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KOLKATA  
DEPARTMENT OF COMMERCE

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# YOUTHINK

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## ALLEGIANCE

INTERVIEWS BY:

GULZAR | GAUTAM GAMBHIR | MOHAMMAD HAMID ANSARI | SHAAN  
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## MESSAGE FROM

# Rev. Dr. Dominic Savio, S.J.

## Principal

### St. Xavier's College (Autonomous), Kolkata



“

In the quest for ultimate excellence, every Xaverian emerges as a responsible and righteous individual with a sense of purpose and capability to accomplish any milestone.

”

“Success is not final; failure is not fatal – it is the courage to continue that counts.”

Every Xaverian exemplifies brilliance and calibre through grit, imagination, and single minded devotion to excel in every field they step foot in. It is because of this diligence and discipline that the bar to stand out is set a notch higher every day. We at St. Xavier's College (Autonomous), Kolkata believe in nurturing the minds of Xaverians beyond the four walls of the classroom by providing a plethora of opportunities to make strides in academics as well extracurricular activities. In the quest for ultimate excellence, every Xaverian emerges as a responsible and righteous individual with a sense of purpose and capability to accomplish any milestone.

As the representative body of the Department of Commerce of St. Xavier's College (Autonomous), Kolkata, the Xavier's Commerce Society stimulates enthusiasm, novelty and synergy. Through the various activities organized by the society all year-round, they provide various opportunities to the students to grow, innovate and inculcate a zeal to flourish. Youthink Vol. XV epitomizes the zenith of the effort that the members of the Xavier's Commerce Society have put in to open new horizons and foster knowledge and creativity.

I would like to laud the Editorial Board of Youthink for choosing Allegiance as the theme this year. As a society that has always adhered to its ideologies and beliefs, the theme bears testimony to what it signifies. It is always pleasant to see students work with unmatched determination to pioneer insightful and pragmatic understanding. Their constant diligence and hard work symbolizes their allegiance to encourage and boost the vigour of all Xaverians.

The fifteenth edition of Youthink demonstrates the perseverance of the team members who have worked diligently towards the success of the journal. Youthink would not have been able to craft its heritage without the unwavering support of Rev. Joseph Kulandai S.J., Vice-Principal, Department of Commerce (Morning) and Rev. Peter Arockiam, S.J., Vice-Principal, Department of Commerce (Evening), and the invaluable counsel of Dr. Amitava Roy, Dean, Department of Commerce (Morning) and Dr. Soheli Ghose, Dean, Department of Commerce (Evening). I would like to thank the professors who constituted the reviewer board for their cardinal feedback. I heartily congratulate the Professor-in-Charge, Prof. Shaunak Roy, the Managing Editor, Dr. Sumona Ghosh, the Editorial Board of Youthink and the student body of the Xavier's Commerce Society. I commend the students, faculty members, luminaries and associated parties for their contribution to this year's journal. I wish the team of Youthink Vol. XV the very best as it seeks to make its mark and pave a path for a promising future generation.

Rev. Dr. Dominic Savio, S.J.





## MESSAGE FROM

# Rev. Joseph Kulandai, S.J.

## Vice Principal (Morning)

### St. Xavier's College (Autonomous), Kolkata

“

We share a sense of duty and responsibility towards the society, as our allegiance reflects credit on human nature and binds us to the virtues that sustain civilization.

”

The world around us today is expansive, spanning theory and practice. The practicality of life can be felt invariably and tangibly with the ups and downs. As circumstances keep spinning beyond our control, it is our duty to adapt and evolve with the changing times in order to survive. But despite the evolution that we undergo, it is imperative to introspect and retain our moral values. We share a sense of duty and responsibility towards the society, as our allegiance reflects credit on human nature and binds us to the virtues that sustain civilization.

St. Xavier's College (Autonomous), Kolkata has established itself as a premier institution of academic and extracurricular excellence, and draws the brightest minds of the country to its doors. With a vision to promote a society based on love, freedom, liberty, justice, equality and fraternity, we aim to harness the potential of students by providing them with platforms to initiate intellectual discourse on pressing global matters. The Xavier's Commerce Society has been committed in helping students engage in the pursuit of knowledge outside the classroom environment, which is realized by initiatives like Youthink that exemplify the true spirit of research. Covering domains ranging from policy to industry, Youthink serves as a platform that brings both experts and young students together.

I would like to applaud the Youthink Editorial Board for bringing light to a theme that is consonant to human existence and cardinal to its survival. Overstepping the confines of conventional learning methods, Youthink encourages extraordinary ideation and fosters innovation among students. Youthink adds curiosity to learning and value addition by way of standing for pluralistic, realistic and interdisciplinary socio-economic understandings. I would like to extend my gratitude to the professors and guests whose insights have appropriately encapsulated the eternal spirit of boundless learning.

