development in the field of FinTech, see very few responses because people are not yet ready to trust it.

The mobile wallets now require the KYC compliance which is a very tedious process bringing a shift towards UPI. Also, government initiatives have supported UPI applications because of which the consumers have built trust so, it can be concluded that due to the first mover advantage and better digital marketing initiatives, mobile wallets are popular in India, but the regulations bring trust and security in the methods.

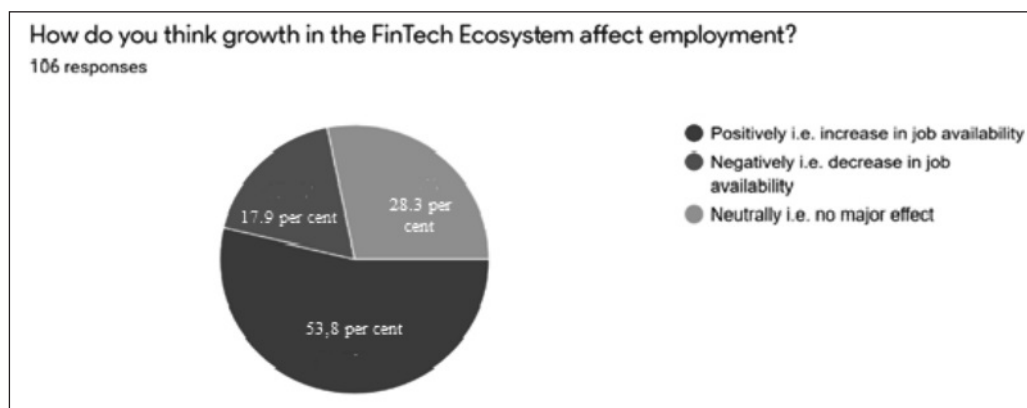


Figure 10: How Do You Think Growth in FinTech Ecosystem Affect Employment?
(Source: Primary Data)

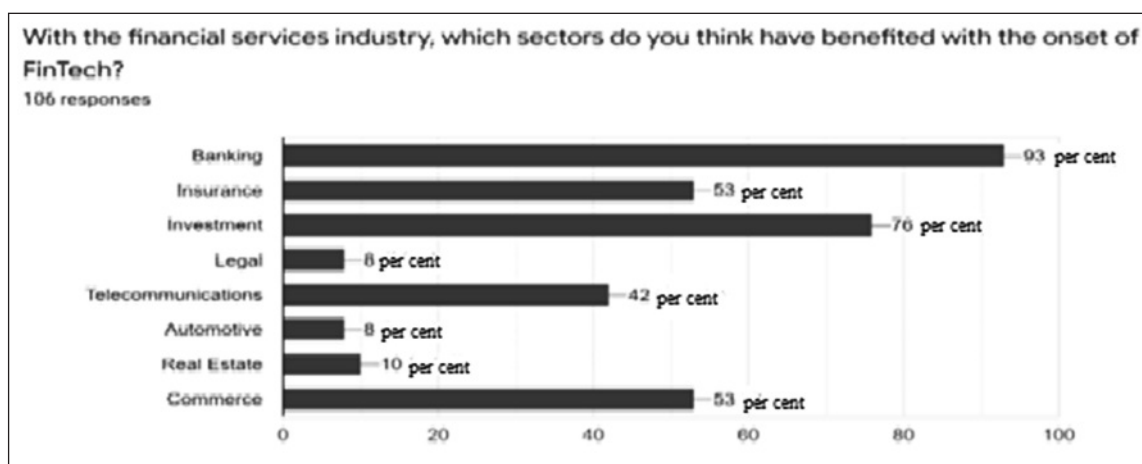


Figure 11: With the Financial Services Industry, Which Sectors Do You Think Have Benefitted with The Onset of FinTech?
(Source: Primary Data)

It was seen that majority of the respondents claim to think that the growth in Fintech industry will positively affect employment which will lead to huge investments from companies as training would be involved to adapt to newer technologies for both the existing employees as well as the new recruits.

28.3 per cent of the people think that it will affect employment neutrally which is possible as people are still adopting to the FinTech services.

17.9 per cent of the respondents have the view that the growth of FinTech would negatively affect employment which is possible considering the disruptions on other sectors as human interaction would reduce majorly.

87.7 per cent of the respondents think that banking has been benefitted the most with onset of FinTech industry. There is a rapid advancement in insurtech which will help in cost saving and time-saving as people have started using cloud-based platforms and automation.

GROWTH OF FINTECH IN INDIA

Indian FinTech industry is amongst one of the fastest growing FinTech markets in the world ranking the highest with China in the FinTech adoption rate and has also emerged as Asia's biggest destination for FinTech deals.

FinTech 1.0 - During the 1950s, the credit card was launched, it was the first financial product in the market which is still prevalent and in common use.

FinTech 2.0 - The traditional financial system started experimenting with online services during the 1980s.

FinTech 3.0 - The Global Financial Crisis in 2008 paved the way for the FinTech industry to gain traction and become ubiquitous. People started to prefer the FinTech services and with time, developed trust over the new entrants.

The industry is seeing a funding boom for the last five years at increasing CAGR of 98 per cent with only 737 startups in 2014, today, India is the second largest

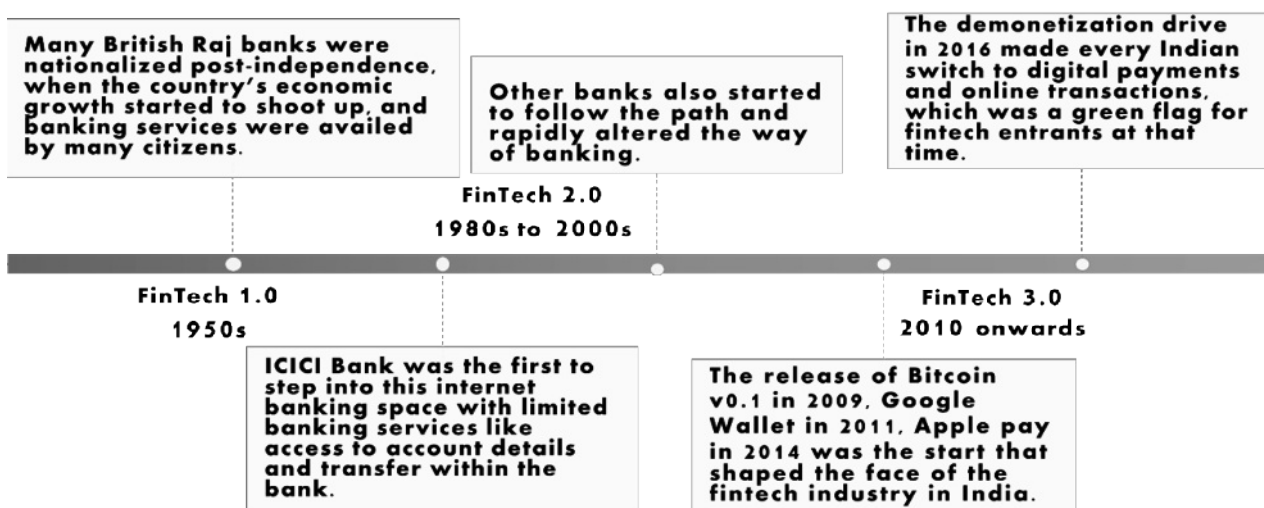


Figure 12: Other Events That Occurred in India During the Evolution Phase
(Source: Author's Illustration based on M2P's Fintech Blog- Evolution of the Indian FinTechverse)



Figure 13: Key Initiatives Adopted by the Indian Government Along with RBI and SEBI
(Source: Televisory's Research)

FinTech hub in the world with more than 2565 startups operating in 2021.

IMPACT OF FINTECH IN WORLD

Since 2008, regulations are being drafted which has facilitated emergence of new start-ups. In US and EU, the FinTech sector prospered due to the private companies but in Asia-Pacific region government has taken measures to drive the growth of the FinTech sector. Thus, the markets in US and EU are standardized and, the markets in Asia are fragmented limiting the speedy expandability of FinTech. UK, USA, and China are referred to as the superpowers in the FinTech industry as they have access to three key resources- affluent customers, access to capital and supportive regulations. As of January 2022, there are more than 900 unicorns in the world with the largest being Bytedance of China (valuation \$140 billion).

FINANCIAL STABILITY AND REDUCTION OF GLOBAL IMBALANCE

Benefits of FinTech to financial stability-

- Decentralization and diversification lower the impact of financial incidents by reducing the operational and cyber security risks and contributing to reducing solvency and liquidity risks.
- Efficiency contributes to stabilized business models and lowers the transaction costs, helps in better capital allocation, better convenience, and easy experience.
- Transparency decreases asymmetry of information and enables accurate risk assessments which reduces the risk of default and lower days of illiquidity.
- Access to financial services impacts financial inclusion of the saving sector with the enterprises which further strengthens sustainable economic

Fintech's Top 10

	RANK	STRENGTH	POPULATION	FINTECH CITIES IN TOP 100	LOCAL FINTECH LEADERS	FINTECH INVESTMENTS	WIFI SPEED
 USA	1	Payments, B2B fintech, Security	329 million	22	Stripe (val: \$22.5bn) Coinbase (\$8bn) Robinhood (\$5.6bn)	\$9.4bn (H1 2019)	#20
 UK	2	Challenger banks, personal finance & wealth, lending, blockchain	67.5 million	3	TransferWise (val: \$3.5bn) Greensill (\$3.5bn) BGL Group (\$3bn)	\$2.29bn	#6
 Singapore	3	Wealth management, digital banking, SME	5.8 million	1	TenX (val: US\$159.1m) Quoine (\$123m) KyberNetwork (\$105m)	\$735M	#12
 Lithuania	4	Payments, lending, banking	2.8 million	1	Stockinvest us Coingate NEO Finance		#1
 Switzerland	5	Cryptocurrency & blockchain, wealth management, crowdfunding	8.6 million	4	Avaloq Group Ethereum Numbrsa		#14
 Netherlands	6	Digital payments, alternative lending, investment	17.1 million	2	Adyen, Ohpen, BUX		not in top 20
 Sweden	7	Digital payments, SME, neobanks	10 million	1	Klarna, iZettle, Anyfin	\$736.7 m	#17
 Australia	8	Digital payments, personal finance, alternative lending	25.3 million	2	Judo Capital, Airwallex, MoneyMe		not in top 20
 Canada	9	Crypto and blockchain, lending, insurance	37.5 million	5	Carta, Borrowell, Wave		#19
 Estonia	10	Digital payments, personal finance, alternative lending	1.3 million	1	Fortumo, Veriff		#3

Figure 14: Top 10 Countries as Per FinTech Contribution
(Source: Global FinTech Index 2020)

development and supports broadening of risk exposure in the investment sector.

Risks of FinTech to financial stability-

- Micro-financial risks refer to risks arising from firms that are susceptible to blows causing systemic effects to the financial system from financial and operational sources.
- Macro-financial risks refer to risks which can be produced through financial innovations endangering financial stability.

Sl. No.	Percentage of Adoption	Country
1	87 per cent	India, China
2	82 per cent	Russia, South Africa
3	76 per cent	Colombia
4	75 per cent	Peru
5	73 per cent	The Netherlands
Average Adoption Rate: 64 per cent		

Table2: Top Countries in FinTech Adoption
(Source: Author's Illustration based on
EY Global Fintech Adoption)

Financial inclusion varies across the globe. The calculations show that it has boosted enormously in the recent years preceding the current crisis, but global imbalance is visible among the adoption rates between different countries.

CONCLUSION

The development of FinTech industry is offering improved functionality, more flexibility, and better combination of services. Increasingly, banks are being outmanoeuvred by new FinTech start-ups and, it has become necessary for banks to make tactical investments in advanced technologies. This will ensure customer retention, upgraded operations and seamless service delivery.

It can be concluded that people are aware about the FinTech services, but the data security and privacy concerns of the consumers do pose a challenge.

Despite these challenges, the consumers trust FinTech companies and will not switch back to traditional methods. The people have generally started using FinTech services in bulk for the past five years especially, after demonetization and during the post-Covid era. Technologically enabled financial innovations provide greater decentralization, wider diversification of products and services, and then faster, transparent, efficient, and broader access to financial services thereby contributing to financial inclusion. Distinct from that, FinTech poses threats to financial stability in terms of micro and macroeconomic risks. With the onset of financial stability and the initiatives taken by the government, the countries are moving towards financial inclusion. It is anticipated to make sure that the recent proposals will enter more industries in the future, either by global scaling and growth or through 'harmonization,' whereby services are offered in each region by the local FinTech industry.

RECOMMENDATIONS

'Financial institutions must be able to deliver an easy to navigate, a seamless digital platform that goes far beyond a miniaturized online banking offering' – Jim Marous

1. FinTech needs to incorporate a personal touch and take measures to assure the consumers that their data and privacy are secured.
2. Regulations must be passed and implemented actively by the governments to promote the usage of FinTech services. The governments must be adoptive to more initiatives for the start-ups like 'Start-up India,' well-define the regulations, investigate matters like authorizing of payment banks, creating guidelines around crowd funding and promoting digital transactions which might lead to additional proposals by enterprises.
3. Additional efforts are required to be put by the government as well as banks to improve the rate of digital payments and financial literacy around the world. Initiatives by different governments and encouraging a cashless economy must be augmented now as more active investment in the

FinTech industry contributes to financial stability as the underdeveloped countries will get the strength to compete with the developed countries in the global market.

4. In case the popularity of FinTech leads to reduction in employment in areas like traditional banking then, an appropriate strategy with fund allocation must be assigned accordingly to develop the skills of the personnel and familiarize them with the upgraded technologies.
5. Online banking methods have not been able to reach out to the rural areas or cover the urban areas completely. Leakages need to be reduced and spaces must be filled by offering access to consumers at all levels for improved and convenient services at reasonable prices.

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Competition is pervasive, whether it involves companies contesting markets, countries coping with globalization or social organizations responding to social needs.



Programmatic Advertising: A Study of Personal Information Economy Led Concerns, Trust and Efficiencies

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ABSTRACT

Programmatic Advertising (PA) and Artificial Intelligence (AI) are the future of marketing. As it brings profitability with it, it also increases the concerns regarding safety and privacy. People use many applications and share their data without even understanding the consequences. This study focusses on the customers' concerns regarding safety and privacy and how it can be reduced through proper knowledge of the system.

KEYWORDS: Programmatic Advertising, Ethical Advertising, Artificial Intelligence.

INTRODUCTION

Competition is society's most powerful force for making things better in many fields of human endeavour. Competition is pervasive, whether it involves companies contesting markets, countries coping with globalization or social organizations responding to social needs. Every organization needs a strategy to deliver superior value to its customers.' (Michael Porter, 2008) Over the years marketing has shifted from individual production and sale to mass production to semi-personalized production. However, the basic purpose and aim, more or less remains constant. The expansive marketing structure and targeted advertising has been possible because of the use of AI. PA is one of such AI application. It takes into account the demographic, psychographic, geographical and interest data that web pages collect from their users using the cookies that are installed in their browsers and that collects information about their previous website navigation, search history or most visited pages (Lee et al., 2013). These cookies are small pieces of text that are installed in the browser of every internet user which collects information about the user's profile. This information is consulted in real time by the web pages to target PA and display personalized information for the interests of any specific user (Saura, Palos- Sanchez & Suarez, 2017). When users receive PA, it makes them wonder if the personalization of these advertisements violates their privacy (Li & Huang, 2017). Users are concerned about the privacy of their data, mainly due to the quality of the segmentation of the PA received (Malhotra, Kim & Agarwal, 2004). However, Alreck & Settle (2007) and Li & Huang (2016) found that as long as the PA offers better savings, products and internet services to the users, the perceived usefulness of PA is considered as positive. But when the segmentation does not have the above-mentioned qualities, the perceived usefulness of PA is considered negative (Edwards, Li & Lee, 2002).

LITERATURE REVIEW

According to a study conducted by P. P. Sanchez, J. R. Saura & F. M. Velicia (2017), it was proven that users feel

that advertising on the internet is more interesting than advertising in other media and that it is indeed for the improvement of the internet. However, these same feelings exert a significant influence on the concern for privacy which is understood as an incorrect use of personal data as in the case of social networks. On the other hand, the result obtained do not confirm that the effect of the users perceived usefulness of PA on their privacy concern increases over time. According to a study conducted by I. J. Martínez-Martínez, Juan-Miguel Aguado and Yannick Boeykens (2017), it was proven that experts showed a wider consensus, with 75 per cent of the sample stating agreement with the statement that there is no ethical implication in using all available user information on the internet because users have enough information to understand whether to accept cookies or other data collection methods. A study conducted by Holliman & Rowley (2014) aimed at proving that long-term content can create trust and marketers could increase online trust by publishing more step-by-step educational content. Based on the large-scale survey conducted by Fogg et. al. (2001), they concluded that the ease of use of a website is among the factors that create online trust. Burçin SÜRÜCÜ (2021) in his study aimed at 'The Effect of Trust and Personalization in Programmatic Advertising on Consumers' Purchase Intention'. The consumer's online behaviour is measured as an effect of PA. In the study, the consumer's perceptions of trust and personalization towards programmatic advertisements and the effect of these two factors on purchase intention are examined using a cause-and-effect research model.

RESEARCH OBJECTIVES

- To study the effects of PA on the users' concern about privacy.
- To discuss the ethical implication and challenges of PA.
- To highlight the importance of trust and personalization in PA.

RESEARCH METHODOLOGY

This study is a combination of qualitative and descriptive research that explores human behaviour in relation to PA. The core data has been collected using secondary and primary instruments. The primary research instrument used is a conducted survey, research analysis and observation. The survey was conducted online with a sample size of 100 to understand the common behaviour trait of a set age group of people in the society. The collected data was further analysed to gain further insight on the topic. Whereas, the secondary instruments used are online interviews, published books and publicly available research work.

CONCEPTUAL FRAMEWORK

RTB is real time bidding between the publishers and advertisers during the time it takes for the webpage to load, which is approximately 100ms. It is an on-time auction of buying and selling of advertisements. RTB follows a case-by-case basis rather than a carpet-bombing approach providing same advertisements to every person on the site. PA is a broader concept, where RTB is a major part of it. Almost 90 per cent of PA uses RTB, however there are other concepts like programmatic direct and Private Exchange buying (PMP). Ad exchange acts as an intermediary. For example, Mr. A visited an animal food store site previously. This data is stored and when he goes on a different site, he finds an animal food advertisement. It is during the time when his webpage is loading, that a real-time bidding takes places, where the advertisers bid for the advertisement space based on Mr. A's data. In this case, the animal food store had won the bidding and hence his advertisement was shown to Mr. A when he went to a different site. RTB is more efficient in terms of its speed, correct targeting and smooth functioning. An ad exchange is a digital platform where buyers or advertisers, who use Demand Side Platform (DSP) and sellers or the publishers, who use the Supply Side Platform (SSP) make a deal on the price to display their advertisements. It majorly works on an RTB basis. Ad Exchange is connected to DSP and SSP. An advertiser signs up with DSP whereas a publisher signs up with SSP.

Hence, ad exchange facilitates the bidding and sale of advertisements through the demand side and the supply side platform.

DATA ANALYSIS AND FINDINGS

Objective 1: To Study the Effects of PA on the User's Concern About Privacy.

Users' every step on internet is recorded either knowingly or unknowingly. Online activities like social media information, browser history, cookies collected online, payment transaction is generating information. This information generated is available to any and everyone. The users have no control over the access of that information or on the way that information is being handled online.

On being asked if people trust the process of information being collected online, 71 per cent of the sample replied that they do not trust the process.

Do you trust the process of information collection over the Internet?		
Results		
Options	%	Count
Yes	29.00	29
No	71.00	71

Figure 1: Survey Result
(Source: Primary Data)

To study the response of a sample, people were told the following statements and asked for their opinion on the same.

'TikTok knows the device you are using, your location, IP address, search history, the content of your message, what you are viewing and for how long. It also collects device identifiers to track your interactions with advertisers. How does the statement make you feel?'

Over 69.31 per cent of the sample was not aware of their information being tracked by TikTok and majority of the responses included words like worried, anxious, unsafe and alert to express themselves.

‘Even though companies like Facebook and Google are not directly selling your data, they are using it for targeted advertising, which creates plenty of opportunities for advertisers to pay and get your personal information in return. Does this statement make you feel worried?’

48 per cent of the sample replied in favour saying that they were worried with the given statement whereas 37 per cent were indecisive and only 15 per cent said no.

Hence, it is confirmed that the users are concerned about their privacy online which makes them not trust the online process and feel anxious and unsafe with their personal information being tracked by applications.

Objective 2: To Discuss the Ethical Implication and Challenges of PA

Privacy is the major topic of study in AI marketing. Hence, ethics, clear boundaries, legislative body, form the basis of this topic. User's personal information and data is the responsibility of the potential advertisers. Sensitive data like card details, government documents, address, should only be stored if the consumer is willing to do so. All subscription or advertising mail should have an option to unsubscribe the same. The General Data Protection Regulations (GDPR) has laid down strict guidelines that are to be followed while dealing with consumer personal data internationally. The main challenge of undertaking AI marketing is accuracy of the data and right targeting. This, however is also a shortcoming. A 2015 study on PA discovered the privacy paradox where the users preferred personalized information and advertisements, yet feared the misuse of their personal data.

Trust building is a challenge as well as a requirement in the coming future. In the research conducted, it was found that 92 per cent of the sample has experienced phishing at least once in their life. Such experiences reduce the trust factor and leads to less accurate data,

which in term creates lower accuracy and personalization for advertisements.

Google advertisers support the execution of PA practices within the framework of certain standards and guidelines to protect the brand image and provide a more efficient experience for users (Zeren & Keşlikli, 2019).

Objective 3: To Highlight the Importance of Trust and Personalization in PA.

Personalized experience and targeting of each consumer are the key elements of PA. In the research conducted for the study it was found that 49 per cent of the sample often had an advertisement related to their abandoned product history or search history. Whereas, only 9 per cent of them never had any of such experience. Which makes a total of 91 per cent of the sample, that has experienced an accurate experience of the PA.

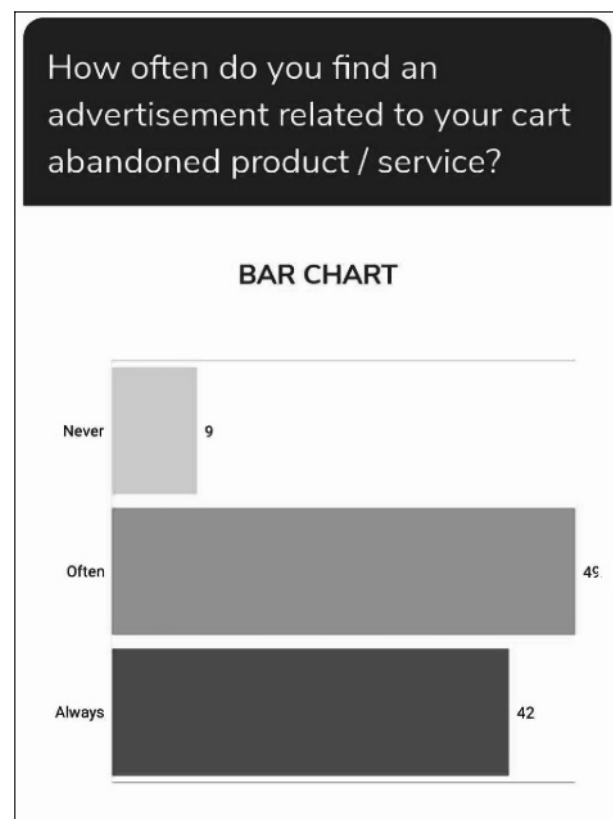


Figure 2: Survey Result
(Source: Primary Data)

Though the objective of such advertising is promisingly served by personalization, the accuracy of the device has often made users feel vulnerable and concerned about their personal data being misused online. Hence, users are forced to use other methods to escape such a situation. In the study research it was found that only 22 per cent of the sample had never used incognito mode as a method for web searching, whereas 88 per cent of them have used it more than once. The statement in itself is concerning as it gives an idea of the trust factor of the method of advertising and its impact on the users.

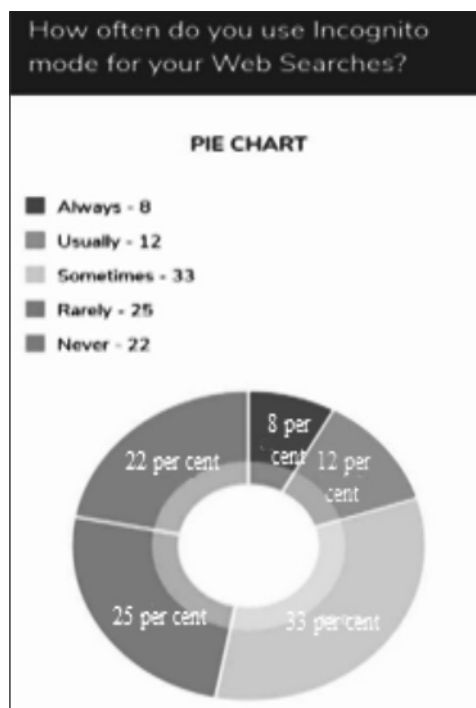


Figure 3: Survey Result
(Source: Primary Data)

This implies the importance of ethical implication in the programmatic system so that it builds trust among the users.

CONCLUSION AND RECOMMENDATIONS

PA and AI are the future of marketing. It would be impossible to separate the two in the coming years. It is clear that this method is profitable and advantageous for the economy, however concern regarding safety and privacy is still a subject of study. This research proves

that people are concerned about their safety but there is least that they can do to protect themselves because of the lack of knowledge and understanding. People are scared but at the same time ignorant about the way their data can be manipulated and used against them. Just like any other topic of environment protection or global warming, personal security and AI should be made a compulsory study for all in forms of seminars and cultural events. Hence, it becomes the responsibility of the service provider to make the user educated about their process of data collection and end cycle, in order to gain their trust.

AI is a vast topic. Since it is taking over the major aspects of our life, it requires to be regulated and supervised by a central authority i.e., a government body. Specific rule formation and ethical practices needs to be defined by the government. Additionally, appropriate penalty must be specified in order to build the conscious of right and wrong in the minds of people.

Every new evolution carries disadvantages along with them. However, it is important to take advantage of the development and take all the necessary steps to minimize the negative impact. The development of the metaverse is another proof the future AI holds for us.

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The demographics of the buyer plays a very significant underlying bias towards making a decision of whether one does or does not purchase a flat.



The Impact of Demographic Characteristics on Buyer Decisions for Small-Sized Flats

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ABSTRACT

Real Estate has been one of the longest-existing hard asset classes in the financial markets. Over the years, not much has changed in terms of having the feeling of security that comes with owning a home. Many such factors keep on changing that might tip the sword in either the favour of buying a house or not buying the house. The

demographics of the buyer plays a very significant underlying bias towards making a decision of whether one does or does not purchase a flat. In recent years, the people in Kolkata, West Bengal have had an increase in wealth with the upcoming parabolic shift in wealth from the rich people to the middle class and poor. There is a growing trend of demand for flats in Kolkata. The goal of the research project is to find out how much each different demographic factor affects the decision individually and as a whole in purchasing a flat. The factors taken into consideration are wages, gender, age and occupation. The method used is multiple linear regression to finally compare and take into consideration train datasets to try and make an accurate prediction of whether an individual with a certain demographic might go ahead with a flat purchase. This could help developers target a certain demographic of the population to create an exclusive environment based on demographic factors.

KEYWORDS: Real Estate, Multiple Linear Regression, Feature Selection, Investment Bias, Real Estate Investment, Purchase Decisions, One-Hot Encoding, Demographic Data Evidence, COVID-19.

INTRODUCTION

The real estate sector expands as demand for land, properties, or housing rises to meet people's various needs. This industry is well supported by the expansion of the corporate environment and office spaces, as well as other housing complexes and properties that it necessitates. The real estate sector is expanding rapidly due to increased demand for residential and commercial space. Some companies have made significant investments in real estate as its value has increased. For example, new housing launches in India's main cities saw an increase in value of up to 32 to 35 per cent in 2018, which was then increased by 50 to 52 per cent in 2022. Real estate investment is one of the best investments a person can make. As a result, this research paper is even more important because it is critical to determine the factors that influence the purchase decision of flats by households in Kolkata. There are numerous reasons why someone might want to invest in real estate, some of them are - capital

appreciation, inflation hedge, diversification, various tax advantages and many other reasons. Buyers are most often puzzled as to whether they should rent out or buy a house, particularly those with middle or lower incomes, who desire to buy small-sized units to satisfy their living needs. The latter is preferable because psychological factors play an important role, as there is pride in home ownership. In fact, if flats are purchased, capital appreciation will occur. While purchasing a home with the help of a home loan, the buyers are aware of the Equated Monthly Instalments (EMIs) that they must pay. As a result, future costs are predictable, and one can plan accordingly. There is less chance of interference in self-owned homes, making ownership of housing more appropriate.

OBJECTIVE OF THE STUDY

- To determine the role of demographic characteristics such as 'gender', 'age', and 'employment status' in influencing the purchase of small-sized flats (within 650 sq. ft).
- To determine the likelihood of ownership of flats as influenced by factors other than 'interest rates'.
- To determine whether the choice of ownership of a flat gets influenced by the COVID-19 pandemic.

BACKGROUND AND RATIONALE

The real estate sector has faced several obstacles over the past couple of years in the light of some major reforms in the Indian structure, like demonetization, GST (Goods and Services) Act and RERA (Real Estate (Regulations and Development) Act). Each of these reforms has impacted the structure of real estate and brought an added dimension of change in this sector.

At first came demonetization, which gave rise to an air of fear among developers. Thus, many projects were then put on hold to avert losses and risks. There was a 40 per cent dip in property registrations in Kolkata. It is observed that the government is helping the affordable housing sector in different ways like tax benefits.

The Government also slashed GST rates for construction properties. Rates got slashed from 8 per

cent to 1 per cent for affordable housing and for regular units, it came down to 5 per cent from 12 per cent. It is also said that a 60 square metre unit of a metro city and 90 square metre of a non-metrocity shall now be classified under the segment of affordable housing. This made buying a home easier through GST. The elimination of the Input Tax Credit (ITC) has been a great help to builders, this is required by the builders to pass it to the purchasers of the apartments. Input tax credit elimination could have an effect on the base price of the apartment.

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1. Rohayu Majid, Rosli Said, and Md Nasir Daud on the Impact of Buyer Demography on Property Purchasing (2012).

The author obtained demographic factors in order to analyze property purchasing behaviour. The chi-square test revealed that employment, marital status, and gender were all significant. The research methodology was that 200 respondents were chosen at random to fill out a questionnaire using primary data.

2. R. Sridevi and W. Saranya, 'Factors Influencing Consumers' House Purchase Behaviour in Chennai'

In this study, we look at the elements that influence people's purchase decisions in Chennai. The majority of the respondents are between the ages of 21 and 30, with monthly incomes ranging from 1000 to 200,000. The author discovers that the consumer's income level, social communal, and personal communal effects the buying of a home the most. This enables marketers to fight for business growth against their competitors. Furthermore, it raises the consumer's position in regard to the purchasing of a home in Chennai.

3. The Physical Characteristics of Houses Influencing Home Purchasing Decision in a Middle-Up Estate through Surabaya, Indonesia (authors).

The goal of this research paper is to figure out the various characteristics that influence the decision of people who are thinking about buying a house in

Indonesia. Several social, psychological, and demographic factors, according to this study, may influence the physical characteristics of the house that people buy (building sizes, plot sizes, cluster sizes, and building styles). According to the findings of this study, the building size of the houses is influenced by family weekend activities, the cluster size of the houses is influenced by psychological needs, and the building size of the houses is influenced by age groups.

4. Buying of Residential Flats – Factors Affecting Buyer Decisions in Selected Tamil Nadu Cities (P. Manivannan and Dr. M. Somasundaram).

The above study was carried out to determine the major factors influencing the decisions of people looking to purchase a home in the cities of Chennai, Coimbatore, Madurai, and Tiruchirappalli. Aside from the primary goal, the secondary goal of the study was to provide insights to real estate promoters on how to improve their service and customer satisfaction by correctly marketing the properties. According to the study, the most important factor influencing purchase decisions is basic amenities. Financials come first, followed by floor plan, nearness, accessibility, environmental or location, recreation activities and relaxation, and goodwill factors.

5. Factors Influencing Real Estate Purchasing Behaviour in Saudi Arabia - Tawfik Saleh Al-Nahdi, Emmanuel Nyakwende, Banamah, and Achmat Ahdiel Jappie - 2015.

As the title suggests, this study was conducted to investigate the various factors that influence Saudi Arabians' real estate investment decisions. It examined the impact of mindset, social norms, perceived behaviour control, and funding on the intent to purchase real estate. According to the study's findings, there was a substantial positive relationship between attitude, social norm, and funding in the decision to buy real estate, whereas attitude towards behaviour had no adverse effect on the buyers' intention to buy real estate.

6. Majumder, S., Biswas, D. COVID-19: impact on quality of work life in the real estate sector.

The real estate sector is creating an elevated degree of the labour force on the lookout, consequently, organizations need to regard this labour as resources all through the new ordinary period. We might finish up to improve the work-life in this scourge time, more the methods of man-made consciousness should be consolidated in business associations. In this work, the nature of work-life is light old enough, orientation, and the executive level are not accounted for. An exceptionally set number of elements of the nature of work-life (simply connected with the pandemic) have been accounted for.

7. Impact Of Economic and Life Style Factors on Real Estate Prices in India. P. Praveen Kumar., R. Kasilingam.

The connection investigation shows that there is a critical relationship among free variables. Along these lines, different relapse is performed. The multiple relapse examination shows that the number of new passenger vehicle enrolments in India drives the land costs of India. The cost in Koramangala in Bangalore is impacted via vehicle enlistment as well as by expansion. This implies that land costs move as per changes occurring in the way of life. The determined genuine estate costs show that the development rate in land costs in Adyar are differing from one year to another whereas the development rate in Koramangala, Sarvodaya Territory and Bandra West remains partly the same. Sarvodaya Area has the most elevated development rate.

RESEARCH METHODOLOGY

- The present study has been carried out with the help of secondary and primary research methods to determine the success of ownership of small-sized flats in Kolkata.
- The methods of linear regression along with one-hot encoding have been used to find the dependent variable, i.e., people who actually purchase the flat, using a sample of 50 respondents taken for this research.

MULTIPLE LINEAR REGRESSION

Multiple Linear Regression (MLR), also known as multiple regression, is a statistical method that predicts the outcome of a response variable using several explanatory variables.

Numerous straight relapses are used to evaluate the relationship between at least two free variables and one ward variable. When you need to be aware, you can use a variety of straight relapses:

$$y_i = \beta_0 + \beta_1 x_{i1} + \beta_2 x_{i2} + \dots + \beta_p x_{ip} + \epsilon$$

Figure 1: Figure showing Multiple Linear Regression
(Source: Author's Computation)

where, for

' y_i ' denotes the dependent variable for $i = n$ observations ' x_i ' denotes explanatory variables.

' β_0 ' denotes the y-intercept (constant term)

' p ' denotes the slope coefficients for each explanatory variable.

' ϵ ' denotes the error term in the model (residuals)

ASSUMPTIONS OF MULTIPLE LINEAR REGRESSION

1. Homogeneity of variance (homoscedasticity): the size of the error in our prediction does not vary significantly across independent variable values.
2. Independence of observation: the observations in the data set were gathered using statistically valid methods, and there are no hidden relationships between variables.
3. It is possible that some of the independent variables in multiple linear regression are actually correlated with one another, so it is critical to check these before developing the regression model. If two independent variables are overly correlated ($r^2 > 0.6$), only one should be included in the regression model.
4. Normality: The data is distributed normally.

ONE-HOT ENCODING

In the case of categorical variables with no ordinal relationship, the integer encoding may be insufficient at best or misleading to the model at worst.

Allowing the model to presume a natural ordering among categories rather than forcing an ordinal link via an ordinal encoding may result in poor performance or unanticipated findings (half predictions between categories).

In this case, the ordinal representation can be encoded in a single pass. The integer encoded variable is removed, and one new binary variable is created for each unique numerical value in the variable.

One-hot encoding is used for columns like gender and occupation since they just have 2 categorical variables to choose from which need to be converted to quantitative variables.

DATA, ANALYSIS AND FINDINGS

Area of Study – The study is based on the real estate market in West Bengal.

Type of Study – The study is based on a primary survey of flat owners who have already purchased small-sized flats, within 650 sq. ft.

Tools for Data Collection - A questionnaire was designed that contained questions pertaining to the applicant's name, salutation, address, age, gross monthly income, employment status, bank name, and nationality.

Sample Size – A sample of 50 respondents was taken from the questionnaire.

Period of Study – The study was conducted from January 2022 to March 2022.

ANALYSIS AND RESEARCH FINDINGS

Interpretation of Multiple Linear Regression

After running Multiple Linear Regression, the following outputs are obtained:

Model: $\text{flat_recieved} = -3.4486 + 0.3496 \cdot \text{occupation} + 0.7032 \cdot \text{gender} + 0.0529 \cdot \text{age} + 0.0001 \cdot \text{salary}$

Predictor	Coefficient	Estimate	Standard Error	t-statistic	p-value
Constant	β_0	-3.4486	1.0024	-3.4404	0.0263
occupation	β_1	0.3496	0.2619	1.3349	0.2528
gender	β_2	0.7032	0.2344	2.9998	0.04
age	β_3	0.0529	0.0187	2.8326	0.0472
salary	β_4	0.0001	0	3.7467	0.02

Summary of Overall Fit

R-Squared: $r^2 = 0.865$
 Adjusted R-Squared: $r^2_{\text{adj}} = 0.73$
 Residual Standard Error: 0.2739 on 4 degrees of freedom.
 Overall F-statistic: 6.4062 on 4 and 4 degrees of freedom.
 Overall p-value: 0.0498

Analysis of Variance Table

Source	df	SS	MS	F-statistic	p-value
Regression	4	1.9222	0.4805	6.4062	0.0498
Residual Error	4	0.3	0.075		
Total	8	2.2222	0.2778		

Figure 2: Showing Various Values and Errors after Conducting Multiple Linear Regression
 (Source: Calculated on: <https://www.socscistatistics.com/tests/multipleregression/default.aspx>)

Statistically significant - Here we see that age, gender and salary are statistically significant as all of them have ap-value less than 0.05 which makes it an ideal variable in the research conducted.

Statistically insignificant - Here we see that occupation is not as statistically significant as it has ap-value of more than 0.05 that does not support the evidence of being an ideal variable to be considered in the research conducted.

Dummy Variables – Dummy variables of purchasing houses have been assigned binary numbers of 0 and 1 in the data set to show a correlation in such situations. They are the dependent variable in this situation. A switch from a categorical variable to a quantitative variable has been made for the purpose of normalizing the data.

Virtual Representation of Data used in Multiple Linear Regression



Figure 3: Shows Age Demographic for Data Used
(Source: Primary Data)

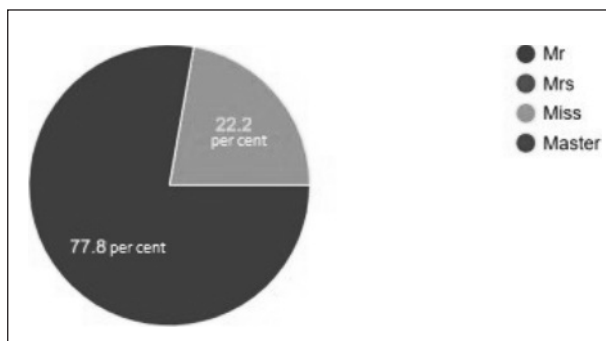


Figure 4: Shows Salutation Demographic for Data Used
(Source: Primary Data)

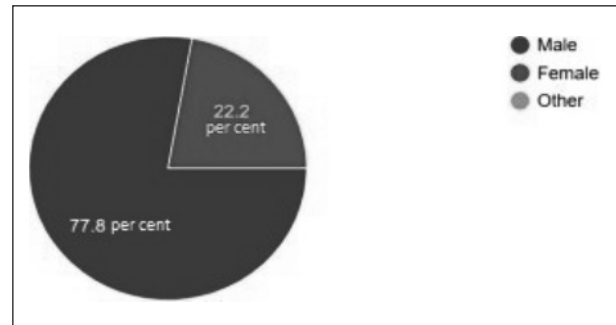


Figure 5: Shows Gender Demographic for Data Used
(Source: Primary Data)

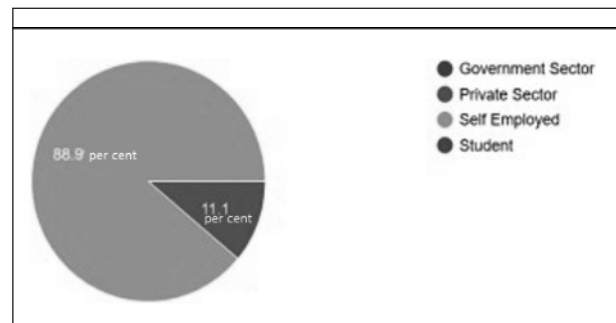


Figure 6: Shows Private Sector vs Self-Employed
(Source: Primary Data)

Data Analysis of the primary research

Gender - 77.8 per cent of the interviewees are men, whereas only 22.2 per cent are women.

Age - 66.7 per cent are between 40 to 49 years, 11.1 per cent between 50 to 59 years and 22.2 per cent are between 30 to 39 years.

Employment – 88.9 per cent self-employed, 11.1 per cent private sector.

Gross Monthly Income – 77.8 per cent ranged in between 20,000- 40,000 and 22.2 per cent between 0 – 20,000.

Resp. Vary	ExplVarX1	ExplVarX2	ExplVarX3	ExplVarX4
Flat received	occupation	gender	age	salary
1	1	1	40	17990
0	1	0	37	21500
1	1	1	48	20795
0	1	0	45	12000
1	0	0	41	40000
0	1	0	36	25705
1	1	0	53	22116
0	0	0	43	21750
1	1	0	42	30000

Table 1: The Demographic Data Used to Process Multiple Linear Regression
(Source: Primary Data)

$$\text{Model: } y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4$$

VARIABLES IN THE EQUATION

The relationship between the variables is multiple linear. The variables have been substituted in the equation to find the p-values and the coefficients of the variables in the project like gender, employment status, monthly income and age of the respondents:

Gender – Gender has got a positive coefficient which shows that there is a lower likelihood of purchasing flats as the number of male respondents increases. The p-value is less than 0.05 (0.00 is less than 0.05) which shows that gender is statistically significant in explaining the predicted changes, the findings are shown in the table above.

Self-employed – Self-employment is non-significant in explaining the likelihood of purchasing flats because the coefficient of significance is positive which shows that there is a lesser likelihood of ownership of flats as the number of self-employed people increases. The p-value is greater than 0.05 (0.2528 is greater than 0.05) which shows that ownership of flats is statistically insignificant in explaining the predicted changes.

Monthly Income (in Thousands) - Gross Monthly Income is statistically significant and has got a positive coefficient which shows that there is a greater likelihood of ownership of flats as gross monthly income rises. The p-value is less than 0.05 (0.02 is less than 0.05) which shows that gross monthly income is statistically significant in explaining the predicted changes.

Age of the Respondent - Age is statistically significant and has got a positive coefficient which shows that there is a greater likelihood of ownership of flats as the age of the respondent increases. The p-value is lesser than 0.05 (0.0472 is less than 0.05) which shows that it is

statistically significant in explaining the predicted changes. All of the findings above have been mentioned in the findings table above.

CHOICE OF OWNERSHIP OF SMALL-SIZED FLATS IN THE POST-PANDEMIC ERA

- Job insecurity, pay cuts, and strict lending standards are likely to impede demand for affordable housing, particularly among the Low-Income Group (LIG). In the first half of 2020, affordable housing sales dropped by 57 per cent year on year.
- The addition of the Credit-Linked Subsidy Scheme (CLSS) till March 31, 2022 is a further incentive for buyers in the Low and Middle-Income Group (MIG). The Reserve Bank of India's (RBI) policy tax changes, combined with the National Housing Bank's (NHB) injection of ₹100 billion into qualified Housing Finance Companies (HFCs), are sure to revive the supply dynamism of affordable housing projects.

- On the whole, the affordable housing section is more likely to recover than other housing segments. The target audience for this segment consists of Low-Income Group (LIG) or the Economically Weaker Sections (EWS) and Middle-Income Group (MIG) earners, who make up a sizable portion of India's total population. If done properly, the affordable housing sector could greatly benefit from the sheer size of its target audience and the increasing demand in this sector. With most rating agencies revising India's growth forecast, the country's housing sector recovery may be better and faster than expected. As a result, we can see that more buyers in the LIG and MIG segments are purchasing flats.

CONCLUSION OF THE STUDY

The predicted probability of ownership of a flat is determined by demographic characteristics such as 'age', 'gender' and 'salary'. All the variables except, 'self-employment', are statistically significant. Thus, a guideline for real estate firms engaged in the sale of properties is to take into consideration demographic factors like 'employment status' while planning to expand their business. The marketing strategies of real estate firms must focus on promoting their products by sensitizing 'women empowerment' and encouraging the habit of savings in real estate amongst salaried people. The results thus demonstrate how demographic factors, particularly employment, marital status, and gender, have greatly influenced housing standards, which have evolved into key factors that buyers have always taken into account when purchasing a residential property.

RECOMMENDATION

1. Any firm's marketing strategies for the sale of durables should focus not only on regular features and established, existing factors, but also on demographic characteristics to increase the likelihood of purchasing residential units.
 2. Because demographics are not a constant measure, real estate sellers should keep a watch on them on a regular basis. As a result, a yearly study of the demographic factor is critical.
- Some firms can use this information to do things like target a certain demographic in a housing community by advertising only to the target audience. This can help in cost cutting through a linear approach and more people converting to sales.

LIMITATIONS OF THE STUDY

- The study has the following Limitations
- The study is based only in Kolkata and does not have a vivid demographic.
- The study is limited to only one type of apartment and small-sized flats.

The study is focusing on lower and middle-income group people and not upper-income groups.

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With opportune execution of the multitude of required changes, it could turn into a significant abundance maker in the impending many years, as lodging prerequisite blasts.



Footprint of COVID-19 on The Real Estate Sector of India

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ABSTRACT

‘Real estate investing, even on a very small scale, remains a tried and true means of building an individual’s cash flow and wealth’- Robert Kiyosaki

Throughout recent years, real estate investments have produced consistent income and returns fundamentally above conventional ways of yield, for example, corporate obligation with just somewhat more risk. Since the infection episode, nonetheless, this reality has changed, and real estate players have been hit hard across the worth chain. Specialist co-ops are attempting to moderate well-being take

a chance for their workers and clients. Numerous developers cannot get grants and they face development deferrals, stoppages, and possibly contracting paces of return. In the interim, numerous resource proprietors and administrators face diminished working pay, and practically all are apprehensive about the number of occupants will battle to make their rent installments. Through this study, I needed to find what is happening of the real estate industry when COVID-19 pandemic and to understand the effect on related areas and buyers connected with the Real Estate Industry because of the effect of COVID-19 on Real Estate in India. The review will assist with understanding whether Real Estate investment is a decent choice to contribute to the future.

KEYWORDS: Real Estate, COVID-19, Income, Investments.

INTRODUCTION

Real estate, sometimes referred to as 'real property,' is technically land plus any other tangible improvement that might rest upon it or be installed in it. Real estate can incorporate property, land, structures, air privileges over the land, and underground freedoms beneath the land. The term alludes to real, or physical, property. As a business term, real estate likewise alludes to creating, purchasing, and selling property. It influences the economy since it's a basic driver of economic growth. There are a lot of choices with regards to putting resources into real estate.

The key is to do your investigation to sort out which kind of land contributing is the best fit.

- Real Estate Investment Trusts (REITs)
- Residential Properties
- Commercial Properties
- House Flipping

BRRRR Method of Real Estate Investing: The BRRRR Method signifies 'buy, rehab, rent, refinance, repeat' and portrays a strategy and framework utilized by investors who wish to assemble passive income over the long run.



Figure 1: The BRRRR Method of Real Estate
(Source: reisift.com)

Participant	Investor (customer)	Constructor	Labour force
Risk	Overdue delivery, pay shortening, risk of losing source of income due to COVID-19	Projects may get delayed or suspended, labour may migrate to their hometowns, buyers may prefer completed projects only, delayed delivery deadlines	Reduced pay, loss of job, short of work
Opportunity	Lower interest rate and home loans, personal loans, deals on offer, concession in property tax	No penalties due to delayed delivery, Delivery timings can extend	Adopt virtual tours and implement new ideas like e-broacher, social benefits from government

Figure 2: Threats and Opportunities of Varying Degrees of Real-Estate Investing during COVID-19
(Source: reisift.com)

LITERATURE REVIEW

As indicated by Cushman and Wakefield (2021), India's business housing market is sensibly valued in correlation with the city's generally speaking monetary well-being and offers an adequate number of chances. The pandemic effect on worldwide commercial business sectors is likewise obvious in livestock creation, as the most recent peculiarity has as of late spread to animal ranches. If by some stroke of good luck, the momentary repercussions are thought of, renting and helping out organizations would be seriously hurt. The business housing industry will ultimately recuperate from the emergency, in spite of the fact that it will be continuous. As per gauges from the organization's essential area, supplier of business room in India, the predominance of this illness has deferred adventures, the sector is glutted, suggesting that ventures are hard to come by, influencing demand and, accordingly, expenses and rental rates.

Jones Lang LaSalle Incorporated (JLL) (2020) shows COVID-19 worldwide real estate repercussions. Presently, theory action can slow as valuation troubles and expanded weakness debilitate financial backers' capacity to cost risk properly. Notwithstanding satisfactory liquidity through stock and obligation markets, advance trained professionals and theorists keep on working in a valuation exposure stage. Regardless of movements in feeling and conduct, the overall pattern has been toward more noteworthy designation to land, and the maker of the audit sees little support behind this example to reverse in the medium to long stretch, pondering the benefits of such speculations.

As indicated by Federation of Indian Chambers of Commerce and Industry (FICCI) (2020), the year 2019 was a troublesome one for the housing market, which keeps on battling with funding deficiencies in the midst of issues tormenting the Non-Banking Financial Companies (NBFC) and banking areas. The circumstance has been compounded by the money related stalemate, that brought about less demand.

As indicated by Anarock (2020) study, in the Indian real estate in typical times, the propelling time period for the most part notices an expansion in real estate exercises

in view of people celebrating merriments, as new arrangements sprout up. The forthcoming outing time frame for Indian schools, that runs from April to June, additionally gives time to home buyers to settle on buy choices. Lamentably, 2020 turned out to be remarkable. The cross-country lockdown, which went on until mid-April, stopped all drills. As it is clear, adventure objections have been shut, site visits have stopped, and the development movement has come to a crushing end, unfavorably affecting arrangements over the long haul. Also, developers have deferred the send-off of their most recent endeavors for an obscure time frame. Aside from the modern area, the business area is as yet helpless against the COVID-19 repercussions.

OBJECTIVES

- To compare the situation of the real estate industry before and after the COVID-19 pandemic in India.
- To understand the impact on related sectors and consumers linked with the real estate industry due to the influence of COVID-19 on real estate in India.
- To identify whether Real Estate investment is a good option to invest in after the advent of COVID-19.

DATA ANALYSIS AND FINDINGS

- Type and Tool of Data Collection - The data used for the study is a mixture of primary and secondary data. The primary data is collected using a questionnaire designed by Google survey tool, and the secondary data is from varied sources. The questionnaire has two sub-forms specially dedicated, one for the working professionals and one for non-working people to get the opinion separately about the topic for better understanding and analysis.
- Type of Study - It is a descriptive as well as an analytical study.
- Sample Size - The sample consists of 202 respondents.

- Period of the Study - The study was conducted over the span of three months from January to March, 2022.

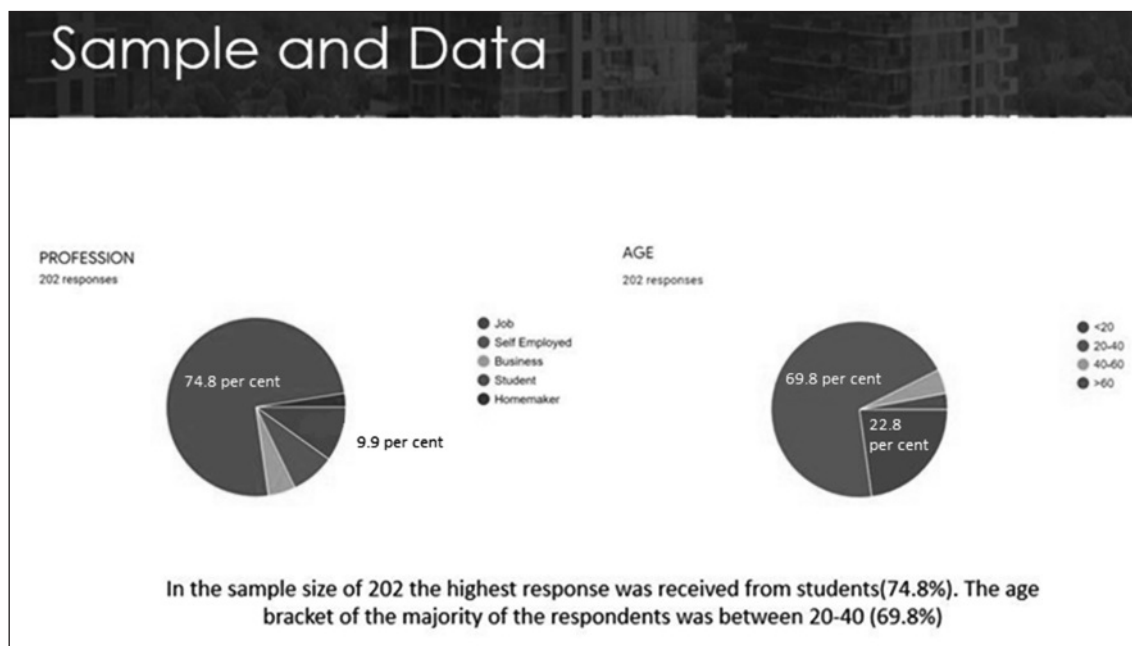


Figure 3: Sample and Data
(Source- Primary data)

SECONDARY DATA ANALYSIS

Figure 4 shows that the market size was 120 USD Billion in 2017, and 180 USD Billion in 2020 and it was projected that the market size of the real estate industry in India will grow even more in future due to high demand as compared to its supply. Real estate sector in India is expected to reach 650 USD Billion by 2025 and 1000 USD Billion by 2030. This shows that real estate industry in India is a growing industry.

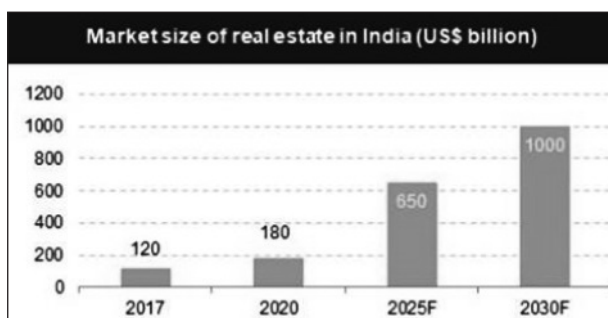


Figure 4: Market Size of Real Estate in India
(Source-ibef.org.)

Figure 5 shows that the property prices in India's top 8 prime residential markets. It was found that the national average rate per sq. ft. as of September 2020 was 6,066 and the annual change of prices is 1 per cent.

City	Average rate per sq ft as on September 2020	Annual change (percentage)
Ahmedabad	Rs 3,151	0
Bengaluru	Rs 5,310	2
Chennai	Rs 5,240	2
Hyderabad	Rs 5,593	0
Kolkata	Rs 4,158	1
MMR	Rs 9,465	1
NCR	Rs 4,232	-1
Pune	Rs 4,970	2
National average	Rs 6,066	1

Figure 5: Property Prices in India's Eight Prime Residential Markets
(Source- Prop Tiger Data Labs)

Figure 6 shows that from 2016-2020 there is a trend of increasing demand for commercial space in top 8 cities in India. As new businesses and start ups are coming up in India so it's expected that this trend will follow.

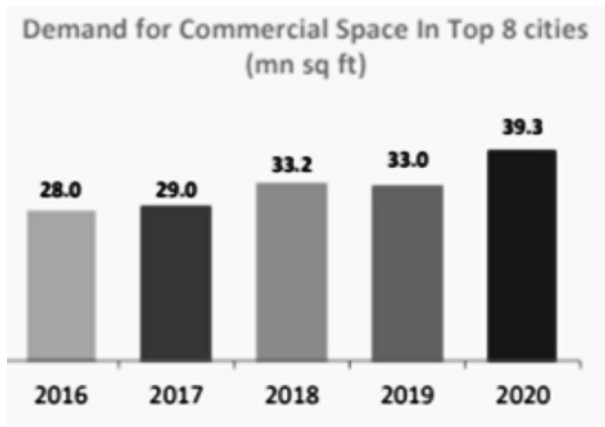


Figure 6: Demand for Commercial Space in Top 8 cities
(Source- ibef.org)

PRIMARY DATA ANALYSIS

Responses given by working professionals (job, self-employed and business)

Figure 7 shows, 84.8 per cent of the respondents believed that long-term investment is more preferable than short-term ones. Therefore, many people will move towards long-term investment options and they will choose the option as per their goals. Real Estate is also an example of long-term investment that may be looked into.

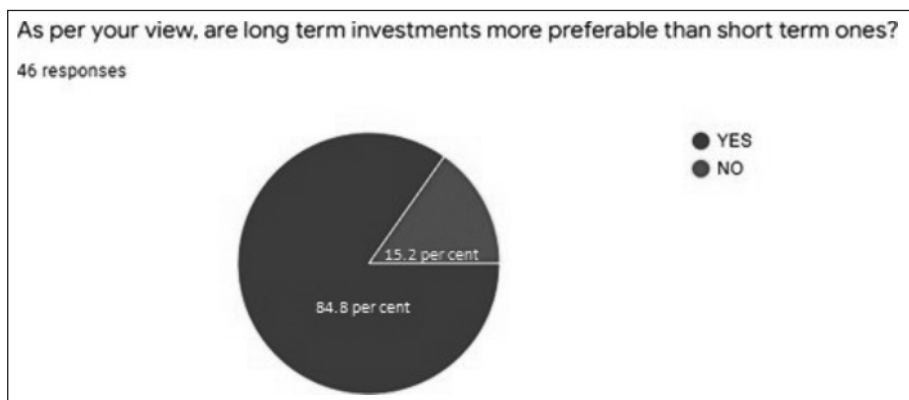


Figure 7: As Per Your View, are Long-Term Investments More Preferable Than Short-term Ones?
(Source-Primary Data)

Figure 8 shows, 87 per cent of the respondents believed that Real Estate investment is a good investment option. Based on the study we can say that the majority of working professionals tend to have a positive view on real estate investing.



Figure 8: Do You Think Real Estate Investment is a Good Investment Option?
(Source- Primary Data)

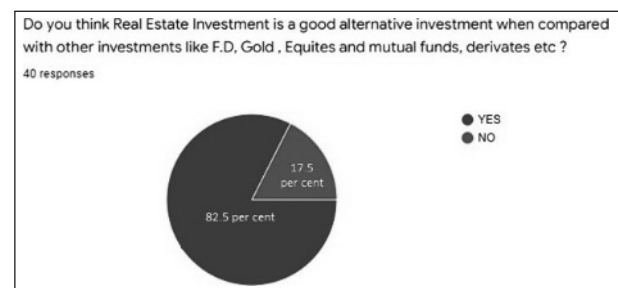


Figure 9: Do You Think Real Estate Investment Is a Good Alternative Investment Option When Compared with Other Investments Like F.D, Gold, Equities and Mutual Funds, Derivatives et al.?
(Source- Primary Data)

Figure 9 shows, 82.5 per cent of the respondents believed that real estate investment is a good alternative investment option when compared with other investments. Based on the study we can say that the majority of working professionals tend to have a positive view on real estate Investing when compared with other investment options.

Figure 10 shows, 75 per cent of the respondents actually have invested or thought of investing in real estate. Based on the study we can say that the 3/4th of working professionals tend to have an urge for investing in this sector.

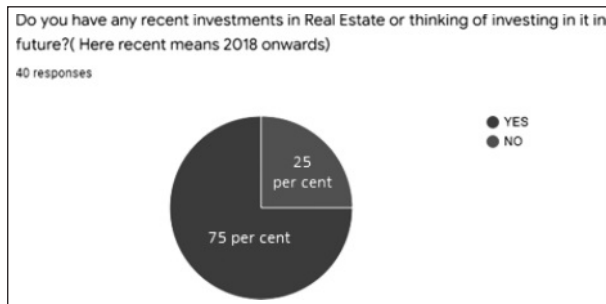


Figure 10: Do You Have Recent Investment in Real Estate or Thinking of Investing in Future?
(Source- Primary Data)

Figure 11 shows, 52 per cent of the respondents wanted to invest in Real Estate for resale, 50 per cent were interested in renting out, 42.5 per cent wanted to invest for residential purposes and 37.5 per cent were looking for commercial purposes. This shows that working professionals have an inclination towards renting out and resale when investing in real estate. For this reason, the BRRRR method should be used for more profit (I have explained this method in the introduction of this paper).

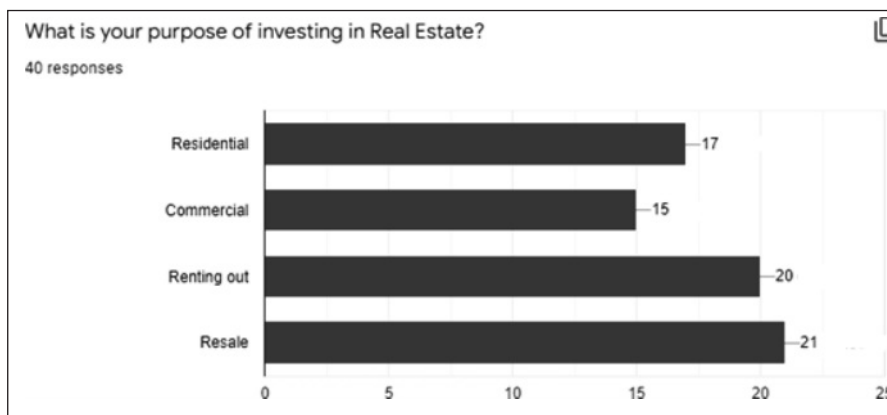


Figure 11: What is Your Purpose of Investing in Real Estate?
(Source- Primary Data)

Figure 12 shows, 62.5 per cent of the respondents would prefer a combination of loan and self-financing while buying real estate. In conclusion, I can say that most working professionals who are interested in investing in real estate will prefer a combination of loan and self-financing while buying real estate.



Figure 12: What Finance Option Do You Prefer while Buying Real Estate?
(Source- Primary Data)

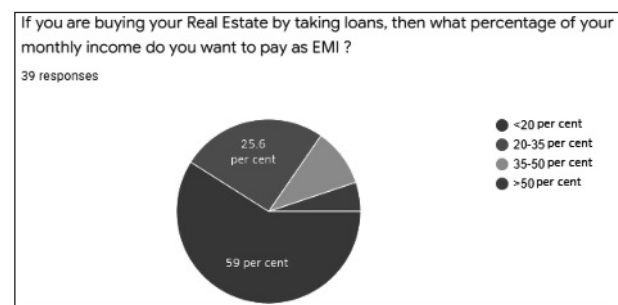


Figure 13: If You are Buying Your Real Estate by Taking Loans, Then What Percentage of Your Monthly Income Do You Want to Pay As EMI?
(Source- Primary Data)

Figure 13 shows, 59 per cent of the respondents wanted the Equated Monthly Installment (EMI) percentage below 20 per cent of their monthly income. This shows that the working professionals wanted to restrict the EMI as low as possible to reduce the burden of repayment. This also suggests that they possess a low-risk appetite.



Figure 14 shows, 75 per cent of the respondents wanted to buy real estate in Tier 1 cities. This shows that working professionals have a notion to buy real estate in cities which are more developed.

Figure14: In which Location You Want to Buy Your Real Estate?
(Source- Primary Data)

Figure 15 shows, 50 per cent of the respondents cited the reason for buying a real estate in a particular city because they lived in that city, 42.5 per cent were interested in a particular city as it will give a high rate of appreciation. It was evident from the findings that mere facts like liking and affinity were nowhere close to being a relevant metric for investment in the real estate sector. This shows that working professionals have an inclination towards investing in a city where they live because real estate requires management and this will help in that. The study reveals that people generally have a rational outlook while investing in real estate, emotions and preferences generally do not coincide with crucial investments like real estate.

Figure16 shows, 72.5 per cent of the respondents believed that working from home may increase the notion of buying a residential property.

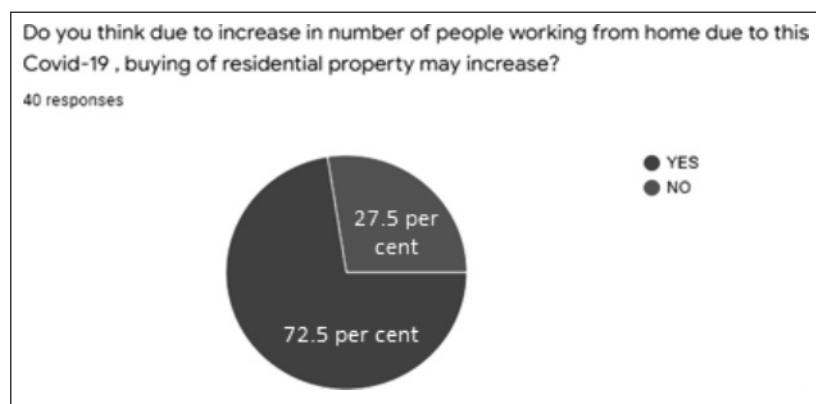


Figure16: Do You Think Due to Increase in Number of People Working from Home Due to This COVID-19, Buying of Residential Property May Increase?
(Source- Primary Data)



Figure 15: Why Do You Invest in Real Estate in A Particular City?
(Source- Primary Data)

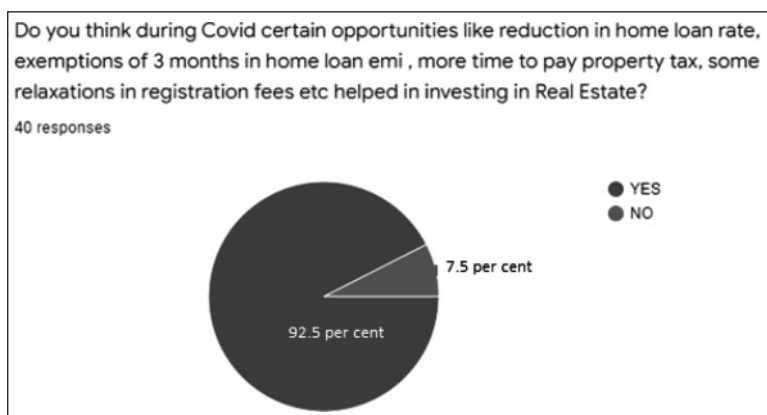


Figure 17 shows, 92.5 per cent of the respondents believed that certain opportunities given by the government helped in investing in real estate during this pandemic.

Figure 17: Do You Think During COVID-19 Certain Opportunities Like Reduction in Home Loan Rate, Expansion of Three Months in Home Loan EMI, More Time to Pay Property Tax, Some Relaxions in Registration Fees et al. Helped In Investing in Real Estate?
(Source - Primary Data)

Figure 18 shows, 62.5 per cent of the respondents believed that related sectors to the real estate were adversely impacted during this pandemic and 37.5 per cent of the respondents believed that related sectors to the real estate were moderately impacted during this pandemic. Nobody among the respondents believed that the sectors related to the real estate industry were not impacted due to this pandemic.

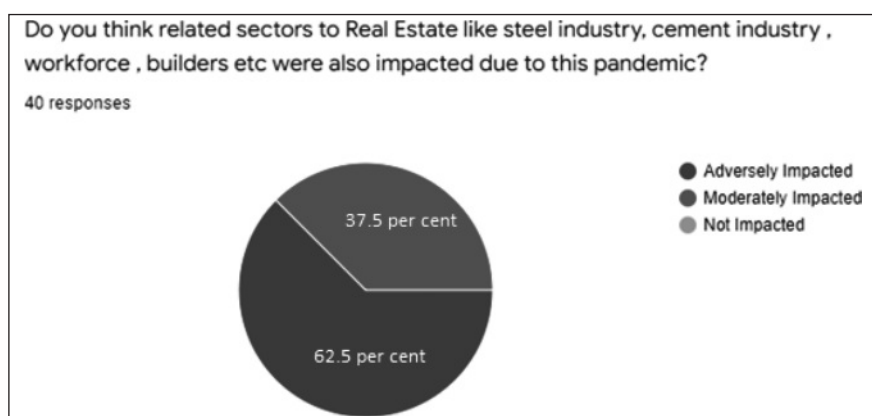


Figure 18: Do You Think Related Sectors to Real Estate Were Also Impacted Due to This Pandemic?
(Source - Primary Data)

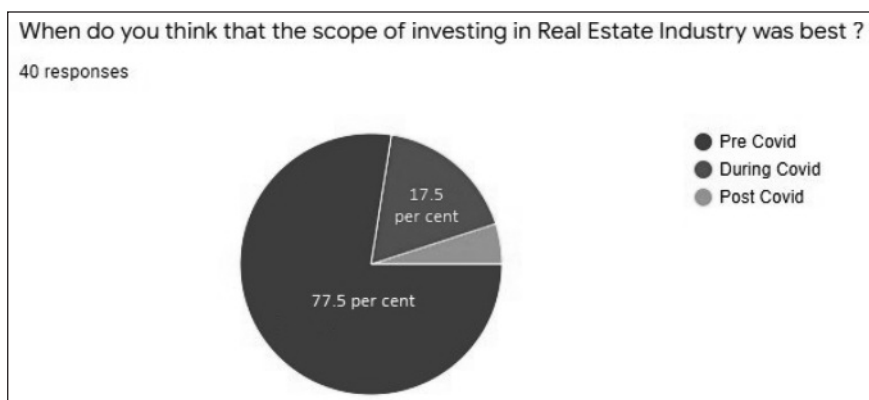


Figure 19 shows, 77.5 per cent of the respondents believed that the scope of investing in real estate was best before covid, 17.5 per cent believed it to be during covid and five per cent believed it to be after covid.

Figure 19: When Do You Think the Scope of Investing in Real Estate Industry Was Best?
(Source - Primary Data)

RESPONSES GIVEN BY NON-WORKING PROFESSIONALS (STUDENTS and HOMEMAKERS)

Figure 20 shows, 91 per cent of the respondents believed that long-term investment is more preferable than short-term ones. Therefore, many people will move towards long-term investment options and they will choose the option as per their goals. Real estate is also an example of long-term investment that may be looked into.

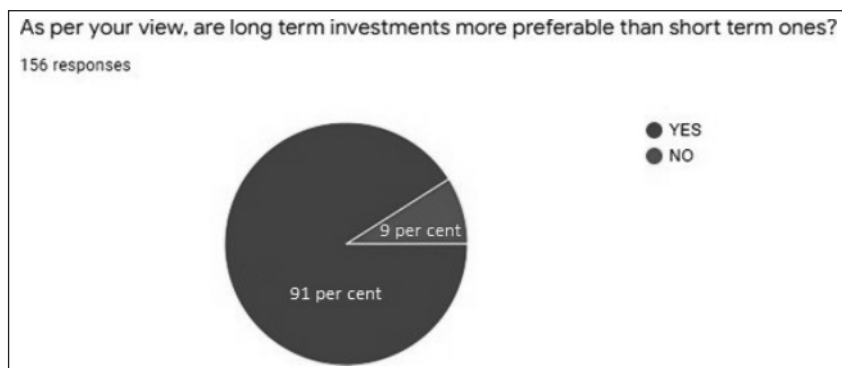


Figure 20: As Per Your View, are Long-term Investments More Preferable Than Short-term Ones?
(Source - Primary Data)

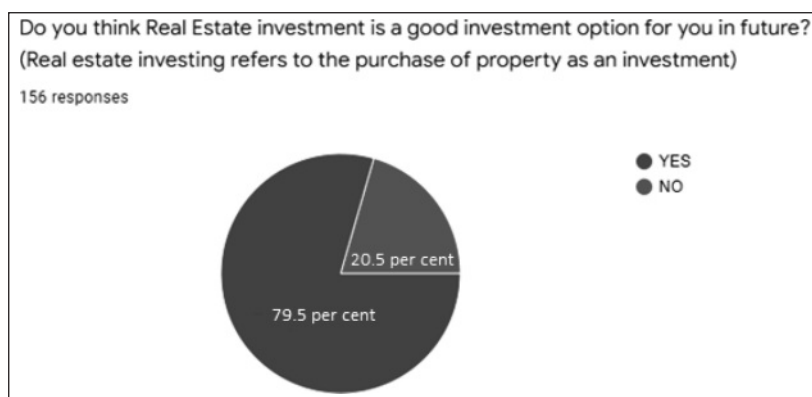


Figure 21: Do You Think Real Estate Investment Is a Good Investment Option for You in Future?
(Source - Primary Data)

Figure 21 shows, 79.5 per cent of the respondents believed that real estate investment is a good investment option. Based on the study we can say that the majority of students and home-makers tend to have a positive view on real estate investing as like working professionals which had been found earlier in this study.

Figure 22 shows, 81.6 per cent of the respondents believed that real estate investment is a good alternative investment option when compared with other investments. Based on the study we can say that the majority of students and homemakers tend to have a positive view on real estate investing when compared with other investment options like working professionals which had been found earlier in this study.

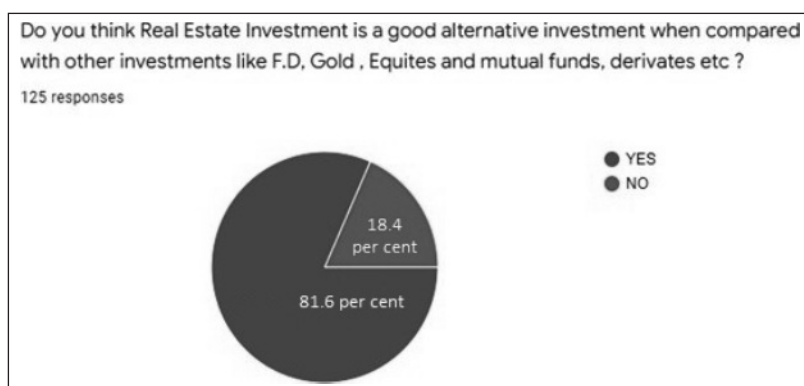


Figure 22: Do You Think Real Estate Investment Is a Good Alternative Investment When Compared with Other Investments Like F.D, Gold, Equities and Mutual Funds, Derivatives et al.?
(Source - Primary Data)

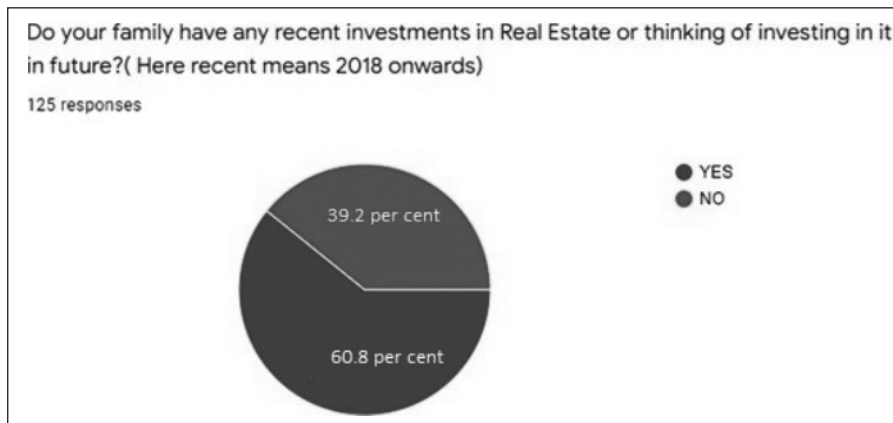


Figure 23 shows, 60.8 per cent of the respondents actually have invested or thought of investing in real estate. Based on the study we can say that many tend to have an urge to invest in this sector.

Figure 23: Do Your Family Has Any Recent Investments in Real Estate or Thinking of Investing in Future?
(Source - Primary Data)

Figure 24 shows, 36.8 per cent of the respondents wanted to invest in real estate for resale, 44 per cent were interested in renting out, 53.6 per cent wanted to invest for residential purposes and 26.4 per cent were looking for commercial purposes. This shows that a family of respondents have an inclination towards renting out and residential property when investing in real estate. For this reason, the BRRRR method should be used for more profit (I have explained this method in the introduction of this paper)

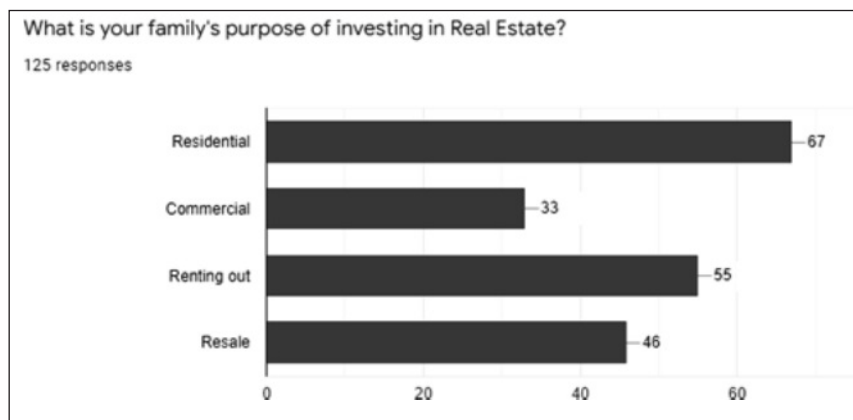


Figure 24: What Is Your Family's Purpose in Investing in Real Estate?
(Source - Primary Data)

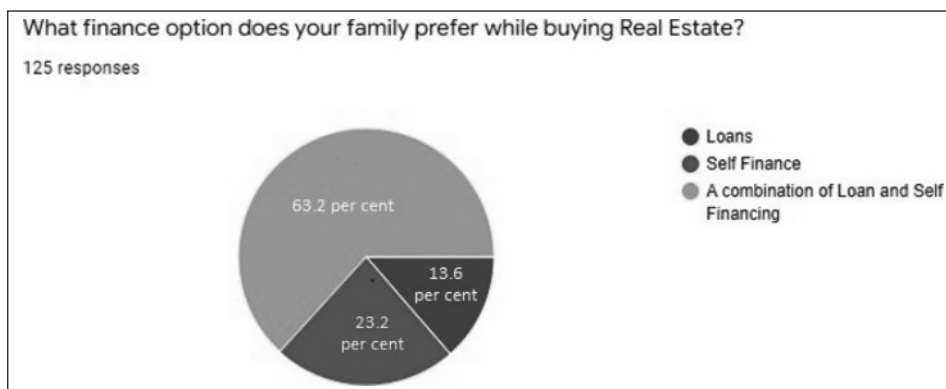


Figure 25: What Finance Option Does Your Family Prefer While Buying Real Estate?
(Source - Primary Data)

Figure 25 shows, 63.2 per cent of the respondents would prefer a combination of loan and self-financing while buying real estate. In conclusion, I can say that most of people who are interested in investing in real estate will prefer a combination of loan and self-financing while buying a real estate.

Figure 26 shows, 62.7 per cent of the respondents wanted the EMI percentage below 20 per cent of their monthly income. This shows that the respondents' families generally wanted to restrict the EMI as low as possible to reduce the burden of repayment. This also suggests that they possess a low-risk appetite.

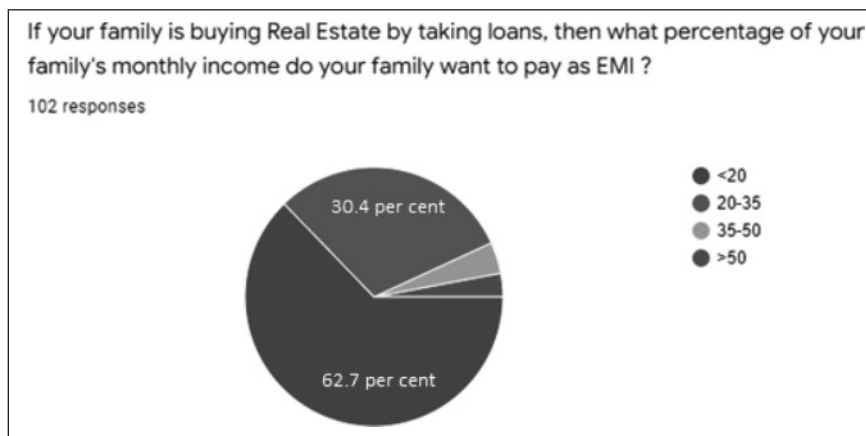


Figure 26: If Your Family Is Buying Real Estate by Taking Loans, Then What Percentage of Your Family's Monthly Income Do Your Family Want to Pay As EMI?
(Source - Primary Data)



Figure 27: In What Location Your Family Want to Buy Real Estate?
(Source - Primary Data)

Figure 27 shows, majority of the respondents that is 63.2 per cent wanted to buy real estate in Tier one cities. This shows that people have a notion to buy real estate in cities which are more developed.

Figure 28 shows, 57.6 per cent of the respondents cited the reason for buying a real estate in a particular city because they lived in that city. This shows that people have an inclination towards investing in the city where they live because real estate requires management and this will help in that. The study reveals that people generally have a rational outlook while investing in real estate, emotions generally do not coincide with crucial investments like real estate.

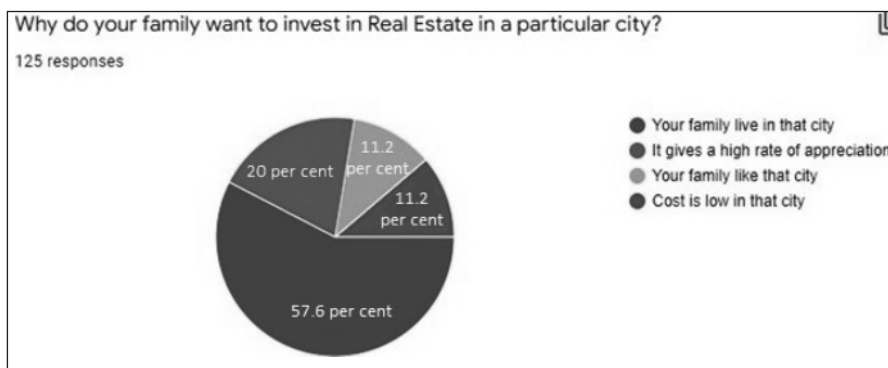


Figure 28: Why Do Your Family Want to Invest in Real Estate in A Particular City?
(Source - Primary Data)

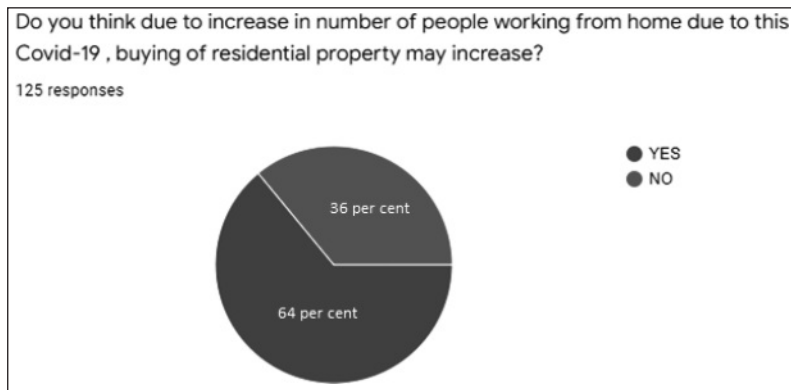


Figure 29: Do You Think Due to Increase in Number of People Working from Home Due to This COVID-19, Buying of Residential Property May Increase?
(Source - Primary Data)

Figure 29 shows, 64 per cent of the respondents believed that working from home may increase the notion of buying a residential property.

Figure 30 shows, 80 per cent of the respondents believed that certain opportunities given by the government helped in investing in real estate during this pandemic.

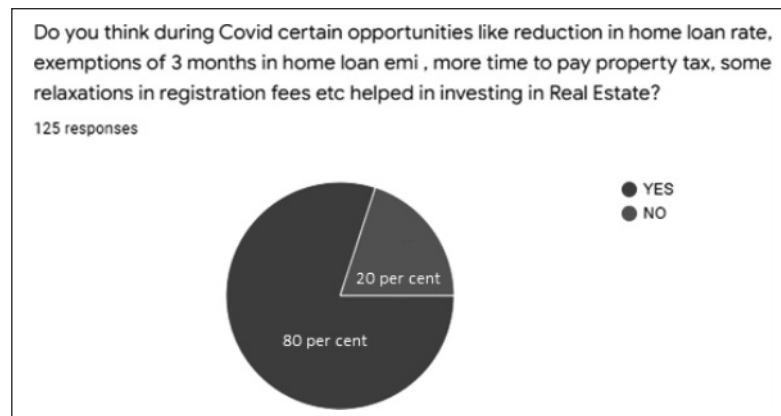


Figure 30: Do You Think During COVID-19 Certain Opportunities Like Reduction in Home Loan Rate, Expansion of Three Months in Home Loan EMI, More Time to Pay Property Tax, Some Relaxions in Registration Fees et al. Helped In Investing in Real Estate?
(Source - Primary Data)

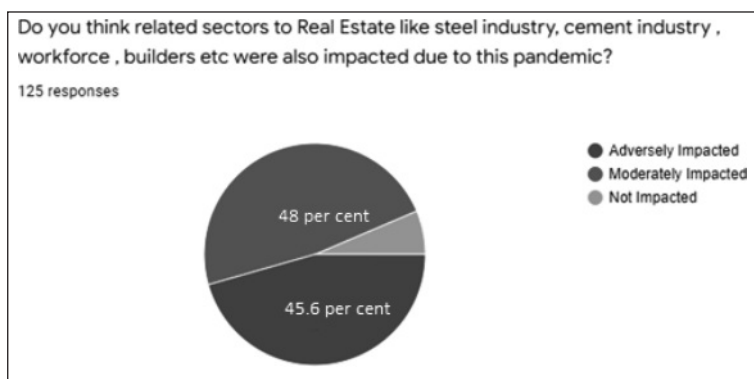


Figure 31: Do You Think Related Sectors to The Real Estate Were Also Impacted During This Pandemic?
(Source - Primary Data)

Figure 31 shows, 48 per cent of the respondents believed that related sectors to the real estate were moderately impacted during this pandemic and 45.6 per cent of the respondents believed that related sectors to the real estate were adversely impacted during this pandemic. Only 6.4 per cent among the respondents believed that the sectors related to the real estate industry were not impacted due to this pandemic.

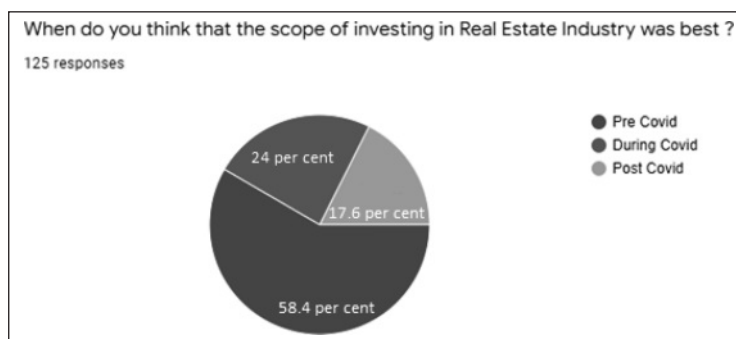


Figure 32: When Do You Think That the Scope of Investing in Real Estate Industry Was Best?
(Source - Primary Data)

Figure 32 shows, 58.4 per cent of the respondents believed that the scope of investing in real estate was best before covid, 24 per cent believed it to be during covid and 17.6 per cent believed it to be after covid.

CONCLUSION

'Do not wait to buy real estate, buy real estate and wait.'
- T. Harv Eker

The housing market in India is the second-most noteworthy business generator in the country after farming. The area which represents 6 to 7 per cent of the economy is interlinked to upwards of 250 unified areas. By 2025, the area is supposed to represent 13 per cent of the country's economy.

With opportune execution of the multitude of required changes, it could turn into a significant abundance maker in the impending many years, as lodging prerequisite blasts. While trying to elevate the drooping land portion post COVID-19, the Government of India has proclaimed explicit measures to back reasonable lodging projects that are adhered because of absence of subsidizing. Other than this, the Government is intending to develop National Highways further to ease organizations across urban communities and work on the Nation's Gross Domestic Product (GDP) however much as could reasonably be expected. For this, the Government is likewise putting vigorously in activities, for example, the extension of air terminals in more modest urban communities, the expansion of metro rail administrations, and the advancement of brilliant urban areas across India. The Finance Minister of India, Nirmala Sitharaman, has additionally proposed a

positive yearly financial plan for 2021-22 to ad lib monetary viability and help foundation development. This, according to the specialists, would work with the achievement of the Government mission of giving housing to all by 2022.

The recommendations provided in this thesis is based on the observations made during the course of the findings and analysis.

- During this corona virus pandemic, the real estate sector and its related sector were impacted but it is expected to grow in the future and investing in this sector can be a good option as per one's own objective.
- Due to income uncertainty during this pandemic investing a huge amount of capital for real estate was a problem. Eventually when the situation normalizes and income of the people will increase and becomes more stable than the investments in real estate will increase.
- Many people faced a money crunch during this period so those who had land holdings sold their land to get some liquid cash, more land will mean more space for real estate properties. As a result, the real estate sector will grow.
- In India, due to robust demand, attractive opportunities, policy support and increasing investment will help the Indian real estate market to grow.
- Investing in real estate has a lot of advantages like tax advantages, ability to leverage funds, protection against inflation et al. So, investing in real estate may be a good option to look for.
- As the population increases demand for real estate will also increase in the future.

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Since the upsurge of internet in India over the last few decades, internet advertising has emerged to be a dominating means of advertisement and product promotion.

”

Growth of Internet Advertising in India

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Sohini Banerjee

Department of Commerce (Evening)

ABSTRACT

This paper attempts to study the growth and broadening of the internet advertising industry in India. We are all familiar with the traditional forms of advertising like television ads, ads in newspapers, magazines et al. However, since the up surge of internet in India over the last few decades, internet advertising has emerged to be a dominating means of advertisement and product promotion. This study focuses not only on the advertiser's perspective of internet advertisement as a promotional tool, but also, the buyer's perspective – whether internet advertising has any influence on their purchasing decisions.

KEYWORDS: Advertising, Buyers, Promotion, Internet.

‘Online advertising will serve as a catalyst for change in traditional advertisement business. It will not replace traditional media; it will compliment them.’

INTRODUCTION

Rise of internet as a means of mass communication is a noticeable development which has affected advertising in the current scenario. Although internet advertising has to face some new sort of challenges, it has numerous benefits over traditional form of advertising. Internet advertising is an increasingly moving area of marketing. According to the reports published by Internet and Mobile Association of India (IAMAI) and Indian Market Research Bureau (IMRB) in 2014, the online advertising market in India has increased to 29,380 million. This shows that advertisers are undertaking internet advertising as one of the significant media to promote their goods and services.

People respond and act on the basis of their perception and perception keeps on changing from time to time or situation to situation. The concept of perception undertakes more significance in advertising, because it is the basis of buying intention and customer reaction as well.

ADVERTISING AND PERCEPTION

Advertising is a paid form of non-personal representations, promotion and representation of ideas, products and services. In simple words advertising is the act of persuading people to buy products or services by telling people publicly about it. Advertising has ability to inform, educate, guide and enable them to buy intelligently.

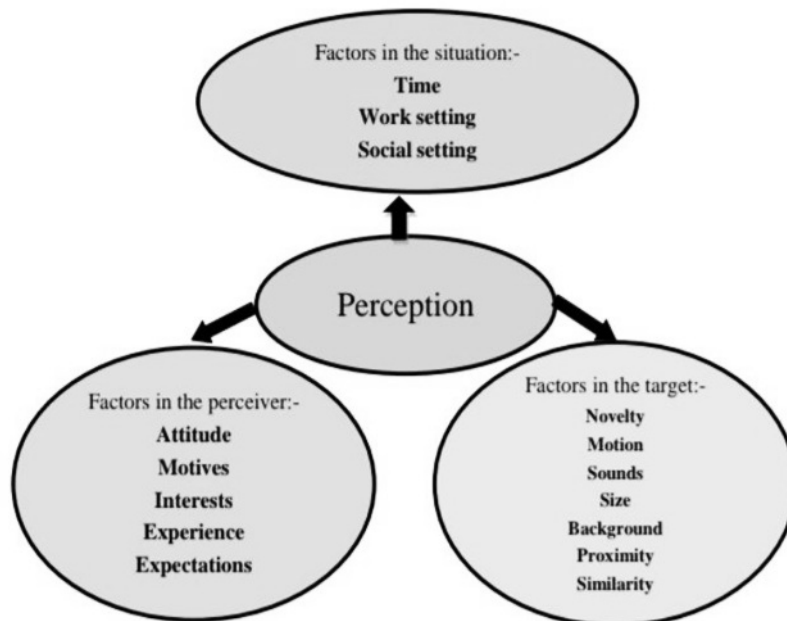


Figure 1: Factors in Perception.

(Source: https://www.researchgate.net/figure/Factors-that-influence-perception_fig2_352096528)

Perception of consumers can be changed due to advertisements. Perception of customers has a huge impact on the buying decision of the customer. Advertising strategy that creates a confirmatory image on the minds of the customers are usually adopted by the consumers.

INTERNET ADVERTISING

Internet advertising which is a modern form of advertising is quite different from traditional forms of advertising in numerous ways. It is often known as online advertising, web advertising et al. It is a promotional tool which basically uses internet technologies to send promotional messages.

There are different forms of internet advertising which are commonly used by organizations to advertise their product or services. Most common forms of ads are, on the basis of how ad is served - display ad, search ad, mobile ad, map ad, social networking ad; on the basis of how ad is displayed - expandable ad, floating ad, pop up or pop-under ad, interstitial ad, trick banner, dot commercial, wallpaper and fixed position banner; non-

browser based are newsletters and e-mails, including spam.

There are mainly three parties involved in internet advertising: advertisers, ad networks and publishers. Advertiser's organizational promotional messages are sent. Ad networks like ad sense facility and Google ad word provides facilities as aggregators and publisher is that party, which provides space on their website.

Internet advertising is considered a cost-effective tool of advertising which provides various paying models for advertisers. Advertisers can select any of them as per

their requirement and paying capacity. Most popular are: CPI (cost per impression), mainly used for display ads and advertisers will pay every time when ad is displayed; CPM (cost per mile or thousand) similar as CPI, but advertisers will pay in terms of thousand impressions; CPV (cost per view) also same to CPI but it is used for pop-up and pop-under and for interstitials ads; CPC (cost per click), advertisers will pay when a click through happens or an internet user is delivered towards advertiser's website; CPA (cost per action), advertiser will pay when internet users performs an action; CPT (cost per time), advertisers will pay for the ad to be showed unlimited number of times in a given period of time.

World Regions	Population (2017 Est.)	Population Per Cent of World	Internet Users 30-Jun-17	Penetration Rate (Per Cent Population)
Africa	1,246,504,865	16.60	388,376,491	31.20
Asia	4,148,177,672	55.20	1,938,075,631	46.70
Europe	822,710,362	10.90	659,634,487	80.20
Latin America / Caribbean	647,604,645	8.60	404,269,163	62.40
Middle East	250,327,574	3.30	146,972,123	58.70
North America	363,224,006	4.80	320,059,368	88.10
Oceania / Australia	40,479,846	0.50	28,180,356	69.60
WORLD TOTAL	7,519,028,970	100.00%	3,885,567,619	51.70

Figure 2: World Internet Users and Penetration
(Source: <https://www.google.com/search?q=world+internet+users+and+penetration+table&tbm=isch&ve>)

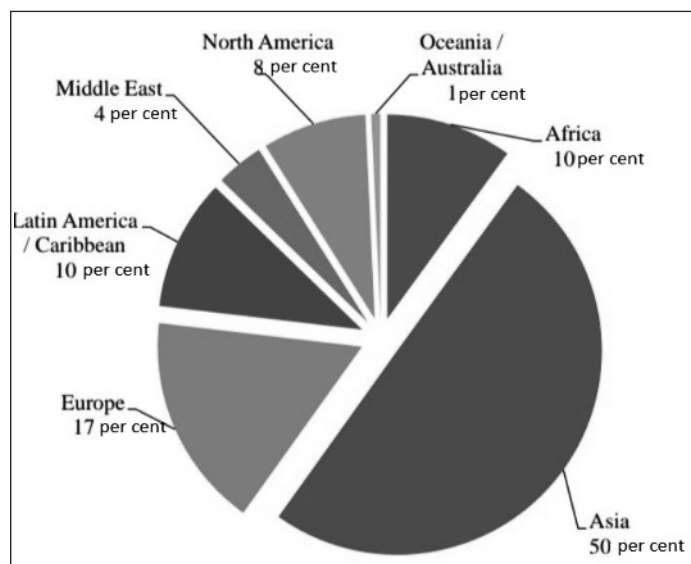


Figure 3: Classification of World's Internet Users
(Source: <https://www.statista.com/statistics/272365/age-distribution-of-internet-users-worldwide/>)

Internet users are continuing to grow day by day. Presently there are 3,885 million internet users worldwide. World internet users means, the number of people who use internet worldwide. According to statistics of Internet World Statistics (international database) as on June 2017, world internet users and penetration rate of different world regions are -

RATIONALE OF THE STUDY

Measurement of internet users' perception towards internet advertising.

Identifying the growth of internet advertising as a means of advertising in the previous years.

Identifying various problems related to internet advertising.

Offering suggestions and recommendations for improvement of problems faced by internet advertising.

REVIEW OF LITERATURE

1. A Research done by Ulhaq of Hyderabad, India having the title 'Internet Advertising – A Study of Consumer Attitude' found that perceived value of advertising was positively and significantly correlated with consumers' attitude towards e-mail advertising. Entertainment and

informativeness were positively associated with advertising value. Entertainment was the strongest influencing factor on consumers' perceived advertising value.

2. Research done by S. Priyanka in 2012 having the title 'Impact of Online Advertising to Consumer Behavior (with special reference to email)' found no significant relationship between age and internet user's perception of internet advertisements. All age groups of internet users have the same perception towards website advertisements. The study found that majority of respondents use internet for access email after following window shopping, downloading and net surfing. It was also found that there is no significant relationship between age and websites that are most clicked at.
3. Since internet advertising has a lot of impact on the youngsters, some studies identified seven major constructs, which determine youngster's attitude towards advertising. These are informative, provide better standard of living, misleading, harmful for society, good for economy, hedonic pleasure and unproductive. The study also revealed that attitude is one of the most prominent factors which affects the buying decision. Five attributes of internet advertising were used for the purpose of measuring the attitude (content of relevant information, visual appeal, reputation of the company, intrusiveness as well as trustworthiness).
4. Research done by Chandra Vathana Nila of Chennai in 2015, having a sample size of 501, had the finding that there are mainly nine factors which have an effect on consumer attitude towards advertising. These nine factors are- product information, relevance, memorability, economic goodness, avoidance, manipulation, irritation, necessity and trustworthiness. The study further found out these nine factors are again influenced by various constructs like age, gender and income, which play a significant role in forming preference and attitude of customers towards internet advertising.
5. A study conducted by Prof. Farooque Mohammad Khan of Aurangabad, having a sample size of 818

(majority of which were his students) revealed that majority of the respondents perceive internet advertising to be more informative than other forms of media. A good number of respondents were neutral about the trust aspect of internet advertising and they also believed that internet advertising was cheaper in cost, in some ways. However, it was also noticed that there was a cluster of respondents who held the belief that internet advertising hinders internet browsing while they search desired information.

6. A study conducted by Atul Kumar Mishra of Odisha, having a sample size of 103 young internet users, used four attributes of internet advertising for the purpose of measuring the attitude of the respondents. Those four attributes were- content of relevant information, visual appeal, reputation of company and intrusiveness. Although there were mixed responses from his survey, he concluded that the respondents had a positive attitude towards internet advertising. His research was later, published by Zenith International journal of economics and management research.

OBJECTIVES OF STUDY

- Measuring the perception of internet users towards online advertising.
- Measuring the perception of advertisers or marketers towards internet advertising.
- Studying the problem and limitations related to internet advertising.
- Growth of internet advertising over last few years.

RESEARCH METHODOLOGY

Research methodology opted in the study is as under -

Research Type

Kind of research depends upon nature of data. On the basis of nature data, the research is quantitative, as findings are based on quantified measures.

Universe of the Study

Indian internet users aged 18 to 60 constitute the universe of the study.