The launch of the fifteenth edition of Youthink is a testament towards the dedication and efforts of the students of the Xavier's Commerce Society, who are breaking all existing boundaries and continuously challenging their limits. They have continued to prove themselves successful in every field they pursue and have done so with sheer hard work, diligence and discipline.

I wish Youthink Volume XV the very best as it seeks to encourage the students to introspect and pursue ideas beyond their discipline and seek to excel in various fields. It gives me immense pleasure to congratulate the Xavier's Commerce Society for publishing a journal that exhibits the very heritage of a Xaverian and the true virtues of the Department of Commerce of St. Xavier's College (Autonomous), Kolkata.

May God bless you!

Rev. Joseph Kulandai, S.J.



## MESSAGE FROM

# Rev. Peter Arockiam, S.J.

## Vice Principal (Evening)

### St. Xavier's College (Autonomous), Kolkata



Nurturing creativity and inspiring innovation are two essential elements of effective education and Youthink is a perfect unification of both. It provides a diverse range of platforms to its authors so that they can upstage the ordinary limits and let words forge their legacy.



Although initially it was an effort to understand the socio-natural habitat, having understood the same, man's epistemological interventions attempted to resolve the same problems created by him. It is here that our creativity is tested to its limits. Nurturing creativity and inspiring innovation are two essential elements of effective education and Youthink is a perfect unification of both. It provides a diverse range of platforms to its authors so that they can upstage the ordinary limits and let words forge their legacy.

The Xavier's Commerce Society is the paradigm of how perseverance coupled with perspective and rich values can create an environment of undeterred will for excellence in all their endeavours. Their vision to provide the students of St. Xavier's College, a platform to raise awareness on pressing matters through the power of research and analysis and an opportunity for the readers to imbibe knowledge and build a new perspective is truly praiseworthy.

As Youthink continues to leave its unsurpassable mark on the sands of supremacy, I am greatly heartened to see the fifteenth edition of the annual journal continue to exhibit the talents of the astute minds of the Department of Commerce. With their impressive interviews from luminaries of various fields, Youthink has left an indelible print on the minds of its readers. The selection of articles in the journal, each topic being intricately analyzed and having a thought-provoking essence in its own, manifests the untapped potential contained in the students, waiting to grab onto an opportunity to make a change for a better tomorrow. Being a compilation of young thoughts, Youthink has proved yet again that excellence cannot be measured by any scale and the only true indicator of the same is to outdo your own capabilities.

It is through a novel perspective and looking at opportunities in innovative ways that Xavier's Commerce Society has always mapped its path. In order to explore new ways of reaching out to those in distress, XCS, along with the blessings of our faculty and students, embark upon diverse activities throughout the year. I heartily congratulate everyone who contributed to the venture and wish that everyone who takes the time to browse through these pages finds its true purpose.

May all your efforts see their maximum optimization. God bless you all!

Rev. Peter Arockiam, S.J.



## MESSAGE FROM

# Dr. Sumona Ghosh

## Managing Editor

### Youthink Volume XV

“

As we seek to fulfil our destiny, it is imperative that we have the strength of mind and spirit to persevere in the face of danger.

Moreover, it demands allegiance to human values and principles, for devotion to a cause is paramount for continuity.

”

“The only true test of loyalty is fidelity in the face of ruin and despair.”

There comes a day, where man faces deliverance or redemption from his sins and its effects. It is a saving from the circumstances that destroy the value of human existence. It is the day where man faces the truth, he faces the consequences for his actions, he stands the ultimate test and has his entire legacy painted in front of him. As we seek to fulfil our destiny, it is imperative that we have the strength of mind and spirit to persevere in the face of danger. Moreover, it demands allegiance to human values and principles, for devotion to a cause is paramount for continuity. Year after year, Youthink bridges the gap between the students and faculty through an unfettered growth of ideas and robust institutions as we transcend beyond established possibilities and create our legacy.

As we adapt, evolve, and grow, we seek to understand what lies beyond our perceptions. On the road for triumph, we must remain resilient and loyal to our beliefs, ideas, and notions, and live life by them.

An investment in knowledge pays the best interest. Youthink endeavours to provide an eclectic mix of both contributors and themes, and represents a colourful kaleidoscope of thoughts, reflecting the evolving nature of the world and of the human mind. It aims to not only enrich the reader's knowledge but also stimulate unique perspectives and ideas to raise the bar for intellectual discourse.

As we launch Youthink Volume XV, I would like to extend my indebtedness towards the members of the faculty and the administration for their valuable insight and unwavering support, which have been the impetus for our growth every year. I commend the Joint Editors-In-Chief, Rishika Saria and Soham Chakraborty, and the entire Editorial Board of the fifteenth edition as they inspire dialogue and introspection, and hope that Youthink inspires its readers to question the unquestionable, debate the undebatable, and imagine the unimaginable.

Youthink XV- Allegiance would not have seen its provenance, if it weren't for the persistent guidance from Rev. Dr. Dominic Savio, S.J., Principal, the eternal support from Rev. Joseph Kulandai, S.J., Vice Principal, Department of Commerce (Morning) and Rev. Peter Arockiam, S.J., Vice Principal, Department of Commerce (Evening) and the unwavering encouragement from Dr. Amitava Roy, Dean, Department of Commerce (Morning). I would also like to thank Dr. Soheli Ghose, Dean, Department of Commerce (Evening) for her counsel.

As we devote ourselves to unravel the truth and seek veneration, I proudly present to you the fifteenth edition of Youthink.

*Sumona Ghosh*

Dr. Sumona Ghosh





“  
For every war waged,  
every election  
contested, and every  
policy framed, the  
underlying, consistent,  
and persistent reason  
is Allegiance;  
Allegiance to one's  
ideology, one's  
country, one's  
community, but most  
importantly, Allegiance  
to oneself.”

## MESSAGE FROM

# Rishika Saria and Soham Chakraborty

## Joint Editors

### Youthink Volume XV

“My loyalties will not be bound by national borders, or confined in time by one nation's history, or limited in the spiritual dimension by one language and culture. I pledge my allegiance to the human race, and my everlasting love to the green hills of Earth, and my intimations of glory to the singing stars, to the very end of space and time.”

Throughout history, multiple civilisations have made great strides – socio-economically like the Greeks or Romans, technologically like the Mesopotamians, and culturally and commercially like the Harappans. Even though these civilisations ultimately perished, the ethos of the same survived, albeit refashioned. For a word which can be defined as ‘commitment to a cause or group or person’, ‘Allegiance’ itself is extremely subjective. For every war waged, every election contested, and every policy framed, the underlying, consistent, and persistent reason is Allegiance; Allegiance to one's ideology, one's country, one's community, but most importantly, Allegiance to oneself. Allegiance demands that you commit yourself to a cause, but human reasoning ensures whether this Allegiance is for or against the same cause. As Editors, we take immense pride in having the fifteenth edition of Youthink published while the world is plunged into uncertainty for virtually an entire year. With so many variables in play, this was only possible with the Editorial Board's Allegiance to one another, and to this common cause.

With its Legacy of fifteen years, the Xavier's Commerce Society has continued to Redeem itself by Transcending dreams with constant Impetus, bringing about Change, and ensuring Revelations. This spirit of analytical thinking is embodied in this journal and manifests in articles like ‘The Emergence of a New Era’ and ‘Transforming Monetary Landscapes’ which takes into account the current market conditions and makes evidenced projections of future business practices, in the Feature Section. In the Project Reports, Beyond and Ascent Sections, Xaverian's encompassing all years along with professor guides have laid down intriguing and thought-provoking articles from ‘Contrarian Investment-An Odd Bet’ which reasons why following the herd may not always reap the most benefits, to ‘The Future of Electronic Vehicles in India’ and ‘Emergence of UPI as a Disruptor’ which illustrate what could be the new world order, to ‘Dollar Trumped Bolivar’ which elucidates why and how a particular currency remained at the top of the world economy.

We are also grateful to have ‘Seeds of Tech: From the Lab to the Battlefield’ in the Professor's Desk Section.

We are humbled to have insightful Guest Articles from Mr. Suvojit Bagchi: Journalist, Dr. Tapash Chandra Paul: CFO-Mercantile Bank Limited, and Prof. Debolina Dutta: Professor of Practice-Organisational Behaviour and Human Resource's Management, IIM(B).

An integral part of Youthink, the Interview Section, this year brings forth six exemplary personalities- Mr. Hamid Ansari, Mr. Gulzar, Mr. Gautam Gambhir, Mr. Shaan, Dr. CNR Rao and Ms. Medha Patkar. Their plethora of knowledge, insights, and unique outlooks makes reading their candid interviews a worthwhile investment.

We would like to express our sincere gratitude to Rev. Dr. Dominic Savio S.J., Principal, Rev. Joseph Kulandai, S.J., Vice-Principal, Department of Commerce (Morning) and Rev. Peter Arockiam, S.J., Vice-Principal, Department of Commerce (Evening), for their unwavering faith and blessings. We are thankful to Dr. Amitava Roy, Dean, Department of Commerce (Morning) and Dr. Soheli Ghose, Dean, Department of Commerce (Evening) for their inspiration and motivation.