Method of Data Collection

Both primary and secondary methods have been used for data collection.

Primary data - The primary data has been collected through a structured questionnaire to measure the growth and penetration of internet advertising.

Secondary data - Secondary data has been collected as per availability, from newspapers having information in this field, to Telecom Regulatory Authority of India (TRAI) reports and through various internet websites.

RELIABILITY ANALYSIS

Scale Reliability Statistics

	Cronbach's α
scale	0.749

Reliability has been calculated using Cronbach's alpha.

Table 2: Reliability of primary data.
(Source: Jamovi 2.2.5)

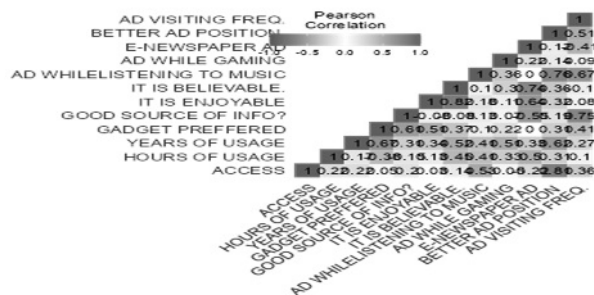


Figure 4: Correlation heat map
(Source: Jamovi 2.2.5)

Software Used - To conduct statistical technique, Jamovi 2.2.5 has been used. MS Excel has also been used for data feeding and data validation purpose.

LIMITATIONS OF THE STUDY

Scope of present topic is really very vast. Therefore, the research has been limited to objectives and hypothesis of the study.

- The sample size is restricted because only 122 responses were collected.
- The research is restricted to the perception on part of internet users.

ANALYSIS AND FINDINGS

The data collected primarily is regarding internet advertising in India and its impact on people. The data was voluntarily filled by 122 respondents.

The age group of individuals participating was mostly around 18 to 60 years out of which 65 per cent were male and 35 per cent were female.



Figure 5: Age Group of Respondents
(Source: Primary Data)

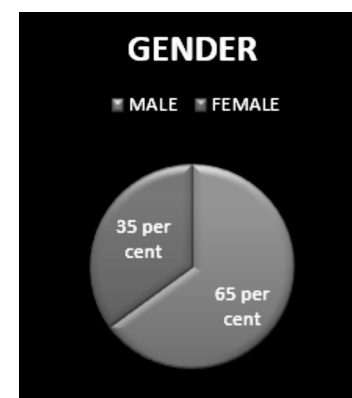


Figure 6: Gender of the Respondents
(Source: Primary Data)

The bulk of respondents had ample supply of internet services. Their screen time is quite high with 33 per cent of people accessing internet more than 40 hours a week, followed by 28 per cent of people accessing internet 20 to 40 hours a week. 70 per cent of people access internet services through mobile phones which is the bulk of our response. 16 per cent of people access through laptop. So, we can say the individuals participating in the research are reliable and trustworthy. With this high amount of time spent on internet on various devices, we can safely assume that internet advertising has good growth prospect in India.

Is Internet Advertising a Good Source of Product or Service?

Although majority of the respondents (37.3 per cent) think that internet advertising is a good source of product or service information, 25.4 per cent of the respondents are neutral about it and 20 per cent of the respondents do not agree with the same.

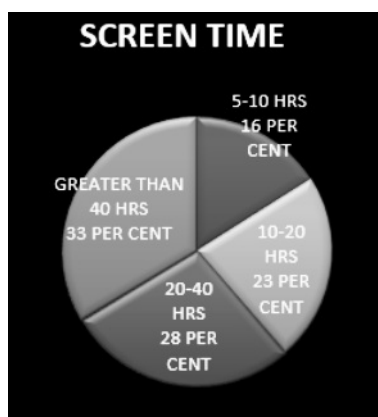


Figure 7: Screen Time of the Respondents
(Source: Primary Data)

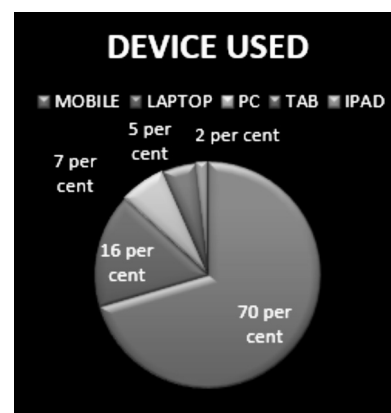


Figure 8: Devices Used by the Respondents
(Source: Primary Data)

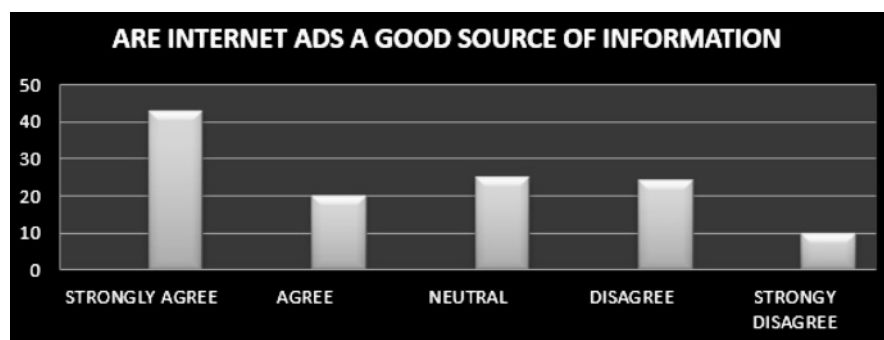


Figure 9: Are Internet Ads a Good Source of Information?
(Source: Primary Data)

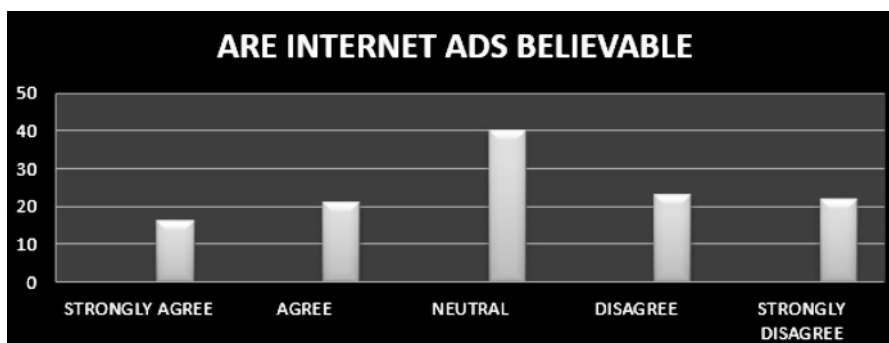


Figure 10: Are Internet Ads Believable?
(Source: Primary Data)

Are Internet Advertisements Believable?

Majority of respondents (40 per cent) are neutral about the fact of internet advertising being believable. It is followed by 21 per cent who believe that internet advertisements are not believable. Thus, with the growth of internet advertising, companies should focus on customer satisfaction, if they want to market their products through internet advertising.

Are Internet Advertisements Enjoyable?

Again, majority of the respondents (33 per cent) are neutral to the fact that internet advertisements are enjoyable, followed by 27.3 per cent of the respondents who do not agree with the fact that internet advertisements are enjoyable. Thus, in order to make internet advertisements reach more people, marketers should focus on making internet advertisements enjoyable to people.

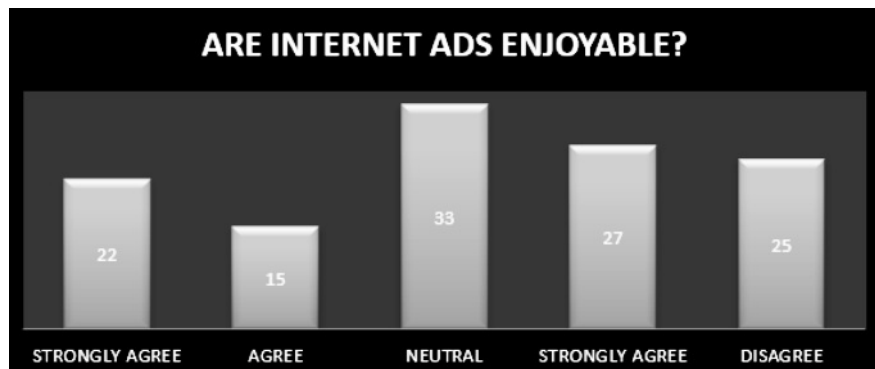


Figure 11: Are Internet Ads Enjoyable?
(Source: Primary Data)

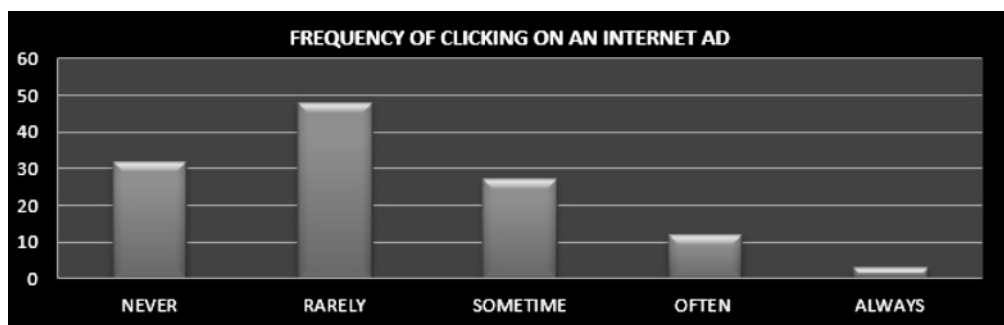


Figure 12: Frequency of Clicking on an Internet Ad
(Source: Primary Data)

What is the Frequency of Clicking on an Internet Advertisement?

Majority of respondents (44.3 per cent) rarely click on an internet advertisement. A very small portion of the respondents (5.1 per cent) always click on an internet advertisement. Thus, marketers should innovate new ideas on how they can increase the frequency of potential customers to click on the ad.

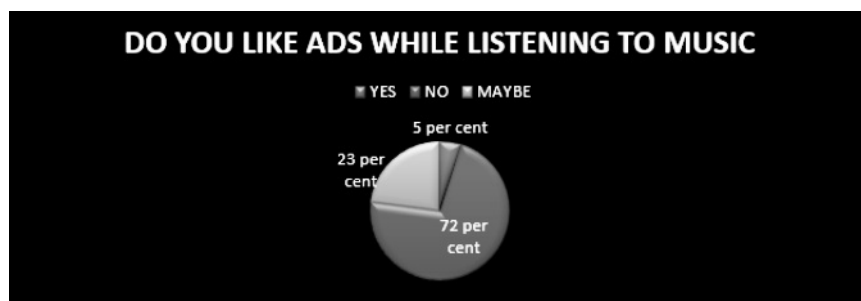


Figure 13: Preference of Internet Ads While Listening to Music
(Source: Primary Data)

Do You Like Internet Advertisements While Listening to Music?

Majority of the respondents (72 per cent) do not prefer listening to online ads while listening to music. Music apps like Spotify, Apple Music display ads as well in between playing the songs, but the internet users do not seem to prefer that.

Do You Like Internet Advertisement While Reading an e-newspaper?

Again, majority of the respondents (62 per cent) do not prefer internet advertisements while reading news online. Only 12 per cent of the respondents had an affirmative opinion regarding internet advertisements while reading an online newspaper.

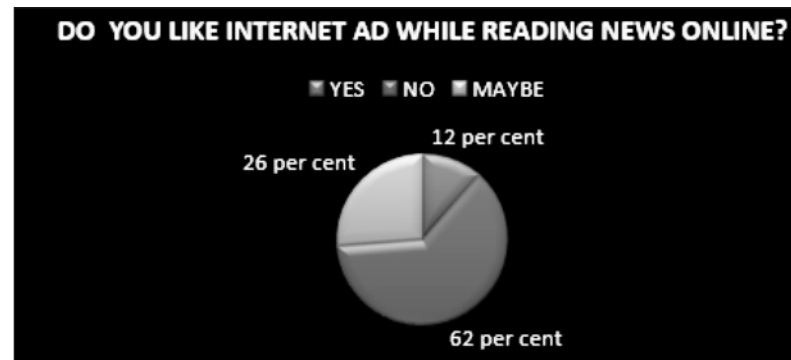


Figure 14: Preference of Internet Ads While Reading News Online
(Source: Primary Data)



Figure 15: Preference of Internet Ads While Gaming Online
(Source: Primary Data)

Do You Enjoy Online Advertisements While Playing Online Games?

None of the respondents prefer online advertisements while they are playing games online. Thus, from the last three conclusions we can conclude that the respondents think of internet advertisements as a distraction when they are displayed while the respondents are already indulged in any other activity like listening to music or reading a newspaper online or playing games online.

Main Reasons for Disliking Internet Advertisements

It may be stated that a majority of respondents (87.7 per cent) discovered that net classified ads are tricky due to the fact it could cause an interruption in their task. Many of the respondents additionally discovered it irrelevant and on occasion deceptive as well. Marketers must show applicable and truthful advertisements to get customers' interest and high-quality click on rates.

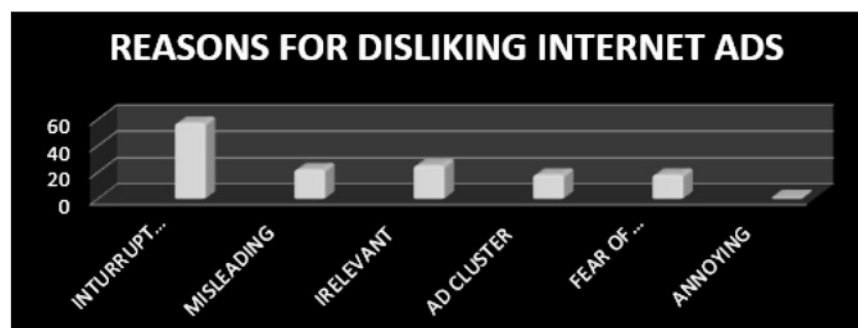


Figure 16: Reasons for Disliking Ads
(Source: Primary Data)

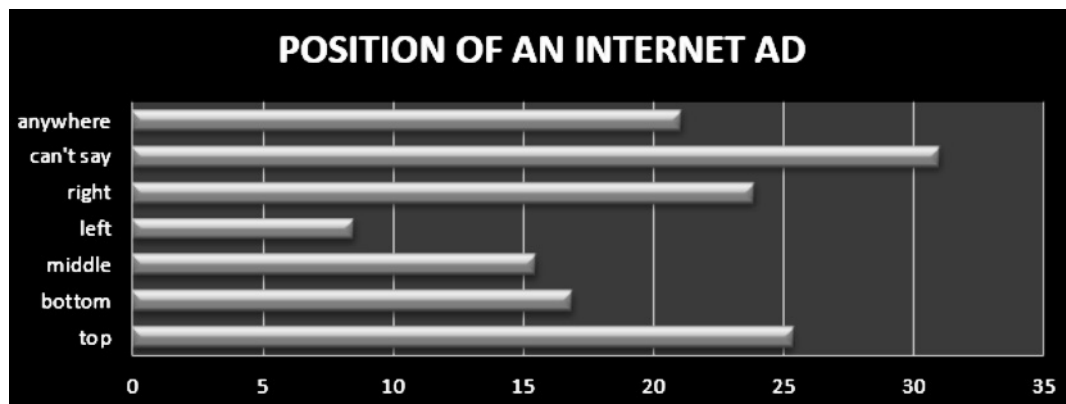


Figure 17: Position of an Internet Ad
(Source: Primary Data)

Position of an Internet Advertisement

According to 26.4 per cent of the respondents', advertisements that are placed on the pinnacle of any internet site are more noticeable. However, the majority (31 per cent) stated that the placement of the advertisement is not certainly a critical thing for them to observe an advertisement

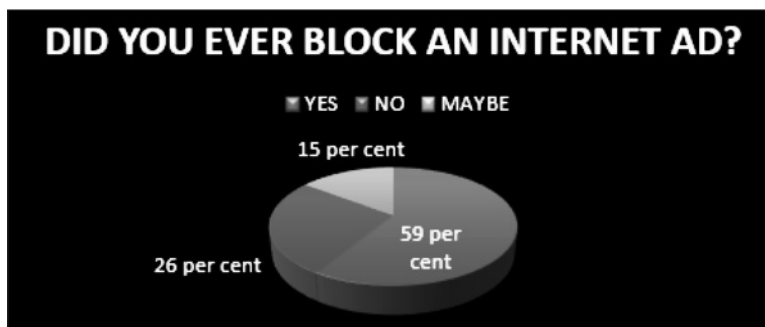


Figure 18: Blocking of an Internet Ad
(Source: Primary Data)

Have You Ever Blocked any Internet Advertisement?

The majority of people (59.2 per cent) have blocked net classified ads.

What do Marketers or Advertisers Feel About Internet Advertisements?

The publicity of online marketing and marketing has multiplied because of the pandemic. A study carried out via way of means of Kantar's media reaction, determined that online marketing and marketing publicity has accelerated by way of 4 per cent within side the beyond year. The studies had a studies universe of over 23 markets and 290 media manufacturers and confirmed that YouTube and Google had dominance in phases of claimed usage. With virtual explosion,

advertisers and marketers believe that online advertising is one of the most effective ways for business of all sizes to expand their reach, find new customers and diversify their revenue streams. Entrepreneurs suppose that as virtual media intake increases, the assignment of enticing the target market additionally increases. With this digital explosion, the dilemma for marketers is that consumers are still generally much less positive about the ads they see on online channels. As digital media consumption and spend increase, so does the challenge of engaging audiences without irritation.

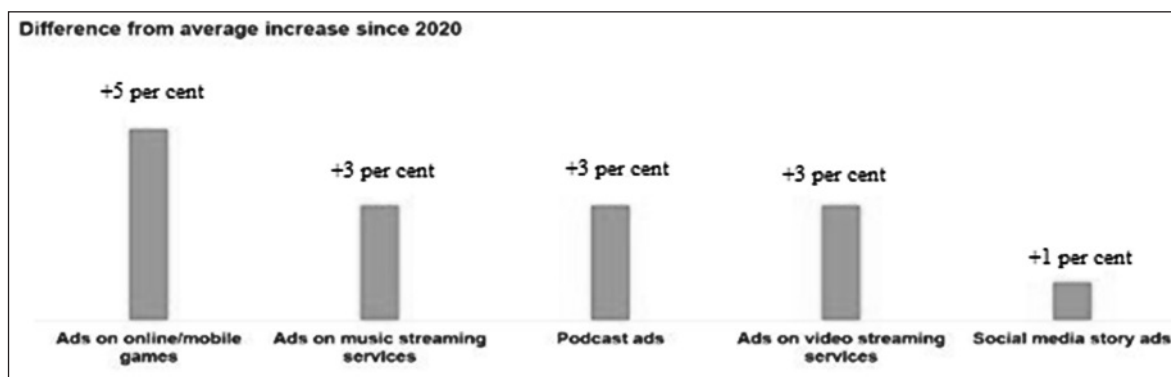


Figure 19: Difference from Average Increase Since 2020.

(Source: <https://www.kantar.com/inspiration/advertising-media/the-digital-explosion-how-do-people-feel-about-online-ads>)

Can Online Channels Improve?

The advertisement fairness of a few online channels is displaying symptoms of development, even though it continues to be in the back of offline layout in phases of client preference. In 2020 the client opinion approximately classified ads at the same time as gaming, video streaming and track streaming have been by and large negative. There has been a development of 10 per cent of their advertisement fairness in 2021.

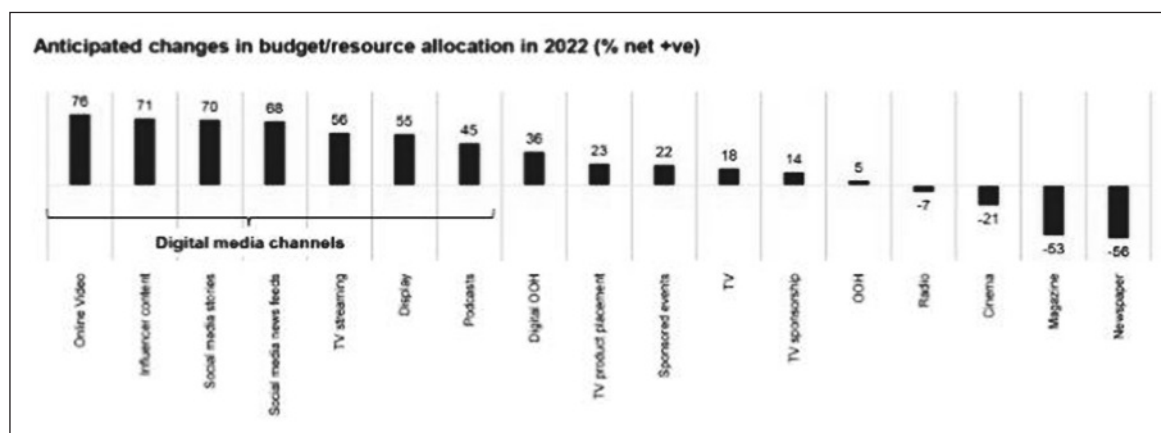


Figure 20: Anticipated Changes in Budget/Resource Allocation in 2022

(Source: <https://www.kantar.com/inspiration/advertising-media/the-digital-explosion-how-do-people-feel-about-online-ads>)

How are Marketers Reacting?

The developing recognition of online channels also is contemplated closer to the entrepreneurs. According to diverse studies, from June 2021 sales of virtual marketing and marketing (apart from search) accelerated 17 per cent in the course of 2020, while sales of different media channels have declined. The survey additionally confirmed that many commercial enterprise homes additionally plan to boom spend on influencer content, social media advertisements and online video in 2022. The media manufacturers which can be in all likelihood to advantage the maximum are TikTok, Instagram and YouTube.

CONCLUSION

Internet marketing and marketing may also allow commercial enterprises and companies to layout techniques for advertising and marketing prudently and efficiently. It might specifically assist entrepreneurs, whose marketplaces are segmented on the premise of demographic, as they are able to use net marketing and marketing to attain greater clients in India. The advertisers also can keep big quantities in their prices via way of means of sending the proper marketing and marketing to the proper person. Internet technology has supplied to advertisers with abilities to tune the report of conduct of net customers. Proper concentration on net classified ads can even extrude a customer's perception, which in turn has a big effect on their shopping decision. This mission helped me deeply recognize the idea and boom of net marketing and marketing. I had the subsequent conclusions from the mission -

- Wrong concentration on the capacity of consumer institution can cause a loss. Customer pride is the key. The entrepreneurs want to make certain that the goods which they're promoting via net marketing and marketing is ideal sufficient to satisfy the clients.
- Many customers do not choose online purchasing, and as a result pay no heed to net classified ads due to the fact they are terrified of net frauds and protection issues. Hence, advertisers/entrepreneurs want to make certain that the website via which their customers are shopping commodities are secure sufficient.
- Internet customers keep away from advertisements which behave as an interruption in their task. Most of the respondents in my survey have been disillusioned with net classified ads at the same time as gaming or taking note of track.

RECOMMENDATIONS OR SUGGESTIONS

It is recommended that net customers having superb net ability be focused, and internet customers must now no longer be focused whilst they are sending or studying e-mail, for listening track, and for paying online bills. The position of a web advert is on an internet web page is not tons critical to draw interest of net customers. Advertisers must cognizance on different factors to draw interest of net customers. Internet advertisers must now no longer choose most effective and unmarried medium for marketing. Nevertheless, newspaper and TV marketing and marketing are greater leading varieties of net advertisers for client.

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5. <https://www.wordstream.com>



“

Solely traditional physical face-to-face teaching-learning process is gradually turning towards a blended or flipped model where high customization in content delivery, assessment and result analysis will be a prerequisite for competitive differentiation.

”

Impact of Covid -19 on Online Education Market in India -

With Special Reference towards Exam Preparation, Reskilling and Online Certifications and Higher Education

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ABSTRACT

The COVID-19 pandemic has had a significant impact on the Indian online education business, which is crucial to the country's whole educational system. Schools and colleges are experimenting with different online or hybrid approaches to finish the mandated syllabus in the allotted time frame

due to the shutdown of educational institutions for an indeterminate period in order to safeguard the highly socializing student community from the novel virus. The study is aimed towards understanding the online education market in India and to investigate the issues faced and the advantages enjoyed by students in online education in India during COVID-19. The study also focuses towards the factors affecting success and failure of online education and the positive and negative impact of COVID-19 on online education in India. 202 responses of students from different backgrounds were obtained through a structured questionnaire containing both open and close-ended questions. The results of this study show that an essential factor in determining how well online education works is how teachers and students perceive it and are prepared. However, given that the booming online education market in India was tested at this scale for the first time, it may be too early to predict how students and teachers will adapt to online learning since identifying barriers and finding solutions for them is still a problem that is covered in this study.

KEYWORDS: Online Education Market, Online Certification, Re-skilling, Up-skilling, Online Learning.

INTRODUCTION

The online education market in India, highly driven by the COVID-19 pandemic, plays a pivotal role in the entire education infrastructure. Due to closure of educational institutions for an indefinite period in order to protect the highly socializing student community from the novel virus, schools and colleges are experimenting with various online or hybrid ways to cover the prescribed syllabus in stipulated time frame. Simultaneously, large portions of the pool of students have shifted to online mode in preparation for competitive exams as well as in online certifications for re-skilling or up-skilling. The significant concern here lies in the effectiveness of online learning which is even more highlighted by the fact that the infrastructure of online education was set up in a short notice as a stop-gap measure to continue teaching which was never tried at this massive scale ever before. Another aspect of this social experiment is embedded in the sudden demand and subsequent growth of various online

education platforms. The pandemic has heralded a boom for the burgeoning online education market in India. With convenience, flexibility and variety being few of the prominent advantages; the preparation, design and effectiveness of online learning comes with various constraints ranging from financial, technical, health and structure, adversely affecting the perception and preference of online education posing a serious challenge to efficiency and effectiveness. However, there seems to be a silver lining in the dark cloud – the pandemic prompting new educational innovations using digital methods manifesting the bellwether i.e., the EdTech industry as of the mainstays of the post-pandemic economy.

Hence, the proposed research aims to cover the impact of COVID-19 in three segments of the online education market in India:

- 1) Competitive exam preparation (Online coaching programs like BYJU's et al. aimed at preparation for competitive exams like CAT/XAT, CLAT, CA/CS/CMA/CFA/CPA/ACCA, UPSC, JEE et al.)
- 2) Re-skilling and online certifications (Courses designed by companies like Coursera, Udemy, EdX, et al. for skill enhancement which may result in certifications)
- 3) Higher Education (Platforms like Microsoft Teams, Google Meet, Zoom, et al. used by colleges and universities to conduct online classes)

REVIEW OF LITERATURE

Following are the findings and conclusions stated from the literature review of some scholars:

- 1) In the study titled 'Online Education in India – 2021', KPMG and Google team (2017) mentioned that increase in disposable income along with the need for employees to manifest themselves as skillful could continue to fuel adoption in the category of re-skilling and online certifications.
- 2) Dr. Pravat Kumar Jena. (2020) 'Impact of pandemic COVID-19 on education in India', International Journal of Current Research, 12, (07), 12582-12586, it was highlighted that new technological

ways of learning for transformation in curriculum development and pedagogy towards blended learning is a positive impact of COVID-19 in online education in India.

- 3) In the article titled 'Top 10 Advantages of Online Classes', BYJU's team (2020) highlights that online classes provide flexibility and a wide variety of academic opportunities, such as studying from any location.
- 4) According to T. Muthuprasad et al. (2021), since the burgeoning online education market in India was tried at this massive scale for the first time, it is very early to say how students and teachers will cope up with online education as figuring out hindrances and addressing those remains a matter which is documented in this study.
- 5) In Naik et al. / Pedagogical Research, 6(1), em0090 (2021), it was concluded that rapid switching to online mode may be incapable to host a massive number of new users due to overload so gradual upload of lectures in the platform can be adopted where lectures can be viewed many times, as and when conveniently accessible.
- 6) India Global Business Staff (2021) in the article titled 'Online education in India presents a study in rapid growth', found that the pandemic has heralded a boom for the burgeoning online education market in India.
- 7) India Global Business Staff (2021) in the article titled 'India offers investors golden chance to build the world's classroom', there seems to be a silver lining in the dark cloud – pandemic prompting new educational innovations using digital methods manifesting the bellwether i.e., the EdTech industry as of the mainstays of the post-pandemic economy.
- 8) In the 'Blended Mode of Teaching and Learning: Concept Note' (2021) issued by Universities' Grants Commission (UGC), flipped classroom model as a structure of blended learning in higher education was also considered.

RESEARCH OBJECTIVES

- 1) To understand the impacts of COVID-19 on online education market in India in the following three segments through primary data -
 - i. Exam preparation
 - ii. Re-skilling and online certifications
 - iii. Higher education
- 2) To present various issues faced and advantages enjoyed by students in online education in India during COVID-19.
- 3) To comprehensively analyze particular aspects based on a comparative study of –
 - i. The factors affecting success and failure of online education
 - ii. The impact of COVID-19 on all three sections
 - iii. The positive and negative impact of COVID-19 in online education in India

Subsequently, to provide recommendations on the same.

RESEARCH METHODOLOGY

For purpose of this study, data has been collected from both primary and secondary sources.

A. Primary data - This includes the following points:

- 1) Participants - Three segments of the online education market in India were identified particularly - exam preparation, re-skilling and online certifications, higher education and the participants include the current students from these segments.
- 2) Procedure - A structured preliminary questionnaire was designed and distributed to identify key respondents for the online survey. After giving their own responses, the students circulated the questionnaire among other students like snowball sampling.

Responses have been collected using various types of questionnaires including 5-point and 3-point Likert scale.

- 3) Sample size - This comprises 202 responses as students from different backgrounds, including 145 (71.8 per cent) undergraduates and 57 (28.2 per cent) postgraduates, as per Figure 1.

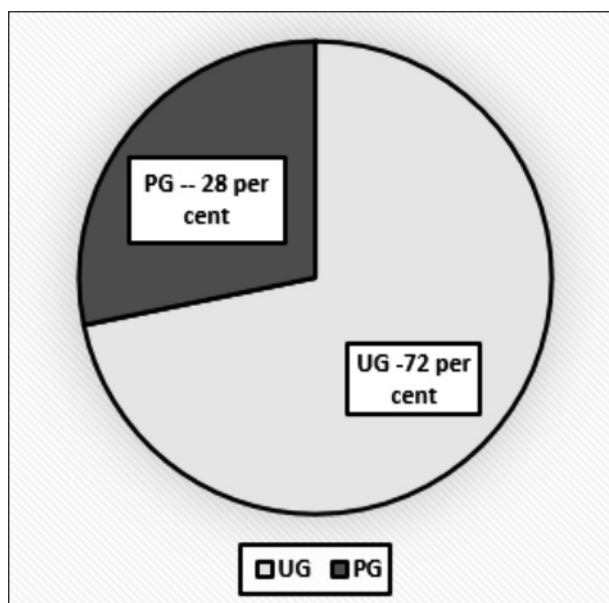


Figure 1: Current Education Level
(Source: Primary Data)

Among them, 102 (50.5 per cent) were male and 100 (49.5 per cent) were female, as per Figure 2.

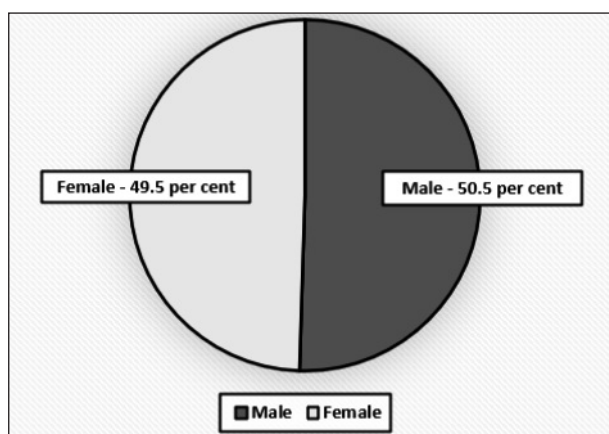


Figure 2: Gender Proportion
(Source: Primary Data)

Out of the total responses, 138 (68.3 per cent) were between 18 to 20 years of age, 61 (30.2 per cent) were of 20 to 25 years of age and 3 (1.5 per cent) were above 25 years of age, as per Figure 3.

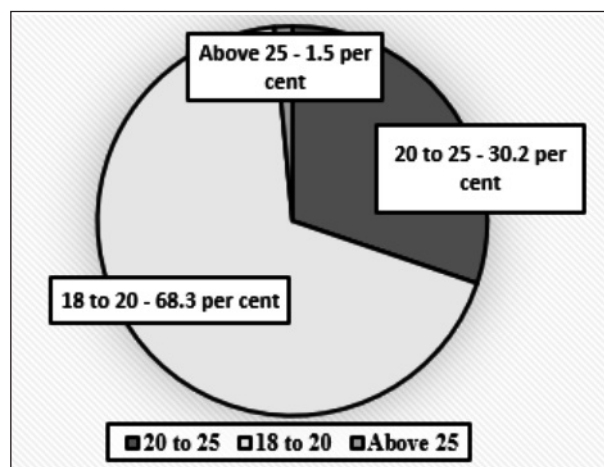


Figure 3: Current Age
(Source: Primary Data)

- 4) Sample proportion – The sample of 202 respondents can be distributed as per the following table –

- A - Number of students who do not belong to that particular section
B - Number of students who belong to that particular section
C - Number of students who neither belong to competitive exam preparation nor to re-skilling and online certifications
D - Number of students who belong to all sections

Sections → ↓ Type of student	Competitive Exam Preparation	Reskilling And Online Certification	Higher Education
A	21	17	0
B	181	185	202
C	4		Not Applicable
D	168		

Figure 4: Sample Proportion
(Source: Primary Data)

B. Secondary data - This includes information from various reliable sources like websites, newspaper articles and journals which provided facts regarding statistics and national data. The details of the respective sources have been mentioned in the bibliography.

COMPETITIVE EXAM PREPARATION

This part covers the analysis of responses collected regarding online coaching programs aimed at preparation for competitive exams.

Section 1 – Time Spent in Online Tuition Classes

number of hours increased (from less than four hours to more than six hours) as highlighted by the downward sloping trendline.

- b) During or after COVID-19 pandemic - Manifested an increasing trend (from 44 to 70), when the number of hours increased (from less than four hours to more than six hours) as highlighted by the upward sloping trendline.

2) Impact of COVID-19 – High

Reason - Respondents have spent more time in online classes during or after the COVID-19

PARTICULARS		Number Of Responses		
↓ Period	Hours ⇒	Less Than 4 Hours	4 to 6 Hours	More Than 6 Hours
Before Covid Pandemic		110	43	25
During/After Covid Pandemic		44	63	70

Figure 5: Comparative Data of Time Spent in Online Tuition Classes
(Source: Primary Data)

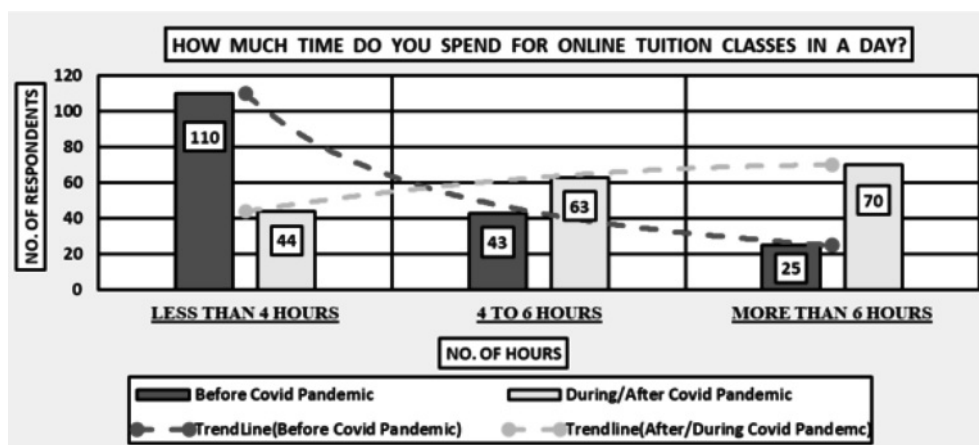


Figure 6: Comparative Chart of Time Spent in Online Tuition Classes
(Source: Primary Data)

Analysis – The following points merit consideration in this regard:

- 1) Observation - Number of respondents preparing for competitive exams through online tuition class-
 - a) Before COVID-19 pandemic - Manifested a decreasing trend (from 110 to 25), when the

pandemic in comparison to before, since online tuition classes were primarily the only mode of coaching education available during COVID-19.

- 3) Conclusion - Time spent in online tuition class got significantly increased in during and post COVID-19 era in comparison to pre-COVID-19 era.

Section 2 – Time Spent in Self-Study after Online Tuition Classes

PARTICULARS ↓ Period Hours →	Number Of Responses		
	Less Than 4 Hours	4 to 6 Hours	More Than 6 Hours
Before Covid Pandemic	86	67	32
During/After Covid Pandemic	98	51	32

Figure 7: Comparative Data of Time Spent in Self-Study after Online Tuition Classes
(Source: Primary Data)

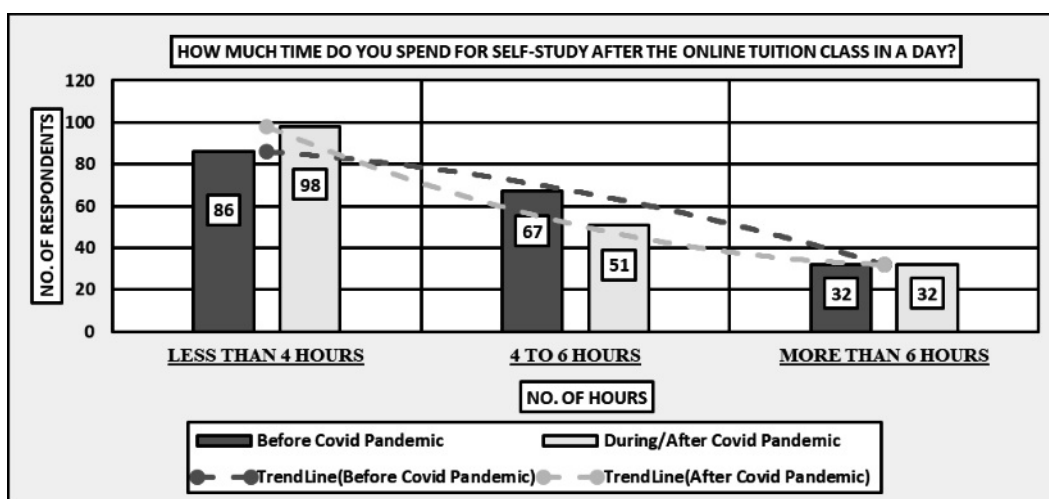


Figure 8: Comparative Chart of Time Spent in Self-Study after Online Tuition Classes
(Source: Primary Data)

Analysis - The following points merit consideration in this regard:

- 1) Observation - Respondents doing self-study after online tuition class –
 - a) Before COVID-19 pandemic - Manifested a decreasing trend (from 86 to 32) with increase in the number of hours (from less than four hours to more than six hours) as highlighted by the downward sloping trendline.
 - b) During or after COVID-19 pandemic - Manifested a similar decreasing trend (from 98 to 32) with increase in the number of hours (from less than four hours to more than six hours) also highlighted by the downward sloping trendline.
- 2) Impact of COVID-19 – Low

Reason - There has been slight or no change in time spent by number of respondents in self-study after

online tuition class in comparison of before and after or during COVID-19 pandemic times.

- 3) Conclusion - Time spent in self-study after the online tuition class got negligible change as manifested in COVID-19 era in comparison to pre-COVID-19 era highlighted by downward sloping trendlines of both the eras.

Section 3 – Advantages and Disadvantages of Online Tuition Classes

Issue 1- Online tuition classes make it easier to procrastinate, students lose updates of real competition level due to no frequent interaction with teachers and friends.

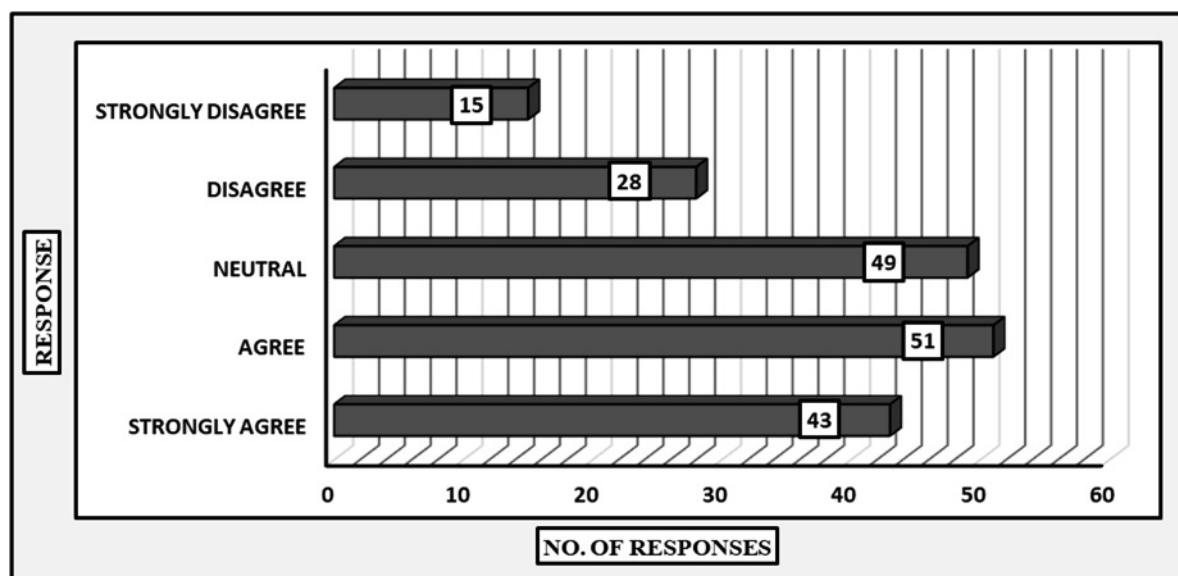


Figure 9: Comparative Chart of Different Responses
(Source: Primary Data)

Analysis - The following points merit consideration in this regard:

- 1) Observation - Majority of the respondents ($n=51+43=94$, 50.53 per cent) consider responses as agree ($n=51$, 27.41 per cent) or strongly agree ($n=43$, 23.11 per cent).

Only 43 respondents ($n=28+15=43$, 23.11 per cent) either disagreed ($n=28$, 15 per cent) or strongly disagreed ($n=15$, 8 per cent).

- 2) Impact of COVID-19 - High

Reason- Due to lockdown and strict social distancing restrictions due to COVID-19, students largely opted online tuition classes as the primary and the only available medium of tuition for preparation of competitive exams due to which students could assess personal procrastination and update of competition level.

- 3) Conclusion- Most students lost updates of real competition level due to no or less frequent interaction with teacher or friends and due to procrastination, which highlights a prominent disadvantage of online tuition classes.

Issue 2 - Struggle of offline tuition, like losing interest due to prolonged classes or distracted by surrounding, being absent in online classes due to flexibility.

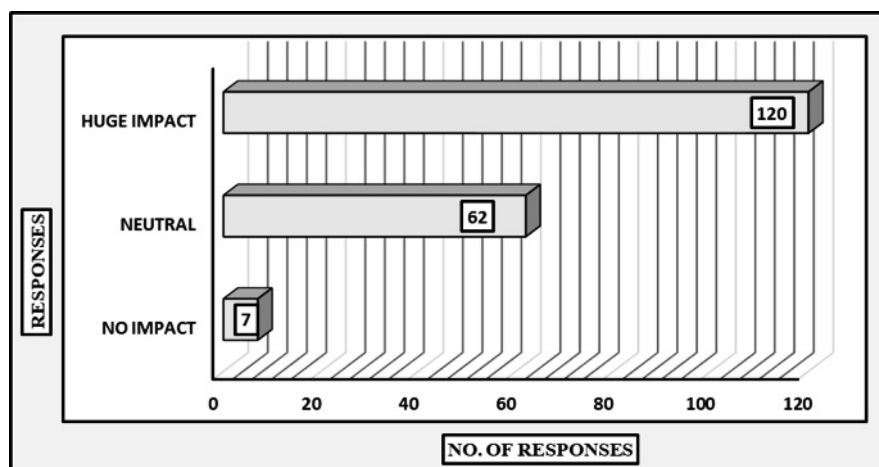


Figure 10: Comparative Chart of Different Responses
(Source: Primary Data)

Analysis - The following points merit consideration in this regard:

- 1) Observation - Vast majority of the students ($n=120$, 63.49 per cent) consider facing a huge impact of struggle of offline tuition classes like losing interest due to prolonged classes or distracted by surrounding which is absent in online classes due to flexibility. Only seven students (3.7 per cent) consider that there is no impact of struggle of offline tuition classes.

- 2) Impact of COVID-19 – High

Reason - Due to lockdown students largely opted online tuition class as the primary medium of education due to which the struggle of offline tuition classes was primarily absent in the online mode.

- 3) Conclusion - Vast majority of the students found that the struggle of offline tuition classes is absent in online mode due to flexibility which is a prominent advantage of online tuition class.

Issue 3 - Online quizzes of short duration during each tuition class with auto-scorable questions gives quick results and feedbacks.

Analysis - The following points merit consideration in this regard:

- 1) Observation - High number of the students ($n = 67 + 23 = 90$, 48.64 per cent), consider responses as agree ($n=67$, 36.21 per cent) or strongly agree ($n=23$, 12.43 per cent).

Only 41 respondents ($n=26+15=41$, 22.16 per cent) either disagreed

($n=26$, 14 per cent) or strongly disagreed ($n=15$, 8.1 per cent).

- 2) Impact of COVID-19- Low

Reason - Though the number of students opting for online quizzes increased due to increase in number of students doing online tuition classes, effectiveness of online quiz remains a matter independent of COVID-19 pandemic.

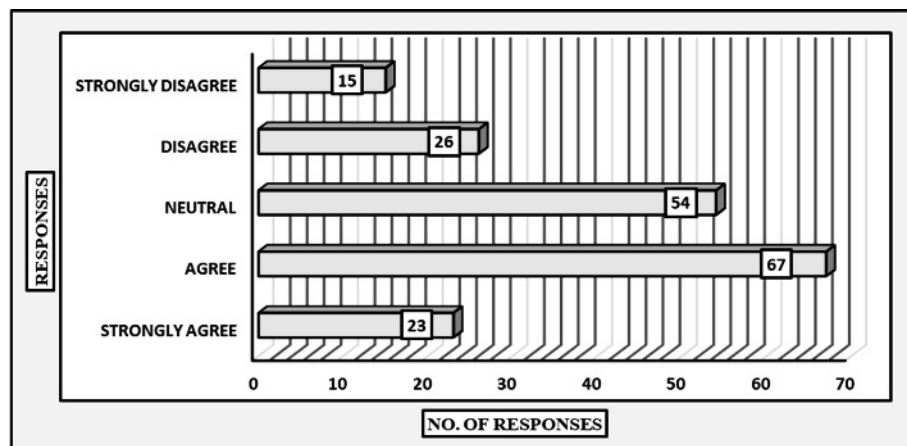


Figure 11: Comparative Chart of Different Responses
(Source: Primary Data)

- 3) Conclusion- High number of students found that online quizzes of short durations with an auto-scorable question during each online class provides quick results or feedback of the student's performance highlighting a prominent advantage of online tuition class.

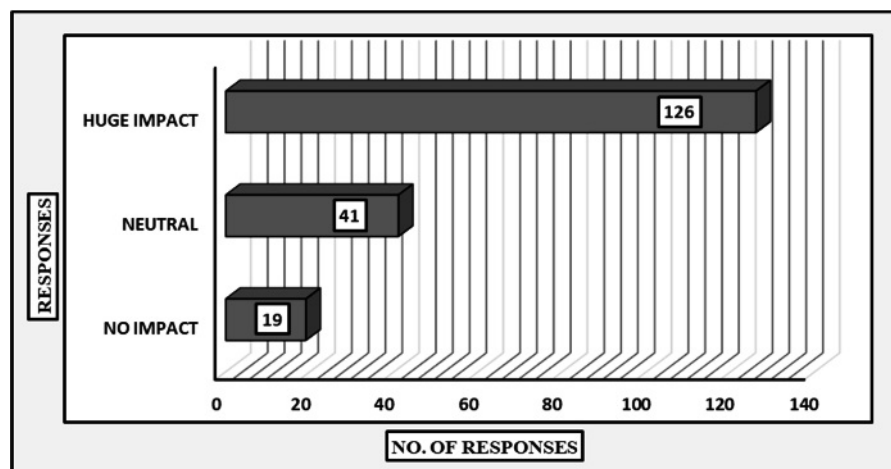


Figure 12: Comparative Chart of Different Responses
(Source: Primary Data)

Issue 4 - Distraction of social media or other accessible sites while staying connected to online tuition lectures.

Analysis - The following points merit consideration in this regard:

- 1) Observation - Vast majority of the students ($n = 126$, 67.74 per cent) consider facing a huge impact of distraction of social media during online tuition class.

Only 19 students (10.21 per cent) consider that there is no impact of the distraction of social media during online tuition class.

- 2) Impact of COVID-19 – High

Reason - Due to lockdowns, students largely opted for online tuition classes as the primary medium of education due to which they naturally got distracted to social media during online tuition class which has a high adverse impact on academics.

- 3) Conclusion - Vast majority of the students found that distraction of social media during online tuition class has a high adverse impact on academics which is a prominent disadvantage of online tuition class.

RE-SKILLING AND ONLINE CERTIFICATIONS

This part covers the analysis of responses collected regarding online re-skilling or up-skilling courses designed by companies like Coursera, Udemy, EdX et al. which may result in certifications.

Section 1 – The Need for Career Progression Causes Students or Employees to Adopt Up-skilling Courses

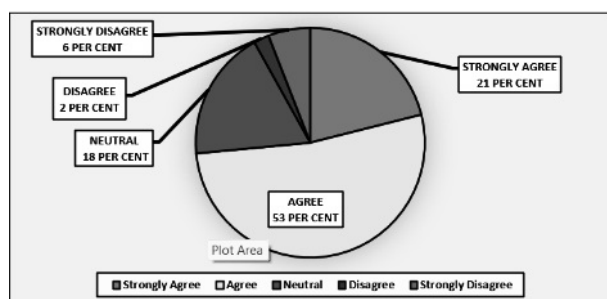


Figure 13: The Need for Career Progression Causes Students to Adopt Up-skilling Courses
(Source: Primary Data)

Analysis - The following points merit consideration in this regard:

- 1) Observation – Vast majority of the respondents ($n=97+39=136$, 73.5 per cent) either agree ($n=97$, 53 per cent) or strongly agree ($n=39$, 21 per cent) that need for career progression causes students to adopt up-skilling or re-skilling courses. Only 15 students (8.1 per cent) either disagree ($n = 4$, 2 per cent) or strongly disagree ($n=11$, 6.1 per cent).