Our Managing Editor, Dr. Sumona Ghosh, has been a guiding light throughout this journey, without whom our experience would not have been as pleasant. We are grateful to work with an incredible Editorial Board comprising Abhimanyu Kakrania, Aleya Ghosh, Ayush Tharad, Madhav Poddar, Reet Nahata and Saksham Dalmia.

Finally, the contributors, readers, and students of St. Xavier's College have supported and encouraged the journal and every Editorial Board since its first publication and we hope they continue to do so.

As our tenure at the Xavier's Commerce Society ends, looking back, we would not have chosen any other way to spend our time at St. Xavier's. Three years of lessons, failures, and successes have forged unforgettable bonds. We do not know what the future holds, but we could not be anything but grateful for this journey.

We hope everyone finds ‘Youthink Volume XV: Allegiance’ insightful and enlightening.

Rishika Saria

Soham Chakraborty



# An Outlook of the Indian Insurance Sector

Pranav Agarwal  
Department of Commerce (Morning)

“

In India, insurance has always been sold as savings rather than as protection, but this pandemic may change this view of people.

”

## ABSTRACT

Insurance occupies a pivotal role in the modern-day world since risk, which can be insured, has increased enormously in every walk of life. Since the liberalization of the insurance sector in India in 1999, the sector has seen an unswerving double-digit Compound Annual Growth Rate (CAGR). With increasing competition in the insurance market, the focus of companies has gradually shifted from just making the market profitable, to product development, innovation and acquiring a greater market share. According to reports published by Swiss Re in 2018, the new life insurance premium in India increased by 7.7 per cent (inflation-adjusted) and the non-life insurance sector witnessed a growth of 14 per cent (inflation-adjusted), while the global growth was just 0.2 per cent and 3 per cent (inflation-adjusted) respectively. However, this pandemic may affect this growth trajectory of the Indian insurance sector.

**KEYWORDS:** Insurance, Growth, Product Innovation, Pandemic.

## INTRODUCTION

The Indian healthcare system is the largest in the world in terms of the beneficiaries it concerns, and India being the world's second most populous country and one of the fastest-growing economies, faces both unique challenges and unparalleled opportunities in the domain of insurance. In India, the insurance sector is divided into two segments- Life Insurance and General Insurance (Non-life), both governed by the Insurance Regulatory and Development Authority of India (IRDAI). The Indian insurance sector has been a growing segment in the last two decades with more variety of products being offered and more companies entering the market. According to data published by Swiss Re, India is ranked 10th amongst 88 countries in terms of premium in life insurance and contributes 2.61 per cent in the global

life insurance market. On the other hand, India ranked 15th in the global non-life insurance markets, with a global non-life insurance premium share at 1.1 per cent. However, mainly due to financial illiteracy, India has traditionally been an underinsured country with private health insurance schemes covering only 18 per cent of the population in urban areas and a little over 14 per cent in rural areas.

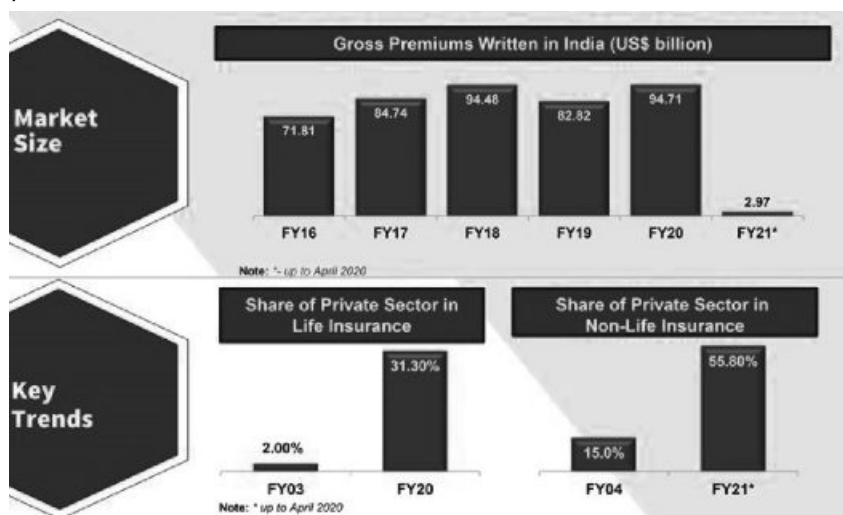


Fig. 1 - Market size and key trends of Indian insurance sector.