- 2) Impact of COVID-19 – Low

Reason - Even though the adoption of online re-skilling or up-skilling courses have increased significantly due to the upsurge in online education in the COVID-19 era, the need or demand for adoption for career progression remains an independent parameter irrespective of COVID-19 pandemic.

- 3) Conclusion - Vast majority of students opt for up-skilling or re-skilling courses for career progression needs.

Section 2 – Course Content Provided by Online Learning Platforms Actually Add Skills to the Learner

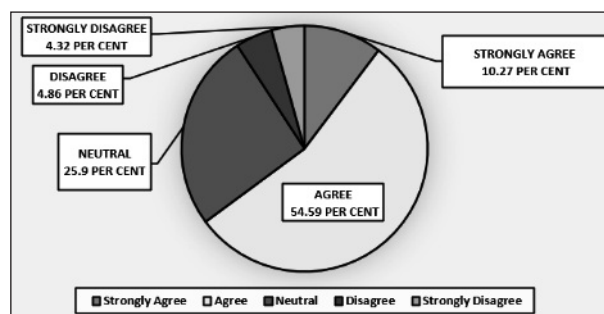


Figure 14: Course Content of Platforms Providing Up-skilling Courses Actually Add Skills to the Learner
(Source: Primary Data)

Analysis - The following points merit consideration in this regard:

- 1) Observation – Vast majority of the respondents ($n=101+19=120$, 64.86 per cent) either agree ($n=101$, 54.59 per cent) or strongly agree ($n=19$, 10.27 per cent) that course content of platforms

providing upskilling or reskilling courses actually add skills to the learner.

Only 17 students (9.18 per cent) either disagree (n=9, 4.32 per cent) or strongly disagree (n=8, 4.86 per cent).

2) Impact of COVID-19 – Low

Reason – The quality of course content of these up-skilling or re-skilling courses provided by online learning platforms remains an independent parameter irrespective of the COVID-19 pandemic.

3) Conclusion - Course content of up-skilling or re-skilling courses provided by different platforms actually add skills to the learner.

Section 3 – Online Exams of Re-skilling or Up-skilling Courses

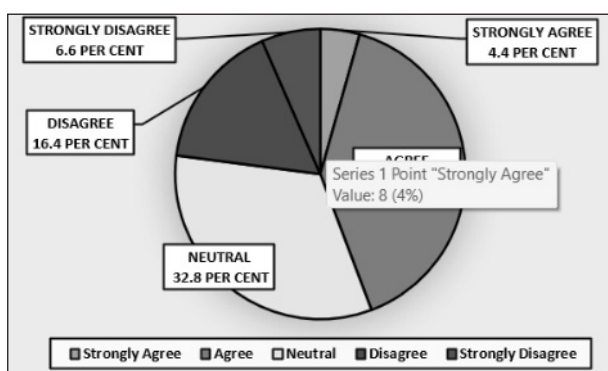


Figure 15: Online Exams Conducted by Such Platforms Providing Courses Sufficiently Test the Candidate's Skills Learned Throughout the Course
(Source: Primary Data)

Analysis - The following points merit consideration in this regard:

1) Evidence – High number of the respondents (73+8=81, 44.26 per cent) either agree (n=73, 39.9 per cent) or strongly agree (n=8, 4.4 per cent) that online exams conducted by up-skilling or re-skilling course platforms sufficiently test the candidate's skills learned throughout the course.

Only 42 students (23 per cent) either disagree (n=30, 16.4 per cent) or strongly disagree (n=12, 6.6 per cent).

2) Impact of COVID-19 – Moderate

Reason - Online exams conducted by up-skilling or re-skilling course providing platforms remains an independent parameter irrespective of COVID-19 pandemic.

3) Conclusion - Impact of COVID-19 pandemic was high for courses with offline tests and low for courses with online exams, making the overall impact modest.

HIGHER EDUCATION

This part covers the analysis of responses collected regarding online classes conducted by colleges or universities.

Section 1 – Structure of Online Classes

Issue 1 - Most preferred system of college classes (online or offline or hybrid).

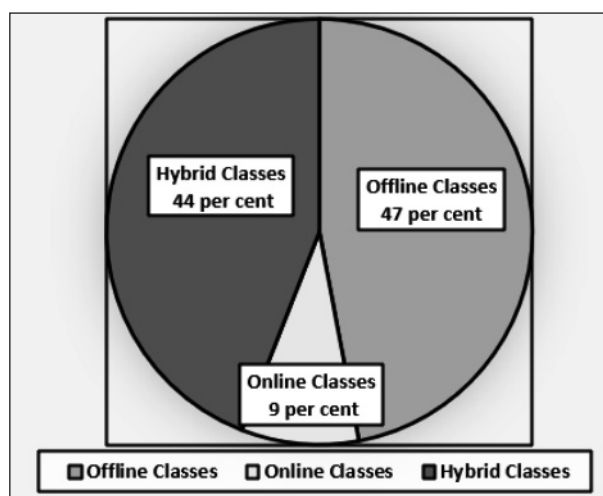


Figure 16: Most Preferred System of Online College Classes
(Source: Primary Data)

Analysis - The following points merit consideration in this regard:

1) Observation - Vast number of respondents (95) preferred offline classes which amounts to 47 per cent of the total respondents. Similarly, only a little below, a vast number of respondents (89) preferred hybrid classes which amounts to 44 per cent of the

total respondents. However, only 18 respondents preferred only online classes amounting to 9 per cent of the total respondents.

2) Impact of COVID-19 - High

Reason – Colleges and universities largely adopted online mode as the primary means of education during COVID-19 due to which students could experience and thereby assess the difference between online and offline classes with the available facility.

3) Conclusion – Respondents prefer offline and hybrid classes as almost equal to each other based on the effectiveness and perception but prefer offline classes more than hybrid classes based on percentage of responses collected. However, online classes are least preferred by respondents.

4) Preference - Offline classes > Hybrid classes > Online classes

Issue 2 - Most preferred duration and break of online classes.

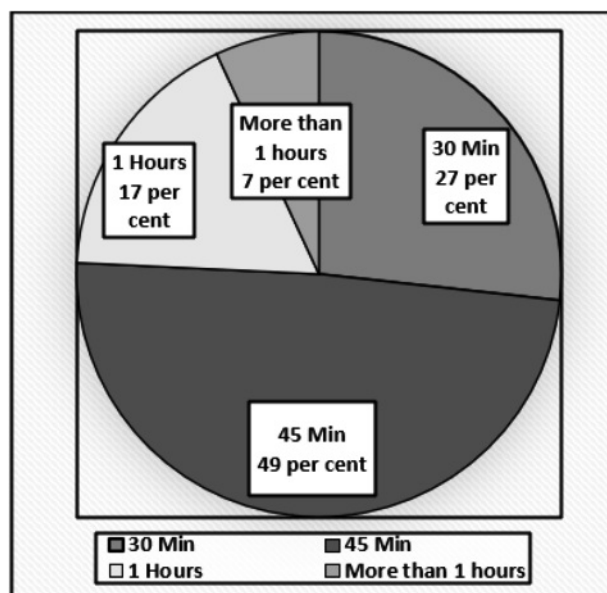


Figure 17: Most Preferred Online Classes Duration
(Source: Primary Data)

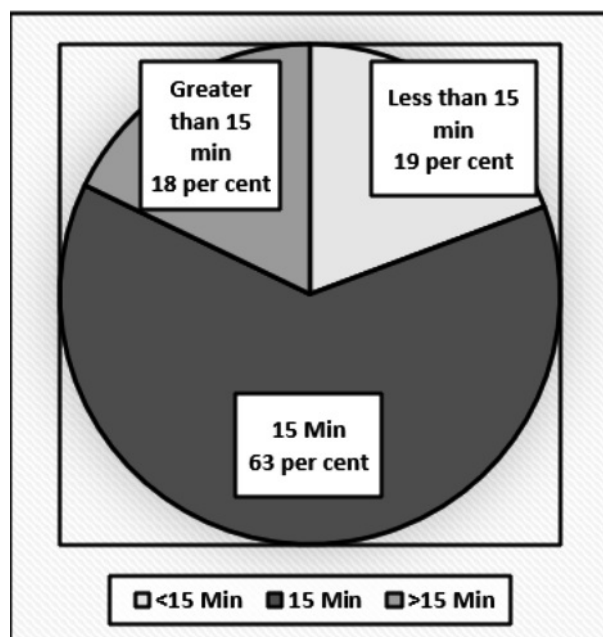


Figure 18: Most Preferred Break Duration
(Source: Primary Data)

Analysis - The following points merit consideration in this regard:

1) Observation – As per Figure 17, a huge number of respondents (99) preferred a 45-minute online class duration which amounts to 49 per cent of the total respondents, whereas only 14 respondents preferred the duration to be more than one hour. However, a significant number (54 and 35), preferred the duration to be 30 minutes and one hour respectively.

As per Figure 18, a vast majority of respondents (127) preferred 15 minutes duration of break amounting to 63 per cent of the total respondents. However, only 36 and 39 respondents preferred the break duration to be greater than 15 minutes and less than 15 minutes respectively.

2) Impact of COVID-19 - High

Reason – Colleges and universities largely adopted online mode as the only means of education during COVID-19 due to which students could experience and thereby could judge the best duration of online class and break between two classes based on effectiveness.

- 3) Conclusion – Almost half of the respondents prefer a duration of 45 minutes of online classes and a vast majority prefer a break of 15 minutes between two online classes.
- 4) Preference – As per Figure 17, 45 min>30 min>1hour>more than 1 hour. As per Figure 18, 15 min>less than 15 min>more than 15 min

Section 2 – Advantages and Disadvantages of Online Classes

Issue 1 - Prolonged online classes leads to headaches and affects mental health.

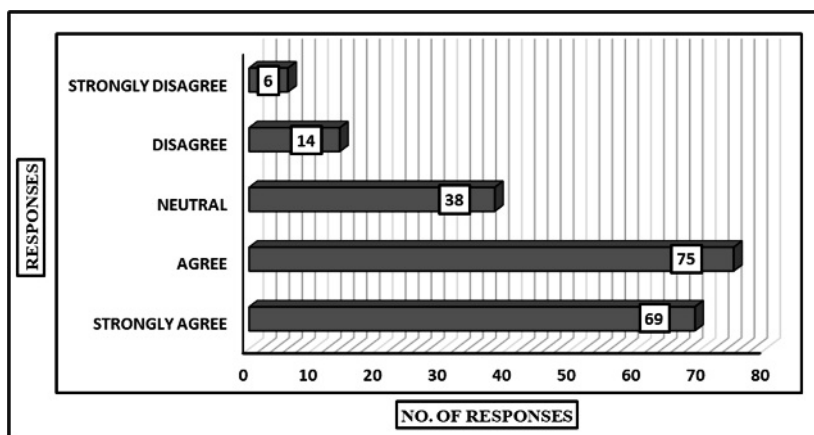


Figure 19: Comparative Chart of Different Responses
(Source: Primary Data)

Analysis - The following points merit consideration in this regard:

- 1) Evidence - Vast majority of respondents (75 + 69 = 144, 71.28 per cent) either agree (n=75, 37.12 per cent) or strongly agree (n=69, 34.15 per cent).

Only 20 respondents either disagree (n=14, 6.93 per cent) or strongly disagree (n=6, 2.97 per cent).

- 2) Impact of COVID-19 - High

Reason - Due to conduct of educational activity like classes and seminars online in such a large scale, continuous exposure to electronic devices like laptop or smart phone et al. affects mental health

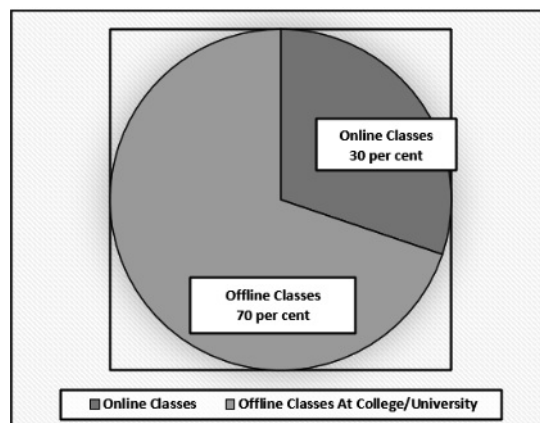


Figure 20: Time Spent by College Teachers in Preparing Content
(Source: Primary Data)

and damages effectiveness and productivity.

- 3) Conclusion – Prolonged online classes affect mental health which is a prominent disadvantage of online classes.

Issue 2 - College teachers spend quality time in preparing content rather than just copying from other material then making PowerPoint Presentations (PPTs) and reading it to students.

Analysis - The following points merit consideration in this regard:

- 1) Observation - From the total number of respondents, 70 per cent (141) considered that college teachers actually spend quality time in preparing educational content in offline classes while only 30 per cent (61) considered that teachers spend quality time in preparing educational content more in online mode.

- 2) Impact of COVID-19 – High

Reason – Colleges and universities largely adopted online classes as the primary means of education during COVID-19 due to which students could experience and thereby could judge that college

teachers had actually spent more quality time in preparing educational content in offline mode as compared to online mode.

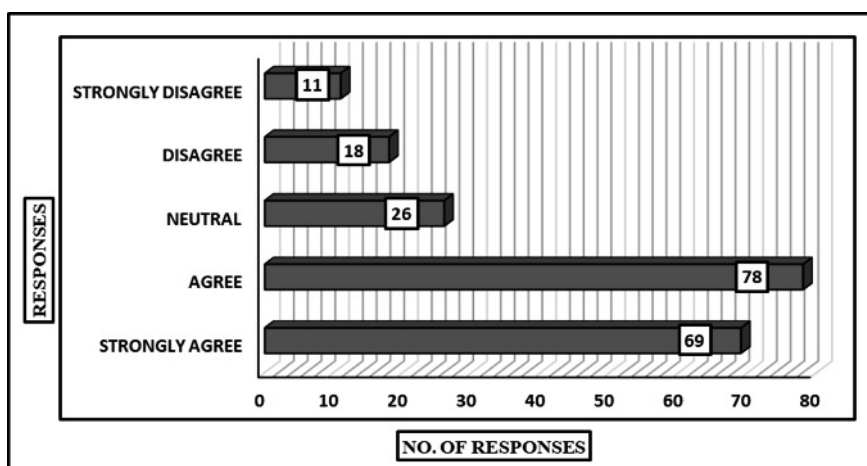
- 3) Conclusion - College teachers spend more quality time in preparing educational content in offline mode rather than just copying from other material, make PPTs and read it to students which is a prominent disadvantage of online classes.

Issue 3 - Online college classes have restricted students only to stress about assignments and not learning.

2) Impact of COVID-19 – High

Reason – Colleges and universities largely adopted online mode as the primary means of education during COVID-19 due to which students could experience and thereby could judge that stress about college assignments was more in comparison to learning in online mode.

- 3) Conclusion - Students stress or worry more about assignments than learning in online college education which is a prominent disadvantage of online college education.



21: Comparative Chart of Different Responses
(Source: Primary Data)

Issue 4 - Online classes that cannot be downloaded or recorded later pose a difficulty in learning.

Analysis - The following points merit consideration in this regard:

- 1) Observation - Vast majority of respondents (78 + 69=147, 72.77 per cent) either agree (n=78, 38.61 per cent) or strongly agree (n=69, 34.15 per cent).

Only 29 respondents (14.35 per cent) either disagree (n=18, 8.91 per cent) or strongly disagree (n=11, 5.44 per cent).

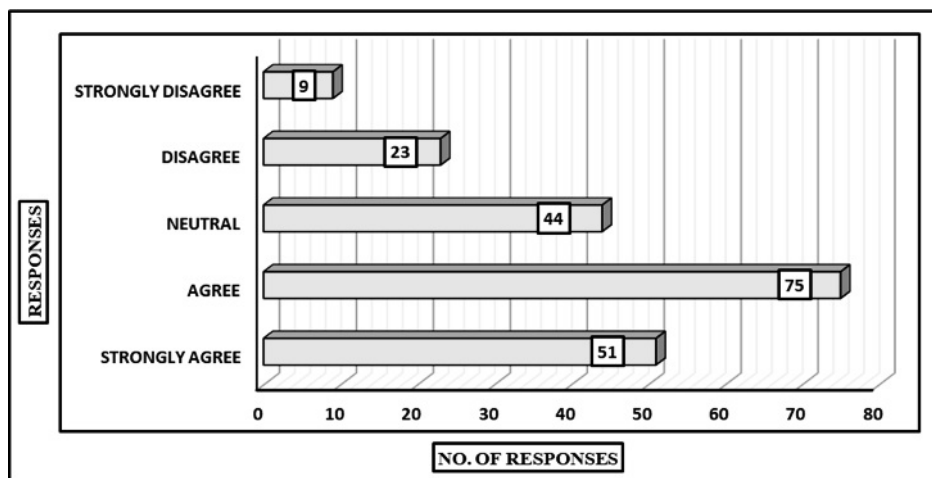


Figure 22: Comparative Chart of Different Responses
(Source: Primary Data)

Analysis - The following points merit consideration in this regard:

- 1) Observation - Vast majority of respondents (75 + 51 = 126, 62.37 per cent) either agree (n=75, 37.12 per cent) or strongly agree (n=51, 25.24 per cent).

Only 32 respondents either disagree (n=23, 11.38 per cent) or strongly disagree (n=9, 4.45 per cent).

- 2) Impact of COVID-19 - High

Reason - Due to conduct of educational activity like classes and seminars online in such a large scale, continuous exposure to electronic devices like laptops and smartphones et al. affects mental health and damages effectiveness and productivity (as shown in Issue 2) due to which students considered that online classes which cannot be downloaded or recorded for viewing later or viewing in offline mode pose difficulty in learning.

- 3) Conclusion - Online classes that cannot be downloaded or recorded later pose difficulty in learning which is a prominent disadvantage of online classes.

Issue 5 - Online classes make it easier for students to communicate with teachers and do educational activities like classes, assignments, semester exam preparations et al.

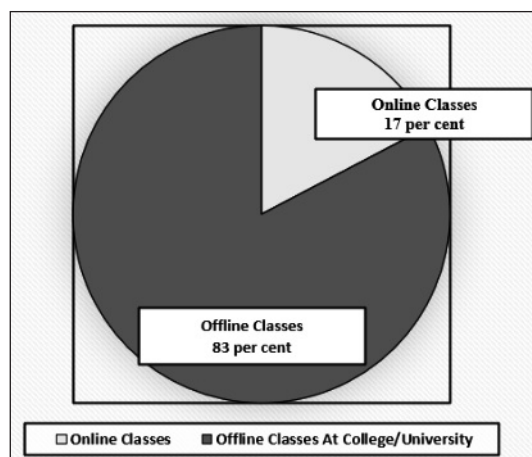


Figure 23: Easier for Students to Communicate
(Source: Primary Data)

Analysis - The following points merit consideration in this regard:

- 1) Observation - From the total number of respondents, 83 per cent (167) considered that it is easy for students to communicate with teachers in offline classes while only 17 per cent (35) considered that online classes make communication with the teachers easy for the student.

- 2) Impact of COVID-19 – High

Reason – Colleges and universities largely adopted online classes as the primary means of education during COVID-19 due to which students could experience and thereby could judge that in offline classes it was easier for them to communicate with the teacher and do other educational activities like seminars, group discussions, exam preparation et al.

- 3) Conclusion - It is easier in offline classes to communicate with teachers which is a prominent disadvantage in online education.

Section 3 – College Exams

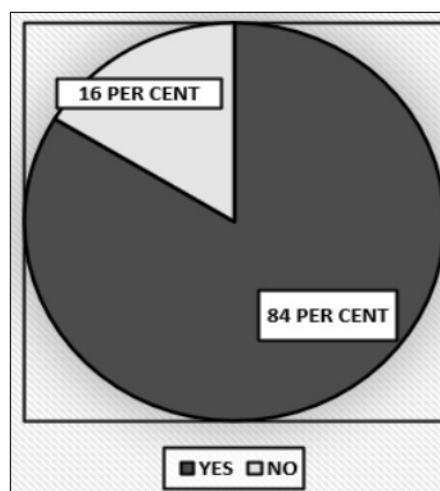
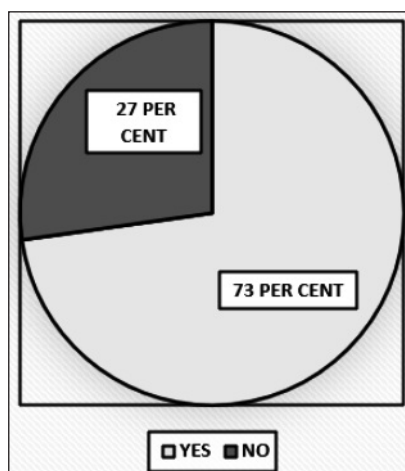


Figure 24: Lost Self-Discipline and Interest in Academics due to Inherent Nature of Online College Exams
(Source: Primary Data)

Analysis - The following points merit consideration in this regard:

- 1) Observation – As per Figure 24, 169 respondents out of the total which amounts to 84 per cent,



**Figure 25: College Exam Should be an Open Book Exam
Comprising Majorly Case-Study**

consider that they have lost self-discipline and interest in academics due to inherent nature of online college exams whereas 33 respondents (16 per cent) consider that online exams do not affect their self-discipline and interest in academics. As per Figure 25, 147 respondents (73 per cent)

consider that college exams (online or offline) should be an open-book exam whereas 55 respondents (27 per cent) opinion is that college exam should not be open-book.

2) Impact Of COVID-19- High

Reason – Colleges and universities largely adopted online classes as the primary means of education during COVID-19 due to which students could experience online exams and their inherent nature.

- 3) Conclusion - Most students have lost self-discipline and interest in academics due to inherent nature of online college examinations and hence consider that college exams should be open-book comprising majorly case-study based questions.

COMPARATIVE ANALYSIS

Based on the responses collected and the subsequent analysis of all three segments, comparative analysis of various particulars are presented through the following tables 1, 2 and 3.

	Theme	Sub-theme	Factors affecting success	Factors affecting failure
1	Infrastructure of content	Structure	Staff spending quality time in preparing the content along the goals.	Staff copying from other material, making PPTs and reading it to students.
2	Infrastructure of class	Duration of class	Reasonable duration to hold attention of students.	Prolonged classes lead to headache and lack of interest.
		Duration of break	Reasonable duration to ensure convenience.	Inconvenience has adverse effects on learning.
3	Distraction	Environment	Congenial environment and content can be consumed anywhere and anytime.	No classroom environment where there is lot of disturbances from surroundings.
		Social media	Self-learning interest and focus in the classes.	Regular usage of social media during classes.
4	Online exams	Nature of questions	Open book case study based questions.	Theory questions where answers could be reproduced from books.
		Evaluation	Awarding marks based on originality and creativity in answers.	Awarding marks based on the exact lines reproduced from the textbook.
5	Communication	Query session	Regular and organized doubt-solving sessions through different platforms.	Monotonous lectures by the course instructor.

**Table 1: Factors Affecting Success and Failure of Online Education
(Source: Authors' Compilation from Primary Survey)**

Theme 1 – Psychological impact		Sub-theme 1: Distraction and procrastination	
Competitive exam preparation	Reskilling and online certifications	Higher education	
		Undergraduate	Postgraduate
<i>Impact – High</i> <i>Reason – Online tuition as only available medium lead to-</i> 1) Loss of self-regulation leading to procrastination. 2) Natural distraction to social media which has adverse impact on academics.	<i>Impact – Low</i> <i>Reason – Since classes were offered online prior to the pandemic and procrastination levels stayed mostly same, the impact of COVID-19 was minimal.</i>	<i>Impact – High</i> <i>Reasons - Continuous exposure to electronic devices for classes and seminars lead to loss of intrinsic motivation causing distraction from classes and procrastination.</i>	<i>Impact – Moderate</i> <i>Reasons - Loss of intrinsic motivation was present leading to procrastination and distraction but it was modest due to mastery-approach goal orientation.</i>
Sub-theme 2: Student well-being			
<i>Impact – High</i> <i>Reason - Disruption of balance point between student’s resource pool for academics and challenge of continuing studies impact well-being.</i>	<i>Impact – Low</i> <i>Reason – Decision to enroll in these courses is purely optional upon the student.</i>	<i>Impact – High</i> <i>Reason-Academic process disruptions decreased self-efficacy and satisfaction with coursework increasing perceived impact of pandemic for degree completion negatively influencing student well-being levels.</i>	
Theme 2 – Academic impact		Sub-theme 1: Regular pedagogy	
<i>Impact – High for all three sections</i> <i>Reasons - Lack of classroom environment including laboratory courses, learning exchange and field trips disrupted regular academic process causing uncertainty about a semester or course completion and confusion about study expectations to complete degree or ace in competitive exams. However, traveling was reduced to coaching centers and colleges which reduced exhaustion.</i>			
Sub-theme 2: Evaluation			
<i>Impact – High</i> <i>Reasons - Customised online preliminary tests provided quick results and feedback. However, board, entrance and other competitive exams were postponed.</i>	<i>Impact-Moderate</i> <i>Reasons – Impact was high for courses with offline tests and low for courses with online exams, making the overall impact modest.</i>	<i>Impact – High</i> <i>Reasons – Lack of proper infrastructure to conduct online exams resulted in theory questions in exams where answers could be reproduced from books.</i>	
Theme 3 – Financial impact		Sub-theme 1: Employment opportunities	
<i>Impact – High</i> <i>Reasons - Reduced corporate travel and job trainings, office closure show few job opportunities for pandemic students comparative to for bears and increased competition on course completion with less work or academic experience.</i>	<i>Impact – Moderate</i> <i>Reasons – Rise in webinars, virtual meetings and new forms of collaborative classes since only online medium was available.</i>	<i>Impact – Moderate</i> <i>Reason – Undergraduate students, specially not in final year could feel less of threat of resource loss in terms of future employment.</i>	<i>Impact – High</i> <i>Reason – Postgraduate students, especially in final year, struggled with potential job prospects due to recruitment postponement and economic recession.</i>
Sub-theme 2: Access and affordability			
<i>Impact - High for all three sections</i> <i>Reason – Preparations for competitive exams through online tuitions or preparations for college or university exams or upskilling courses were hampered for students who could not afford devices or access to the internet.</i>			

Table 2: Impact of COVID-19 on the Three Sections
 (Source: Authors' Compilation from Primary Survey)

	Theme	Sub-theme	Positive impacts	Negative impacts
1	Online or blended learning	Tech-savvy	New technological ways of learning for transformation in curriculum development and pedagogy towards blended learning.	Not all teachers or students are tech-savvy or were ready for sudden transition from physical to online learning.
		Learning Management System (LMS) or Soft Copy	Many opportunities for companies developing LMS. Also, students could use soft copy materials.	Creates a digital divide as many students cannot afford devices or access to internet.
2	Up-skilling or re-skilling among students for placement	Placement	Massive rise in virtual meetings, webinars, e-conferencing and new forms of collaborative classes.	Recruitment postponed so unemployment increased so education decreases as people search for food rather than education
3	Competitive exams	Preparation	Online mode encouraged self and customized learning as per the students' needs.	Hampered preparation for students who cannot afford devices or access to internet.
		Evaluation	Customised online preliminary tests provided quick results and feedback.	Board, entrance and other competitive exams postponed.
		Convenience	Reduced travelling to coaching centres so reduced exhaustion.	Increased exposure to devices therefore headache or migraine.

Table 3: Positive and Negative Impacts of COVID-19 in Online Education
(Source: Authors' Compilation from Primary Survey)

The findings of this study highlights that the perception and readiness of teachers and students is an important consideration for the effectiveness of the online education. However, since the burgeoning online education market in India was tried at this massive scale

for the first time, it may be very early to estimate how students and teachers will cope with online education as figuring out constraints and addressing those remains a matter which is documented in this study.

RECOMMENDATIONS

The recommendations for improvement in online education after studying and analyzing the data are as follows:

	Theme	Sub-theme	Recommendation
1	Class content and format	Structure, relevance and comprehensive	Staff should spend quality time in preparing content with more images, videos, comic et al. to make the PPT more interesting.
		Accessibility	Rapid switching to online mode might be incapable to massive number of new users due to overload so gradual upload of lectures in the platform can be done where lectures can be viewed many times, as and when conveniently accessible.
		Duration	Length of a lecture should not cross 45 minutes ideally to prevent fatigue on the students.
2	Interactivity	Active interaction between instructor and student.	Course materials should be made available to students before online class so that students can read those contents and then the teacher should conduct a discussion on the uploaded or delivered study materials in online class.
3	Skills	Expertise and digital literacy of instructor.	Delivery mechanism for the faculty should be trained before online teaching, which gives clarity in communication and imparts innovative techniques for online teaching.
4	Evaluation	Queries, online tests, assignments and feedback.	Logical and practical application of knowledge and skills demands evaluation strategies other than summative paper pencil tests.
5	Classroom model	Hybrid or blended mode	Flipped classroom model should be adopted where a student can watch the lecture video in online mode and will require physical classroom only for group work, projects or exams et al.
6	Benchmark	Quality assurance	Quality of multiple programmes offered on same subjects by different platforms with different levels of certifications, methodology and assessment parameters are different so quality benchmarks must be developed by Higher Educational Institutions (HEIs).

Table 4: Recommendations
(Source: Authors' Compilation from Primary Survey)

CONCLUSION

From apparent macro-level reforms to subtle nuanced shifts, the contours of the Indian education system are

undergoing a massive change. Paradigm shift sustains to the extent that solely traditional physical face-to-face teaching-learning process is gradually turning towards a blended or flipped model where high customization in

content delivery, assessment and result analysis will be a prerequisite for competitive differentiation. The findings of this detailed study manifest the pillars of this transition, particularly, the issues faced and advantages enjoyed with a succinct recommendation.

Multi-device offering and offline-touch points, experiential and project-based or case-study based learning through logical and practical application of knowledge and skills are some of the creative strategies that can be developed as the need of the hour is to ensure maximum and efficient utilization of the online medium across different categories of the education sector to prepare students for future, and is rightly said -

‘Education is the passport to the future, for tomorrow belongs to those who prepare for it today.’

- Malcolm X

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FEATURE
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“

Given that the metaverse is still mostly conceptual, the lack of clarity is both enlightening and confusing.

”

Metaverse: The Evolution in the Business World

Prof. Hanzala Awais

Assistant Professor, Department of Commerce (Evening)

Priyal Jain

Department of Commerce (Evening)

ABSTRACT

In this study, we have touched on the concept of metaverse with a major focus on its applications in the business world rather than delving deep into the technical facet of the term. We have also analyzed the impact of COVID-19 which has led to the acceleration in the adoption of the metaverse and forced businesses to rethink and reinvent their models. Finally, the other side of this virtual coin has been studied highlighting the limitations that can be foreseen as the metaverse continues to take a more concrete form.

KEYWORDS: Metaverse, Virtual, Business, Market, Digital, Ecosystem.

INTRODUCTION

The answer to the question 'What is the metaverse?' has been summed up quite hilariously, yet aptly by Eric Ravenscraft in the Wired edition dated November 25, 2021,

'Everything you never wanted to know about the future of talking about the future.'

On a more serious note, the concept of metaverse, which became a hot topic for debate after Facebook decided to change its name to 'Meta' on October 28, 2021, despite not being a notably new concept, doesn't particularly apply to any one specific technology kind, but a dramatic shift in how we advance with technology. In its simplest form, the metaverse is the integration of our traditional and virtual lives, resulting in an interconnected, simulated ecosystem in which we can do whatever we do in real life. Virtual reality, characterised by virtual worlds that exist even when you're not playing, and augmented reality, which blends characteristics of both the simulated and actual worlds, are two technologies that make up the metaverse. Some other technologies include artificial intelligence, machine learning and deep learning. It also opens the door for a digital economy wherein users may produce, acquire, and exchange commodities. It is interoperable in perhaps the more utopian models of the metaverse, enabling users to transfer virtual elements like accessories or tools between one ecosystem and another.

LITERATURE REVIEW

Kraus, K. Kanbach and Krysta (2022) in their study, examined the reforms proposed by Facebook in their business model to see if they are as revolutionary as they appear or if they are merely minor modifications to their existing business model. This research paper is the first examination that analyzes Facebook's strategy of rebranding to Meta and reorienting its focus on building the metaverse from an entrepreneurial and business model viewpoint. A similar study carried on by Seok, W.H. (2021) examined the business model and ecosystem with an emphasis on metaverse service cases. Content creation and distribution, media

exchange fees, and marketing charges are all common business strategies. The findings reveal that a plan to ensure the metaverse's leadership, such as business model expansion circumstances, a strategy to cultivate a game-oriented metaverse ecosystem, and technical development to actualize the ultra-realistic metaverse, is required. Cagnina and Poian (2008) in their study, look at how virtual worlds, such as Second Life, might affect businesses' strategies. They have identified three key areas of value: acquiring new sources of value, seizing possibilities created by a competitive environment, and lastly expanding the market to include virtual commerce.

RESEARCH OBJECTIVES

1. To study the opportunities for businesses in the metaverse.
2. To analyze the acceleration of metaverse use cases due to the COVID-19 pandemic.
3. To study the threats and problems that will arise as more and more people invest their time and resources into the metaverse.

RESEARCH METHODOLOGY

This analysis paper relies primarily on secondary information that has been collected from numerous analysis papers, websites, observations, real-life case studies, news articles and books to fulfil the objectives of the research. A qualitative and descriptive approach has primarily been adopted.

ANALYSIS

Objective 1: To Study the Opportunities for Businesses in the Metaverse.

When Facebook declared its metaverse revamping and restructuring in October 2021, the response from business circles was overwhelmingly positive. The 'metaverse'- a term with its usage restricted to the technophiles for the better half of 2021, suddenly garnered global attention by not only the competitors of Facebook but also companies like J.P. Morgan, Price

Waterhouse Coopers, Nike, Adidas, Tinder, among many others. The extent of the interest and stake-holdings acquired by these companies, which are historically not tech-based, itself substantiates the enormous business opportunities which will open up in the metaverse.

The worldwide metaverse revenue prospect could approach \$800 billion in 2024 vs. about \$500 billion in 2020 (Bloomberg and Newzoo, IDC, PWC, Statista and Two Circles data).

According to the Onyx report of J.P. Morgan Chase and Co. (2022), the metaverse offers opportunities to transact \$54 billion on virtual goods. To put things in perspective, this is almost double the amount spent

buying music. It also provides opportunities to own \$41 billion NFTs (Non-Fungible Tokens) according to the same report.

Figure 1 highlights how not only people will consume their time in the metaverse, but also how most businesses will be equipped with necessary products and services to cater to their target markets in the metaverse.

The inter-relationship of metaverse and business opportunities becomes evident in the fact that the metaverse features an independent virtual economy. Some of the notable business opportunities in the metaverse are :

1. Immersive e-commerce: More individuals are being drawn into the meta-economy as supply and demand continue to expand. This will require people to upskill and reskill to tap into the potential and establish new revenue streams. Individuals will be required to learn how to produce and create goods for consumers in the simulated world, which itself will open up a lot of new doors in the creator economy. RTFKT, a virtual shoe designer, was recently taken over by Nike. In addition to wearables, it has established an intriguing relationship between digital and real-world items (NFT holders receive physical wearables corresponding to their NFTs) and is developing an ecosystem of digital

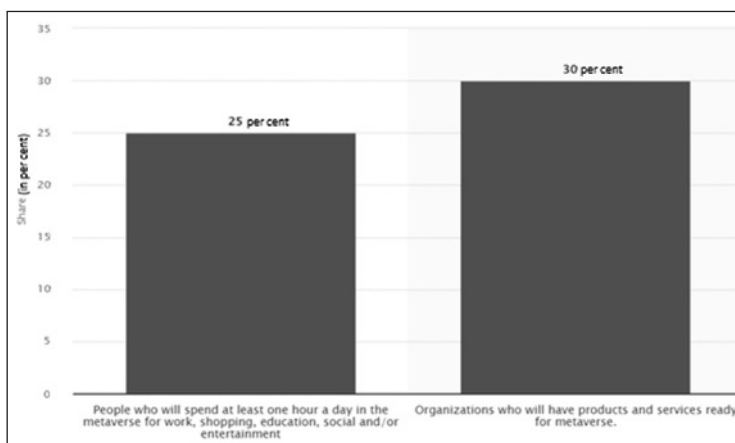


Figure 1: The Metaverse Usage by Consumers and Businesses
(Source: <https://www.statista.com/statistics/1290160/projected-metaverse-use-reach-global-consumers-businesses/>)

Concert Economics Breakdown- Metaverse vs. In-Person			
	Metaverse Concert	In-Person Concert	
		Indoor Arena	Outdoor Arena
Paid Concert Goers (Thousands)	1,000	20	80
Price Per Ticket (\$)	\$10.00	\$50.00	\$50.00
Gross Ticket Receipts (\$M)	\$10.0	\$1.0	\$4.0
Share of Gross Receipts to:			
Virtual Platform	20.0%	20.0%	20.0%
Agent	15.0%	15.0%	15.0%
Artist	60.0%	60.0%	60.0%
Label	5.0%	5.0%	5.0%
Gross Receipts (\$M) to:			
Virtual Platform	\$2.0	\$0.2	\$0.8
Agent	\$1.5	\$0.2	\$0.6
Artist	\$6.0	\$0.6	\$2.4
Label	\$0.5	\$0.1	\$0.2

Metaverse concerts can generate 10x more revenue than indoor concerts

Figure 2: Concert Economics Breakdown – Metaverse vs. In-Person
(Source: Bloomberg Intelligence)

products, spaces and avatars. RTFKT sneakers shot up to \$10,000 a pair at a recent auction. (Business of Fashion, December 2021)

2. Virtual events and social experiences: If you are hosting a virtual gathering and would like some musical entertainment, you can engage in a contract with a singer or a DJ in the metaverse. Virtual concerts have the potential to be even more profitable than actual performances, which are limited by factors like capacity, location, transportation and parking. Figure 2 clearly shows how metaverse concerts can generate 10 times more revenue than indoor concerts. A prominent concert hosted in Fortnite was witnessed by over 45 million individuals and generated a sum of \$20 million, which includes revenue through selling of products.
3. Marketing and advertising: It is perhaps the largest element of the meta-economy. Owing to the availability of wide-spread audiences, digital worlds present enormous opportunities for promotion and interactive advertisement experiences. Many platforms, like the Gen-Z social media companies, primarily rely on advertising to generate income. By 2027, in-game advertisement expenditure is expected to reach \$18.41 billion. (Source: IPS, October 2021)
4. Digital real estate and development of virtual homes: Virtual real estate is a growing market. The average price of a parcel of land doubled in a six-month window in 2021. It increased from \$6,000 in June to \$12,000 by December across the four main Web3.0 metaverses. (Source: Republic Realm, 'The 2021 Metaverse Real Estate Report') Partly, this spike has been because brands have been buying up space so they can create virtual stores and other experiences. In June 2021, one land package in Decentraland was sold for \$913,000. (Source: The Block, June 2021). In time, the virtual real estate market could start seeing services similar to the real world, including credit, mortgages and rental agreements.

Figure 3 shows the potential market of metaverse by sector with majority being from the ads (44.1 per cent)

and social commerce (35.75 per cent) sector as expected.

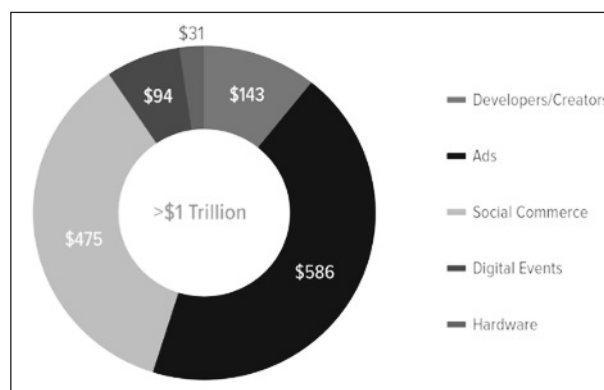


Figure 3: Metaverse's Potential Total Addressable Market
(Source: Global X ETFs, App Annie, Zenith, Grand View Research, BCG)

Note: All verticals are based on 2020 estimates except for 'Hardware' which uses a 2021 estimate.

5. Enhanced opportunities across various industries: The metaverse will be useful in a variety of scenarios, and not only in business-to-consumer activities. Business-to-business (B2B) companies will benefit

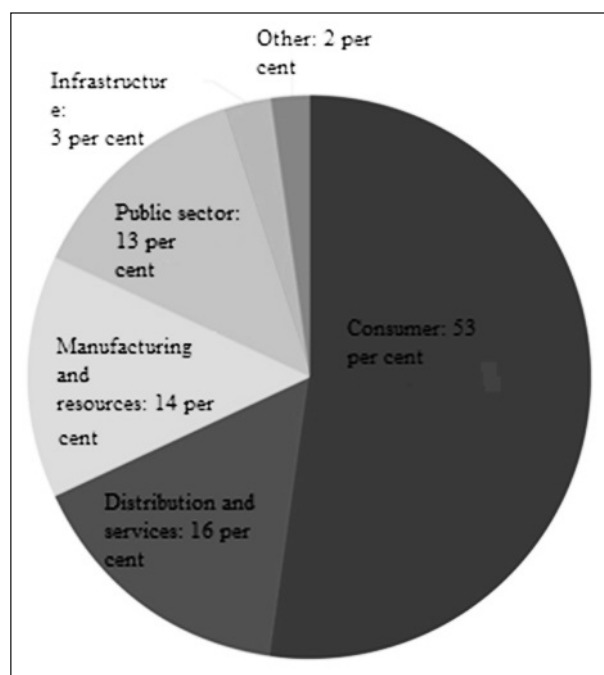


Figure 4: Current VR/AR Market Share by Sector
(Source: International Data Corporation (IDC), Morgan Stanley Wealth Management Global Investment Office as of 21st September, 2021)

greatly from the metaverse. Consider a company that is on the lookout for new equipment parts. The current approach entails receiving a printed pamphlet or an electronic PDF with stagnant 2D images, while users may evaluate goods in a digitally simulated environment in the metaverse for a lesser cost. One of the metaverse's most exciting prospects is that it will vastly increase market access for customers from emerging and growing economies. Virtual reality ecosystem will also help enhance the educational resources, as they are a minimal cost and effective way to learn. From a corporate viewpoint, there are enormous prospects for growth.

Figure 4 shows that although the major current VR/AR share is from the consumer sector, it also has opportunities for sectors like distribution and services, manufacturing and resources, et al.

Objective 2: To Analyze the Acceleration of Metaverse Use-Cases due to the COVID-19 Pandemic.

People started to work from home during the pandemic, students began taking classes online, and a requirement for convenient solutions or facilities to make online communication more realistic arose. The outbreak of the virus sparked a boom in virtual communities as key lifestyle areas for people tied to their homes, including interactive gaming landscapes

and growing usage of mixed reality. Thus, the metaverse didn't seem like a utopian concept anymore and facilitated the demand for making online interaction more practical, fun and less exhausting.

Figure 5 shows how metaverse mentions on Bloomberg transcripts rose by approximately 170 per cent (from 37 to 100) in a quarter when we were experiencing the second wave of the pandemic.

The emergence of the metaverse is also being efficiently leveraged as a real-time virtual environment to open up and generate significant possibilities for brand interaction, resulting in the creation of new employment. Many of these more innovative virtual business experiences are expected to become even more significant to how firms communicate with their employees and end-customers in the post-COVID-19 hybrid or remote working settings.

Figure 6 shows the upsurge in the new jobs created during the pandemic which are related to the metaverse. We may notice that the increase in the jobs created from 54 to 271 is approximately four times during a time span of six months during the second wave of the pandemic.

Objective 3: To Study the Threats and Problems That Will Arise as More and More People Invest Their Time and Resources into the Metaverse.

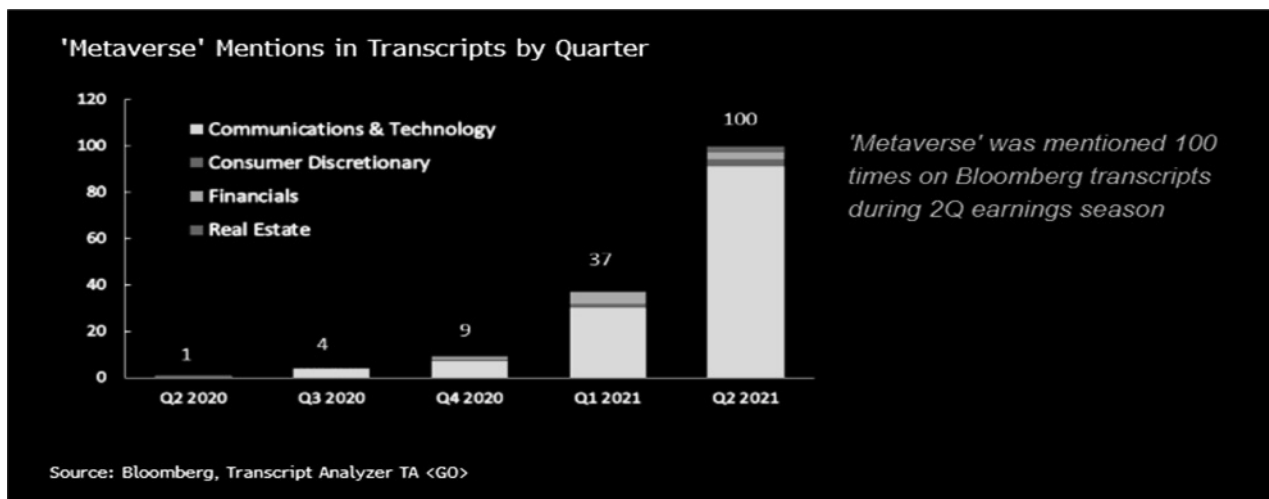


Figure 5: Metaverse Mentions in Transcripts by Quarter

(Source: <https://www.bloomberg.com/professional/blog/metaverse-may-be-800-billion-market-next-tech-platform/>)

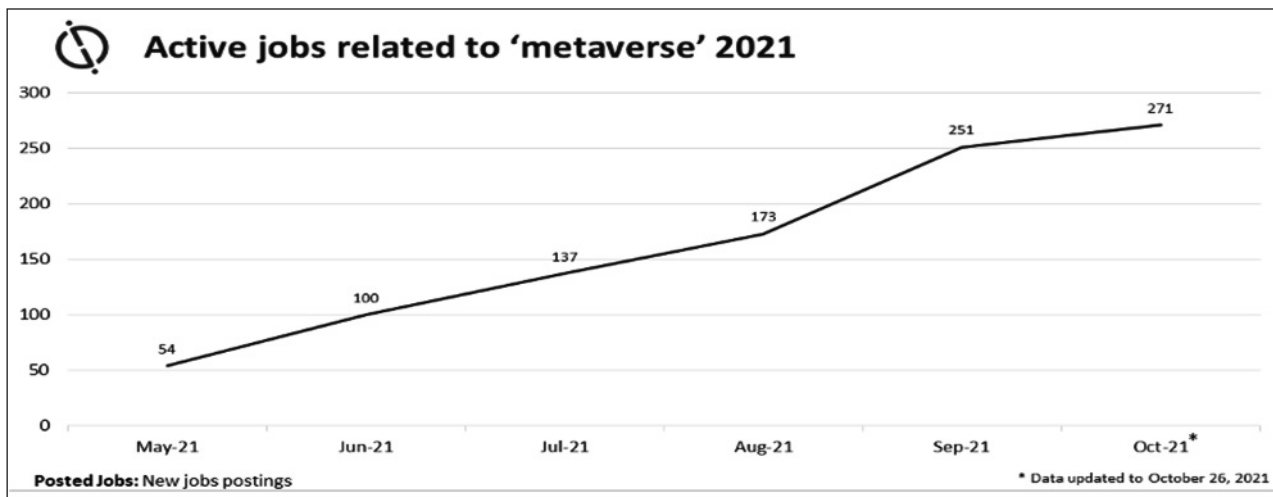


Figure 6: Active Jobs Related to 'Metaverse' 2021

(Source: <https://www.globaldata.com/active-metaverse-jobs-high-hiring-not-confined-technology-companies-alone-finds-globaldata/>)

Like every coin has two sides, so does this virtual coin. As the concept of the metaverse evolves, so will the problems associated with it. In this study, mainly three limitations of metaverse have been focussed on :

Regulation

When it comes to the regulatory framework that will govern the metaverse, there are many open questions that need to be addressed, including-

- Paved paths on regulatory, tax and accounting treatment of Web 3.0 digital real estate/property, and virtual world commercial transactions.
- Adept navigation of regulatory, tax and accounting treatment of primarily Web 2.0 virtual worlds with Web 3.0 digital assets.
- Solutions and services to support virtual worlds that are globally accessible but may be required to adhere to local jurisdictional requirements and rules in commerce and payments.

Privacy and Security

User identification and privacy safeguards will be crucial for both interacting and transacting in the metaverse. As more and more of our data becomes available, it is most crucial to address the following privacy issues:

Preservation of one's ability to have multiple avatars/identities, with the addition of:

- Commerce and payments post private Know-Your-Customer (KYC)/Anti-Money Laundering (AML) formalities.
- Credentials that may be simply constructed to allow for easier recognition of fellow community/team users or adjustable access to various virtual world sites and experiences.
- Barriers placed against cyber bullying or online harassment in virtual worlds.
- Inclusion of the creation of personal interactions, discussion and communication through enhancement of NFT token-gated spaces.

Mental Health

Another aspect is the mental health and well-being of the consumers. As they can enter into the metaverse as an avatar, new kinds of problems may arise which might take a toll on their mental health. The COVID-19 pandemic triggered a 25 per cent increase in the prevalence of anxiety and depression worldwide (Source: WHO, 2nd March, 2022). This was mainly due to the uncertainty regarding the global situation, isolation protocols and increased pressure in work-from-home environments. While the metaverse

attempts to alleviate these problems, it may give rise to new social issues like inferiority complexes, negative competition, comparisons, et al. which will ultimately lead to the deterioration of the mental health of the users.

CONCLUSION AND RECOMMENDATIONS

Given that the metaverse is still mostly conceptual, the lack of clarity is both enlightening and confusing. The number of businesses rushing to be a part of the ecosystem reinforces my confidence that the metaverse would become a significant component of the global economy, radically affecting both economic and social life on a magnitude equal to the dot com boom. Even companies which traditionally do not have a tech background like J.P. Morgan, Nike, Adidas, Price Waterhouse Coopers, Tinder, et al. have shown an interest in the metaverse and bought a stake in it. The number of organizations that felt compelled to explain their significance to Meta's new strategy, only implies that the effect, for better or worse, is much more than an idiosyncratic observation.