Source : Author's compilation

## INSURANCE PENETRATION AND DENSITY

Insurance penetration and insurance density are the two important indicators that signify the level of

development of the insurance sector in an economy. According to the World Health Organization (WHO), the average insurance penetration must be at 6 per cent of the GDP. However, India has always been lagging in this regard mainly due to factors such as low financial literacy, complex and delayed settlement procedures, and low-income levels of the population.

For the first decade after the liberalization of this sector, the insurance penetration had increased from 2.71 per cent in FY2001 to 5.20 per cent in 2009. Thereafter, this percentage decreased to 3.42 per cent in 2015 owing to the volatility in the stock market in 2008-2009 and the regulatory changes in 2010, which adversely impacted the sale of ULIP (unit-linked insurance plan) products and premiums. However, in FY2015 the sector once again picked up its pace as it saw a huge influx of money due to demonetization in 2016-17. The pattern of increase and decrease in the insurance density was

analogous to that of insurance penetration.

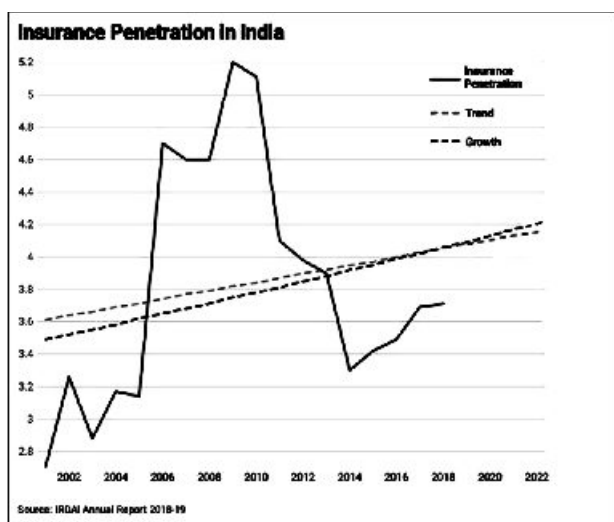


Fig. 2 - Growth expectation of insurance penetration in India.

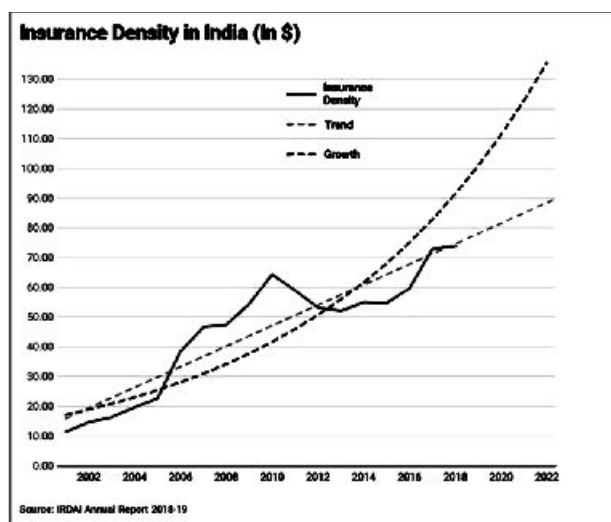


Fig. 3 - Growth expectation of insurance density in India.



## OPPORTUNITIES

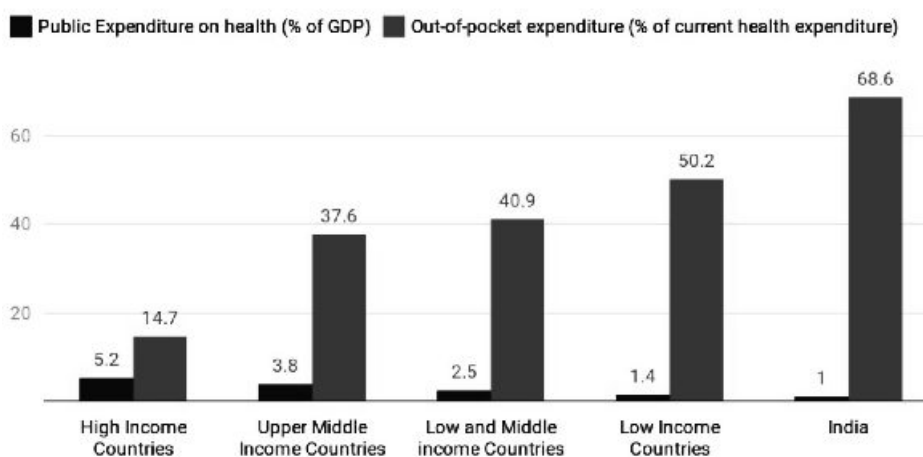
1. **Demographic changes** - Oxford Economics estimates that the number of Indian citizens over the age of 65 will reach 95 million by 2021, and 168 million by 2026. This improvement in life expectancy in India will be a boon for the health insurers. With rising income levels of the Indian middle class, a prompt demand for high-quality medical care is estimated with an increase in private participation. According to another estimate by Oxford economics, the average income level is expected to rise from \$ 1,761.63 in 2016 to \$ 3,277.28 in 2024.
2. **Regulatory Changes** - The present government has brought quite a few regulatory changes in the insurance industry which included creating a regulatory sandbox to test new and increasingly value-added products for customers, which was welcomed by the insurers. In the Union Budget 2019-20, the government allowed 100 per cent Foreign Direct Investment (FDI) for insurance intermediaries fostering positive market sentiments. The government is aiming to increase the healthcare expenditure from the current levels of 1.3 per cent to 2.5 per cent of the GDP by 2025, which will help in boosting both the investment and infrastructure of this sector.
3. **Product Innovation** - With a consumer centric focus and increasing market competition, product innovation and development has gained importance in recent times. Companies are trying to increase their consumer base through new disease-specific microscopic policies, growth in telehealth models and new smartphone applications to enhance customer experience.