A few recommendations that may help equip any business better for this revolution are-

Learn - There are many different interpretations of the metaverse, all businesses should learn about the different aspects of this concept to evaluate further.

Assess - Although the metaverse will spread across many industries worldwide, businesses should assess if there are prospects that are meaningful to them.

Create - Internal innovation must be used to garner experience. They should use the opportunity to experiment with new digital products, offerings, experiences, channels, and assets to study innovative customer interaction.

Connect - They should try to form a metaverse participant network. Because the world is still young, high-quality partnerships and alliances can be made

without a massive investment. They should reach out to a younger generation and look for alternate sources of expertise.

Establish - Finally, they should establish themselves in a position to win the minds and hearts of tech-savvy groups.

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Overburdened with populist policies that took away from the state coffers than added to them, and an obsolete technological framework, Sri Lanka has an onerous journey ahead of it.

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The Sri Lankan Crisis

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ABSTRACT

Sri Lanka has often been considered a close ally of India, both in terms of trade and diplomatic ties. Recently in the news for all the wrong reasons with the economic collapse and political instability that has shaken the very foundations of a developing nation, Sri Lanka has often been compared to India. This study aims to gain insight into the Sri Lankan crisis, and what could have been done to avoid it. The goal of this study is to discover the underlying factors that contributed to Sri Lanka's economic meltdown. Sri Lanka's current economic crisis stems from three overlapping crises. Since 'independence' in 1948, there has been a continuous domestic crisis. A third and last factor is the COVID-19 epidemic, which has impacted the supply chain on a global as well as a national scale.

KEYWORDS: Sri Lanka, Balance of Payments, Debt-Trap Diplomacy, Inflation, Budget Deficit, Fiscal Deficit, Global Financial Crisis, COVID-19, National Emergency.

The section below discusses some of the more relevant research done on the crisis in the past:

LITERATURE REVIEW

- (Gunasekara, 2021): In her research paper, 'Crisis in the Sri Lankan Economy: Need for National Planning and Political Stability', she stated the causes other than the COVID-19 pandemic which led to Sri Lankan economic crisis and what were the possible precautionary measures that the government took to curb the crisis.
- (Ghoshal & Pal, 2022): 'How Sri Lankan Economy Spiraled into Crisis' an article published by 'Reuters' confers the economic mismanagement of successive governments and states other explanations which led Sri Lanka into economic crisis.
- (Sultana G., 2022): This report gives an overall assessment of the crisis in Sri Lanka. It mentions the recovery methods taken by the government to curb the crisis.
- ('Sri Lanka Economic Crisis: Why Sri Lanka Is Facing Its Worst Economic Crisis in Decades | International Business News - Times of India,' 2022): This article is published by 'The Times of India'. In this article, the journalist has explained why Sri Lanka got trapped in this crisis, what is the current scenario that the country is facing and how India is helping them to come out of such a crisis.

GENESIS OF THE CRISIS

Since independence, Sri Lanka has never had a government capable of leading the country's economy on its own, with a long-term strategy that is both well-planned and stable. As a result of the neoliberal policies that were implemented in 1977, there were some glimmers of hope in the 1960s and 1970s, but such programs were also scrapped. Neoliberal reforms got underway, which increased merchant capital and the economy's financial dominance. As a result of this shift in 'liberating marketing forces', deindustrialization and a lack of interest in a production-based economy were

sparked. As a result, Sri Lanka has been experiencing a domestic economic crisis for over eight years.

Sri Lanka's post-independence tax collection rate was quite high. Tax receipts for the government, on the other hand, have fallen steadily since 1990. Government income collection currently stands at 9.6 per cent of the Gross Domestic Product (GDP). Unreasonable policy decisions by numerous political regimes have contributed to the decline in revenue collection, such as granting tax breaks to the rich, multinational companies (MNCs), small enterprises in the local area as well as their owners and employees. The government's income collection has declined as a result of these incompatible policies. The blatant corruption among the ruling party elites has often been blamed as the cause for the undue freebies granted to the businessmen who had links with the political leaders.

At the height of the civil war and violent revolution in Sri Lanka in 1989, the country's foreign debt reached 62 per cent of GDP. Due to significant economic expansion, it began to fall in the years leading up to 2014. Since 2014, Sri Lanka's foreign debt has increased by 42.6 percent, the highest since the country's independence. Balance of Payment (BOP) issues have been compounded by the country's current overall debt commitment of \$50 billion. Many in the global media have used Sri Lanka's rising debt load as an example of China's 'debt-trap diplomacy.'

While the epidemic was going on, Sri Lanka's foreign exchange reserves fell to frightening lows. Nearly \$3 billion has been taken from the country's foreign reserves at the end of the fiscal year ending in August 2021. A substantial chunk of the country's income comes from the following major sources of the foreign monetary system:

- Unskilled migrant labourers' remittances
- Income from exports of apparel, tea, rubber and other primary agricultural things
- Income from the tourism sector

During the COVID-19 pandemic, all these sources of income for the Sri Lankan economy got destructively

affected. This further negatively impacted their ongoing debt crisis. Moreover, Sri Lanka claims that they are a 'homegrown based' economy, but in reality, they are an 'import based economy'. Therefore, with so much dependence on imports and no income from various sources, Sri Lanka's foreign reserve has gotten worse.

Sri Lanka has a BOP deficit of \$2.755 billion due to an unprecedented level of liquidity injected to withstand imports and repay debt, which in turn expanded unsustainable borrowings. It's been a rough year for the Sri Lankan rupee, which has lost 7.5 percent of its value against the United States Dollar (USD). The devaluation of the rupee and the rise in energy prices forced inflation even further.

balance of payment and that is because the entire nation is dependent on imports. Sri Lanka's economy relies on external debt since it is based primarily on consumption. To add insult to injury, high borrowing rates discourage private investment as a result of the twin deficit.

Due to a lack of stringent policies and longstanding political instability in the entire nation the level of savings and investment has been very low and since the level of growth in the economy depends upon the level of savings and investment, the country is facing a crisis for this reason too. Interest rate deductions were made by the government during the pandemic period to boost private investment, but they did not yield positive

returns. The reasons are macro-economic policy inconsistencies, government failure and technological framework.

A clear lack of competent policies and political instability in the entire nation has resulted in a low level of savings and investment and since the level of growth in the economy is largely contingent upon the level of domestic savings and investment, the country is facing a crisis for this reason too. A country with

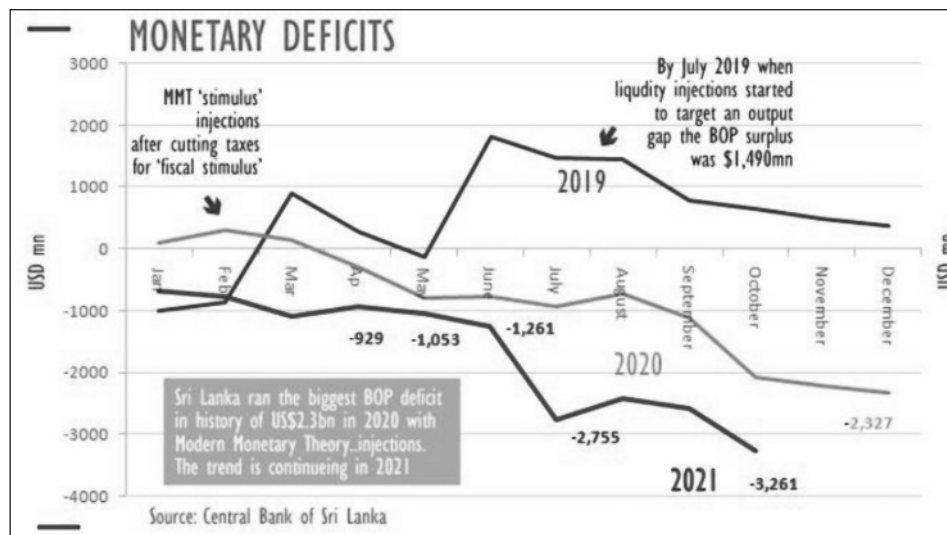


Figure 1: Monetary Deficit of Sri Lanka

(Source: Author's Compilation, Based on Data from Central Bank of Sri Lanka)

Gotabaya Rajapaksa promised tax cuts as an economy booster contingent on his winning the election in 2019. His 'pay as you earn' policy of tax collection went too far; it caused a cut in welfare spending. Welfare spending is a truly important source of augmenting the social security of the citizens of a developing nation so that all the citizens can meet basic human needs of food and shelter. A budget deficit of more than one trillion rupees was recorded in 2021 as a result of the government losing almost Sri Lankan Rupee (SLR) 1.5 trillion in tax receipts alone. A combination of tax cuts and heavy spending on the COVID-19 outbreak led to Sri Lanka's fiscal deficit increasing. Currently, Sri Lanka is facing a twin deficit of budget and

high aggregate savings will have the benefit of higher investment, boosting growth. Interest rate deductions were made by the government during the pandemic period to boost private investment, but they did not yield positive returns, as a result of a well-intentioned but poorly implemented financial policy. The inconsistencies in the macroeconomic policy were also found to be too broad to merely be plastered over by interest rate reduction. A structural overhaul was needed for the government to overcome its previous mistakes, both in policy framing and implementation. Overburdened with populist policies that took away from the state coffers than added to them, and an

obsolete technological framework, Sri Lanka has an onerous journey ahead of it.

CRITIQUE OF THE CURRENT ECONOMIC SCENARIO

As a result of the 2007-09 global financial crisis which originated in the United States of America, most advanced, evolving, and developing economies were impacted. Following a time of over-financing, high commodity prices and a substantial flow of remittances for most nations, the recession of the global financial crisis occurred. As a result of a decline in trade, state development aid and private capital inflows, Sri Lanka was hit hard by the international economic meltdown. As global energy and food prices rose, the demand for imports from developing nations dropped in advanced economies, which was at the same time. As a country majorly dependent on imports, this hit the Sri Lankan economy on two levels – rising input costs with a declining income.

Despite the global financial crisis, Sri Lanka was able to avoid a foreign exchange crisis because of favourable export prices, increased remittances from West Asia, government commercial borrowing of \$500 million in September 2007, and an international influx of foreign funds to purchase treasury bills and treasury bonds. Foreign capital was invested in treasury bonds and bills were rushed out of Sri Lanka during the last three months of 2008, as the financial crisis started to take hold.

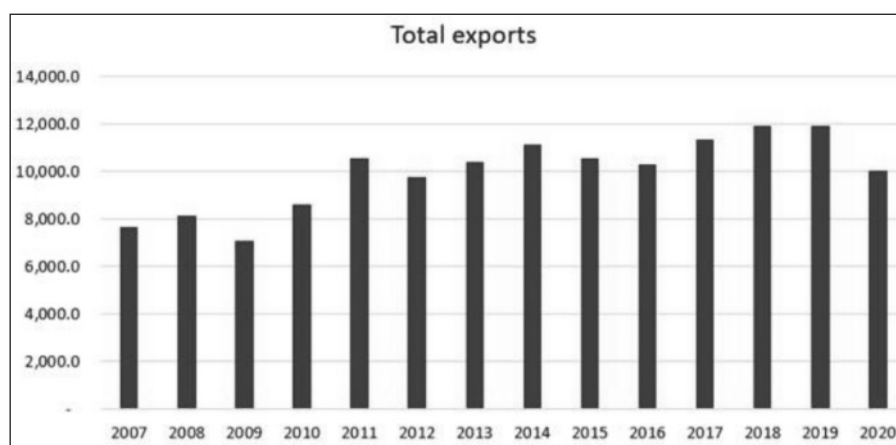


Figure 2: Total Exports from 2007-2020

(Source: Author's compilation - Based on Central Bank of Sri Lanka Data)

Because of the global financial market's liquidity crisis, the government's attempt to borrow \$300 million (\$403.72 million) was unsuccessful. This was owing to falling commodity prices and exports such as tea and rubber. In the wake of these circumstances, the country's foreign reserves fell and the process of currency depreciation began, which has lasted to the present day.

The COVID-19 pandemic has affected both global and domestic supply chain

The COVID-19 outbreak had a severe impact on Sri Lanka's commercial activity, trade, employment, etcetera. In order to curb the spread of COVID-19, the government imposed lockdowns and inter-state travel restrictions which severely affected businesses across varied industries. The sectors that were badly hit were manufacturing, tourism and the service industry. Nearly 70 percent of the skilled citizens employed in the informal sector were laid off as a result of the decline in economic activity. Wage cuts and lay-offs were feasible for 1.7 million private sector employees.

Due to the loss of income and employment for thousands of households, there has been a significant drop in consumers' purchasing power, conjointly there has also been a price hike of essential goods making it worse for normal households to purchase essential items. Cereals, dairy, vegetables, and sugar are all vital food staples that Sri Lanka imports, despite its claim to be an agricultural economy. Import restrictions, currency depreciation, and food price increases in the global market have all contributed to the rise in the cost of essential goods in the country.

The fall in tourism revenue in 2020-21 is explained by the pandemic where all global tourism practically came to a standstill. Many Sri Lankans lost their jobs as a result of COVID-19 and the loss of income has led them to reduce their consumption of food grains, sometimes at the cost of basic

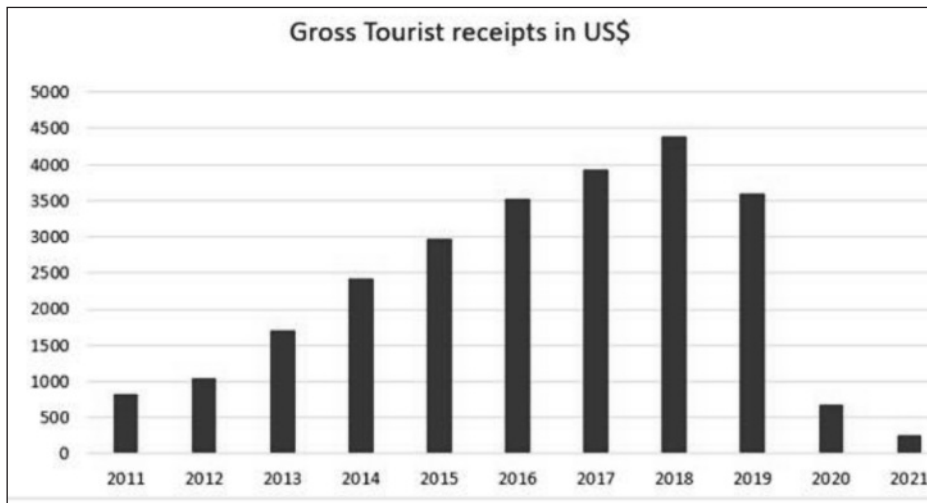


Figure 3: Income from Tourism (Gross in USD)
(Source: Author's compilation)

nutritional requirements. The extremely high inflation rates also add a burden on the individuals seeking to consume within their means.

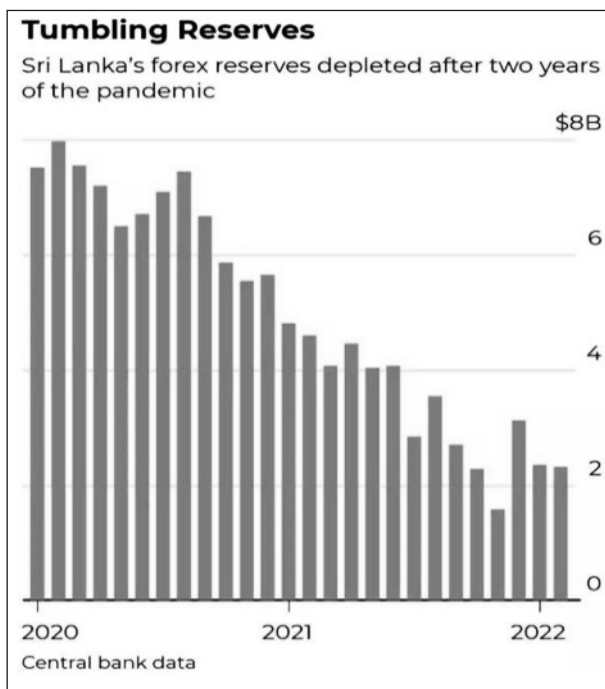


Figure 4: Forex Reserves with the Central Bank
(Source: Author's compilation)

The lack of foreign exchange has left the government unable to pay for the import of necessities such as food grains, gasoline et al. Power outages lasting for upto 13

hours have become commonplace. People are dealing with soaring inflation without employment or any income from welfare schemes. Due to the shortage of fuel, public transport and goods movement have also been curtailed. People have taken to the streets in a show of outrage against the corruption that the ruling party and its president have taken the advantage of.

President Rajapaksa was forced to declare a state of national emergency on 1st April, 2022, giving sweeping powers to armed forces to manage these protestors, and perhaps subdue them with force. The President has also sought assistance from allied neighbouring countries such as India and China, particularly for fuel and food grains, without which the economy is crippled. India has extended a \$1 billion credit line, with a shipment of diesel for \$500 million agreed upon by the two. India has, till now, provided support of \$2.5 billion soft loans through currency swap arrangement. China has also offered to help Sri Lanka by offering to refinance its debt (Sultana G., 2022).

STEPS TAKEN BY THE GOVERNMENT TO COUNTER ACT THE FALL OF THE ECONOMY

The Sri Lankan Government has seen a decrease in its foreign currency reserves as a result of the previous governments' strategy of importing more than they earned. The country's current economic disaster is also thought to have been caused by loans received from international institutions. In addition, the COVID-19 scenario has made things more difficult. The current government has made reducing imports a top priority, in addition to taking internal policy decisions to enhance the inflow of cash in order to bolster the country's foreign exchange reserves.

It has put a restriction on the forward contracts of foreign exchange, where the Central Bank of Sri Lanka has attempted to reduce the foreign exchange volatility by asking the commercial banks to refrain from entering new forward contracts.

The government has also attempted to boost the cash inflow by creating a contributory pension plan for migrant workers, and establishment of a foreign employment market, currently dominated by the Middle East. The payment of ₹ 2 above the normal exchange rate for remittances at banking institutions.

CONCLUSION

Sri Lanka's debt load is massive. About \$29 billion is required to repay the country's debts from July 2021-2026. If the expected inflows from bilateral partners and non-debt-creating foreign currency inflows are sustained over the next couple of years, the foreign exchange situation could take an upswing. With the COVID-19 strain becoming less virulent over time, the tourism and export industries seem set to pick up. However, considering that Russians and Ukrainians made up nearly 16 per cent and 9 percent of the total tourists to Sri Lanka in the current year, till 11th February, their conflict has a significant adverse impact

on Sri Lanka. Additionally, the increase in the global oil prices resulting from the Ukraine- Russia conflict has put pressure on the already strained resources. However, considering in 2019 Sri Lanka welcomed 167,863 Chinese tourists, there may be alternatives to Russia and Ukraine for the country. It remains to be seen how the people of Sri Lanka manage to bring order back into this cacophonous economy despite the global slowdown and political instability.

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The banking sector should be made strong enough in every aspect to withstand any upcoming crises.

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Impact of COVID-19 on the Indian Banking Sector: Indian Banks' Association (IBA) Data Analysis

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ABSTRACT

COVID-19 toppled the complete economic status of the world. It was perhaps the most tragic period of history that humans have ever seen. Originated in China, COVID-19 spread all over the world. The economic condition of India was affected severely due to this pandemic as well. The

Indian banking sector is one area that suffered during this pandemic. This paper aims to show the impact of COVID-19 on the Indian banking sector. For that, some statistical data has been collected relating to the banking sector during the pandemic period. Findings show that the total income of the banks has reduced during the pandemic, while the non-performing assets of small finance banks have increased more than the public and private sector banks et al.

KEYWORDS: COVID-19, Pandemic, Indian Banking Sector, Statistical Data, Trend.

INTRODUCTION

COVID-19 has appeared as the black swan event of the century, impacting the world significantly in different areas. Coronavirus was first identified in Wuhan, the capital of the Hubei province of China, in December 2019, and spread worldwide. After observing its highly infective nature and increasing rate of death, the World Health Organization declared it a pandemic on 11th March, 2020. In India, it affected all sectors. As a result, there was a continuous rise in unemployment, high stress on supply chain management, a decline in government revenue, a downfall in the tourism industry, as well as a low consumer buying activity. This pandemic could be one of the most serious challenges faced by the financial services industry Perwej (2020). The banking sector is one of them which has been affected severely due to this pandemic. The main impacts on the banking sector are severe contractions in demand, lower incomes, production shutdowns, et al. The situation got exacerbated further by shortages of staff, inadequate digital maturity, and pressure on the existing infrastructure as banks scrambled to deal with the impact of COVID-19. Borrowers and businesses faced job losses, decreased sales, and shrinking profits as the virus continued to spread around the country.

Perwej (2020) wrote in his research paper that the COVID-19 pandemic is one of the major challenges faced by the financial services industry in nearly a century. It is perhaps the most tragic period of history human has ever seen, as per Bobade and Alex (2020). Sharma and Mathur (2021) have mentioned that the

COVID-19 situation will not only accelerate the adoption of technology, but will renew focus on the four key areas of banking like embracing neo-technologies, channels of digitization, security, privacy, customer trust policy, and compliance.

OBJECTIVES AND RATIONALE OF THE STUDY

Well-defined objectives of the research are a key component for conducting the research successfully. When the researcher defines the objectives, the scope is also defined. Based on the objectives, all the further steps are performed like primary and secondary data collection, analysis of data, drawing interpretation, and conclusion of the research. The objectives also help the target audience to clearly understand the purpose of particular research. Thus, objectives make the research meaningful for the target audience. The objectives and rationale to perform this research are –

- To find the effect of COVID-19 on the Indian banking sector.
- To study the areas of the banking sector which affected mostly due to the pandemic.
- To study the changes in the policies and the steps taken by the banking sector during the pandemic.
- To study the possible ways out or solutions or recommendations for the Indian banking sector to face the COVID-19 pandemic.

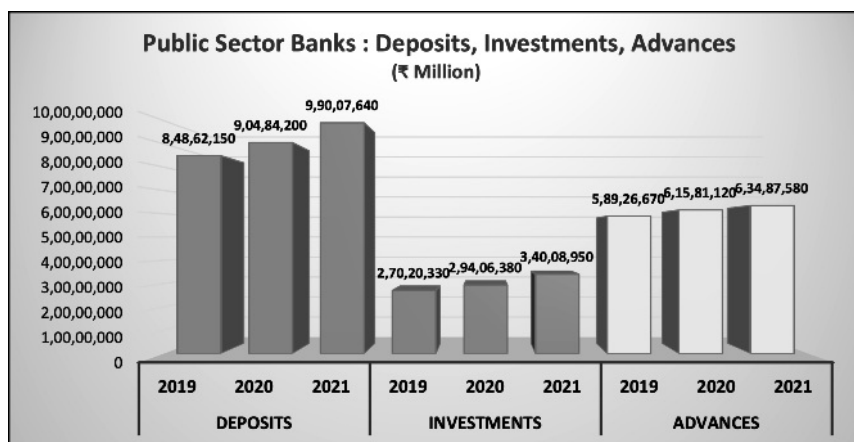
DATA AND RESEARCH METHODOLOGY

The principal method of information collection to conduct this research and fulfil this research's objectives is secondary data. The secondary data is collected from the websites of the IBA and the Reserve Bank of India (RBI), guidelines provided by RBI, online articles, previous research works, and newspapers.

The analysis is done by using the statistical data taken from IBA website. The interpretations and findings are made from the statistical data by making charts like column charts and simple arithmetic calculations.

ANALYSIS AND FINDINGS

Public Sector Banks



(Figure 1: Bar Chart of the Deposits, Investments and Advances of Public Sector Banks)
(Source: Author's Compilation, 2022)

- Bank deposit consists of money placed into banks for safekeeping. It is the liabilities of the bank. From the chart, it can be noticed that the magnitude of deposits has increased over the years. The rate of increase in deposits from 2019 to 2020 was 6.62 per cent and that from 2020 to 2021 was 9.42 per cent. So, the rate of increase has also increased over the years.

Therefore, it can be understood that bank deposits have not been affected during COVID.

- Banks invest their money in various types of instruments like government bonds, corporate bonds, et al. From the chart it can be noticed that the magnitude of investments has increased over the years. The rate of increase in investments from 2019 to 2020 was 8.83 per cent and that from 2020 to 2021 was 15.65 per cent. So, the rate of increase has also increased over the years and in the

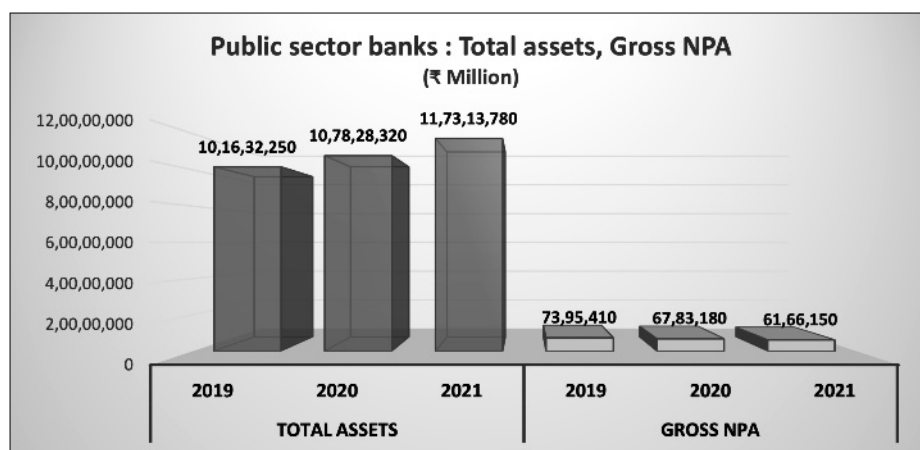
period of 2020 to 2021, it is nearly double that of 2019 to 2020.

From the analysis, it can be understood that public sector banks invested at a higher rate in the period 2020 to 2021 than in 2019 to 2020. The reason may be that the banks had excess surplus money during that period.

- Banks give loans and advances to different people and organizations. From the chart, it can be seen the magnitude of advances has increased over the years. However, the rate of increase in advances from 2019 to 2020 was 4.50 per cent and

that from 2020 to 2021 was 3.10 per cent. So, the rate of increase has decreased in the period of 2020 to 2021 as compared to 2019 to 2020.

Therefore, it can be understood from the analysis that although the amount of giving advances by public sector banks has increased, the rate of giving advances has decreased in the period 2020 to 2021. So, the public sector banks had surplus money and their rate of investment increased at a higher rate in this period.



(Figure 2: Bar Chart of the Total Assets and the Gross Non-Performing Assets of Public Sector Banks)
(Source: Author's Compilation, 2022)

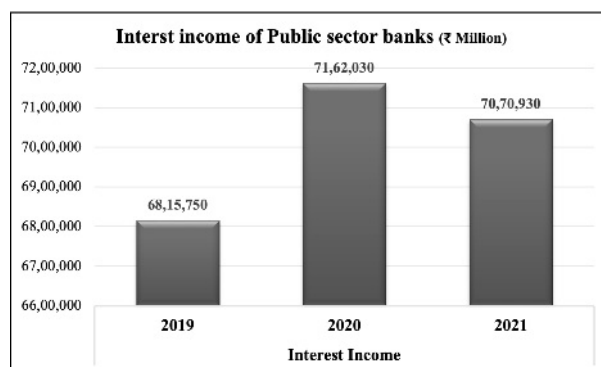
- Banks have different types of assets including physical assets such as equipment, land, and building (if the bank owns them), loans given to individuals and businesses, investments et al. It can be observed in the chart that the total assets of public sector banks have increased over the three years. The rate of increase in total assets from 2019 to 2020 was 6.10 per cent and that from 2020 to 2021 was 8.80 per cent. So, the rate of increase has also increased.

Therefore, it can be understood that although the rate of giving advances has decreased in the period of 2020 to 2021, as the public sector bank had made more investments in this period, their rate of increase in assets has increased.

- A Non-Performing Asset (NPA) is the loan or advance for which the principal or interest payment remains overdue for 90 days. From the chart, it can be noticed that the gross NPA has decreased over the three years. The rate of decrease from 2019 to 2020 was 8.28 per cent and that from 2020 to 2021 it was 9.10 per cent. So, the rate of decrease has also increased in the period 2020 to 2021.

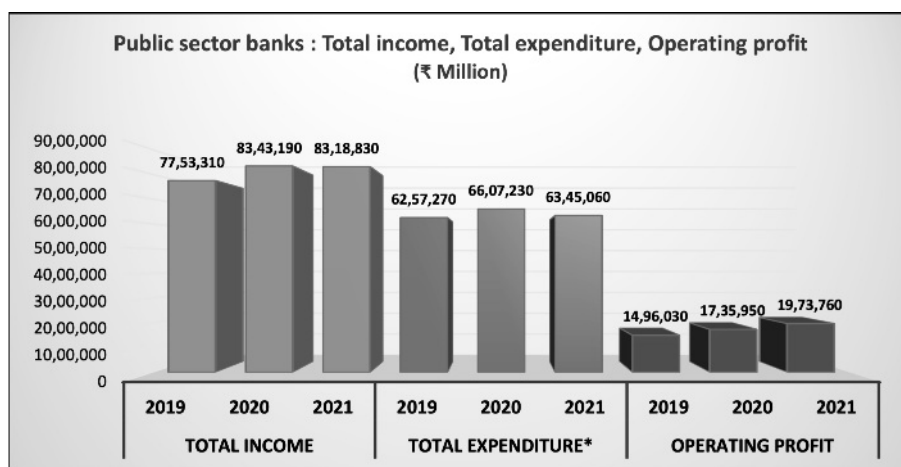
It can be said from the analysis that as the rate of increase in advances decreases in the period of 2020 to 2021, the rate of decrease in gross NPA has increased.

- Banks have two main types of income - interest income and other income. Interest received on loans and advances; interest received from the different investments are the interest incomes. Other incomes include fees charged by banks for different services, et al. From the chart, it can be observed that the total income has increased first and then decreased. This is a significant effect during the pandemic. The rate of increase in total income from 2019 to 2020 was 7.61 per cent and the rate of decrease in total income from 2020 to 2021 was 0.29 per cent. These can be analyzed further by dividing the total income into two parts – interest income and other income.



(Figure 4: Bar Chart of the Interest Income of Public Sector Banks)

(Source: Author's Compilation, 2022)

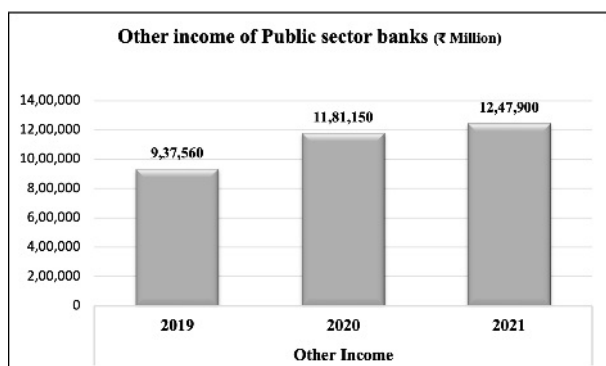


(Figure 3: Bar Chart of the Total Income, Total Expenditure and Operating Profits of Public Sector Banks)

(Source: Author's Compilation, 2022)

(*Excludes provisions and contingencies)

- So, from the charts of interest income and other income, it can be seen that interest income has increased in the year 2020 and then decreased in 2021 and other income has increased in both 2020 and 2021. Thus, the total income has decreased due to a decrease in the interest income of the public sector banks.
- Therefore, from the analysis it can be understood that the interest income of



(Figure 5: Bar Chart of the Other Incomes of Public Sector Banks)

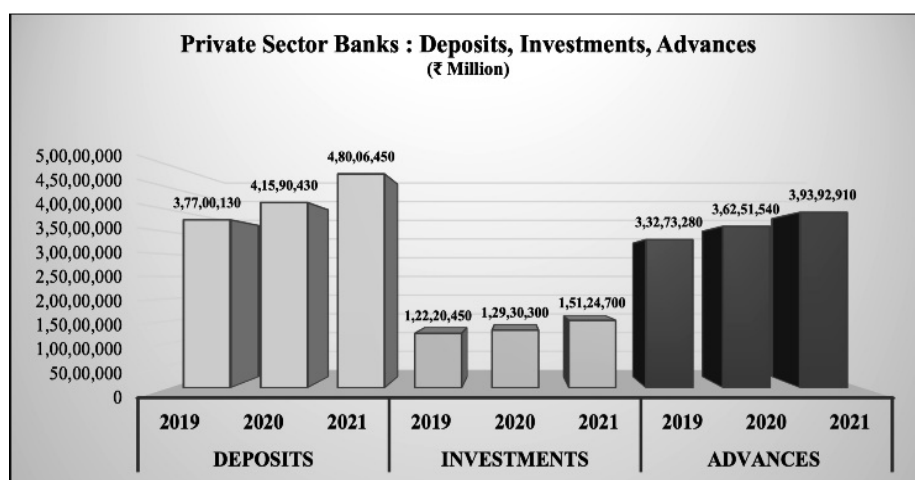
(Source: Author's Compilation, 2022)

public sector banks has reduced in the period 2020 to 2021 resulting in a reduction in total income. The reason may be the non-payment of interest during this period and banks not receiving a good return on investment during this period.

- Banks have two main types of expenses - interest expenses and non-interest or operating expenses. Interest expenses are interest given on deposits, and interest on borrowings by banks. Non-interest or operating expenses are incurred in the daily running of the bank. It can be observed from the chart that the total expenditure increased in 2020 and then decreased in 2021. The rate of increase in total expenditure from 2019 to 2020 was 5.59 per cent and the rate of decrease in total expenditure from 2020 to 2021 was 3.97 per cent.
- Therefore, it can be said from the analysis that public sector banks have managed to reduce their expenditure in the period 2020 to 2021. The reason may be that banks reduced their borrowings and gave a lower amount of interest during this period.

- Operating profit is total income less total expenditure. From the chart, it can be noticed that the operating profit has increased over the years. The rate of increase in operating profit from 2019 to 2020 was 16.04 per cent and from 2020 to 2021 was 13.70 per cent. The rate of increase has decreased in the period 2020 to 2021.
- Therefore, it can be understood from the analysis that though the total income of public sector banks has decreased, the operating profit has increased due to the reduction in total expenditure. The operating profit has increased at a declining rate due to the overall effect in the of the period 2020 to 2021.

Private Sector Banks



(Figure 6: Bar Chart of Deposits, Investments and Advances of Private Sector Banks)

(Source: Author's Compilation, 2022)

- From the chart, it can be noticed that the magnitude of deposits has increased over the years. The rate of increase in deposits from 2019 to 2020 was 10.32 per cent and from 2020 to 2021 was 15.43 per cent. So, the rate of increase has also increased over the years.

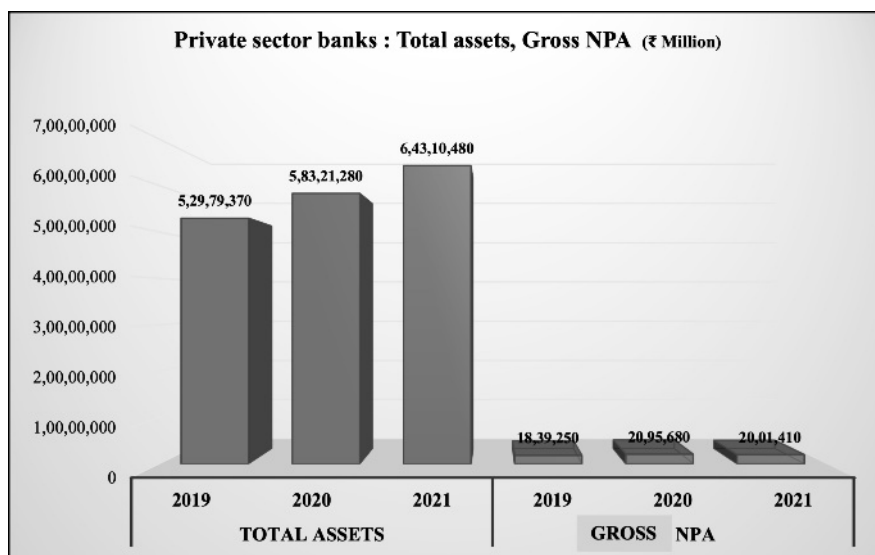
Therefore, it can be said from the analysis that deposits of private sector banks have increased at an increasing rate just like the public sector banks. So, the magnitude of deposits has not been affected during the pandemic.

- From the chart, it can be noticed that the magnitude of investments has increased over the years. The rate of increase in investments from 2019 to 2020 was 5.81 per cent and from 2020 to 2021 was 16.97 per cent. So, the rate of increase has also increased over the years and in the period of 2020 to 2021, it was nearly triple the rate in 2019 to 2020.

From the analysis, it can be understood that private sector banks invested at a higher rate, same as the public sector banks, in the period 2020 to 2021 than in 2019 to 2020. The reason may be that the banks had surplus money during that period.

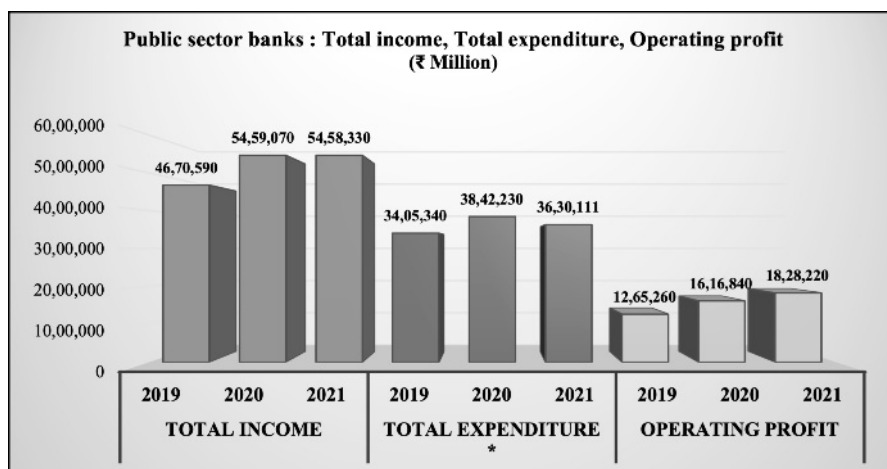
- From the chart, it can be seen the magnitude of advances has increased over the years. However, the rate of increase in advances from 2019 to 2020 was 8.95 per cent while that from 2020 to 2021 was 8.67 per cent. So, the rate of increase has slightly decreased in the period 2020 to 2021 as compared to 2019 to 2020.

Therefore, it can be understood from the analysis that although the magnitude of advances by private sector banks has increased, the rate of giving advances has slightly declined in the period of 2020 to 2021. The reason may be that the amount of loans taken during the pandemic has not increased as much as earlier. So, the private sector banks have surplus money and their rate of investment has increased at a higher rate in this period.



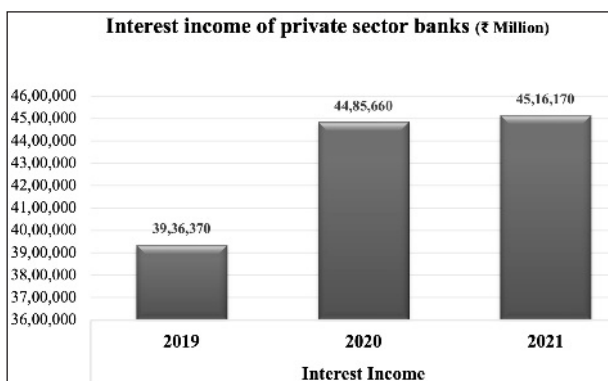
(Figure 7: Bar Chart of the Total Assets and the Gross Non-Performing Assets of Private Sector Banks)
(Source: Author's Compilation, 2022)

- It can be observed from the chart that the total assets of private sector banks have increased over the three years. The rate of increase in total assets from 2019 to 2020 was 10.08 per cent and that from 2020 to 2021 was 10.27 per cent. So, the rate of increase has also slightly increased.
- Therefore, it can be understood that though the rate of giving advances slightly declined in the period of 2020 to 2021, as the public sector bank made more amount of investments in this period, their rate of increase in assets has slightly increased.
- From the chart, it can be noticed that the gross NPA of private sector banks has first increased and then decreased. The rate of increase in gross NPA from 2019 to 2020 was 13.94 per cent while the rate of decrease in gross NPA from 2020 to 2021 was 4.50 per cent.
- Therefore, it can be said that the gross NPA has increased from 2019 to 2020 due to defaults in interest payment and loan repayment. Post that, it decreased at a slower rate in the period of 2020 to 2021 because the rate of giving advances also decreased during this period.



(Figure 8: Bar Chart of the Total Income, Total Expenditure and Operating Profits of Private Sector Banks)
(Source: Author's Compilation, 2022)
(*Excludes provisions and contingencies)

- From the chart, it can be observed that the total income of private sector banks has increased first and then decreased by a very marginal rate. The rate of increase in total income from 2019 to 2020 was 16.88 per cent while the rate of decrease in total income from 2020 to 2021 was 0.01 per cent. These can be analyzed further by dividing the total income into two parts – interest income and other income.

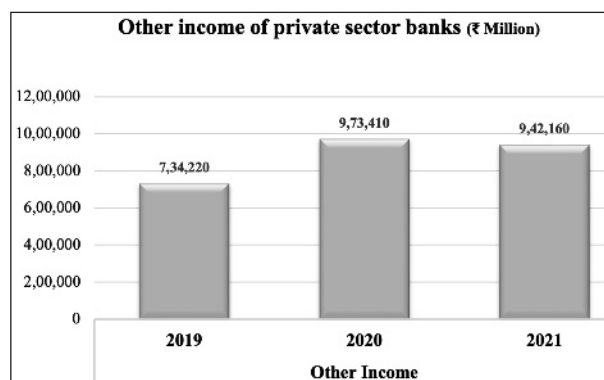


(Figure 9: Bar Chart of the Interest Incomes of Private Sector Banks)
(Source: Author's Compilation, 2022)

- So, from the chart of interest income and other income, it can be seen that interest income has increased in both the years - 2020 and 2021, and other income has increased in 2020 but decreased

in 2021. Thus, the total income has decreased by a very marginal rate due to a decrease in the other incomes of the private sector banks.

- Therefore, from the analysis, it can be understood that the interest income of private sector banks has not decreased like that of public sector banks in the period of 2020 to 2021. Instead, it has increased, though by a minimal rate. Here, other income has decreased instead, in the period of



(Figure 10: Bar Chart of the Other Incomes of Private Sector Banks)
(Source: Author's Compilation, 2022)

2020 to 2021. As an overall effect, total income has decreased by a very marginal rate in the period of 2020 to 2021.

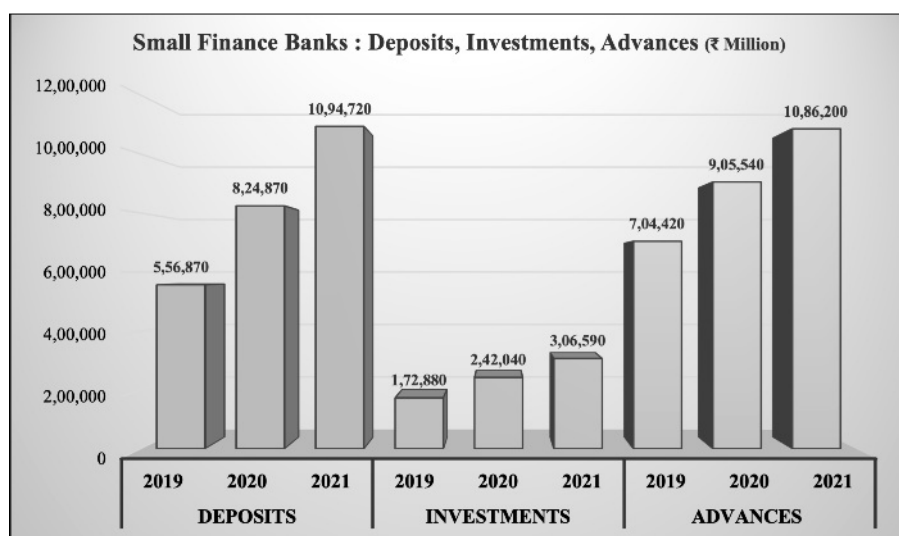
- It can be observed from the chart that the total expenditure of private sector banks has increased in 2020 and then decreased in 2021. The rate of increase in total expenditure from 2019 to 2020 was 12.83 per cent while the rate of decrease in total expenditure from 2020 to 2021 was 5.52 per cent.
- Therefore, it can be said from the analysis that private sector banks have managed to reduce their expenditure just like the public sector banks in the period of 2020 to 2021. The reason may be that

banks reduced their borrowings and gave a lower amount of interest during this period.

- From the chart, it can be noticed that the operating profit has increased over the years. The rate of increase in operating profit from 2019 to 2020 was 27.79 per cent and from 2020 to 2021 was 12.70 per cent. The rate of increase has declined in the period of 2020 to 2021.
- Therefore, it can be understood from the analysis that though the total income of private sector banks has decreased by a very minimal rate, the operating profit has increased due to the reduction in total expenditure. The operating profit has increased at a declining rate in the period of 2020 to 2021 due to the overall effect.

Small Finance Banks

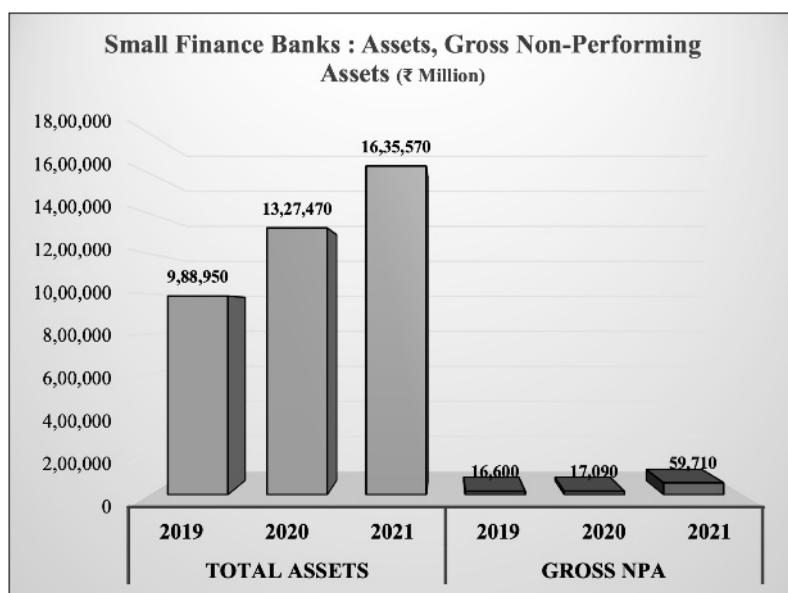
Small Finance Banks are a special segment of the banking ecosystem created by the RBI under the direction of the Government of India. It was created with the objective of financial inclusion by undertaking basic banking activities. The purpose of creating such a bank was to serve small business units, marginal farmers, unorganised sectors, small industries, et al.



(Figure 11: Bar Chart of Deposits, Investments and Advances of Small Finance Banks)
(Source: Author's Compilation, 2022)

- From the chart, it can be noticed that the magnitude of deposits has increased over the years. The rate of increase in deposits from 2019 to 2020 was 48.13 per cent and from 2020 to 2021 was 32.71 per cent. So, the rate of increase has decreased in the period of 2020 to 2021.
- Therefore, it can be said from the analysis that deposits of small finance banks have increased at a declining rate. The reason may be that customers of this banking sector have deposited more money in the period of 2020 to 2021 but at a decreasing rate.
- From the chart, it can be noticed that the magnitude of investments has increased over the years. The rate of increase in investments from 2019 to 2020 was 40 per cent and that from 2020 to 2021 was 26.67 per cent. So, the rate of increase has decreased over the years.
- From the analysis, it can be understood that small finance banks invested at a lower rate in the period of 2020 to 2021 than in that of 2019 to 2020. The reason may be that the banks did not have sufficient surplus to invest during that period.
- From the chart, it can be seen the magnitude of advances has increased over the years. However, the rate of increase in advances from 2019 to 2020 was 28.55 per cent and that from 2020 to 2021 was 19.95 per cent. So, the rate of increase has declined in the period of 2020 to 2021 as compared to 2019 to 2020.

- Therefore, it can be understood from the analysis that although the magnitude of advances by small finance banks has increased, the rate of giving advances has decreased in the period of 2020 to 2021. The reason may be that the amount of loans taken during the pandemic has not increased as much as earlier.

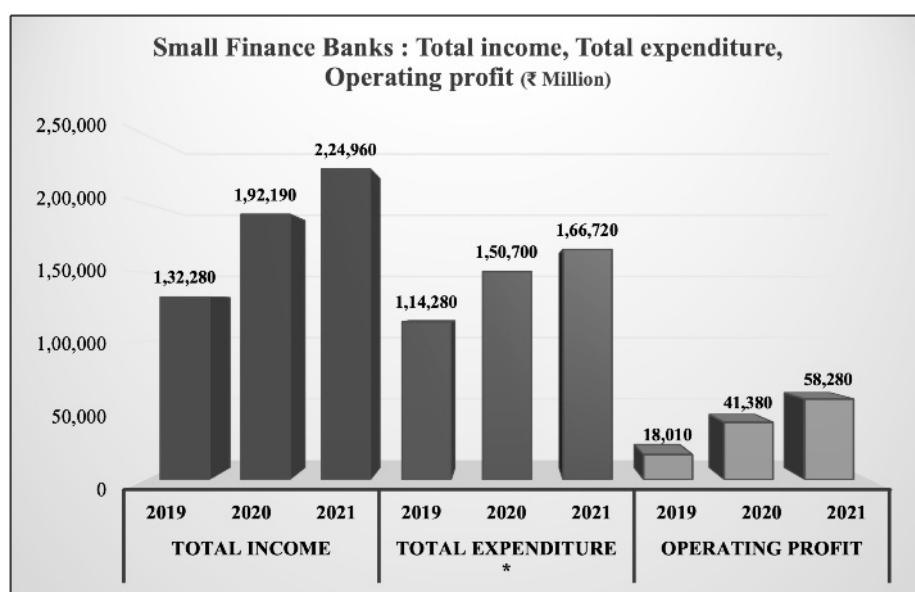


(Figure 12: Bar Chart of the Total Assets and the Gross Non-Performing Assets of Small Finance Banks)
(Source: Author's Compilation, 2022)

- It can be observed in the chart that the total assets of small finance banks have increased over the three years. The rate of increase in total assets from 2019 to 2020 was 34.23 per cent and that from 2020 to 2021 was 23.21 per cent. So, the rate of increase has decreased.
- Therefore, it can be understood that as the rate of giving advances has decreased and the rate of increase in investment has also decreased in the period of 2020 to 2021, the rate of increase in total assets has declined as well.
- From the chart, it can be noticed that the gross NPA of small finance banks has increased over the years. The rate of increase in gross NPA from 2019 to 2020

was 2.95 per cent and that from 2020 to 2021 was 249.39 per cent. The gross NPA of small finance banks has increased by a huge rate in the period of 2020 to 2021.

- Therefore, it can be said that the gross NPA has increased from 2020 to 2021 by a huge rate due to the massive defaults in interest payment and loan repayment. As the main customers (small business units, marginal farmers, unorganised sectors, small industries, et al.) of small finance banks were affected the most in the pandemic, they were not able to repay their loan in the period of 2020 to 2021. Hence, the gross NPA has increased by a substantial rate.



(Figure 13: Bar Chart of the Total Income, Total Expenditure and Operating Profits of Small Finance Banks)
(Source: Author's Compilation, 2022)
(*Excludes provisions and contingencies)

- From the chart, it can be observed that the total income of small finance banks has increased over the years. The rate of increase in total income from 2019 to 2020 was 45.29 per cent and that from 2020 to 2021 was 17.07 per cent. So, the rate of

increase has decreased in the period of 2020 to 2021.

Therefore, from the analysis, it can be understood that the total income of small finance banks has increased at a decreasing rate in the period of 2020 to 2021. This may be because of the lower interests on loans and investments.

- It can be observed from the chart that the total expenditure of small finance banks has increased over the years. The rate of increase in total expenditure from 2019 to 2020 was 31.26 per cent and from 2020 to 2021 was 10.56 per cent. So, the rate of increase has declined.

Therefore, it can be said from the analysis that small finance banks have managed to reduce the rate of increase in their total expenditure.

- From the chart, it can be noticed that the operating profit has increased over the years. The rate of increase in operating profit from 2019 to 2020 was 129.76 per cent and that from 2020 to 2021 it was 40.84 per cent. The rate of increase has decreased by a huge rate in the period of 2020 to 2021.

Therefore, it can be understood from the analysis that though the operating profit has increased in both the periods, it has increased by a much lower rate in the period of 2020 to 2021 as compared to that of 2019 to 2020. This might have been because the total income of that period had also not increased by a substantial rate.

CONCLUSION

The COVID-19 pandemic has hugely impacted every industry across the world in recent years. As industries are attempting to recover, there is a need for new strategic initiatives and higher preparation. The banking sector has a major role in it as well. Banking services in India are classified under essential services. Banking and financial institutions were under a lot of pressure during the pandemic and subsequent health crisis.

From the whole analysis, it can be observed that there are similar trends in both public and private sector banks apart from a few areas. There are however, some

different trends in the small finance banks due to their nature.

In this paper, the primary aim was to discuss the effect of COVID-19 on the Indian banking sector by presenting some statistical data and interpreting them such that the effect of the pandemic on the banking system could be understood in a nutshell.

RECOMMENDATIONS

Some recommendations are –

- Banks should become more flexible in the regulatory and supervisory framework.
- There should be a facility to provide adequate loans to keep all the small and medium enterprises on track after the pandemic, as they are the most vulnerable.
- Banks should focus on designing new customers offerings for the new normal, considering the varying demand.
- Banks should provide for more security in online services because this has emerged as the main alternative during the pandemic period.
- The banking sector should be made strong enough in every aspect to withstand any upcoming crises.

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As a result, there is no way of denying the fact that digital marketing has a significant impact on consumers' buying decision process as well as online shopping propensities.

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Impact of Digital Marketing on Consumer Buying Pattern: A Study

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ABSTRACT

Digitization is the call of the present era. Constant efforts have been made by the Government of India to make Digital India. As a result, it becomes necessary to assess the impact of digital marketing on consumer buying pattern. This study is based on primary data, collected from 150 respondents

from urban, suburban and rural areas. Nearly 75 per cent respondents are students. The study reveals that consumers are attracted by the 'price', 'customers review', 'mode of payment' and 'delivery time' while making online buying decisions. Almost all the respondents (97 per cent) are satisfied with online marketing and they are likely to continue it. This happens to be a clear indication of going towards Digital India.

KEYWORDS: Globalization, Economic Digitization, Online Advertisement, Consumer Preferences, Online Shopping.

INTRODUCTION

Marketing is an art as well as a science of exploring, creating and delivering valued goods and services to satisfy the needs of the consumers, and at the same time optimizing profit - the ultimate goal of business organizations. After globalization, the market has become highly competitive and technological advancement and use of the internet through mobile phones, computer and laptops has increased significantly. The twin dynamics, market competition and technological advancement, have opened the way to shift traditional marketing strategies to digital marketing strategies.

Digital Marketing refers to online marketing or internet marketing. It is a way of marketing products and services using digital technologies. There are some basic differences between digital and traditional ways of marketing. Generally, newsletters, billboards, newspaper print ads, broadcasts, magazines and direct mail are used as methods of traditional marketing. On the other hand, modern digital marketing is done through the internet, mobile phones or any digital medium and it includes platforms like social media, blogs, pop-ups, e-mails and business networking sites.

It is being observed that mobile phones, computers, laptops and the internet have become part and parcel of our daily lives and digital marketing helps us in reaching a vast audience at a lower cost and even at a

faster pace. It also ensures the quality of products and services and transparency in the business and at the same time, consumers are free to make choices due to the highly competitive market. There at present exist various e-commerce models, e.g. (i) Business to Business E-Commerce (B2B), e.g., Myntra deals with various brands; (ii) Business to Customer (B2C), e.g., Online shopping; (iii) Customer to Customer (C2C), e.g., OLX and (iv) Business to Government (B2G). By exploring business models and using digital technologies, a company can reduce costs and also expand its business globally. The benefits of digital marketing: (i) build a good image of the enterprise, (ii) reduce wear and tear of products, (iii) save time and reduce cost, (iv) access information anywhere at any time of the day and, (v) ensure the quality of the products and services, as well as increase productivity of the company as the markets are broadly scattered. However, digital marketing has also some disadvantages. The most important disadvantages are (i) highly reliant on the internet, (ii) customers' lack of trust in online advertisement, (iii) digital marketing duplicity harms brand image, (iv) lack of digital literacy among customers, (v) unaffordable smart phones and (vi) increase of cyber crime.

Considering the ever-increasing dynamism in one's life and livelihood, one cannot deny the call of the present era, i.e., digitization of the economy. The Indian government is also advocating for Digital India to reduce its cost and provide good governance. Hence, it becomes imperative to study the impact of digital marketing on consumer buying pattern and this paper is an endeavour to do so.

OBJECTIVES OF THE STUDY

The following are the objectives of this study:

1. To study the changing buying behaviour of consumers in the advent of digital platforms.
2. To examine how far digital marketing affects consumers buying decision-making process.

DATA AND METHODOLOGY

This study is based on primary data which is being collected by circulating a preordained questionnaire among different age groups of young people. Convenience and Snowball sampling methods are used for data collection. There are altogether 150 samples collected. For the sake of simplicity, only statistical tables are used for data presentation, analysis and interpretation.

LITERATURE REVIEW

Various scholars have defined and examined the effectiveness of this technology-based marketing technique which becomes possible due to the advancement of technology and internet services. Chaffey (2013) defined digital marketing as: 'Digital marketing is the use of technologies to help marketing activities in order to improve customer knowledge by matching their needs.' On the other hand, Afrina et al. (2015) defined digital marketing as a technique in which a service or a product can be presented, promoted or sold by a company to its customers through various online platforms. Dennis et al. (2009) explored the conceptual development of an integrated model of e-consumer behaviour and observed that online shopping is growing fast and at the same time traditional way of shopping is struggling to maintain growth.

Mannu et al. (2020) argued that digital marketing is beneficial both for customers and companies. They observed that the companies that implemented digital marketing have succeeded in reducing their expenses and captured a larger market base. Mrs. K. R. Mahalaxmi et al. (2016) observed that irrespective of educational qualification, customers are well aware of the various digital marketing practices. The purchase of convenience goods has increased due to effective online advertisement which helps in boosting the sales of the firm, and at the same time, customers are satisfied with the online shopping experience.

Dr. S. Sivasankaran (2017) identified that youth in general have a huge influence on the complete family buying behaviour as a whole. P. R. Kousalya et al. (2017)

observed that consumer purchasing preferences are ever-changing and new creative and innovative advertisements attract youngsters. They argued that it is essential to learn how to tackle the risks linked with digital marketing. Bostanshirin (2014) highlighted that the internet was not being used to its full potential as some of the challenges regarding its implementation were unexplored.

Anurag et al. (2021) have observed that consumers are becoming more and more aware of brands and lifestyles according to their own needs and occasions. They argued that digital marketing will continue to grow in the future with technological advancements and the changing preferences and tastes in consumer behaviour. Dr. Simran et al. (2018) observed that the greater change is being seen in the big cities and especially among working couples due to lack of time as it is convenient for them to buy and make payments at anytime, anywhere. Certain rewards to the consumers in form of coupons, gift vouchers, discount, cash back, and cash discount further motivates customers to use digital transactions and to shop online.

DATA ANALYSIS

The data have been collected from 150 respondents residing in urban (n=101), suburban (n=32) and rural (n=17) areas. Altogether, there are 124 male and 26 female respondents. Respondents are classified according to their occupations (students, service, self-employed and others), gender (male and female) and age groups ('16-18', '19-24', '25-30' and 'above 30'). Among the respondents, students are nearly 75 per cent (male 62 per cent and female 13 per cent); service and self-employed are nearly 25 per cent (Male 21 per cent and female 4 per cent) and only one respondent is a housewife. The demographic characteristics of urban, suburban and rural respondents are presented in the descriptive statistics (Table 1).

A: Demographic Characteristics of Urban Respondents (n = 101)						
Occupation	Gender	Age Group (in years)				Total
		16-18	19-24	25-30	Above 30	
Student	Male	1	70	4	-	75
	Female	1	10	-	-	11
	Total	2	80	4	-	86
Service	Male	-	1	4	2	7
	Female	-	-	1	-	1
	Total	-	1	5	2	8
Self-employed	Male	-	-	2	1	3
	Female	-	2	1	1	4
	Total	-	2	3	2	7
Total		2	83	12	4	101
B: Demographic Characteristics of Suburban Respondents (n = 32)						
Student	Male	1	11	-	-	12
	Female	1	3	-	-	4
	Total	2	14	-	-	16
Service	Male	-	-	7	3	10
	Female	-	-	-	-	-
	Total	-	-	7	3	10
Self-employed	Male	-	2	1	1	4
	Female	-	1	-	-	1
	Total	-	3	1	1	5
others	Male	-	-	-	-	-
	Female	-	-	-	1	1
	Total	-	-	-	1	1
Total		2	17	8	5	32
C: Demographic Characteristics of Rural Respondents (n = 17)						
Student	Male	-	6	-	-	6
	Female	2	2	-	-	4
	Total	2	8	-	-	10
Service	Male	-	3	2	-	5
	Female	-	-	-	-	-
	Total	-	3	2	-	5
Self-employed	Male	-	-	2	-	2
	Female	-	-	-	-	-
	Total	-	-	2	-	2
Total		2	11	4	-	17
Overall Total	Male	2	93	22	7	124
	Female	4	18	2	2	26
Grand Total		6	111	24	9	150

Table 1: Descriptive Statistics
(Source: Primary Survey, 2022)

When we look at the respondents' frequency of online shopping, we observed that the frequency of online shopping of more than 50 per cent respondents is significantly very high. It is observed that all the respondents are used to do online shopping and the frequency distribution of their online shopping appears as 23 per cent do occasionally, 25 per cent do sometimes, 37 per cent do often and 13 per cent do frequently. It is also observed that the frequency of online shopping is much higher among the male respondents, especially among the male students, irrespective of area they belong. On the other hand, among the service and self-employed respondents the propensity to online shopping is higher among the female (nearly 63 per cent) than that of male (29 per cent). It is to be noted here that only two suburban respondents did not shop online at the time of survey (table2).

Hence, it appears that the respondents do feel that online shopping has some additional advantages over the traditional mode of shopping and all the above-mentioned reasons have a significant impact on consumers buying decision-making (Table 3(A)). It is clearly revealed from Table 3(B) that 97 per cent of respondents are satisfied with online shopping and 55 per cent of them are very or extremely satisfied. At the same time, 99 per cent of respondents expressed their willingness to continue online shopping (Table 3(C)). It is observed that while making an online buying decision, respondents' prime concern becomes the 'price' of the product and the second important concern is 'customer reviews' which is not available in the traditional system of shopping. Factors like 'delivery time' and 'mode of payment' are also taken into account by the respondents while making online buying decisions (Table 3(D)). It is observed that most of

Sector or Occupation	Gender	Frequency of Online Shopping					
		Never	Occasionally	Sometimes	Often	Frequently	Total
Urban	Male	-	19	15	35	14	83
	Female	-	2	3	9	4	18
Suburban	Male	2	9	6	8	-	25
	Female	-	2	2	1	1	6
Rural	Male	-	2	8	3	-	13
	Female	-	1	4	-	-	5
Total		2	35	38	56	19	150
Student	Male	-	18	21	39	12	90
	Female	-	3	8	7	3	21
Employed and other	Male	2	12	8	7	2	31
	Female	-	2	1	3	2	8

Table 2: Respondents' Online Shopping Frequencies by Gender, Sector and Occupation
(Source: Primary Survey, 2022)

This study also tries to identify the reasons behind respondents' propensity to choose online shopping over traditional shopping. The respondents expressed their reasons behind online shopping as follows: 86.7 per cent of respondents feel that the benefit of online shopping is 'convenience'; 85.3 per cent are attracted by lucrative 'offers and discounts'; about 78.0 per cent mentioned 'ease of payment' and 'wide range of choice' and 58.7 per cent mentioned '24*7 accesses'.

our respondents (89.3 per cent) prefer shopping for electronic items online. The other items of online shopping preferred by our respondents are household appliances (76.7 per cent), books and stationery (67.3 per cent), clothing (66.7 per cent), cosmetics and beauty products (58.7 per cent) and groceries (58 per cent). It is a matter of surprise that only 40 per cent of respondents do their shopping for healthcare-related items online (Table 3(E)).

A. Reasons Behind Online Shopping Over Traditional Shopping								
	Convenience	Ease of payment	Offers and discounts	Wide range of choice	24*7 Access	Others		
Number of Respondents	130 (86.7)	117 (78.0)	128 (85.3)	116 (77.3)	88 (58.7)	1 (0.7)		
B. Respondents Level of Satisfaction with Online Shopping								
	Not satisfied	Somewhat satisfied	Moderately satisfied	Very satisfied	Extremely satisfied	Total No. of Respondent		
Number of Respondents	4 (3.0)	11 (7.0)	52 (35.0)	63 (42.0)	20 (13.0)	150 (100.0)		
C. Respondents Responses with respect to Continuation of Online Shopping								
	Not likely	Somewhat likely	Likely	Very likely	Highly likely	Total No. of Respondent		
Number of Respondents	2 (1.0)	18 (12.0)	57 (38.0)	43 (29.0)	30 (20.0)	150 (100.0)		
D. Respondents Focus on Primarily while Making an Online Buying Decision								
	Price	Customer reviews		Delivery time	Mode of payment			
Number of Respondents	150 (100.0)	136 (90.7)		133 (88.7)	115 (76.7)			
E. Respondents online purchase preferences								
Percentage of Respondents	EL	HA	BS	GR	VF	CB	CL	HC
	89.3	76.7	67.3	58.0	47.3	58.7	66.7	40.0

Table 3: Respondents' Responses to Various Issues Related to Online Shopping

(Source: Primary Survey, 2022)

(Note: EL = Electronics; HA = Household Appliances; BS = Books and Stationery; GR = Groceries; VF = Vegetables and food items; CB = Cosmetics and beauty products; CL = Clothing; HC = Healthcare related items)
(Note: Figures in the parentheses indicate the per cent)

It is revealed from the primary survey that while respondents decide to buy online, at first, they make a web search for the product in the sites of Amazon, Flipkart, e-Bay, Shop Clues et al. They also collect information from Google searches, social media, YouTube as well as from friends and relatives. In this respect, 'customer reviews' on a product play an

important role. Regarding the mode of payments, respondents' first choice is UPI (Unified Payments Interface) payment followed by Debit or Credit card and cash on delivery.

It is to be noted here that during the COVID-19 pandemic, especially when the lockdown was strictly imposed in our country, there was no scope to buy

goods from the traditional markets. In such a situation online shopping appeared as the only solution to people. Respondents reported that during the pandemic period they were able to buy their required medicines, masks, sanitizers, medical appliances (steamer, oximeter et al.) and other necessary goods online. Again, poor network, misleading advertisement; extra delivery charges and product damage- all these disadvantages of online shopping are also mentioned by the respondents. In spite of the above-specified drawbacks, respondents are happy with and willing to continue their online shopping.

CONCLUDING REMARKS

Nowadays people are very much tied up with their lives and livelihood. Online shopping makes it convenient for people to buy and payments at anytime, anywhere. It is apparent that irrespective of economic class and educational qualification, buying a smart phone is considered in our modern society as a smart decision. Again, in the era of economic digitization, customers become well aware of the various digital marketing practices. The companies' latest business strategies, i.e., rewards to the customers in the form of gift vouchers, discount, cash back et al. motivates customers to use digital transactions and to shop online. Customer reviews and 24*7 access also appear as additional factors to instigate customers for online shopping. As a result, there is no way of denying the fact that digital marketing has a significant impact on consumers' buying decision process as well as online shopping propensities. Advertisements and lucrative offers like rewards, discounts and cashback have a substantial impact on the young generation, especially young students, and have prompted them to carry on frequent online shopping. In the end, we acknowledge that urban biases and the skewed distribution of respondents appear as the major limitations of this paper.

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The COVID-19 pandemic, an invisible silent killer, has taken the lives of hundreds of thousands of people, disrupted economies, and affected supply chains and business sectors across the world.



Impact of COVID-19 Pandemic on the Insurance Industry: A Study

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ABSTRACT

The COVID-19 pandemic had disrupted all sectors of the world economy. It affected business supply chains and jeopardized the life as well as the livelihood of people. Millions and millions of people died, lost their jobs and faced reductions in salary. The global nature and scale of the COVID-19 crisis has appeared as a special challenge to human civilization. The insurance industry, one of the most important industries and a significant contributor to the Gross Domestic Product (GDP), was also severely affected by the pandemic. This paper is based on secondary data. The study reveals that COVID-19 had a mixed impact on the insurance industry. Private life insurances were affected much more than public ones. The growth of premium, total investment and market share of non-life insurance businesses

failed to reach the desired level. However, the insurance industry along with other sectors of the Indian economy has recovered from its setbacks during the pandemic period and is ready to accelerate growth.

KEYWORDS: Gross Domestic Product, Per Capita Income, COVID-19 Pandemic, Gross National Disposable Income, Lockdown.

INTRODUCTION

The COVID-19 pandemic, an invisible silent killer, has taken the lives of hundreds of thousands of people, disrupted economies, and affected supply chains and business sectors across the world. Many countries have experienced natural catastrophes and viral outbreaks, such as severe acute respiratory syndrome and Middle East respiratory syndrome before, but the global nature and scale of the COVID-19 crisis has appeared as a special challenge to human civilization.

On 11th March 2020, the World Health Organization (WHO) declared COVID-19 a pandemic, post which India implemented its first 'Janata Curfew' on 22nd March 2020. The Indian government started the first 21 days of lockdown, but later the complete lockdown was extended in four phases, keeping an eye on the number of COVID-19-affected cases and their impact across the world. After 75 days of lockdown, the process of unlocking began. At the start of the lockdown, there were just 606 COVID-19-positive victims and 10 death cases in India and within the lockdown period, the number of COVID-19-positive victims had increased to 2,50,000 and the number of death cases raised to 7,200. India had then become the world's second most affected region with 10.5 million confirmed cases and 1.5 million deaths (Kumar, 2020). In India, this 75-day lockdown severely affected society and its inhabitants. About 140 million had lost their jobs and were forced to flee from India's major cities, and many more had their salaries reduced. This lockdown harshly affected all the sectors of the Indian economy, especially industrial works, manufacturing, hospitality and educational institutions.

The insurance industry is one of the most important sectors in the Indian economy and this sector accounts for around five to seven percent of the GDP. It has been

revealed by research that during the pandemic period all economic activities had been severely affected. In the insurance sector, there had been a little rise in the health insurance business, but the insurance sector as a whole had experienced a downturn. In India, only 18 per cent of the urban and 14 per cent of the rural population have health insurance. The COVID-19 pandemic had disrupted all economic activities across business sectors of the world. Earlier insurers had experienced natural catastrophes and viral outbreaks, but the global nature and scale of the COVID-19 crisis had been especially challenging for insurers.

General insurance, or property and casualty insurance, protects the GDP of a country by providing a cover to assets and businesses, including liabilities and future unearned profits, against natural disasters and accidental damage. The entire automobile sector had already experienced a dip in 2019–2020. New automobile purchases constitute a major portion of the premiums, and hence the lockdown and virtual stoppage of business aggravated the situation. Again, only essential items were being transported under the lockdown. Normally, marine cargo insurance for fleets operates as a master policy and each trip triggers a policy – so with much less cargo movement by road, rail or air, the entire marine insurance industry experienced a temporary downturn during the pandemic period. However, accidents were less likely to happen and therefore, lower claims were being experienced during that time.

The impact of COVID-19 on the insurance industry is fascinating to investigate because it not only taught society how to thrive in a pandemic situation but also suggested tactics that should be pursued in future to prevent market uncertainty.

LITERATURE REVIEW

The novel coronavirus, referred to as COVID-19, has severely affected all the sectors of each and every country of the world. The insurance industry, one of the most important industries, has also been severely affected by the COVID-19 pandemic. Babuna et al., (2020) made a case study on the impact of COVID-19 on the Ghanaian Insurance Industry. Their study reveals

that until June 2020, Ghana has reported 14,007 confirmed cases of the novel coronavirus. Ghana's president placed a partial lockdown in March 2020, but it was lifted in April 2020 due to the country's impending economic collapse. A monetary loss of GH¢ 112 million had been suffered by the Ghanaian insurance industry. The annual profit had dropped by 16.6 per cent as the overall premiums dropped by 17.01 per cent, while client claims had increased by 38.4 per cent. Insurance plays a major role in Ghana's economy.

Shekhar et al., (2020) tried to assess the effect of COVID-19 on the insurance sector and the transition to a new normal existence in the wake of the pandemic. Their primary aim was to assess the impact of COVID-19 on all major stakeholders, including hospitals, insurers, and corporations, as well as the impact of COVID-19 on constantly evolving claim trends, various protective models, and digitalization modes. The study addressed the impact of insurance claims made on insurers as a result of the high cost of COVID-19-positive care, which has resulted in a decrease in the number of patients seeking cancer, dialysis, and maternity treatment, both of which have seen a significant drop in post-lockdown.

Jaydeep Joy (2020) of PwC India had made a survey report through consultation with top Chief Financial Officers (CFOs) on the effect of COVID-19 on the Indian insurance industry. According to his report, to protect homes, properties and businesses, we all need the services of the insurance industry. Life insurance covers people's livelihoods, future incomes, businesses, and net worth, while general insurance covers a company's assets and economic activities. According to the survey, 51 per cent of CFOs anticipated a decrease in revenue collection of up to 25 per cent and a 26 per cent decrease in profit received by businesses as a result of COVID-19. Liquidity, portfolio risk, amount of free assets, dependency on reinsurance, and reinsurance cover were all changed in various ways by insurance companies. Insurance firms had to keep an eye on the cause-and-effect chain, global activities and market dynamics. To prevent risks, the company should have obtained expert advice early on, and it must have considered the drivers of the insured's business model.

Arora et al., (2021) observed that public awareness of health problems had increased during the pandemic period and that benefits health insurance. But other insurances such as motor, marine, fire, travel, airlines and house had experienced a significant drop in business. On the other hand, Yadav et al., (2021) observed that the insurance sector had been adversely affected by the COVID-19 pandemic mainly in terms of a decline in new policy business, delayed premium payments, increase in the number of lapsed policy and financial crisis of claim settlement due to rise in the number of deaths in the pandemic. They observed that during the pandemic period people became more aware of life insurance plans and significant growth had been observed in the demand for health and pure life insurance, increased business of online insurance (Sharma, 2021) and more oriented towards customer-centric unique solutions (Henric et al., 2020).

OBJECTIVES OF THE STUDY

1. To compare the performance indicators between life and non-life insurance in India over the period of 2019-20 to 2020-21.
2. To analyze the performance of government and private sector insurance companies over the period of 2019-20 to 2020-21.

DATA AND METHODOLOGY

This study is based on secondary data, collected from Central Statistical Office (CSO), Ministry of Statistics and Programme Implementation, Government of India; Insurance Regulatory and Development Authority of India (IRDAI) 2019-2020 & 2020-21; Swiss Re Institute, Sigma research publication No. 4/2020 and No. 3/2021. For the sake of simplicity, the data have been analyzed and presented in simple statistical tables.

DATA ANALYSIS AND DISCUSSION

Before examining the impact of the COVID-19 pandemic on the performance of the Indian insurance industry, it would be worthwhile to make an overview of the impact of the pandemic on the overall Indian

economy. For this purpose, the provisional estimates of the Annual National Income statistics, released by the Central Statistical Office (CSO), Ministry of Statistics and Programme Implementation, Government of India for the years 2018-19, 2019-20 and 2020-21, have been analyzed at the beginning. The unprecedented negative impact caused by the COVID-19 pandemic is clearly revealed here, where all the indicators for the assessment of economic condition, such as GDP, Gross National Income (GNI), Gross Value Added (GVA), and Gross National Disposable Income (GNDI), have shown sharp declining trends in the years from that of the previous year and become negative in 2020-21. GDP, at current prices, for the year 2020-21 has declined to -3.0 per cent from 7.8 per cent in 2019-20. Similar declining trends have been observed in the case of GVA, GNI and GNDI which declined to -3.0, -3.0 and -2.8 per cent respectively in the year 2020-21 from the year 2019-20. As a consequence, per capita GDP, and GNI have also declined to -4.0 and -4.0 per cent respectively from 6.6 and 6.8 in 2019-20.

The ascetic impacts of the COVID-19 pandemic on the per capita income, product and final consumption

point out the fact that the pandemic had cruelly affected the life and livelihood of every individual in India. The per capita disposable income, which indicates the purchasing power of a person, had declined from 10.1 per cent in 2018-19 to 6.8 per cent in 2019-20 and had further declined to -4.0 per cent in 2020-21. Again, it remained a matter of serious concern that the per capita private final consumption expenditure (PFCE), i.e., the expenditure on goods and services for the direct satisfaction of individual needs, had reduced to -7.0 per cent in 2020-21 from 8.5 per cent in 2019-20. The above economic scenario clearly depicted the extent of the precarious situation that faced the Indian economy during the pandemic period.

When all the sectors of the world economy had been affected badly by the COVID-19 pandemic, it was not expected that the Indian insurance industry would do well during the same. In this regard, according to Sigma research publication (nos. 4/2020 and 3/2021) on world insurance by the Swiss Re Institute, the global insurance industry has faced the COVID-19 crisis spiritedly with the slighter dip in premiums than during the global financial crisis of 2008-09.

(at Current Prices)						
Item	2018-19 (RE)	2019-20 (RE)	2020-21 (PE)	Percentage Change Over Previous Year		
				2018-19	2019-20	2020-21
A. Domestic Products (in Thousand Billion)						
1. GVA at basic price	171.40	184.61	179.15	10.5	7.6	-3.0
2. Gross Domestic Products (GDP)	189.71	203.51	197.46	11.0	7.8	-3.0
3. Gross National Income (GNI)	187.69	201.58	195.61	11.0	7.9	-3.0
4. Gross National Disposable Income (GNDI)	192.63	206.98	201.28	11.2	7.9	-2.8
B. Per Capita Income, Product and Final Consumption (in ₹)						
5.Per Capita GDP	1,42,963	1,51,760	1,45,680	9.9	6.6	-4.0
6. Per Capita GNI	1,41,439	1,50,320	1,44,320	9.9	6.8	-4.0
7. Per Capita GNDI	1,45,159	1,54,349	1,48,504	10.1	6.8	-3.8
8. Per Capita PFCE	84,808	91,790	85,348	10.4	8.5	-7.0

Table 1: Estimates of National Income and Expenditure

(Source: CSO, Press Note, May 29, 2020 and May 31, 2021)

(Note: RE= Revised Estimate; PE = Provisional Estimate; PFCE= Private Final Consumption Expenditure)

Now, let us first look at the impact of COVID-19 on the growth of real premiums in the insurance industry globally including India. In 2020, the growth of global real premium was reduced by 1.3 per cent, i.e., about one-third of the drop in the global GDP. In India, the percentage growth of total premiums had declined by 1.7 per cent. The life sector was heavily affected globally in 2020 with a fall of 4.4 per cent while the non-life sector posted a positive growth (1.5 per cent) in terms of the total premium.

GDP recession. In comparison to the global insurance industry, in 2020, the Indian insurance industry had shown relatively better performance in the life sector with real premiums falling by 1.2 per cent. On the other hand, the Indian non-life sector had been badly affected relative to other regions of the world and registered a 1.7 per cent fall in real premiums.

In order to make an appraisal of the impact of the COVID-19 pandemic on the Indian insurance sector, we considered two basic performance indicators-

Region	Life		Non-Life		Total	
	2019	2020	2019	2020	2019	2020
Advanced Markets	1.3	-5.7	2.7	1.5	2.1	-1.8
Emerging Markets	5.6	0.3	7.7	1.3	6.6	0.8
Asia-Pacific	2.6	-2.1	7.6	3.0	4.4	-0.3
India	7.3	-1.2	5.7	-3.1	6.9	-1.7
World	2.2	-4.4	3.5	1.5	2.9	-1.3

Table 2: Percentage Growth of Total Real Premium by Region in the World
(Source: Swiss Re Institute, Sigma research publication No. 4/2020 and No. 3/2021)

Emerging Asia (excluding China) performed relatively well, with only a 1.0 per cent fall in life insurance premiums, against a 5.3 per cent GDP decline. In advanced markets, however, aggregate life premium declined by 5.7 per cent in 2020, deeper than their

change in total investment and segment-wise growth of premiums. In this discussion, we have taken into account the performance of both life and non-life (general) insurance as well as the public and private insurance companies during the pandemic period.

Sector	Life Insurers			General Insurers		
	2019	2020	2021	2019	2020	2021
Public	9.25	11.24	10.65	9.91	8.12	16.44
Private	16.67	6.08	32.06	24.63	21.47	21.92
Total	10.79	10.11	15.16	16.88	14.85	19.37

Table 3: Percentage Change in Total Investments of the Insurance Sector in India
(Source: IRDAI, Annual reports, 2019-20 and 2020-21)

According to the 2019-20 and 2020-21 annual reports of the Insurance Regulatory and Development Authority of India (IRDAI), the total investments of life insurers and general insurers in India had increased by 15.16 and 19.37 per cent respectively in 2021. It was also revealed from the reports that in 2020, the total investment in public life insurers was much higher than that of the private sector. In 2020, the change in total investment in public sector life insurers was 11.24 per cent and that of the private sector was 6.08 per cent. However, the picture reversed in 2021, where the total private sector investment of life insurers changed to 32.06 per cent, and the total investment of life insurers in the public sector was just 10.65 per cent.

The change in total investment of public and private sectors in general insurers' also depicted a similar picture to that of life insurers. In 2021, the total investments of the public sector in general insurers had increased to 16.44 per cent and in the corresponding private sector was 21.92 per cent. Hence, it is apparent

that there were positive changes with respect to total investments in life and general insurers in consecutive three years (i.e., from 2019 to 2021) during the pandemic period.

The segment-wise premium underwritten by general and health insurers in India is presented below. In terms of market share, the public sector marine insurance business continued to be the largest general insurance segment, with a share of 49.45 per cent in 2020-21 (47.94 per cent in 2019-20). Next to the marine insurance business, in the general insurance business, came fire insurance and motor insurance businesses with market shares of 41.64 per cent and 34.25 per cent respectively in 2021. However, on comparing public sector and private sector non-life insurance businesses, it becomes clearly evident that the private sector insurance businesses under the segments of general insurance occupied a much larger market share than that of their public sector counterparts.

(in Percentage)											
Segment	Item	Public Sector		Private Sector Insurers		Stand-alone Health Insurers		Specialized Insurers		Total Insurers	
		2019-20	2020-21	2019-20	2020-21	2019-20	2020-21	2019-20	2020-21	2019-20	2020-21
Fire	Growth Market share	33.02 44.45	19.79 41.64	36.27 55.55	34.35 58.36	NA	NA	NA	NA	34.81 100	27.87 100
Marine	Growth Market share	7.70 47.94	1.86 49.45	10.39 52.06	-4.12 50.55	NA	NA	NA	NA	9.09 100	-1.25 100
Motor	Growth Market share	-3.34 36.85	-8.62 34.25	13.88 63.15	2.37 65.75	NA	NA	NA	NA	6.86 100	-1.68 100
Health	Growth Market share	2.55 45.66	11.31 45.34	16.00 28.89	16.25 29.95	27.47 25.45	8.86 24.71	NA	NA	11.87 100	12.11 100
Others	Growth Market share	29.15 30.12	-27.12 22.09	-2.96 46.08	3.13 47.81	NA	NA	28.08 23.81	25.66 30.10	11.87 100	-0.62 100
Total	Growth Market share	6.71 38.78	-1.94 36.15	11.63 48.03	8.00 49.32	27.47 7.66	8.86 7.93	28.08 5.52	25.66 6.60	11.49 100	5.19 100

Table 4: Segment-wise Premium Underwritten by General and Health Insurers in India
(Source: IRDAI, Annual report, 2020-21)

The growth of public sector health insurance premiums was 11.31 per cent in 2020-21, while earlier this growth was 2.55 per cent in 2019-20. However, in terms of the percentage of market share, the public sector health insurance business did not show any significant improvement. On the other hand, the growth of private sector health insurance premiums had shown a meagre improvement of 0.25 per cent and reached 16.25 per cent in 2020-21 (16.00 per cent in 2019-20). During the same period, there was around a 1 per cent rise in the market share of the private sector health insurance businesses. A declining growth of premiums of the stand-alone health insurers was observed which showed 8.86 per cent premium growth in 2020-21 (while earlier it was 27.47 per cent in 2019-20).

It is revealed from the above discussion that the COVID-19 pandemic exerted a mixed impact on India's overall insurance industry. During the pandemic period, some segments of life (public sector) and general (others) insurance sector experienced positive growth while others experienced negative growth. Therefore, it can be said that the Indian insurance industry has come out of the pandemic-disrupted environment and is ready to take off on its own growth path.

CONCLUDING REMARKS

The COVID-19 pandemic has disrupted all economic activities throughout the world. The insurance industry's earlier experiences were to face natural catastrophes and viral outbreaks, but the global nature and scale of the COVID-19 crisis had appeared as a great challenge to the insurance businesses across countries. During the COVID-19 pandemic, 75 days of lockdown severely affected life and livelihood of millions of Indian people. All the sectors of the Indian economy had been affected by this pandemic and the insurance industry was not an exceptional one. To make a proper in-depth appraisal of the impact of COVID-19 on the Indian insurance industry, segment-wise and sector-wise time series data are needed which is absent in this study and it becomes the limitation of the study. In spite of that, this study has shown the major impacts of the pandemic on Indian insurance businesses in

terms of some major indicators such as investment, growth of premiums and market shares. Prior to the COVID-19 pandemic, the insurance industry was one of the most important sectors in the Indian economy which contributed 5-7 per cent of the GDP. During the pandemic period, there had been a little rise in the health insurance business but the insurance sector as a whole had experienced a downturn.

It is clearly revealed in this study that during the pandemic period per capita disposable income had reduced significantly, i.e., the individual purchasing power had unfavourably come down and on the other hand, people had drastically reduced their consumption expenditure. The twin effect severely affected all segments and all sectors of the Indian insurance business.

General insurance had been affected much more than life insurance. The percentage growth of premiums in fire insurance had declined to 27.87 per cent in 2020-21 (from 34.81 per cent in 2019-20); in marine, to -1.25 per cent in 2020-21 (from 9.09 per cent in 2019-20); and in the motor insurance, to -1.68 per cent in 2020-21 (from 6.68 per cent in 2019-20). However, the percentage growth of premiums in the life insurance had increased to 12.11 per cent (from 11.87 per cent in 2019-20). Again, private life insurance was affected much more because the percentage growth of premium had increased by only 0.25 per cent in 2021 whereas the percentage growth of premium has increased by 8.76 per cent in the public sector life insurance. The growth of premium, total investment and market share of the non-life insurance business failed to reach expected levels. The failure of the insurance industry to reach its expected growth is partly because of India's low GDP growth during the pandemic period. However, the insurance industry along with other sectors of the Indian economy has been recovering from its setbacks during the pandemic period and is ready to accelerate growth once again.

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EdTech unicorns have to understand that to thrive in this sector they have to provide such educational experience using interactivity and technology which cannot be attained in just a classroom.



EdTech and its Future in India

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ABSTRACT

The study provides a glimpse of the EdTech landscape in India. A field survey was conducted to understand the expectations of the youth from such EdTech platforms and accordingly recommendations are made. It further suggests how Vedantu can improve in existing business through Porter force analysis and it was concluded that by introducing digital learning and providing hybrid medium of teaching and avoiding few sectors which seem lucrative, Vedantu can improve its brand image and strengthen its market position.

KEYWORDS: EdTech, Porter Force Analysis, Digital Learning, Hybrid Medium, Market Position.

BACKGROUND OF THE STUDY

EdTech platforms are designed to promote education through an online channel. The sector has emerged as one of the fastest growing in India with start-ups cropping up all over the country and investors eager to fund them. Currently, there are 383 organizations providing this service. The industry gained funding of \$729 million in 2018 and is expected to reach the \$30 billion mark in 2030. The major players in the industry are Byju's, Vedantu, Udemy and Unacademy. Investment in the EdTech sector appears to be very promising in the near future. It is providing entrepreneurship opportunities to individuals and guarantees employment to many people.

Factors that have ensured the phenomenal growth of this segment include a growing population base, internet and smartphone penetration, low cost of online education, pandemic, initiatives undertaken by the government and a push towards reskilling.

RELEVANCE OF STUDY

1. It is of critical importance that the sector which is revolutionizing the educational framework in India is accurately analyzed and the future trends in education are predicted.
2. Due to the nascent stage of this particular sector, very few descriptive and comprehensive research papers have been written on it, which makes it extremely important to delve deeper into the educational landscape of India.
3. Due to the rise of technology, everything can be catered to online. Thus, it becomes important to understand the technological impact on the education sector as well.
4. The scope of EdTech in near future, the opportunities that EdTech start-ups can grab to increase their customer base and brand image and the advancements that people want now in this sector.

OBJECTIVE OF STUDY

- Analysis of the EdTech landscape in India
- Suggesting possible improvements in existing business to strengthen Vedantu's brand image and customer base.
- To recommend different segments into which Vedantu can venture next.

RESEARCH METHODOLOGY

Type of Data

A combination of primary and secondary data has been used for the research project.

Research Design

An exploratory and descriptive research design is taken up.

Sample size - 210 respondents

Period of Study - Two months (10th January, 2022-13th March, 2022)

Sources of Data

Primary Research

- It included speaking to experts in the EdTech industry.
- Shadow calls with Vedantu salesperson and a customer survey.
- A digital survey.

The rationale for choosing this method: An expert call helped in understanding the industry landscape as well as the strategy adopted by Vedantu. A shadow call with the salesperson gave clarity to the offerings made by Vedantu. Results from the customer survey helped gauge what the customer wanted in terms of product and price

Secondary Research

- Reports published by KPMG, Google and NASSCOM on the EdTech landscape in India.
- Vedantu's website

The rationale for choosing this method: To understand Vedantu's strategy, a thorough reading of articles published by Vedantu, and interviews with co-founders and experts were undertaken. Vedantu's website was also studied carefully to understand its features and product offering.

Tools and Techniques

- For this report, a structured questionnaire via Google forms was prepared and distributed among people from different backgrounds and ages.
- The questionnaire consists of 10 questions and was circulated by way of an electronic form.
- Data collected was analyzed and summarized with the help of tables, pie-charts and graphs.
- Porter's five forces framework was used to understand the competitive landscape of the EdTech industry.

ANALYSIS

A survey was conducted to know the current EdTech scenario in India with a sample size of 210 people of varying age groups and occupations.

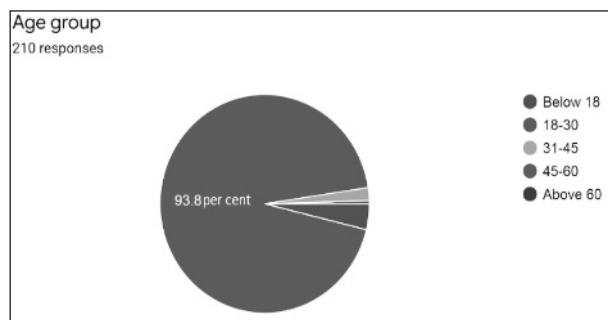


Figure 1: Different Age Groups of the Participants of Customer Survey
(Source: Field Survey)

Majorly the surveyed people were from the age group 18 to 30. 67.8 per cent were students and 21.4 per cent were students and working.

This question was to understand the age group and occupation of the people and their preferences are to be viewed accordingly.

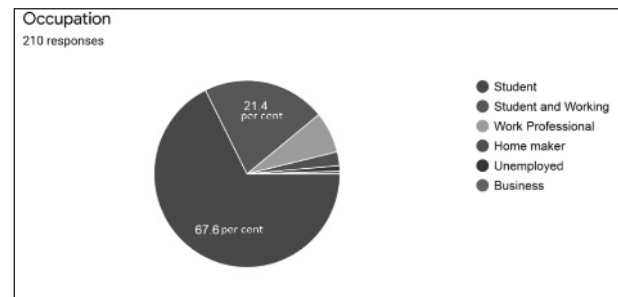


Figure 2: Occupation of the Different Participants of Survey.
(Source: Field Survey)

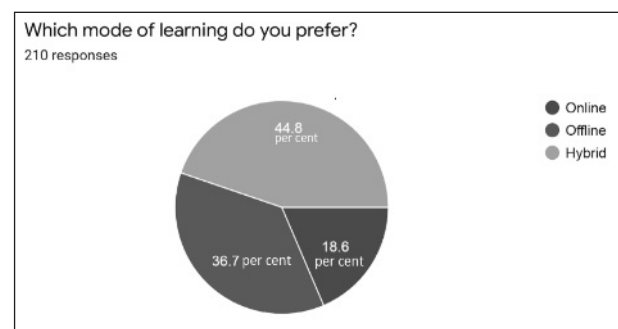


Figure 3: Pictorial Representation of Different Mode of Learnings Preferred by Participants
(Source: Field Survey)

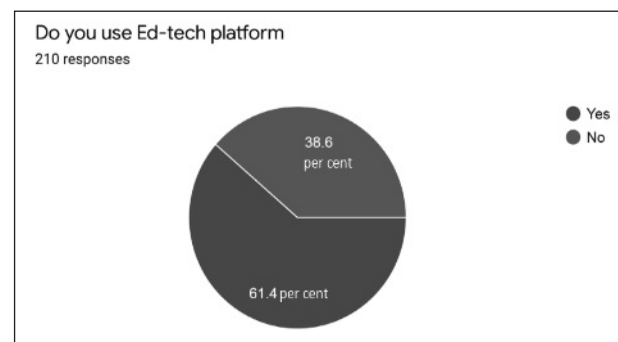


Figure 4: Pictorial Representation of the Usage of EdTech by Participants
(Source: Field Survey)

It is seen that 61.4 per cent of the surveyed people used EdTech platforms among which above 90 per cent were students who preferred a hybrid form of education.

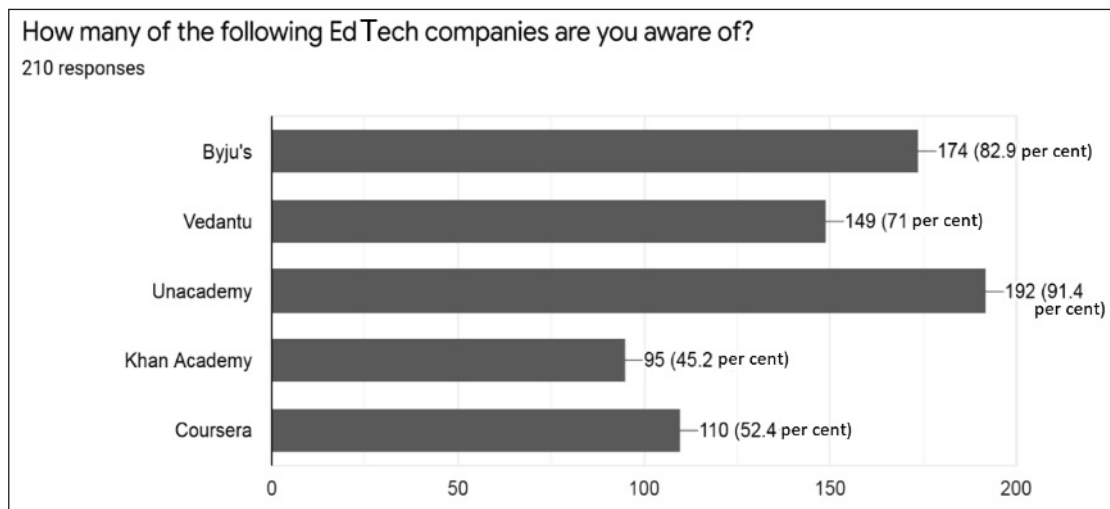


Figure 5: Showing Awareness of Different EdTech Providers among the Participants
(Source: Field Survey)

This question of the survey aimed to understand the awareness of respondents regarding the various EdTech offerings. The results revealed that Unacademy was the leader with recognition by 90 per cent (approximately) of the respondents. Byju's, Vedantu and Coursera followed the list. Here, the respondents were mostly belonging to Kolkata (West Bengal)

Vedantu was third on the list with recognition by 70 per cent (approximately) of the respondents.

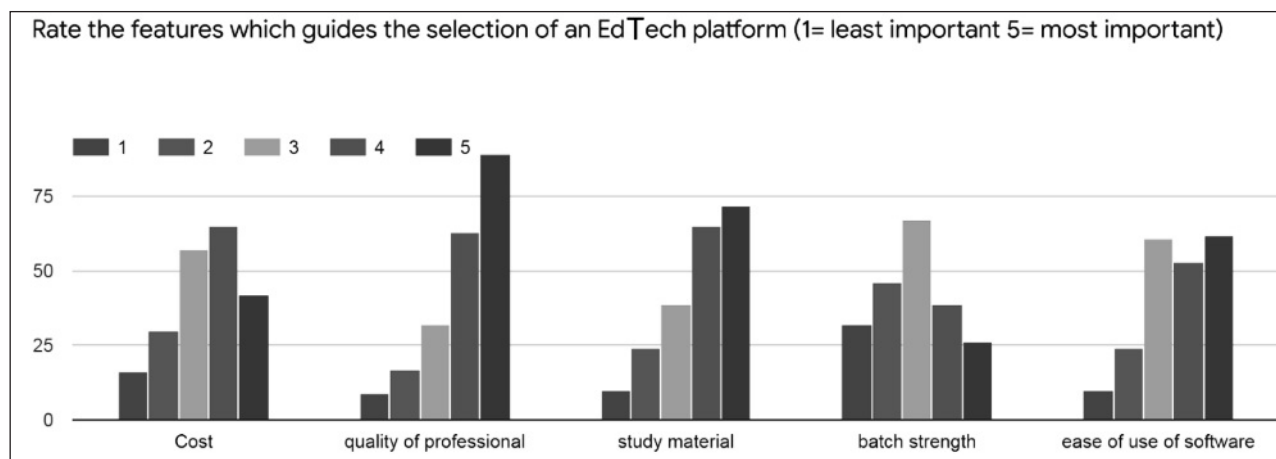


Figure 6: Graphical Representation of Preference of Features for Participants in Choosing a Particular EdTech Service Provider
(Source: Field Survey)

This question was meant to understand the features which play a major role while choosing the EdTech platform. This was analyzed by taking the total sum of the ranking given to all the attributes.

The ranks were as follows:

1st – quality of professional

2nd – study material

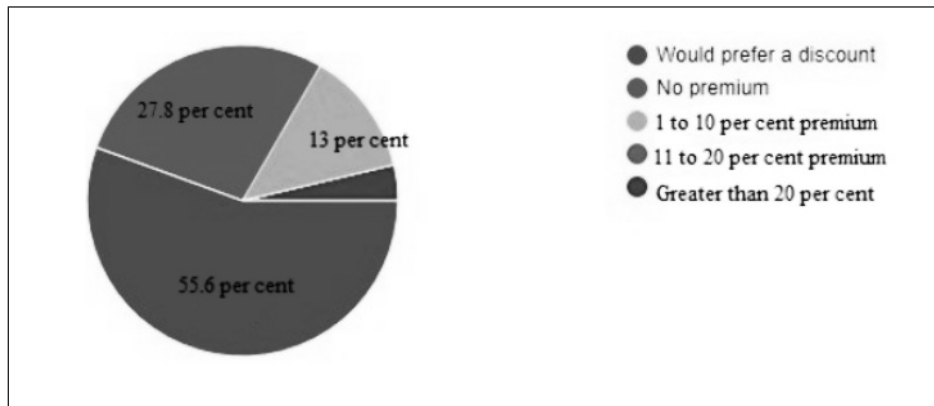


Figure 7: Showing the Consideration of Pricing Plays Important Role in Choosing an EdTech Service Provider
(Source: Field Survey)

This question was regarding the pricing of the product offerings. The responses revealed that customers would want a discount on the product with respect to what they are paying to the offline channels. 57 per cent (approximately) respondents stated that they would prefer ad is count where as 26 per cent (approximately) customers revealed that they would not pay more than what they pay for the offline channels.