4. **Digital Revolution** - With companies investing more in data analytics and predictive modeling, digital evolution is accelerating the industry. Rising use of smartphones and increasing IT investments in innovative channels are providing companies the opportunity to penetrate new markets. With the growing use of the internet and the Indian middle class getting digitally savvy, an increase in the trend to use online platforms is inevitable.

## CHALLENGES

1. **Out-of-Pocket Expenditure** - On average, healthcare costs in India have been rising at a rate of 15 per cent year-on-year, thus, inflating medical treatment costs. This, coupled with low public healthcare spending has made Indians rely on savings or borrowings for managing medical costs. As a result, an overwhelming 70 per cent of healthcare expenses in India are met by out-of-pocket expenditure by the individual.
2. **High tax rates** - High rates of taxation on insurance policies other than Life Insurance covers, have increased premium payments and had a direct impact on an individual's ability to buy cover.

### Comparison of different income level countries with India in terms of health expenditure



Source: World Bank data.

Fig. 4 - Negative correlation between government expenditure on public health and out-of-pocket expenditure.

3. Low level of consumer awareness - In India, 76 per cent of the population is financially illiterate and conscious spenders. So, they are inclined to drop health insurance if they think it might not be used for a year.
4. Heavy cost and capital burn - To acquire market share and diversify their reach, most insurers focus only on topline growth and ignore profits, which has resulted in inefficient operating models and a need for constant capital infusion.

### IMPACT OF THE UNFORESEEN

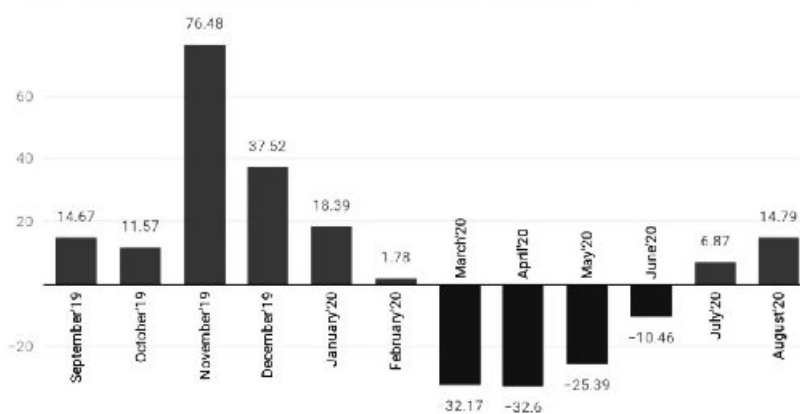
The insurance industry has always been a face-to-face and hand-to-hand centric industry until this pandemic hit. This unexpected situation is an inflection point in the insurance business, and failure to cope with the changing times will affect the business. A swing from personal selling to online selling has brought several challenges to the industry. Now, only the companies with advanced and equipped online architecture are at an advantage to sell more policies and reach a greater consumer base.

As a result, the companies are forced to invest more in technologies related to smartphone applications and online selling infrastructure. This change can be cost-effective for the companies in terms of reduced distribution and marketing costs, and also allow companies to personalize policies and revolutionize the consumer experience. However, this has its own drawbacks. According to studies, only 12 per cent of the population can be sold policies online due to constraints in taking medical examinations for health insurance, making online policy selling a problem in itself. Also, having a seamless process and creating digital pathways on an end-to-end basis will be the key factors in this

online system as consumers will be unlikely to tolerate friction.

There have been two key areas of impact on the people- first being a greater consciousness of protecting oneself and their loved ones, and the second being increased inclination towards pure protection covers which may increase the demand for term plans. Initially, due to fears of financial constraints and lack of infrastructure, the growth was affected and there was a slump in new business premiums. However, with people realizing the importance of insurance in these tough times and this coupled with the increasing product innovation, growth is back on track in the life insurance sector and a selective growth in the general insurance segment.

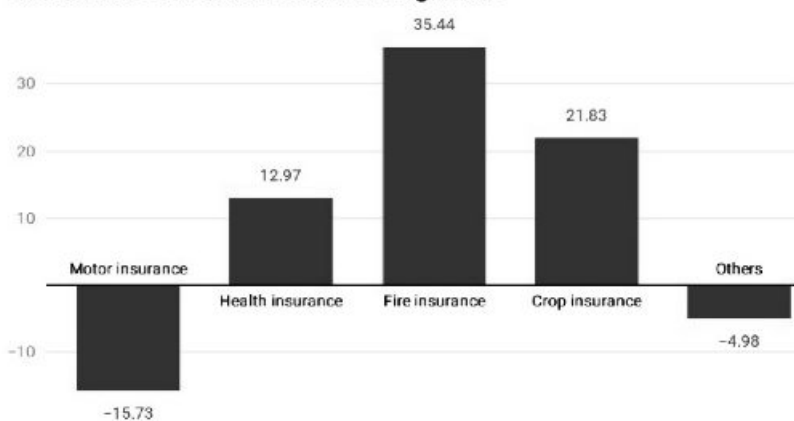
**Life Insurance: New Business Premium Growth Y-o-Y**



Source: IRDAI

**Fig 5 - Recovery in New Life Insurance Business Premium**

**Growth in General Insurance segment**



For April 1-August 31 period

Source: IRDAI

**Fig 6 - Selective growth in General insurance segment**

### India insurers would benefit from implementing a multiyear response.

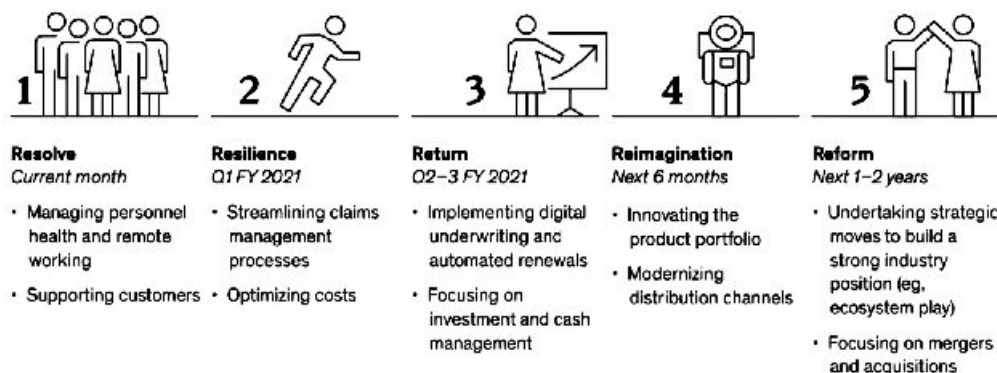


Fig. 7 - Five Rs response horizons ( Data Source: McKinsey )

### CONCLUSION

The Indian insurance industry stands at a crucial juncture of its evolution. The sheer size and the untapped market in terms of a low level of insurance penetration have made the Indian economy one of the most attractive destinations for insurance investment bringing in foreign players, venture capitalists, and private equity. Demographic factors such as a growing income level of the middle class, a massive elderly insurable population, and a growing awareness for the need for protection and retirement planning will support the growth of the Indian insurance sector.

In India, insurance has always been sold as savings rather than as protection, but this pandemic may change this view of people. With time people have become vigilant and understood the fact that insurance is as important as bread and butter.

Though this pandemic has had a huge impact on operations and adding new business for insurance companies, it has given them an opportunity to sit back and think more deeply about product innovation and enhance customer experience through seamless online infrastructures. In response to this situation, insurers have come out with more than 130 different policy bundles covering both health and COVID-19 insurance, leading to a fast recovery in the health insurance segment and making it the largest segment in the general insurance sector.

As Walter Elliot said- “Perseverance is not a long race, it is many short races one after another,” similarly, insurance companies will have to develop a ‘Five R’s

response horizon’ as a sustainable long-term approach to the problem. Insurance companies will have to act decisively and fast rather than perfect to overcome this situation. In addition, a systematic frontline engagement along with discipline and organizational culture will help rebuild

momentum. The ultimate goal would be to build more resilient operations as insurers adapt to the new normal.