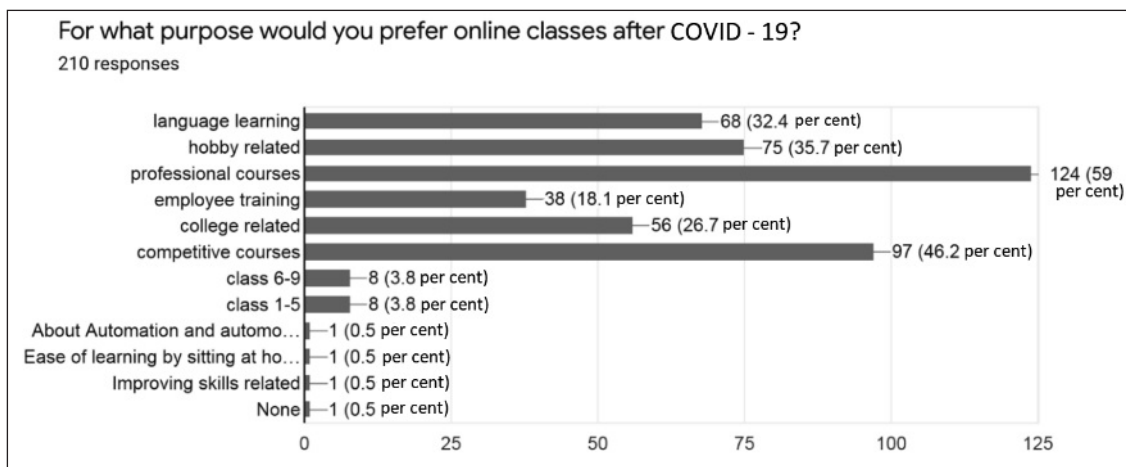


Figure 8: Showing the Preference of EdTech Services for a Particular Skill after COVID-19 Lockdown
(Source: Field Survey)

This question revealed the possible are as in which Vedantu could expand. Professional courses (59 per cent) and competitive courses (46.2 per cent) were the key are as which interested respondents. A part from that, hobby – related activities and language learning are the other possible are as of expansion.

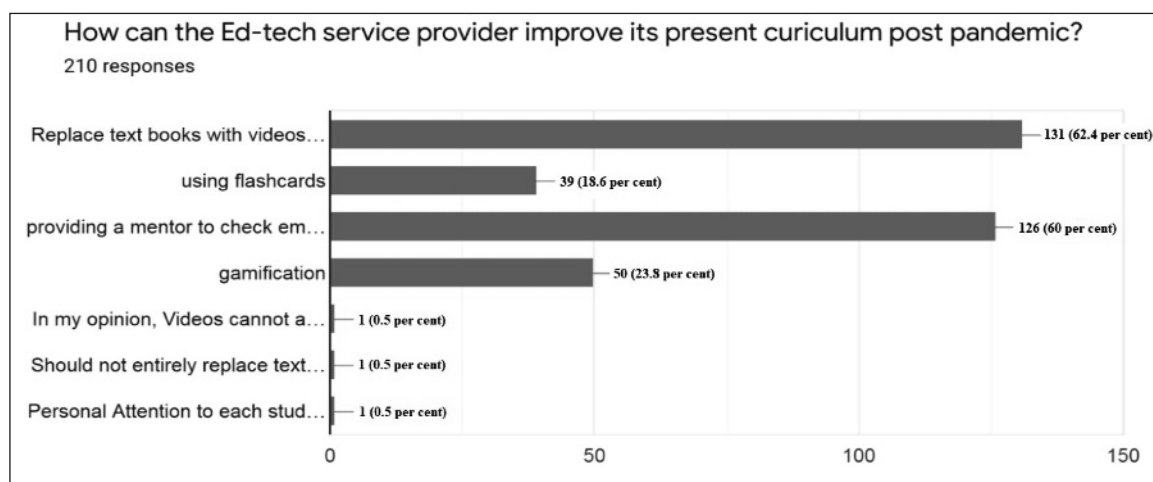


Figure 9: Expectation of Users from EdTech Service Providers Post COVID-19 Lockdown
(Source: Field Survey)

This question revealed the improvement needed in the current curriculum which would enhance the learning experience of the customers and here, 62 per cent of respondents wanted to replace the text books with videos for learning the concepts and 60 per cent of respondents wanted a mentor who would check on their emotional learning insights.

Vedantu can focus on these areas to retain existing customers and gain new ones.

Shadow Call

To get a better picture of the services offered by Vedantu, I posed as a prospective client for the company. The insights from the shadow call are summarized below:

One-to-one tutoring

- Trial period to consumers to facilitate decision making.
- Discounted fee of ₹810 per hour. 10 per cent discount given over and above to get it down to ₹730 per hour.
- Flexibility offers in terms of timing.

Figure 10: One-to-One Tutoring
(Source: Based on a Shadow Call)

One-to-many tutoring

- Complete course offered- No option to purchase parts.
- Pre-decided timing.
- Fee- ₹60,000.
- Financing provided to consumer with the ease of payment in seven instalments.

Figure 11: One-to-Many Tutoring
(Source: Based on a Shadow Call)

Test preparation

- A two-year comprehensive course (for IIT JEE)
- An industry competitive fees of ₹0.16 million for two years.
- Financing provided here as well in the form of installments.

*Figure 12: Test Preparation
(Source: Based on Shadow call)*

Call with Industry Expert

To get a better idea of the EdTech segment, Mr. Harry Kapoor, ex-Bain and current head of PaaS Marketing for Embibe, a Bangalore-based EdTech start-up was reached out. The following is the excerpt of the call-

Question: How do you segment the EdTech industry?

Expert: The industry has three main segments designed to cover the entire customer life cycle: K12 has players like Vedantu and Byju's, Test Prep has Unacademy, and higher education has start-ups like upGrad. Now again, we can have both B2B (Business to Business) and B2C (Business to Consumers) start-ups. Under B2C, you can have different models like Byju's doing recorded videos and Vedantu engaging in live classes. I believe Vedantu is differentiated as it is the dominant player in the category which has fragmented competitors.

Question: How has Vedantu evolved?

Expert: Vedantu started with one-to-one teaching but very soon they realized that this was a very small market. They need to charge at least 500 for a session and that restricts the company to the top one to two per cent population. Plus, they cannot compete with offline coaching which was way cheaper. So, they ventured into one-to-many coaching with one main teacher and two to three facilitators to supervise the children and a host of interactive features. This White board Audio Video Environment (WAVE) platform will help it reach out to the masses.

Question: What is the unit economics behind the business?

Expert: On a unit level, the business is profitable on a one-to-one basis. But in the case of WAVE classes, it needs a few students to break even. But the main problem is with the cost of acquisition. 80 per cent of the revenue is given to the faculty.

Question: Can Vedantu take any learning from Byju's?

Expert: The reason for Byju's success was because of its army of counsellors. Parents need to trust the service provider and you cannot earn their trust by just interacting online. So, Byju's had counsellors who went to their homes and convinced them to use the app. Vedantu has now started doing the same. The Indian market requires an offline touch to build trust.

Question: What impact will this have on their financials?

Expert: This strategy will imply that their cost of acquisition will be around 20,000. This will now put pressure on the company to increase the Average Revenue Per User (ARPU). For an attractive industry, the customer lifetime revenue should be at least two to three times their acquisition cost.

Unit Economics of Vedantu's Economic Model

This is done to find out which area is more profitable and to what extent it yields more profit than the other.

Individual lessons (one-one courses)		
Particulars	Values	Units
Average revenue per user (ARPU)	730	INR per hour
Revenue share provided to teacher	80 per cent	
Cost of providing the lesson (ARPU* Revenue share provided to teacher)	584	INR per hour
Margin to Vedantu*	146	INR per hour

**Table 1: Shadow Call with Vedantu's Counselling Service Representative and Industry Expert
(Source: Primary Data)**

Course Subscriptions (one-many courses)		
Particulars	Values	Units
Average revenue from subscription fees per user (ARPU)**	60,000	INR per year
Revenue share provided to teacher	80 per cent	
Cost of providing the lesson (ARPU* Revenue share provided to teacher)	48,000	INR per year
Margin to Vedantu*	12,000	INR per year

**Table 2: Shadow Call with Vedantu's Counselling Service Representative and Industry Expert
(Source: Primary Data)**

Exam Preparation (IIT-JEE)		
Particulars	Values	Units
Average revenue from subscription fees (ARPU)***	80,000	INR per year
Revenue share provided to teacher	80 per cent	
Cost of providing the lesson (ARPU* Revenue share provided to teacher)	64,000	INR per year
Margin to Vedantu*	16,000	INR per year

**Table 3: Shadow Call with Vedantu's Counselling Service Representative and Industry Expert
(Source: Primary Data)**

Note:

*The margins are calculated ignoring customer acquisition costs which might be high due to Vedantu's growth strategy.

**The revenue is based on a pre-designed comprehensive multi-subject course pack offered by Vedantu for class 10 ICSE Board preparation.

***The revenue is based on a pre-designed comprehensive two-year IIT-JEE preparation course pack offered by Vedantu for class 10 ICSE Board.

Porter's Five Force Analysis

(1 = least attractive to 9 = most attractive rating)

Factor	Rating	Reason
Number of competitors	1	Several well-known competitors have come up on the EdTech landscape.
Industry growth	9	The industry is growing by leaps and bounds, buoyed by the burgeoning middle class that aspires to educate its offspring for greater social and economic upliftment.
Fixed cost	6	The fixed costs in this industry are low, as minimal capital purchases need to be done to get the industry up and running.
Differentiation	7	Offerings of one-to-one online mentoring online at competitive prices and meeting the quality expectations of students and their parents as well.
Switching cost	3	Switching cost is low in freemium models and high in subscription-based models.
Excess capacity	5	The EdTech industry faces excess capacity issues in times of lean business, as admission and exam preparation schedules are cyclical across the board.
Strategics takes	8	The strategics takes in this sector are high as this Industry is pegged to see phenomenal growth in the years to come.

Table 4: Rivalry Among Competitors
(Source: Secondary Data Through Various Articles.)

Factor	Rating	Reason
Assets specialization	3	The specialization of assets can manifest itself in the monetization of book brands. Content cannot be reused as well, upon exit from the industry. In addition to this, the website and platform can be used and sold upon an exit decision.
Cost of exit	2	The costs of exit include the sunk cost of all the investments done for setting up and operationalizing the venture. The firm also might have to pay back its subscribers and debt share holders up on exit.
Government restrictions	1	There are no regulatory barriers to exit that are substantial, except when scamsters end up fleecing students off their funds.

Table 5: Barriers to Exit Rivalry
(Source: Secondary Data Through Various Articles.)

Factor	Rating	Reason
Economies of scale	9	Economies of scale can easily be achieved in this sector, courtesy the easy scalability of the online medium and the readily reusable resources for similar services.
Product differentiation	8	Most firms have different business models catering to a variety of target segments, but the lion's share of businesses work in K-12.
Brand identity	2	Brand identity is strong for players that have proven themselves extensively and have strong fundamentals management.
Switching cost	3	The switching costs are high for services that have a subscription model and lock in the upfront registration fee for a fixed period. Costs are low for firms that follow a freemium mode of operation, and they too provide quality content consistently to flourish.
Access to channels of distribution	4	Channels of distribution for EdTech firms have traditionally involved online streaming services through websites. Firms have begun to pivot to offline modes through collaborations with educational institutions and by investing in brick-and-mortar avenues of learning.
Capital requirement	5	The capital requirements are comparatively high in ventures such as smart classes or when faculty is recruited for brick-and-mortar classes. Also, the capital requirement is higher in B2B and B2C as compared to website, and server costs also contribute heavily to costs.
Access to technology	7	Technology accessibility is greatest in modes such as websites, apps and online website streaming. As compared to these, technical access is rarer in educational content with AR/VR integration. Algorithms with behavioral analytics also prop up the technical requirements.
Access to raw material	6	Access to raw materials can be gained from collaboration with educational institutions and esteemed educators.
Government protection	1	Government support is also propping up the industry through policy support.

Table 6: Barriersto Entry
(Source: Secondary Data Through Various Articles)

Factor	Rating	Reason
Number of buyers	1	The number of buyers is very high, but the categories of buyers are very disseminated; hence buyers are unable to consolidate their power.
Availability of substitutes	2	But buyers have great availability of substitutes, both online and offline, so they can easily pick and choose between different modes of the product.
Switching cost	5	The switching costs are high for services that have a subscription model and lock in the upfront registration fee for a fixed period. Costs are low for firms that follow a freemium mode of operation, and they too provide quality content consistently to flourish.
Buyer's threat of Backward integration	6	Buyer's threat of backward integration is extremely low.
Industry's threat of forward integration	7	Industry's threat of forward integration is extremely low.
Contribution to cost	3	Giving discounts raises the costs of doing business.
Buyer's profitability	4	Buyer's profitability increases with the increase of scale of the firm.

Table 7: Bargaining Power of Buyers
(Source: Secondary Data Through Various Articles)

Factor	Rating	Reason
Number of suppliers	7	The bargaining power of suppliers is high, and includes educators, data systems and infotech firms, content creators and providers, software designers and main frame or server engineers, and PC or tablet vendors.
Supplier's threat of forward integration	8	Supplier's threat of forward integration is low as their focus of operations is completely different from the Business model of Vedantu.
Industry's threat of backward integration	6	It is not possible for suppliers to backward integrate, as it is beyond their scope of interest as well as competence.
Contribution to quality	9	Suppliers have a great contribution to quality, as it is their contribution that leads to the creation of the bouquet of services that can be offered.
Contribution to cost	5	Poor supplier quality can have a massive bearing on the cost of operations.
Industry's importance to supplier	4	The industry's importance for suppliers is also extremely high, as they form the basis of their mode of operations.

Table 8: Bargaining Power of Suppliers
(Source: Secondary Data Through Various Articles)

Factor	Rating	Reason
Availability of close substitutes	1	Close substitutes are freely available in both the offline and online modes, thus making it challenging for Vedantu to dislodge established competitors.
Switching cost	4	The switching costs are high for services that have a subscription model and lock in the upfront registration fee for a fixed period. Costs are low for firms that follow a freemium mode of operation, and they need to provide quality content consistently to flourish.
Substitute's price-value	2	Price-value is high for well-established proven firms.
Profitability of the substitute producers	3	Profitability of a few well-established players are high.

Table 9: Threat from Substitutes
(Source: Secondary Data Through Various Articles)

Factor	Rating	Reason
Industry protection	8	The government protects consumers from fraud via various legislations.
Industry regulation (pollution, et al.)	7	Several civil and penal codes are enshrined for consumer protection.
Customs and tariff restrictions abroad	4	Although the government has allowed for 100 per cent fixed deposit invest through the automatic route, it controls any issue malfeasance strictly.

Table 10: Government Actions
(Source: Secondary Data Through Various Articles)

Key Findings: Overall Assessment of Vedantu Using Porter Forces Analysis.

Factor	Rating	Weight (in per cent)	Reasons for weight given
Barriers to entry	7	10	Barriers to entry are low. Rivalry with established players is very high. Barriers to exit are not very prominent. Power of buyers is moderately high. Power of suppliers is moderate. Threat of substitutes, such as Massive Open Online Course (MOOC) and offline content, is high. Decent, more robust protection is needed.
Rivalry among competitor	1	30	
Barriers to exit	5	5	
Power of buyers	6	15	
Power of supplier	4	10	
Threat of substitutes	2	20	
Governmental actions	3	10	
Overall attractiveness	4	Moderately attractive, given the personal tutor aspect is taken care of, and the firm scales before competitors or substitutes take over.	
Any other factory ouforesee	3	Government initiatives such as National Programme on Technology Enhanced Learning (NPTEL) will pose a significant threat to the firm.	

Table 11: Overall Assessment of Vedantu Using Porter Forces Analysis
(Source: Secondary Data Through Various Articles)

RECOMMENDATIONS

Based on the findings from industry analysis, I have based our recommendations for both the existing business and for potential businesses Vedantu can enter.

Existing Business

In alignment with Vedantu's current aggressive growth strategy, the company should target its efforts towards counselling and brand building. Counselling helps in increasing the conversion rate of potential customers. Also, associations with offline education organizations and institutions can help the company in building its image. Vedantu should focus on increasing its reach and visibility in the market through extensive marketing efforts involving advertisements, discounts and trials for first-time users. It should provide mentors for checking the emotional insight of learning of the students, especially after the pandemic. It should also introduce offline touch points because the mass finds the hybrid mode better than online or pure offline mode. It should also provide a personal growth report to each student with the remark of their mentor.

New Businesses

Currently, Vedantu operates in the K-12 segment. There is potential for the company to enhance customer learning experiences and extend the lifetime value of customers by making itself a go-to platform for students of all ages. This can be done by extending its offerings to students from classes 1 to 6 and also to students from higher universities. The company's existing one-on-one online tutoring model serves as a differentiator for the company and will help its diversification in these domains. Also, learning from the current business will ease the product offering extension.

Vedantu can also focus on language learning courses as it serves as an extension to its current offerings. Also, a similar model has been successful in China. Moreover, enriched learning is required in language courses which are already a key differentiator of Vedantu.

Vocational training for corporate professionals is also a lucrative segment in the EdTech space. However, Vedantu should not diversify in this segment as it

currently does not have the required collaborations with industry players, technical know-how and credibility in the business.

It should also start with digital learning courses on a bigger scale as the youth is more into digital marketing, digital designing, et al.

CONCLUSION

As of 2020, the e-learning market was valued at 91.41 billion. It is expected to increase at a Compound Annual Growth Rate (CAGR) of 17.19 per cent, reaching 325.48 billion. Reskilling and certification, the largest category, is expected to reach 93.81 billion at a CAGR of 36.95 per cent by 2019-2024, driven by the need for professionals to constantly reskill in order to remain relevant in the job market. By 2021, the primary and secondary education category is expected to have grown tenfold to 123.65 billion. When compared to the other divisions, primary and secondary education has the greatest addressable audience, with a student population of roughly 260 million. Test preparation is expected to rise at the fastest rate by 2024, with a CAGR of 50.84 per cent.

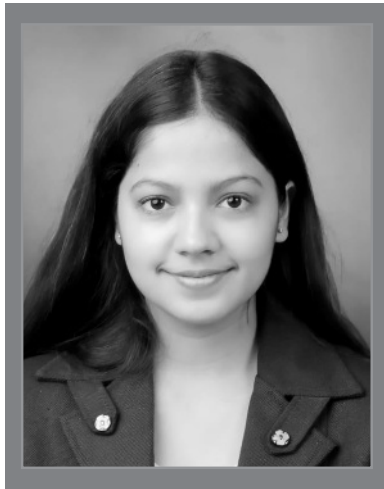
The intrinsic qualities of the online medium are the primary motivators for students to pursue online education in all categories. Students choose online classes for a variety of reasons, including convenience, ease of concentration at home, reduced travel time and e-material. Students choosing online education face several hurdles, including content cost, the availability of job opportunities and connectivity. Peers have the most impact on brand awareness, followed by internet searches and commercials. The quality of the material given by the business is the most important factor in brand selection. The availability of a wide range of material formats and courses at reasonable pricing, as well as the flexibility of start and end times, have an impact on consumption decisions.

Vedantu has a bright future as EdTech learning seems to appear in the future. It has to acquire new startups to upgrade its services rather than opting for in-house development because the industry growth rate is fast and there is a lot of competition in this industry.

EdTech unicorns have to understand that to thrive in this sector they have to provide such educational experience using interactivity and technology which cannot be attained in just a classroom.

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“

People are always looking for some sort of spiritual connection or religious relatedness but do they want it in the form of advertisements, this was never asserted.

”

Consumer Perception about Religion in Advertising

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ABSTRACT

This paper aims at throwing some light on consumer behaviour and their perception about the use of religion in marketing and advertisement of products. The author has tried to assess the same using real-time raw data collected from primary sources. The paper revolves around four major issues; the current attitude of consumer towards religious advertisements, consumer expectation in the context of religiosity in advertisements and its relationship with age, the reaction of a consumer to the use of religiosity in promoting worship material versus other social causes and if considering the

use of religiosity as moral by the customers, affects their purchasing behaviour. Various statistical, as well as descriptive analysis tools, have been used to critically back as well as support the findings. It was found that consumers were against the idea of the use of religion in advertisements, commercially.

KEYWORDS: Advertisements, Consumer Buying Behaviour, Religion, Religiosity.

INTRODUCTION

India is a secular nation. It cradles countless different religions in its lap. Religion and culture can be found deep-rooted in the heart of India. Indians are said to be overly possessive and defensive when it comes to their religion. And so, as and when an opportunity suits them, they are ready with their shields to wage war against people who intentionally or even unintentionally dare to speak against their culture and religion.

Call it an increase in the number of leftists in the country or an intensification of the quest between the objective and the absolute, which is the root cause of intolerance and violence, religion has become an even hotter topic of debate over the past decade. While some people genuinely aim at taking a stand against the wrong, others are said to be a bunch of pretentious custodians of 'Sanatan Dharma', who come to the surface only to grab eyeballs.

Seeing the enormous potential of popularity as well as commerciality due to its controversial and emotionally

triggering nature, companies have seldom shied away from blatantly using 'Religion' as a tool to sell their ideas and products. From time immemorial, organizations have been seen going to lengths to make sure their product catches the attention of the maximum target audience and using culture and religion is like hitting them below the belt to gain some extra points. Much to dismay of Indians, it is considered the easy way out.

NATURE OF THE PROBLEM

Advertisements can adversely affect consumer behaviour. Companies, by choosing to use religion and religiosity in the process of ad-making, often put themselves in a difficult spot. A lot of companies suffer due to the backlash they receive on the inclusion of religion and culture in the adverts posted or distributed by them. History has been the witness of many such cases where companies lost out on the percentages of sales and customer base drastically. The major reason as to why this happens is that most companies are still not aware of what customers actually want. For companies to have an idea about the opinion of customers on the advertisements that display religion or religiosity in any colour whatsoever, there is a need for proper research in this area. When going through the various literature available it was found that sparse research has been done in this area. Companies still do not know how customers will react if religion is used in any other form of advertising. The paper aims to cater to this apparent lack of research in this area to help companies to adopt marketing and advertising practices in harmony with the preferences of a customer to avoid unwanted

clashes and loss-making strategies on part of the companies as well as making sure that consumer sentiments are not hurt. The aim is also to make sure anyone who takes up this topic in future can use this research paper for further studies.



Figure 1: Parle, Manyavar Mohey and Dabur Fem Advertisements featuring religion in different forms

(Source: www.pinterest.com, www.thequint.com, www.indianexpress.com (left to right))

LITERATURE REVIEW

1. Nisha Qureshi (April 2013) in her blog 'Religion in Advertising: A double-edged sword or smart move?' says that people lack logic and a sense of humour when it comes to religion. She resented the idea of resorting to Gods and divinities to sell a product. She also suggested that these practices should be avoided.
2. Advertising Standard Authority (March 2015), in their report Advertising and Religion: Avoiding Offence, suggested that although there is absolutely nothing in the books of codes and ethics that prevents marketers and advertisement creators to avoid using religion for promotion and popularity of their product, they must make sure they do not hurt the religious sentiments of consumers and exercise caution while making an advertisement that challenges beliefs and faith of people.
3. Soumitra Karnik in her blog (March 2021) said that religion sells the most. It is a very clever marketing strategy. While we can keep debating that it is a personal choice, especially in a country like India where faith rules over everything, there are some brands and companies that will quickly cash in on it. She did not however despise the idea of using religion. She had the opinion that different sets of customers take ads differently. Completely giving up the use of advertisements might kill creativity.
4. The study of Fam et al. (2004), one of the most widely read research papers that explored the relationship between religion and advertising, found a significant difference in attitudes towards advertisements based on belief intensity, especially when used for controversial products. In her paper, she did a hypothesis test that concluded that when religion is used consumers are afraid to buy the product and they even have second thoughts about going ahead and buying anything with the firm or from that particular brand.
5. In another report by Michael McCarthy (April, 2013) in The New York Times, it was concluded that using religion in advertising is a 'high risk and high reward strategy'. It can generate some great feats if done right.

OBJECTIVE OF THE STUDY

1. To study the current attitude of a customer towards religious advertisements.
2. To investigate consumer expectation in the context of religiosity in advertisements and to study its relationship with age.
3. To study the reaction of a consumer to the use of religiosity in promoting worship material vs other social causes.
4. To determine if considering the use of religiosity as moral by the customers, affects their purchasing behaviour.

ANALYSIS

Descriptive Analysis

Gender distribution of respondents:

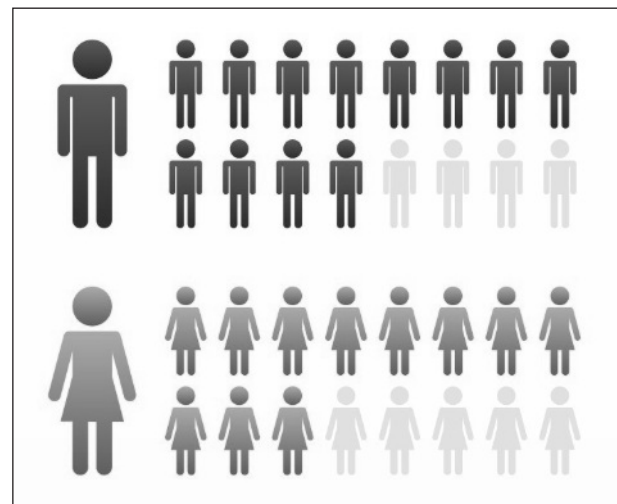


Figure 2: Pictorial Graph showing Distribution of Gender
(Source: Primary Data)

Out of 220 respondents, 58 per cent were male and 42 per cent were females.

Age group of respondents:

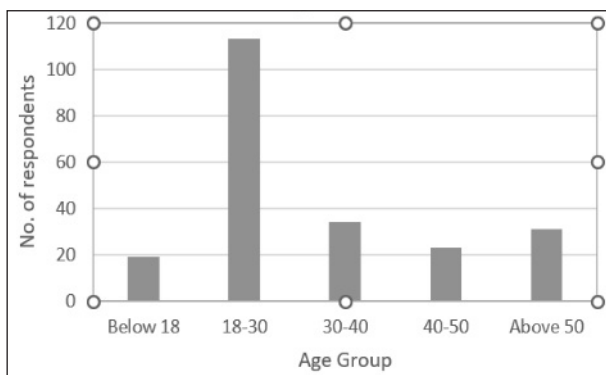


Figure 3: Bar Chart showing the Age Group of Respondents
(Source: Primary Data)

Eight per cent of them belong to the age group below 18. The majority of them, i.e, 51.36 per cent belonged to the age group 18-30 years. 15 per cent, five per cent and 14 per cent for 30-40, 40-50 and above 50 respectively.

Occupation of respondents:

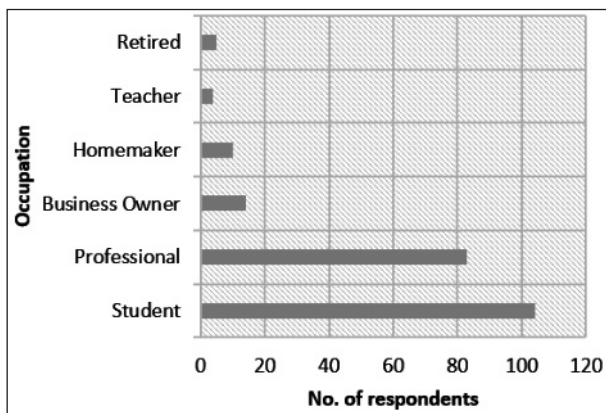


Figure 4: Bar Chart showing the Occupation of Respondents
(Source: Primary Data)

The majority of respondents were students (47 per cent) and professionals (38 per cent), followed by business owners (six per cent), homemakers (four and a half per cent), retired and teachers.

INTERPRETATION OF RESEARCH QUESTIONS IN LINE WITH OBJECTIVES

Objective 1: To study the current attitude towards the use of religion in advertisements

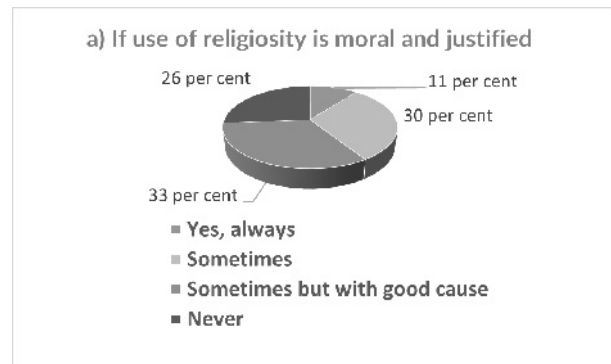


Figure 5: Pie Chart showing Research Question 1
(Source: Primary Data)

b) How will use of religious figures in the packaging of a product affect purchase

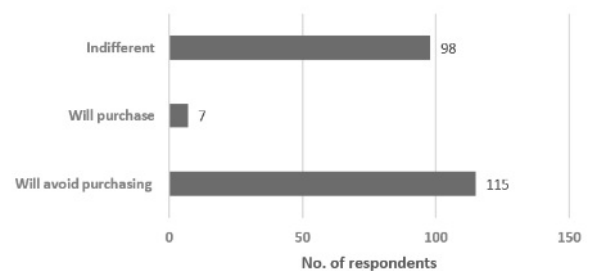


Figure 6: Bar Chart showing Research Question 2
(Source: Primary Data)

Figure 5 shows that the majority of respondents (33 per cent) find the use of religion justified and moral only when it is used occasionally and for some good cause. We saw that 26 per cent of respondents still would not want religion to be used in any form whatsoever

In Figure 6 around 52 per cent of people claimed that they would avoid purchasing product that features religious figures or religiosity in general. It is also observed that around 44 per cent of respondents were indifferent about their purchasing behaviour when it comes to the use of religion in advertising.

Objective 2: To investigate consumer expectation in the context of religiosity in advertisements and to study its relationship with age.

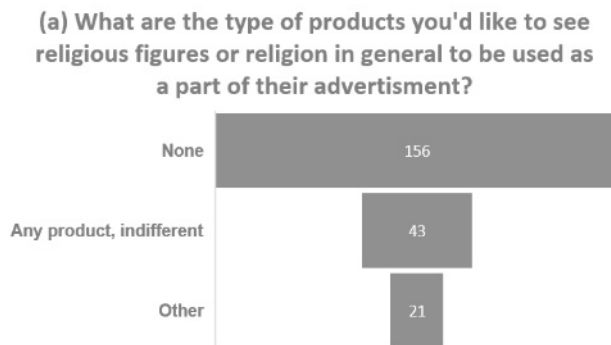


Figure 7: Chart showing Research Question 3
(Source: Primary Data)

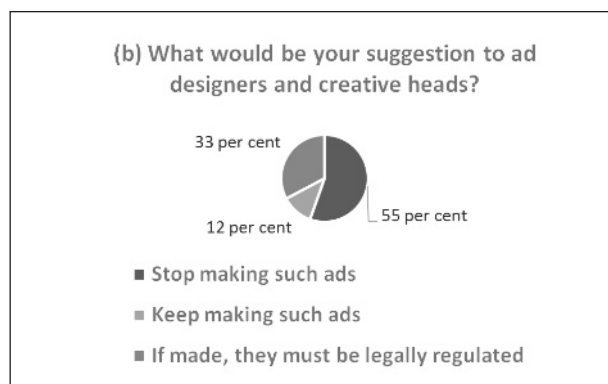


Figure 8: Pie Chart showing Research Question 4
(Source: Primary Data)

From Figure 7, we find that 156 out of 220 respondents did not want religion to be used at all in any type of product. From the survey, we found that 21 respondents mentioned some products like worship material, certain eatable items wherein religious figures can be used for advertisement purposes. Figure 8 further solidifies the observation that maximum number of people (here, 55 per cent) want inclusion of religion in advertisements to be completely stopped.

Chi-square test to see if age is a factor affecting the expectations from advertisers:

Null Hypothesis: Age does not affect consumer expectations from advertisers.

Alternative Hypothesis: Age affects consumer expectations from advertisers.

Contingency Tables:

Age group	Expectations from advertisers				Total
	1	2	3	4	
1	7	9	3	0	19
2	57	11	44	1	113
3	22	2	10	0	34
4	13	1	9	0	23
5	23	3	5	0	31
Total	122	26	71	1	220

Table 1: Table showing Expectations from Advertisers
(Source: Primary Data)

χ^2 Tests

	Value	df	p
χ^2	34.2	12	<.001
N	220		

Table 2: Table showing Chi-Squared Tests
(Source: Primary Data)

The Chi-square test is a test measuring the level of association between two components. Rather, the chi-square test is best suited for comparing acquired results

with theoretically predicted results based on the hypothesis. Here, if the p-value is less than 0.05, then we reject the null hypothesis and conclude that since there is less than five per cent of possibility that age does not affect consumer expectations. We can hereby claim that age works as an important factor in determining the type of expectations consumers have with regard to the use of religion in advertisements.

Objective 3: To study the reaction of a consumer to the use of religiosity in promoting worship material vs for other social causes.

PART-1 Perception of consumers regarding the use of religion in selling worshipping material

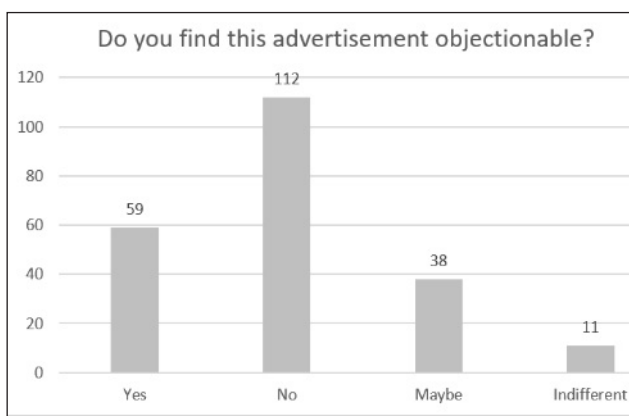


Figure 9 : Bar Chart showing Perception of Consumers regarding the Use of Religion in Selling Worshipping Material I
(Source: Primary Data)



Figure 10 : Chart showing the Perception of Consumers regarding the Use of Religion in Selling Worshipping Material II
(Source: Primary Data)

Figures 9 and 10 showed advertisements featuring Hindu deities used for selling incense sticks and other worship materials. The majority of them did not find the advertisement objectionable. They had a positive response regarding the same. In Figure 9, approximately 51 per cent of people did not find the advertisement objectionable. In Figure 10 around 63 per cent of respondents had no issue with the representation of the religious figure in the advertisement.

PART 2: Reaction of Consumers on the Use of Religion for Spreading Awareness regarding Social Issues like Communal Harmony and Domestic Violence.

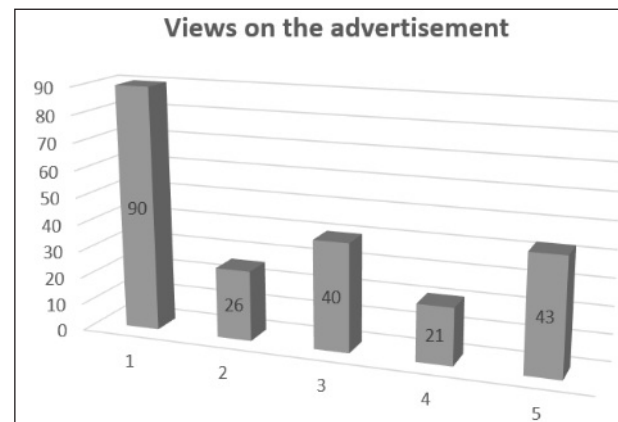


Figure 11 : Bar Chart showing the Use of Religion for Ads showing Communal Harmony
(Source: Primary Data)

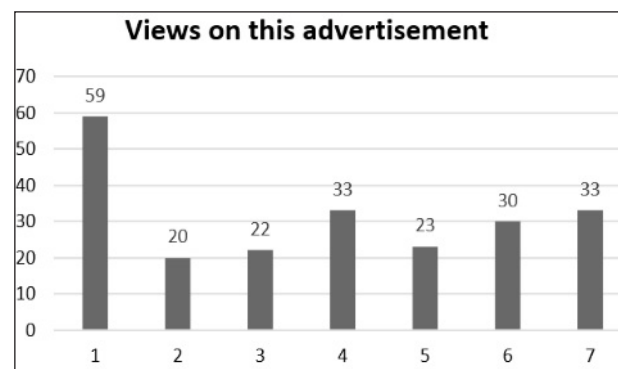


Figure 12 : Bar Chart 8 showing the Use of Religion for Spreading Awareness regarding Domestic Violence
(Source: Primary Data)

Figure	Particulars	Mean	St. Deviation
11	1 positive perception - 5 very distasteful	2.55	1.562181
12	1 highly objectionable - 7 good representation	3.740909	2.198206

Table 3 : Table showing Mean and Standard Deviation based on the Reaction of Consumers on the Use of Religion for Spreading Awareness regarding Social Issues like Communal Harmony and Domestic Violence (Source: Primary Data)

Figure 11 showed people of different communities (mostly Hindu-Muslim) bonding together and getting well. The majority of respondents took these advertisements positively. The mean of the responses also came to two and a half which means people had a good and positive perception of such ads. Less standard deviation also adds to the conclusion that people were more or less pleased with the advertisements.

Figure 12 featured female Hindu deities with bruises to spread awareness regarding domestic violence. This advertisement had median or mixed response respondents. While the mean was found to be 3.7 which concludes mixed responses from the consumers. Customers had both positive and negative response to the advertisement but were observed to be a tad bit inclined towards a negative perception.

Regression Statistics	
Multiple R	0.054236394
R Square	0.002941586
Adjusted R Square	-0.001632076
Standard Error	0.983962383
Observations	220
P-value	0.423442977
Correlation Coefficient	0.054236394

Table 4 : Table showing Regression Statistics (Source: Primary Data)

Objective 4: To determine if considering the use of religiosity as moral by the customers, affects their purchasing behaviour.

Null Hypothesis: The approval of consumers for such ads is independent of their buying behaviour.

Alternative Hypothesis: If consumers approve of the use of religion in advertisements, they will not buy the products featuring the same.

Conditions for accepting or rejecting the hypothesis:

If the p-value obtained is less than or equal to the significance value (here, five per cent) then we reject the null hypothesis and if the p-value is more than the significance value, then the null hypothesis is accepted and the alternative hypothesis is rejected.

In this case, since the p-value is greater than five per cent, we will accept the null hypothesis. As a result, we will conclude that approval of consumers to such ads is independent of their buying behaviour.

These two variables can be concluded as positively correlated if the value of the correlation coefficient is less than one. Here again, the correlation coefficient is 0.05423 which is a very small value. It can be thus interpreted that both these factors have a very low correlation. Hence, even if the consumers approve of the use of religion in advertisements, it does not confirm that they will buy the product.

FINDINGS AND OBSERVATIONS

1. It is observed that 32.5 per cent of the sample population were of the opinion that religion and religiosity are very frequently featured and used in ads.

2. Around 63.67 per cent of the sample population asserted that they wanted the use of religion in ad making and the creative ad industry to stop completely so as to avoid conflict.
3. Around 29.67 per cent of the sample population were of the opinion that religion can be used occasionally for good causes.
4. It was found that only three per cent of respondents will go ahead and buy products featuring religious figures if given an option.
5. It was also found that respondents suggested that the major issue is with the disposal of such packaging as they contained pictures of religious figures. They asserted that they have to think twice before throwing the packaging away. This also makes them avoid purchasing products that have such packaging, altogether.
6. It is further observed that considering the use of religion in advertisements moral and justified does not affect the purchasing behaviour of the customers. (The p-value was found more than five per cent and the correlation coefficient was also 0.05).
7. It was found that in case of such outrageous activity people opt for boycotting the product until an apology is issued. People often use social media to express their opinion or to give a statement regarding the same.

CONCLUSION

With increasing competition, it is obvious that companies and other big players in the market will try to fight tooth and nail to grab as much consumer attention as possible. This often leads them towards different creative paths to get successful.

While creativity is appreciable, this particular research paper has proved that advertisements featuring religion, and religiosity do not go well with consumers. They often find themselves expressing their displeasure and even rage on these advertisements as well as

questioning the basic need of using religion. If not this, then they become indifferent to the ongoing because they want to avoid becoming a part of the conflict.

The majority of respondents were of the opinion to stop using religion as a pawn to generate popularity, be it from a positive or negative perspective. People had their concerns over the crossing of that thin line of decency and morality by the ad creators and media heads. Hence, the study concluded with the idea that religion should be kept out of advertisements as a whole. This paper raised a lot of concerns regarding the intention and true rationale behind using religion in advertising on the part of advertisement makers. It was however noticed that people are always looking for some sort of spiritual connection or religious relatedness but do they want it in the form of advertisements, this was never asserted.

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The tremendous rise of these companies is inextricably linked to India's mobile revolution.

”

India's Taxi War- Uber v/s Ola: A Study Based on Kolkata

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ABSTRACT

Meru cab service was the first organized rental cab service to enter the Indian market in 2004 and quickly became popular amongst consumers in major cities. However, the real revolution occurred in 2010 when app-based services began to operate, followed by Uber in 2013. Consumers got more demanding as the market became more competitive. Companies are now employing a variety of techniques to attract new clients as well as maintain existing ones. The goal of this study is to determine the differences between

Ola and Uber consumers, and data was gathered using a standardized questionnaire. The information was gathered in Kolkata, specifically from working professionals. Following data gathering, statistical analysis revealed that women prefer Uber to Ola, but that consumers feel safer with Ola than Uber when it comes to safety. The findings of this study could aid the taxi business in developing future marketing tactics.

KEYWORDS: Uber, Ola, Transportation, Commuters, Kolkata, Application.

INTRODUCTION

Online taxi services such as Mega Cabs and Fast Track Taxi began operating in limited numbers with drivers as employees in the early days. Customers booked their rides over the phone and paid in cash at a time that was convenient for them. Other competitors, such as MeruCabs, Easy Cabs, and Savari, entered the market in 2006. Drivers were hired as 'subscribers' who paid a deposit to the company. The corporation would purchase a vehicle, train the drivers quickly, and be paid a set amount each day. The firm was responsible for the car's maintenance, while the drivers were responsible for the expense of fuel on a daily basis. Easy Cabs had a mechanism whereby the automobile finally became the driver's property after five years of non-stop driving, whereas the other corporations would own the car for the rest of its life.

When Ola launched its fleet aggregation concept in 2010, it was a watershed moment for the taxi industry. This business concept prompted many car owners to join the platform and offer services, allowing them to earn money while also providing chances to those in their immediate vicinity. TaxiForSure (TFS) first entered the Indian market in 2011, followed by Uber a few years later. The tremendous rise of these companies is inextricably linked to India's mobile revolution. Riders could just take their phones out of their pockets, open the app, and order a taxi for themselves.

The Emergence of Ola and Uber

The leaders of the cab industry have achieved a golden mean by harnessing the expanding impact of

smartphone mobility to bridge the gap produced by the challenges of the unorganized taxi sector. Their user base grew gradually, as the concept of hailing a taxi through a smartphone app was to put customers at rest by booking a cab and having it arrive at their door. Venture capitalists realized the immense potential of this type of service and invested millions of dollars in these startups, the most recent being Flipkart co-founder Sachin Bansal's close to \$10 million personal investment in Ola, as well as \$300 million from Korean auto giant Hyundai Motors. We also see that Uber is seeking funds and is willing to take losses since it perceives the big market size as having potential. Honest pricing, Global Positioning System (GPS) location and safety features further drew customers in, making them happy and confident to ride in that cab again and again.

LITERATURE REVIEW

In India, the taxi business has a very different competitive landscape: a domestic IT company has a head start and a large market share. In this situation, the stakes for Uber could not be higher. India is the world's second most populated country; however, it is predicted to overtake China in this category as early as 2022 (Rai, 2014) (Sainul, 2015). Most importantly, the country will undoubtedly become an economic powerhouse and a global growth center in the near future. India faces hurdles, but as we saw in a previous graph, it will compete with China for overall economic growth in the future decades.

This literature study includes books as well as various web pages from the Internet. The goal of the study was to look at how Ola cabs and Uber competed in terms of market share, expansion potential, consumer preferences, and price structure.

Desjardins, Jeff (2015), Visual Capitalist, Vancouver, Canada, United States, has written a review in the article 'Taxi Aggregators: Ola vs Uber vs Others', in which he emphasizes Ola cabs' first-mover advantage over Uber in India. It also highlights how, due to India's vastness and fragmented transit system, two or more rideshare firms may be able to coexist in the future.

Aditi Shrivastava (2014), Economic Times, Bangalore, India, stated in her paper 'Country's taxi aggregation startups struggling to manage excess demand' that India's taxi aggregation startups are struggling to manage their network of drivers, leaving behind disgruntled customers who are willing to pay a little more for better service. The Indian taxi sector is estimated to be worth between \$6 billion and \$9 billion (Rs 36,000 million to Rs 56,000 million), with only four to six per cent organized. Companies, she believes, are focusing on decreasing prices rather than enhancing quality in order to get greater market share. Finally, she recommended that the service quality be improved in terms of automobile conditions and professionalism.

In his paper 'Uber and Ola's Most Prominent Obstacles in India', Sainul Abudheen (2015) examined the challenges and roadblocks that these burgeoning cab businesses face in India. In order for these businesses to thrive in the future, they must address issues such as passenger safety, driver professionalism, avoiding and minimizing price increases during periods of high demand, and most importantly, maintaining the quality of services provided to clients and ensuring an overall positive experience.

OBJECTIVES OF THE STUDY

Objectives of a research help the researchers to collect necessary relevant information. The main objectives of the study are listed below:

- To identify the difference between satisfaction levels for both cab services.
- To form a comparative analysis of the business model, expansion potential and funding of the two taxi applications - Uber and Ola.
- To find out the position of these taxi apps in terms of market share (i.e., fleet size, number of cities listed).
- To give a comparative analysis of the taxi fare i.e., the pricing structure of the two applications.
- To evaluate the transport application preference of commuters in the country, by conducting a survey using a questionnaire.

RESEARCH METHODOLOGY

Sample

To know about the preference of the commuters in the city a survey through a questionnaire using the following sample was conducted

Sample Size - 50

Sample Area - Kolkata and Howrah

Sampling Technique - Random Sampling Technique

Data Type and Source

Primary Data: Primary data is the data observed or collected directly from first-hand experience. As a primary source of data, I have distributed questionnaires to be filled out by different people to evaluate their perceptions.

Secondary Data: Published data or data collected in past or through other parties is called secondary data. I have gone through various websites, company sites, newspapers and mobile applications to collect necessary information relevant to my study.

Period of Study

Secondary data: Data was obtained from April 2010 to March 2021.

2010: Ola Cabs began operations in Mumbai under the name ANI Technologies Pvt. Ltd.

TaxiForSure.com began operations in Bangalore in 2011 under the name Serendipity Infolabs Pvt. Ltd.

Uber began operations in India in 2013, beginning in Bangalore, however, the parent business is Uber Technologies Inc., which is based in the state of Delaware in the United States.

Primary data: The survey was conducted via questionnaire as primary data between December 2021 to February 2022 i.e., approximately 3 months.

Tools Used

Questionnaires - A questionnaire is a type of research tool that consists of a set of questions and other prompts that are used to collect information from respondents. Questionnaires have various advantages over other

types of surveys, including the fact that they are less expensive, require less work from the interrogator than verbal or telephone surveys, and typically feature standardized replies that make data gathering simple.

Research technique can be defined as a study of the many procedures that a researcher takes to logically analyze his research problem.

The research, in this particular study, was done to collect information for an in-depth understanding of the taxi war in India, between the two giants i.e., Ola cabs and Uber, and other players in the industry.

The study is both analytical and descriptive. I have collected primary data by preparing a questionnaire containing 10 questions. The questions basically aim to help us know about the current perception of commuters about the taxi industry in general and the two companies (Ola and Uber) in particular, after taking into consideration various factors. I have also included a bar graph to show the variations in my answers.

The maximum part of my project is based on description. It explains how the Indian taxi market emerged, how the two e-hail applications came into being, their impact on the people of the country, their perception, and lastly who seems to have a competitive edge in the particular industry over the other competitors. I have collected this data from March 2021. Due to time constraints, only a small sample size was studied and analyzed.

LIMITATIONS OF THE STUDY

- Due to time constraint, only a small sample size was studied and analyzed.
- The sample size of 50 might not represent the whole population, as the sample size of 50 is too small.
- The sample area is restricted to Kolkata and Howrah only.
- Some of the respondents did not fill out their forms properly.

DATA ANALYSIS AND FINDINGS

Company Profile

OLA	
Type	Private
Industry	Transport
Founded	Bangalore, Karnataka, India (3 December 2010; 10 years ago)
Founders	Bhavish Aggarwal, Ankit Bhati
Headquarters	Bangalore, Karnataka, India
Key people	Bhavish Aggarwal (CEO) Ankit Bhati (CTO)
Services	Taxi, vehicles for hire
Owner	ANI Technologies Pvt Ltd
Number of employees	8930 (2021)
Slogan	Chalo Niklo
Website	https://www.olacabs.com/

Table 1: OLA Company Details
(Source: *The Hindustan Business Line*)

UBER	
Type	Private
Industry	Technology
Founded	March 2009; 11 years ago
Founders	Travis Kalanick, Garrett Camp
Headquarters	San Francisco, California, U.S.
Area served	Worldwide
Key people	Travis Kalanick (CEO)
Services	Taxi, vehicles for hire
Slogan	Where lifestyle meets logistics
Website	www.uber.com

Table 2: UBER Company Details
(Source: *Business Standard*)

ANALYSIS OF FINDINGS

Difference between Satisfaction Levels for Both Cab Services

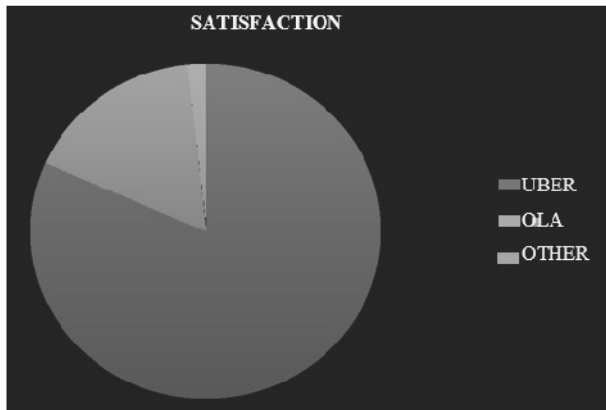


Figure 1 : Difference between Satisfaction Levels for Both Cab Services (Source: Primary Data)

Interpretation

Uber has the maximum level of satisfaction for the customer i.e., (82 per cent) followed by Ola (17 per cent) and other taxi application applications (two per cent).

Market Potential and Expansion

Cities in which the companies provide services -

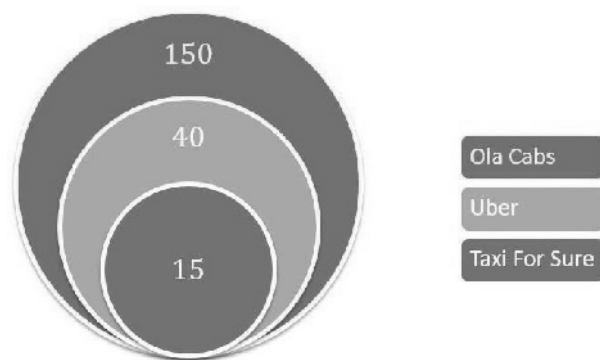


Figure 2 : Cities in which the Companies Provide Services (Source: India Today)

Interpretation

Ola's success is also a testament to how the internet economy can be utilized to democratize enterprises and generate opportunities for a potentially bigger

group of people, with a list of 150 cities and counting. Other traditional cab networks, in comparison, have not been able to expand anywhere near that level. While one of the largest incumbent cab networks (UBER) covers 40 cities, another only covers 15 cities (TaxiForSure now with OLA).

Ranking (as per App Store and Play Store)



Figure 3 : Ranking as per Play Store and App Store (Source: Secondary Data)

Interpretation

As per the ranking in the application purchase stores of Android i.e., Play store and Apple Incorporation i.e., App Store, the above chart is prepared where in Uber secures the highest ranking in terms of active users, followed by Ola Cabs and TaxiforSure.

Pricing

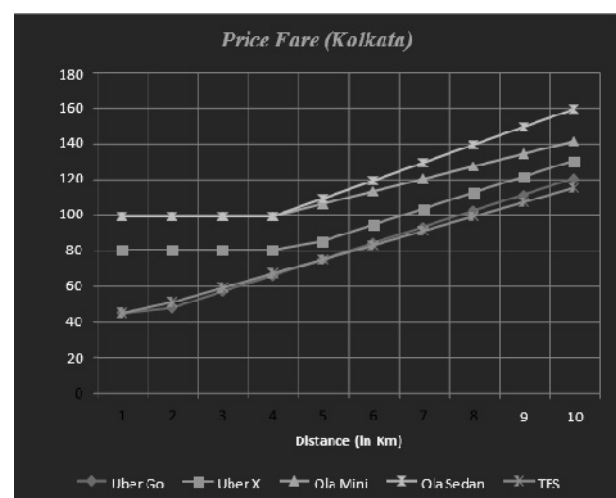


Figure 4 : Line Graph of Price Fare (Kolkata) (Source: Economic Times)

Interpretation

In the following chart, the base fare of Ola Sedan and Ola Mini is the same till 4 km (₹ 99) and the Ola Sedan fare rises more steeply at ₹ 9 per km as compared to ₹ 4 per km for Ola Mini. Uber's prices are lower than that of

Ola with a minimum fare of ₹ 80 and then at ₹ 9 per km. Although initially, the cost of Uber X is lower than that of Ola mini but after a distance of 12 km, Ola becomes cheaper than Uber X. The lowest prices are that of TaxiForSure and the highest being of Ola Cabs.



Business Model: Number of rides:		
Uber:		OLA:
Operates in India with more than 14 million daily rides.		Operates in India with more than 1.5 million daily rides.
Services:		
		
Personal Transport	Food Delivery	Personal Transport
		Grocery Ordering
Funding Raised:		
Uber:		Ola:
+ \$20 Billion (India Specific : \$1 Billion)		+ \$ 3.8 Billion
Investors:		
Uber:		Ola:
<ul style="list-style-type: none"> • Lowcrease Capital • Menlo • First Round • Benchmark • Goldman Sacs • Google Ventures • Baidu 		<ul style="list-style-type: none"> • DST Global • Soft Bank • Falcon Edge • GIC • Sequoia • Stead view • Matrix • Tiger Global

Table 3 : Business Model of Uber and Ola
(Source: Elluminatiinc)

Taxi Apps used by Commuters

7. 7. Which taxi app do you prefer?

BAR CHART



Figure 5: Bar Chart of Preference of Taxi Apps
(Source: Primary Data)

Interpretation

In the survey conducted, 99 per cent of the people used taxi applications. Out of the above-said sample, the number of people who used Uber, Ola and others taxi applications is given in the chart. It was also observed that users of Uber also used Ola.

Mode of Transport Used

6. 6. Which mode of transport you generally use?

PIE CHART

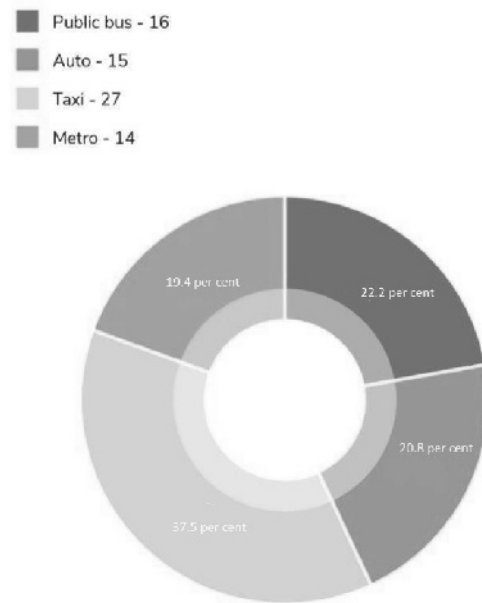


Figure 6 : Pie Chart of the Mode of Transport Used
(Source : Primary Data)

Interpretation

Most of the commuters in Kolkata city use taxis as their regular mode of transport for travelling to offices and schools, whereas people in Howrah use buses more regularly for travelling every day.

Factors for Selecting Taxi Application

9. 9. Which is the most important factor while choosing a taxi app?

PIE CHART

- Price - 35
- Quality of service - 21
- Cleanliness - 6
- Availability - 23

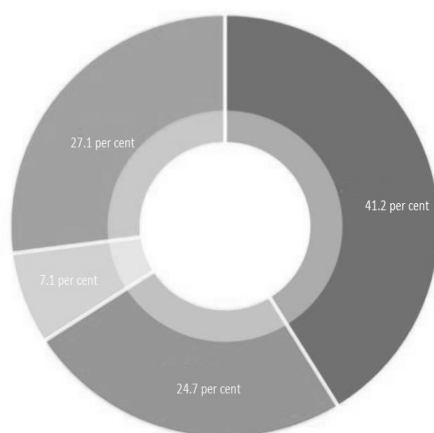


Figure 7 : Pie Chart of the most Important Factor Considered while Choosing a Taxi App
(Source: Primary Data)

Interpretation

Around 41.2 per cent of the people considered pricing as the most important factor when choosing a taxi application, while 24.7 per cent, 7.1 per cent and 27.1 per cent chose quality of service, car cleanliness and availability as the basis for their choice respectively.

Payment Method Preferred

10. 10. Which mode of method do you prefer while paying your taxi fare?

PIE CHART

- Cash - 37
- Paytm/ GPay - 15
- Card - 5

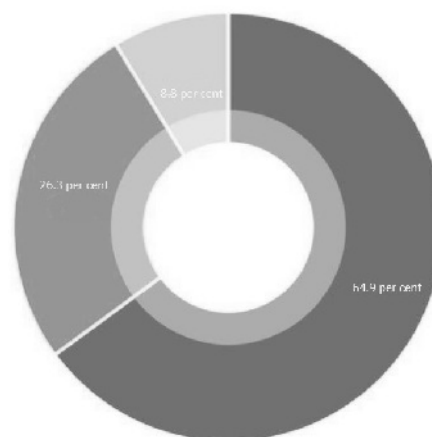


Figure 8 : Pie Chart of the Payment Method Preferred
(Source: Primary Data)

Interpretation

Out of the sample, the payment method for paying the taxi fare preferred was through cash (i.e., 64.9 per cent) and the rest of them preferred going cashless i.e., using cards or electronic cash as the payment mode.

Medium of Awareness about the Application

8. 8. How did you come to know about the electronic taxi application?

PIE CHART

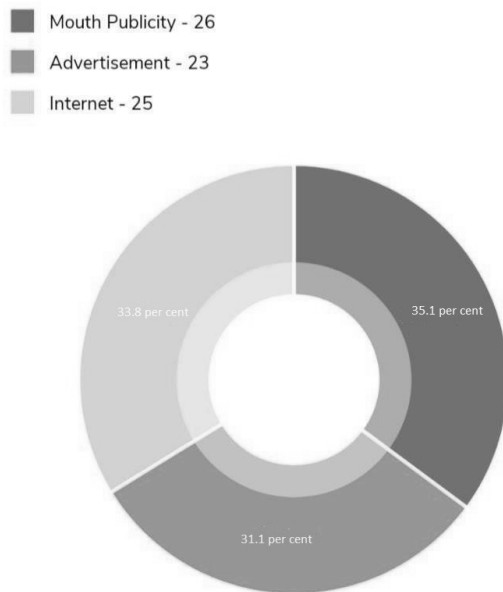


Figure 9 : Pie Chart of the Medium of Awareness about the Application
(Source: Primary Data)

Interpretation

When asked about the source through which the users came to know about the taxi applications, most of them were by way of mouth publicity through friends and family (i.e., 35.1 per cent) and the rest of them through advertisement (i.e., 31.1 per cent) and the internet (33.8 per cent).

Frequency of Use of Taxi Application

12. 12. How often do you use taxi apps?

BAR CHART

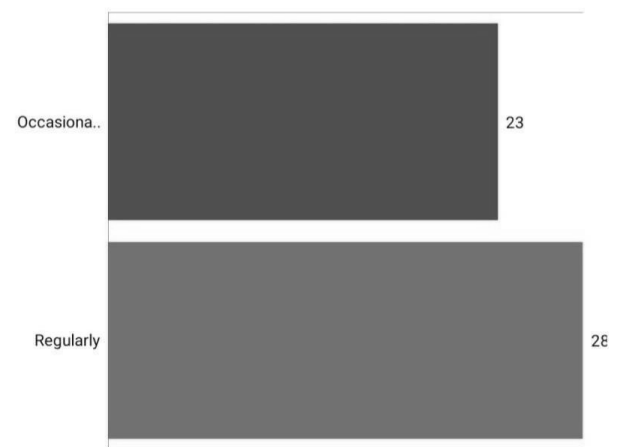


Figure 10 : Bar Graph of Frequency of Usage of Taxi Applications (Source: Primary Data)

Interpretation

The frequency of usage of taxi applications by different users of different occupations showed variations. The majority of the users who used taxi applications frequently were students while most of the professionals, business persons and housewives used them only occasionally.

Attractive Promotional Strategies

11. 11. Which taxi app do you think provides more attractive ideas?

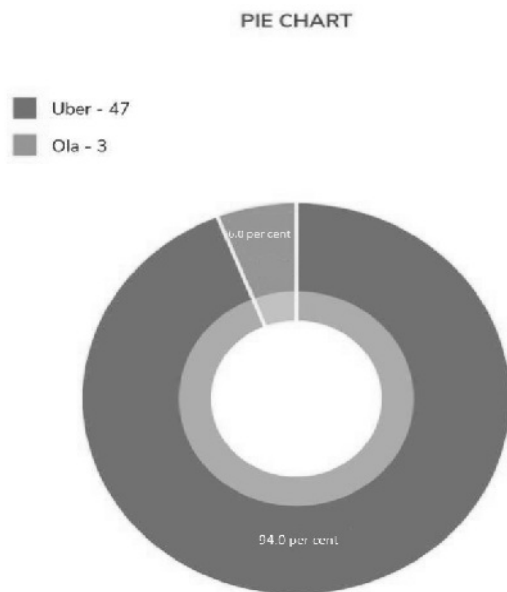


Figure 11: Pie Chart of Attractive Promotional Strategies
(Source: Primary Data)

Interpretation

As per the survey conducted, most of the users find the promotional strategies and offers given by Uber (94 per cent) much more attractive than that of Ola (six per cent).

Customer Rating (Out of 30)

To find out the brand image of Uber and Ola

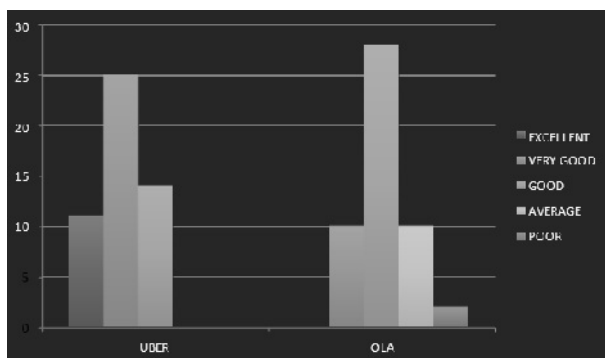


Figure 12 : Bar Graph of Customer Ratings
(Source: Primary Data)

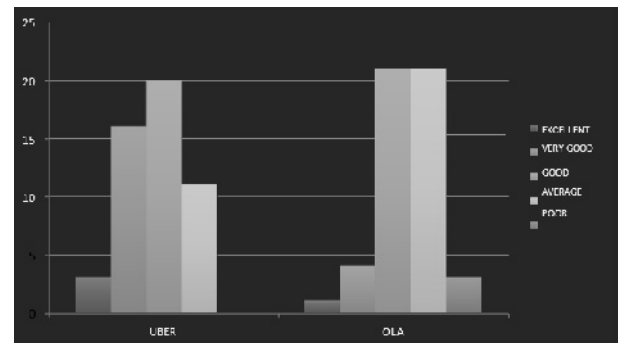


Figure 13: Bar Graph to Prices
(Sources: Primary Data)

Interpretation

The average rating of Ola, Uber, and other taxi apps out of 30 as rated by the users in terms of pricing structure and brand image is mentioned in the chart above. In terms of prices, Ola was rated the best with a score of 21 followed by Uber (20). In terms of brand quality and image, the highest scorer was Ola cabs with a rating of 28 whereas Uber was at 25.

The users of taxi applications seemed highly satisfied with the taxi applications and appreciated the convenience they provided. When asked whether they would recommend the application, 98 per cent of the people said they would.

CONCLUSION AND RECOMMENDATION

Summary Observations

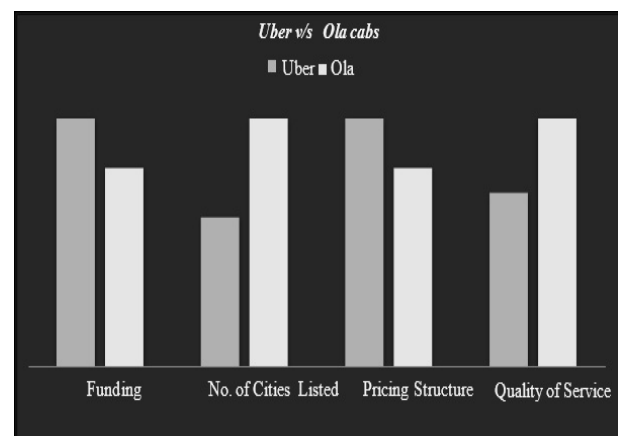


Figure 14 : Overall comparison of Uber and Ola
(Source: Primary Data)

Based on the study done, data analyzed, and survey conducted, the observations can be summarized as follows:

- The level of satisfaction is higher for Uber (82 per cent) as compared to Ola Cabs (17 per cent) and others (1 per cent).
- In terms of app installations and total rides per day, Uber is the clear winner with top ranking and the most active users on Play Store and App Store, as well as the total number of rides per day of 14 million as compared to Ola which is 1.5 million.
- Ola is present in many more cities (150) than Uber (40), and features such as rickshaws and scheduled rides could make it more useful too.
- However, in terms of funding, Uber has a stronger base with a \$20 billion fund, as compared to Ola which has a total funding of \$3.8 billion.
- Out of the sample, 99 per cent of the people used taxi applications, among which 99 per cent used Uber, 20 per cent used Ola and one per cent used other taxi applications. It was also observed that most of the consumers used both Ola and Uber.
- The prices of Uber are considerably lower than that of Ola cabs but higher than that of Taxi for Sure.
- Services provided by Ola include personal transportation, food delivery and grocery ordering whereas Uber's services are limited to personal transportation.
- As their regular mode of transportation in Kolkata and Howrah, people used public buses, metro, autos, and taxis in the proportion of 22.22 per cent, 19.44 per cent, 20.83 per cent and 37.50 per cent respectively.
- Out of the sample the frequency of use of taxi applications of different occupation whereas follows:

Occupation	Regularly	Occasionally
Professionals	100 per cent	
Businessperson	50 per cent	50 per cent
Students	96 per cent	4 per cent
Housewives	-	-

**Table 4 : Frequency of Use of Taxi Applications
(Source: Primary Data)**

- The marketing and promotional strategies of Uber (94 per cent) made more impact and were much more attractive than that of Ola Cabs (6 per cent).

Recommendations for Improvement

Based on this study and analysis of the data received along with the response from the commuters, it is found that there is room for improvement which is listed below-

- Since most consumers preferred payment through cash, the companies should focus more on enabling payment through cash service in all the cities that they are listed in.
- The most important factor for choosing a commuting medium was price, so to bring down the price of riding, innovative ideas like cab sharing should be introduced to make taxis more feasible.
- To accommodate and suit a largely populated country like India, the increase in fleet size of taxis is much needed. It is also likely to solve the problem of surge pricing (an increase in taxi fare due to excess demand).
- To battle out the bans that were imposed on these taxi companies in certain cities due to safety concerns, a more thorough check of the background of its drivers should be conducted along with enabling a safety button feature in the application.
- It's also seen that in certain places cabs are not available and people find it difficult to reach their destination. So, it is recommended that the availability of cabs should be more than usual.

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The results of the general elections react in a peculiar manner in which the shorter period notices a remarkable impact while the long-term period remains indifferent towards the consequences of the declaration of the general election.



Effect of General Election on the Stock Market of India

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ABSTRACT

This paper is aimed to dissect the impact of election declaration on the NSE (Nifty) and BSE (Sensex) indicators, measuring the effect of diurnal average returns and volatility during a period of three orders before 30 days, 15 days, and 7 days and after 30 days, 15 days, and 7 days of the declaration of the election result. The study recognized that the impact of election results is witnessed in the short-term and gradationally declines in the medium and decreases in the long-term period. The results of the general elections react in a peculiar manner in which the shorter period notices a remarkable impact while the long-term period remains indifferent towards the consequences of the declaration of the general election. The outgrowth of the study suggests

that the investors should be prudently watchful and discreet while investing in the long-term period and can earn profit if they invest for short-term period using the short-term investment strategy.

KEYWORDS: Vulnerability, General Elections, Investment, Sensex, Nifty.

BACKGROUND OF THE STUDY

History has shown that 'securities' trade (money-related system) takes a critical part in the economy for the monetary turn of events. Nowadays, the 'securities' trade has been impacted by numerous components which are political, atmospheric, et al. We are in a mechanical reality where news could spread from one side of the planet to the other in a very short span of time. Considering every news can reach the general population and the monetary patrons could analyze news which is associated with 'stock' trade, monetary trade change relies upon the news. News associated with the economy, political events, barometrical circumstances, and associations between countries could influence monetary trade instability.

The vulnerability caused to monetary trade execution remains the fundamental apprehension for the market individuals, specialists, and policymakers, and it is called the political bet. The connection between political bet and the capital market is exceptionally considerable. It justifies why business houses, farmers, specialists, et al. rush to learn about the accompanying government advancement. The impact of political results on monetary trade is felt across the planet. It has transformed into a trademark trait to see the market acting curiously when political outcomes are announced. With the approaching and advancement of social capital, there is colossal improvement in the capital market. Direct money researchers have found peculiarity happening at the hour of political choice.

JUSTIFICATION OF THE STUDY

Political occasions as a rule enormously affect the securities exchange. By and large, the financial exchange vacillates due to political declarations like a

guideline, promulgation regulation corrections, and public political decisions. This analysis talks about the effect of the Lok Sabha elections on the financial exchange. BSE lists have been taken for examination.

Past investigations recommend that quick reaction can be viewed as a significant movement after the political decision has been declared and markets can likewise be given an opportunity to process the information, which can be used to study medium and long-term impacts. In the illumination of this impact, elections' effect has been examined for seven days (present moment), 15 days (medium-term) and 30 days (long-term).

The review will assist financial backers in investing cautiously and provide a direction on their speculation choice around the race's pre- and post-period. The financial backers can comprehend volatility in the market because of the declaration of decisions in a specific monetary year. It assists the financial backers in limiting their general dangers and expanding their return during this period.

BRIEF REVIEW OF LITERATURE

A study was conducted in the past to look at the securities exchange execution and find out inconsistencies and anomalies brought about by the affirmation of the overall political results towards the same. There are two political impacts examined in the finance book; the 'Political Business Cycle' and the 'Political Decision Impact'. The political business cycle looks at the profits of securities exchange during the term of an administration. It is frequently alluded to as the 'official cycle' in the United States of America (USA), where the 'Political Decision Impact' inspects stock returns around the election date itself.

OBJECTIVES OF THE STUDY

1. To examine the effect or the impact of election results on the BSE (SENSEX) and National Stock Exchange (NSE) (NIFTY 50).
2. To analyze and compare variance, in other words, we can say volatility caused by the election results on BSE and NSE indices.

3. The analysis and study of the reaction of the stock market to the announcement of the election and its impact on the shareholders.

RESEARCH METHODOLOGY

Research Question:

1. How to analyze the impact or the effect of the announcement of elections on both NSE and BSE returns in the pre-elections and post-elections period?
2. How to analyze and compare the volatility or the variability for short-term (seven days), medium-term (15 days), long-term (30 days) in the pre-elections and the post-elections period

Keeping the high goal to perceive the impact of political occasions regarding the overall election of India, this looks and covers 5 preceding general elections. This study takes the help of a descriptive and analytical method. Closing levels of the SENSEX and NIFTY 50 index have been taken into consideration and for this data has been gathered from the respective stock trade websites the index belongs to (NSE and BSE).

The assumption here is that the records are free from mistakes because it has been gathered from a proper source. This looks at and focuses in particular on the overall performance of the markets one month (thirty days), fortnight (fifteen days) and a week (seven days) before and after the result date. Usually, the election in India takes place in stages and takes approximately half a month starting in March and concluding with the declaration of results around the mid of May. The records have been computed to check the presence of abnormality and anomaly resulting from the result declaration. Analysis of the secondary data is done using the below statistical tools:

In the first place, the everyday logarithmic returns have been found over the earlier day's end file during the whole period of 5 years.

Also, the normal returns in the pre-result and post-result periods for the past and the following seven days, fifteen days and thirty days are determined.

The Return is determined utilizing :

$$R_t = \log (P_t/P_{t-1})$$

where R_t = Market returns at the period t ,

P_t = Closing Price of the list at day t ,

P_{t-1} = Closing Price of the list at day $t-1$,

\log = Natural log.

Thirdly, the variances are determined for the preceding and next seven, fifteen and thirty days of the elections to check the volatility and the behaviour of the stock market after the election results are declared.

Fourthly, a paired t-test is done to distinguish the effect of the political decision result declaration on the financial exchange that is to check its significance taking the general probability of 0.05.

Finally, the correlation coefficient has been determined to check whether a connection exists between market performance for the three chosen periods with the general election result declaration.

SCOPE OF THE ANALYSIS

The analysis has been focusing to measure the variability, average return and effect of election and for this study, election period or sessions were taken that is 1999 to 2019.

LIMITATIONS OF THE ANALYSIS

- Dependence on Secondary Data: Since the optional information is gathered from different sites and papers, data partaking in this overview may be off-base, which would fill in as an impediment to making a legitimate appraisal of the various potential outcomes out there.
- Time Constraint: Time constraint is perhaps the greatest limitation of this review. Assuming additional time had been available, the example might have been greater as well as better examination would have been conceivable.

CONCEPTUAL FRAMEWORK

Stock market variance depends on news. News which is connected with the economy, political occasions, weather patterns, and connections between nations could affect financial exchange fluctuations. The review aims to examine the impact of general election result on both NSE and BSE returns in the pre-election and post-election period and to dissect and think about the unpredictability, that is, the change in everyday returns in the securities exchange for the short-term (7 days), medium-term (15 days), and long-term (30 days) in pre-races and post-contest period. The examination has attempted to quantify the instability, normal returns and effect of decisions. For this investigation, 5 election meetings were viewed between 1999 to 2019. To dissect the information, t-test and relationships are utilized. The everyday closing of NIFTY and SENSEX records have been gathered

from the Yahoo finance site and other websites for the period from 1999 to 2019, which includes the 5 Lok Sabha terms. The time frame of review has been ordered into pre-decisions and post-races periods. It is reasoned that the political decision has more impact in the present moment, less in the medium-term and it lessons in the long-term after the political decision declaration.

This paper is planned to break down the effect of election result declaration on NSE (NIFTY 50) and BSE (SENSEX) files. To quantify the impact of everyday normal returns and instability during a time frame of three different classes- preceding thirty days, fifteen days, and seven days and following thirty days, fifteen

days, and seven days of the declaration of the result. Information has been gathered for the following five election periods from 1999, 2004, 2009, 2014, and 2019.

DATA ANALYSIS AND FINDINGS

Hypothesis

The following hypotheses have been created:

H1: The declaration of political decision results affects the BSE Index (SENSEX) and NSE Index (NIFTY 50).

H2: Volatility in the momentary period (7 days) is more than the medium (15 days) and long- term period (30 days) during the post-election period.

ELECTION YEAR	30 DAYS (BEFORE)	15 DAYS (BEFORE)	7 DAYS (BEFORE)	ELECTION RESULT DATE	30 DAYS (AFTER)	15 DAYS (AFTER)	7 DAYS (AFTER)
1999	23.08.1999	14.09.1999	24.09.1999	5 TH OCTOBER	06.10.1999	06.10.1999	06.10.1999
	TO 04.10.1999	TO 04.10.1999	TO 04.10.1999		TO 18.11.1999	TO 27.10.1999	TO 14.10.1999
2004	30.03.2004	21.04.2004	04.05.2004	13 TH MAY	14.05.2004	14.05.2004	14.05.2004
	TO 12.05.2004	TO 12.05.2004	TO 12.05.2004		TO 24.06.2004	TO 03.06.2004	TO 24.05.2004
2009	27.03.2009	23.04.2009	07.05.2009	16 TH MAY	18.05.2009	18.05.2009	18.05.2009
	TO 14.05.2009	TO 15.05.2009	TO 15.05.2009		TO 26.06.2009	TO 05.06.2009	TO 26.05.2009
2014	28.03.2014	23.03.2014	07.05.2014	16 TH MAY	19.05.2014	19.05.2014	19.05.2014
	TO 15.05.2014	TO 15.05.2014	TO 15.05.2014		TO 27.06.2014	TO 06.06.2014	TO 27.05.2014
2019	05.04.2019	02.05.2019	14.05.2019	23 RD MAY	24.05.2019	24.05.2019	24.05.2019
	TO 22.05.2019	TO 22.05.2019	TO 22.05.2019		TO 05.07.2019	TO 14.06.2019	TO 03.06.2019

Table 1 : Time Period Data for the Analysis
(Source: <https://loksabha.nic.in/>)

YEARS	30 DAYS (BEFORE)	15 DAYS (BEFORE)	7 DAYS (BEFORE)	30 DAYS(AFTER)	15 DAYS (AFTER)	7 DAYS (AFTER)
1999	-0.00017	-0.00032	-0.00146	-0.00085	-0.00149	0.005559
2004	-0.00077	-0.00566	-0.00645	-0.00211	-0.00245	0.000907
2009	0.011727	0.016605	0.023502	0.00117	0.001754	-0.00175
2014	0.002559	0.003535	0.011063	0.001405	0.003247	0.001125
2019	-0.000045	-0.00025	0.005601	-0.013758	- 0.000807	0.002335

Table 2 : Daily Average Returns of SENSEX, BSE
(Source: Author's Compilation)

YEARS	30 DAYS (BEFORE)	15 DAYS (BEFORE)	7 DAYS (BEFORE)	30DAYS (AFTER)	15DAYS(AFTER)	7DAYS(AFTER)
1999	0.000204	0.000367	-0.00348	-0.000976	0.000888	0.006209
2004	-0.000629	-0.00577	-0.00617	-0.00205	-0.00265	0.002174
2009	-0.010992	0.01553	0.022857	0.000516	0.001629	-0.002158
2014	0.002435	0.003438	0.011355	0.001557	0.003498	0.001295
2019	0.010033	0.012345	0.014895	0.0075068	0.007525	0.007337

Table 3 : Daily Average Returns of NIFTY, NSE
(Source: Author's Compilation)

Table 2 and Table 3 represent the regular average returns calculated from the SENSEX and NIFTY index rate for the distinct period, prior to and after the election end result announcement. Estimates suggest that the overall performance of the indices is most affected in the short time period, that is seven days. In 2009, there were adverse returns on each of the exchanges. The returns decline and have a much adverse effect for the medium-time period (fifteen days). Long-time period returns are relatively stagnant in comparison to the short and medium-time period length, both prior to and after the election result announcement.

YEARS	30 DAYS (BEFORE)	15 DAYS (BEFORE)	7 DAYS (BEFORE)	30 DAYS (AFTER)	15 DAYS (AFTER)	7 DAYS (AFTER)
1999	0.03	0.02	0.02	0.04	0.04	0.07
2004	0.03	0.04	0.05	0.09	0.017	0.36
2009	0.15	0.25	0.42	0.04	0.04	0.05
2014	0.02	0.02	0.02	0.02	0.02	0.01
2019	0.02	0.03	0.03	0.57	0.02	0.02

Table 4 : Average Variance of Returns - BSE
(Source: Author's Compilation)

YEARS	30 DAYS (BEFORE)	15 DAYS (BEFORE)	7 DAYS (BEFORE)	30 DAYS (AFTER)	15 DAYS (AFTER)	7 DAYS (AFTER)
1999	0.03	0.03	0.03	0.05	0.05	0.06
2004	0.03	0.04	0.05	0.12	0.21	0.43
2009	0.13	0.21	0.42	0.05	0.05	0.05
2014	0.02	0.02	0.02	0.02	0.02	0.01
2019	0.02	0.02	0.02	0.58	0.01	0.01

Table 5 : Average Variance of Returns - NSE
(Source: Author's Compilation)

Table 4 and 5 show the average of variance of returns of the NIFTY 50 and SENSEX. The variance in statistics is a dimension of the spread between figures in a data set. It measures how far each number in the data set is from the mean and thus, from every other number in the data set. A cursory glance at the table of variance study highlights the fact that volatility or variability decreases over the long-term (thirty days). In the medium-term (fifteen days), volatility remains at par with long-term. In the short-term period (seven days), it turns unpredictable, which shows that it tends to be less unpredictable in long-term period. Thus, this analysis proves our alternate thesis that variability or volatility in the stock markets exists only for a limited period.

YEAR	30 DAYS	15 DAYS	7 DAYS
1999	0.856	0.879	0.597
2004	0.815	0.814	0.775
2009	0.185	0.335	0.269
2014	0.615	0.916	0.085
2019	0.325	0.902	0.605

Table 6 : Paired t-test for SENSEX Index
(Source: Author's Compilation)

YEAR	30 DAYS	15 DAYS	7 DAYS
1999	0.774	0.942	0.497
2004	0.825	0.835	0.765
2009	0.189	0.375	0.275
2014	0.692	0.983	0.068
2019	0.322	0.885	0.608

Table 7 : Paired t-test for NIFTY Index
(Source: Author's Compilation)

Table 6 and Table 7 show paired t-test, which is used to evaluate the statistically significant difference existing between the returns of thirty, fifteen and seven days before and after election results are announced. The consequence of the matched example t-test was not critical for every one of the decisions. Where p is greater than 0.05 the table worth of which is 2.78 yet the matched t-test upsides of all the lists are far lesser than 2.78 which shows that there is no huge expansion in the profits from when the election results were reported. This thus dismisses the elective theory H1 and reasons that there is no critical effect of the election result declaration on the profits of the indices.

YEAR	30 DAYS	15 DAYS	7 DAYS
1999	0.812	-0.583	-0.275
2004	0.535	-0.173	-0.439
2009	0.355	0.367	-0.449
2014	0.272	0.793	0.735
2019	0.263	-0.425	0.616

*Table 8 : Correlation Coefficient of SENSEX
(Source: Author's Compilation)*

YEAR	30 DAYS	15 DAYS	7DAYS
1999	0.505	-0.393	-0.407
2004	0.506	-0.243	-0.525
2009	0.133	0.362	-0.253
2014	0.232	0.806	0.753
2019	0.315	-0.382	0.557

*Table 9 : Correlation Coefficient of NIFTY
(Source: Author's Compilation)*

Correlation coefficients measure how strong a relationship exists between two variables. Table 8 and Table 9 indicate the correlation between the index price of SENSEX and NIFTY 50 before and after the election

results were announced. The year 2009, 2014 and 2019 display a relatively moderate relation in the long-term (thirty days) when compared to the years 1999 and 2004. The NIFTY 50 in the year 1999 and 2004 in

the long run, and for the year 2014 for the mid-term shows a strong correlation. During the year 1999, the mid-term and short-term on both indices shows an adverse relationship. The negative correlation actually portrays the arbitrage trading by the speculators and the operators

The analysis shows that the election has the most excessive impact (positive or negative) temporarily, which decreases in the medium-term and similarly diminishes in the long-term in distinction with the pre-election time frame. Generally, there is no significant return in NIFTY 50 around the pre-and post-election time frame. However, if we take SENSEX into consideration, it has favourable as well as unfavourable consequences in the post-and pre-period. Also, the 2004 elections have absolutely awful effects around the pre-and post-election period. The diminished fluctuation over the long-term, contrasted with the medium-term and the short-term in pre-political election time. Moreover, a decreased volatility during the long-term period contrasted with the medium-term and short-term in the post-election time frame in the majority of cases. It suggests that volatility and its influence normally decrease as we assume the long-term.

The economic trade stays regular in the period before election outcomes are stated for the medium- and long-term period and follow unpredictability after results are declared. This irregularity comes simply for a short-term (seven days) when the announcement of the election end result is perceived by using everyday regular returns.

The correlation coefficient portrays that the connection for the short-term is displaying a negative correlation in the years 1999, 2004, and 2009, which for this reason portrays that after the declaration, the market return declined. During the years 2014 and 2019, there was a high correlation which suggested that there used to be a tremendous impact of the declaration of election results on market returns. From the evaluation, we can depict the effects that had been not significant in the matched

t-test, displaying that there is an extensive enlargement in the market received returned from the pre-political choice announcement and post-election announcement simply for a short-term period.

CONCLUSION

Table 2 and Table 3 address the normal regular returns given by NIFTY 50, and SENSEX during different periods around the overall decisions. The analysis demonstrates that an election has a most extreme effect (positive or negative) temporarily, which decreases in the medium term and further diminishes in the long-term contrast with the pre-election time period. Moreover, there is no bad return in NIFTY 50 around the pre-and post-political decision time frame. However, if there should arise an occurrence of SENSEX, it has positive and favourable as well unfavourable returns in the post and pre-period respectively. Also, in the 2004 races, it has absolutely bad qualities around the pre-and post-political decision period

Table 4 and Table 5 address diminished fluctuation over the long-term contrasted with the medium-term and the present moment in the pre-election period and a diminished changeability over the long-term contrasted with the medium-term and present moment in the post-political decision time frame in the majority of the cases. It suggests that volatility and its impact generally decrease as the study anticipates the long term.

The financial exchange stays steady before political decision results are reported for the medium-and long-term period and causes unpredictability after outcomes are declared. This irregularity comes just for a momentary period (seven days) when the election result declaration as perceived by day-to-day normal returns. Individuals ride on the strategy, philosophy, and political will of a challenging party and bet on the bull, and cut the pushes ahead.

In Tables 8 and 9, it portrays that the correlation for the present moment is showing a negative correlation in the

years 1999, 2004, and 2009, which thus portrays that after the declaration, the market return declined. In the years 2014 and 2019, there was a positive correlation during the present time, thereby indicating a positive effect of the declaration on market returns. From Tables 6 and 7 we can portray that the outcomes were not huge in the matched t-test, showing that there is a significant expansion in the market derived from the pre-and post-election declaration just for a short period.

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Over these years, XCS has entrenched itself as an institution that exhorts every single person to develop the tact and acumen which is essential for conquering the myriad of difficulties that one is going to face throughout the course of his or her life.



Etched in Black: A Memoir

Pratham Mittal and Vasisth Bafna
Joint Secretaries
Xavier's Commerce Society

Life is nothing but a palette of colours. Each colour is imbued with a greater symbolic sense, concealing a story, which makes it an indispensable ingredient of our lives. Each such story or experience has different narratives - one that breaks us; one that builds us; one that defines us; one that acts as a beacon; one that teaches us to look ahead in life. When all these experiences are blended together, a mesmerizing portrait of life is imprinted in front of us. One such story, which forms the essence of our portrait, is about the Xavier's Commerce Society.

Having commenced our journey in St. Xavier's College (Autonomous), Kolkata, in the midst of COVID lockdowns, we were very uncertain regarding what lay ahead of us. Every individual dreams of experiencing a plethora of adventures in this phase of their life, yet we were restricted to the constraints of the virtual classroom setup. Despite this stress of incertitude, we could never in our wildest dreams have imagined the tumultuous ride we were about to be a part of, one with its own highs and lows, all of which imbibed in us a sense of conviction, determination, and gratitude for our time spent in this revered institution.

Our first impression of the Xavier's Commerce Society was through Inception 2020, an event curated exclusively for first years. During the course of this event, we encountered a group of uber-confident individuals who showcased

immense charisma and poise in their demeanour, while wearing black t-shirts that had XCS imprinted on them. Even through a virtual medium, we could feel the reputed legacy of this society and the innate pride of having earned the opportunity of donning those coveted black t-shirts. The grandeur of this organization and the gumption and mystique which emanated from all its members, ignited in all of us a burning desire to become a part of something that was much greater than all of us. The gruelling and demanding rounds of Inception taught us how much we can learn from our peers. It rigorously tested our wit and character, as we had an experience so close to the real-life corporate setup for the very first time. After witnessing something as immaculate as this, it was only normal for us to eagerly look forward to being a part of the XCS legacy.

The opportunity presented itself in front of us on 21st November 2020, when we went through a flurry of comprehensive and elaborate rounds of selection to be ultimately inducted into the society as Insignia Working Committee Members, and this marked the beginning of a much-awaited journey. 'You never forget your first Insignia', said our seniors. Little did we know that whatever followed would eventually define us as individuals and shape our perspective. Even though we were clueless at the initial stage, we had a sense of belief that it would be worth the effort. Insignia 2021, our first international-level management festival, was by far the best experience we could have in the eight months of our first-year journey. Very soon, professionalism became the very essence of our habits, and the desire for perfection became the driving force. We were given the opportunity to explore ourselves, presented with the ideal platform for discovering our strengths and weaknesses, and provided with the freedom to make mistakes and learn from them. As inexperienced, raw individuals, we struggled to formulate the rounds of our first corporate event, and also learned the art of management in the process. This was rendered possible because we had the opportunity to work with 50 different people from various fields, each with their own story to tell. There was a lot to learn from this healthy exchange of cultures and ideas, whether it was interacting with companies or spending endless nights researching and brainstorming, and every passing moment made us more responsible, informed, and determined. With each passing day, we could experience a plethora of instances that actually made us realize the true essence this society held. Those were the

months when we saw a change in our approach and our actions paved the way for something remarkable and extraordinary. After Insignia was over, we were left with tons of memories, and perhaps that was the reason why we never actually forgot our first Insignia.

As the days went by, we were ardently waiting to know whether we would be successful in moving ahead with our XCS journey or not. Soon, the moment came when we moved on from being WCMs to XCSers, the moment when we were handed the black t-shirts we once dreamt of donning. Dr. A.P.J. Abdul Kalam once said, 'Winners are not those who never fail, but those who never quit', and we are sure that every XCSer reading this can certainly relate to this. This is because of the fact that our second-year journey at XCS has helped us possibly build bridges that have led us to unexplored regions. It has been instrumental in aiding us to accomplish great feats through the collective efforts of every single member of our team. Gradually, we began to realize that working together could help us achieve great things. We realized that ideas, no matter how unbelievable, can be put into action if we are willing to go the extra mile, and situations, no matter how difficult, can be overcome with the belief and assistance of a fellow member. This journey was not just about conducting multiple events, it was about evolving at every step and seeking constant constructive criticism. The journey helped us step out of our comfort zones by throwing challenges in front of us that we would not have otherwise confronted so soon.

As the most gruelling year of anyone's XCS journey came to end, the third year brought with itself a new set of challenges and consequent lessons. This time, it was not about working with 50 individuals, it was about being accountable and leading more than 5,000 students of the Commerce Department. Now that we were bestowed with the responsibility to lead from the front, it was not only our duty to live up to everyone's expectations, but also to live up to the legacy and transcend in every sphere. With this responsibility on our shoulders, we spearheaded the transition of the society's functioning from online to offline mode, and brought back the quintessence of belonging to the Xavier's Commerce Society, witnessing with awe our fellow XCSers stand out and steal the show.

This legacy had started sixteen years ago, as an initiative to develop the corporate acumen and to ensure the holistic development of every Xaverian. The expedition

of a small group of different individuals, with diverse backgrounds, to work towards the common goal of publishing the annual journal of the Department of Commerce - 'Youthink', marked the inception of this society. Over these years, XCS has entrenched itself as an institution that exhorts every single person to develop the tact and acumen which is essential for conquering the myriad of difficulties that one is going to face throughout the course of his or her life. As a result of dedicating themselves to this greater mission, all our members harness the valour to explore the uncharted territories of their hidden potential and in doing so, cultivate the discipline, skill, and proficiency required to achieve unprecedented feats in all walks of life. In working tirelessly for hours towards a common goal, employing their skill and aptitude to manoeuvre through complex situations, and applying their ingenuity and dexterity to create positive outcomes, XCSers embody the true spirit of camaraderie, dignity, tenacity, and acuity.

The success story of this organization is an incredible one, but it cannot be complete without the mention of the President of the Xavier's Commerce Society, Rev. Dr. Dominic Savio, SJ, whom we thank for his constant support and guidance. Moreover, we are grateful to Rev. Dr. Joseph Kulandai, SJ, and Rev. Dr. Peter Arockiam, SJ, for always encouraging us in all our endeavours. None of our pursuits would have been successful without the support of Prof. Amitava Roy and Dr. Soheli Ghose who have guided us and motivated us to perform better at every juncture. Besides, we shall remain forever indebted to our professor-in-charge, Prof. Shaunak Roy and our mentor, Dr. Sumona Ghosh for guiding us through each and every event and being the backbone of the framework, we fall back on. We are also grateful for the support that XCS continues to draw from its alumni members. None of the events would have been conducted smoothly without the non-teaching staff and other office bearers of the college who have helped us day in and day out. Lastly and most importantly, we would like to thank the entire student body of St. Xavier's College(Autonomous), Kolkata for enthusiastically participating in all our events and providing their valuable feedback that ensures that we deliver our best every time. The Xavier's Commerce Society promises to rise above all expectations and to reach new frontiers, embracing the motto of 'Nihil Ultra', and it continues to establish itself as a force to be reckoned with.

As we look back and reminisce about these past two and a half years, we feel an inexplicable sense of love and affection towards our esteemed college, a place we now call home. But it is in solitude that we realize that the reason we have fallen in love with this coveted and reputed institution is because of the amazing people who have filled each and every corner of this place with memories of immense joy and ecstasy. We have had our fair share of disputes, disagreements and differences of opinions, but at the end of the day, all of us stand together and take comfort in the fact that no challenge in life is so big that we cannot endure together as a family.

With only a few days left before we step out of our college gates into the real and uncertain world, we cannot help but reflect on this popular adage which makes all the more sense to us now - 'A person is only as good as the people he surrounds himself with.' We have been privileged to be a part of a group of extremely ambitious and driven individuals, who have always set the bar very high and challenged us at every step to push our limits in search of our elusive goal to take this society to greater and higher standards.

Every story has a beginning, middle, and end, and every path has a definite destination and sadly, our XCS journey, which began two years ago, is now coming to an end. It is surprising that when it had started off, we had no idea that this journey and this society would end up becoming much more than a society, and its members more than just colleagues. After a few months, we will again be at the verge of another transition that awaits us. There will be no sleepless nights before the events, no meetings to discuss the plan of action, and no celebration over the success of our hard work; but there will always remain tons of memories and experiences which we will always cherish. Even when all of us will walk towards our own ways, one common colour will continue to be the lifeblood of the portrait of our lives.

It is said that without the colour black, no painting has any depth and vitality, but if we mix black with everything, suddenly there is shadow - no, not just shadow, but fullness. Well, who knows better than us, that one has to be willing to mix black into his palette if they want to create something that is real.



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FEATURE
INTERVIEWS
GUEST ARTICLES
BEYOND
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PRECIS
LOOKING BACK

— TRIBUTE AND FUN SECTION —



GALLERIA

RENAISSANCE



THE WEDDING AT CANA

PAOLO VERONESE

1563

One of the most revered paintings of the Renaissance Period, The Wedding at Cana represents the biblical story of one of Jesus Christ's many miracles - turning water to wine at a wedding banquet. The oil painting manifests the Mannerist style of painting, and is the most expansive painting of the Musée du Louvre.

THE VISION OF DEATH

GUSTAVE DORE

1868

The Vision of Death is a wood engraving personifying Death, by Gustave Doré of the Romance period. This was characterized by the rejection of the ideals prevalent in the previous Age of Enlightenment, and propounded individualism, idealization of nature as well as scientific suspicion and skepticism.

ROMANTICISM



IMPRESSIONISM



ENTRÉE DU VILLAGE DE VOISINS

CAMILLE PISSARRO

1872

Currently residing at the Musée d'Orsay, Entrée du village de Voisins is the paragon of the Impressionist period in art history. Characterized by simplistic, everyday imagery depicted in the manner as perceived by the artist, this painting visualizes a calm, sunny spring morning in France, with the trees casting long shadows over the landscape.

GALLERIA

SURREALISM



THE PERSISTENCE OF MEMORY

SALVADOR DALÍ

1931

This surrealist piece depicts 'melting watches' as its primary focus. It epitomizes Salvador Dalí's theory of 'softness' and 'hardness', which was a supposed reference to Albert Einstein's "Theory of Relativity". The painting stays true to this time period, which was influenced by the construction of the abstract and the unconventional.

CAMOUFLAGE SELF-PORTRAIT

ANDY WARHOL

1986

Made a few months before his death, this artwork is a polaroid photograph of Andy Warhol. It has been described as haunting and ambiguous, with an inherent duality present in itself. The camouflaged look presents an impersonality to the viewer, as opposed to the personality of a traditional portrait image, which is what makes it further arresting.

POP ART



CONTEMPORARY ART



THINKING OF HISTORY AT MY SPACE

CHEN YIFEI

1976

Painted by Chen YiFei, this artwork narrates the history of the Chinese Cultural Revolution, in the form of a self-portrait. The oil painting depicts himself staring at a wall of overlapping distressing images, like a classical film montage, of the period of instability that shook his home country and brought him international fame and success.

All the images are significantly related to the company and act as clues for guessing the same. On the basis of these illustrations, guess the name of the popular company. Arrive at the final solution by unscrambling all the boxed letters.

1.   

2.   

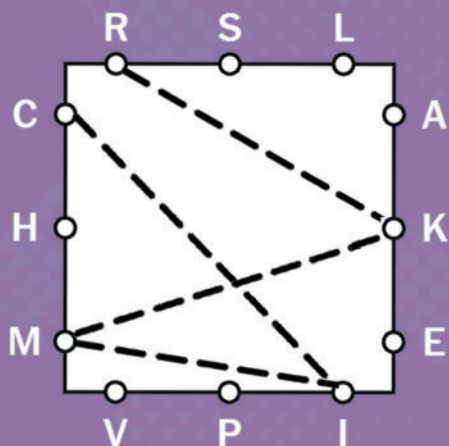
3.   

4.   

5.   

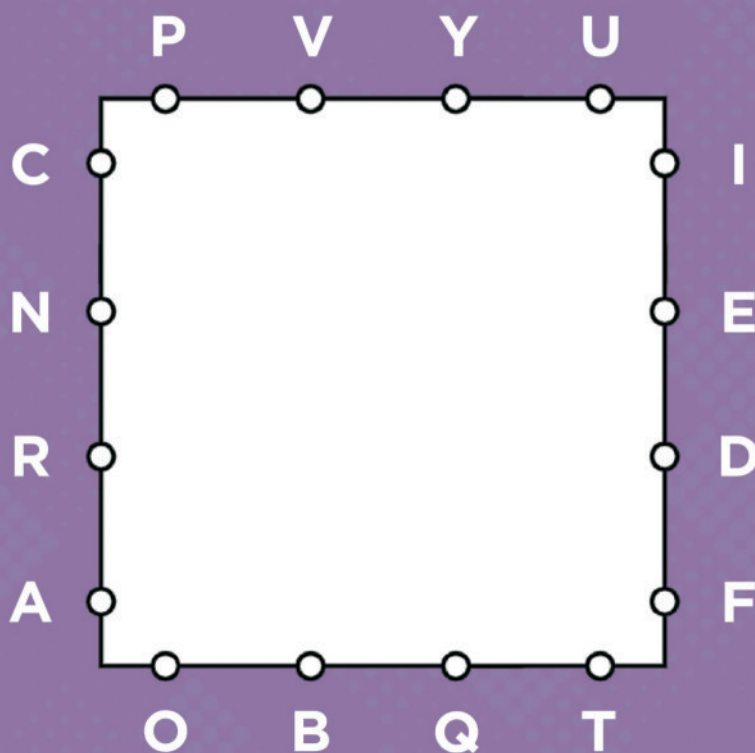
6.   

CHARADES



Create words using letters round the square

- Connect letters to spell words
- Words must be at least 3 letters long
- Letters can be reused
- Consecutive letters cannot be from the same side
- The last letter of a word becomes the first letter of the next word
e.g. WORDS > SOLID > DISH
- Words cannot be proper nouns or hyphenated
- Use all letters to solve!



Charades Answers- 1. Productive 2. Entrepreneur 3. Rebate 4. Equity

Enigma Answers- 1. Dunkin Donuts 2. Versace 3. Nutella 4. Gucci 5. McLaren 6. Fedex
Final Answer- Deliverance

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Prime Minister

MESSAGE

I am happy to learn Xavier's Commerce Society is publishing the 11th edition of the annual journal, 'Youthink' of the Commerce Department of St. Xavier's College, Kolkata.

On this occasion, I extend my best wishes for the success of the publication.

(Narendra Modi)

18 August, 2016
New Delhi

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