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# Can the World Sustain China Anymore?

Abhishek Agarwala  
Department of Commerce (Morning)

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The world's allegiance to China, which has been palpable so far, needs to quell in the coming future as its very postulates are against the concept of coexistence.

”

## ABSTRACT

As the world is transforming into a globalized and single entity, are all the nations necessarily complying with its salient features?

Recent history begs to differ. With China impeding the growth of the world in a bid to enhance its own, the very concept of globalization has been handicapped. Be it exploitation in Hong Kong or the human rights violations against its Uighur community, international law has palpably failed to abate harmful Chinese actions. This forces us to reconsider deglobalization. Moreover, a lot has to be done by the masses in this fight against outright exploitation in the name of trade. Maybe it's time to adopt homegrown products, which might be relatively expensive. Maybe it's time to quell our dependence on hostile nations. Maybe it's time that we take China a bit more seriously, by actually asking the world markets to take it lightly.

**KEYWORDS:** China, Exploitation, Globalization, Hong Kong, Homegrown, Deglobalization.

## BACKDROP

The world's most populous nation, China, might as well be its biggest threat, owing to its chronic sphinx-like indulgences over the past few decades and its engagement with self-absorbed political tactics in a bid to gain world supremacy. The Great Wall of China, built to secure China from foreign intrusion has, ironically, been breached by China itself to capture foreign territory. The country is so opaque to the outside world that it was able to conceal the ghastly news of a pandemic brewing within itself, ending up gifting the world with the pell-mell of the century. The activities displayed by China at the proscenium differ extensively with what's going on behind the curtains. Be it the signing of the partisan trade deal with the USA and then subsequently reneging on the deal, or its expansionist policies across the world, China's reticence has always been evident.

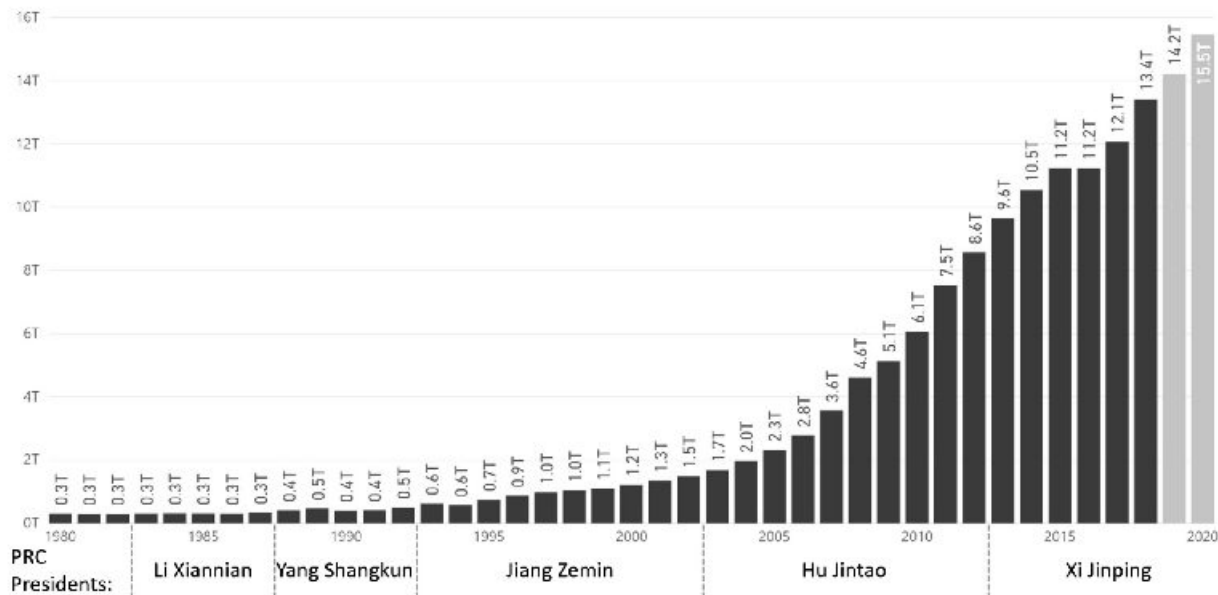


Emerging as the world's largest hub for manufacturing, it took China a little over two decades to transcend its economy from \$1.20 trillion in 2000 to a prodigious \$14.2 trillion today, in 2020. This growth is the mainstay for all of China's embroilments in today's world. Excessive infrastructural expansion and technological advancements have driven the Chinese economy miles apart from its contemporaries, attracting foreign investors to enter the market. With its huge population of over 1.4 billion on board, and a per capita income of roughly five times more than that of India (the next best alternative in terms of market size), China has attracted thousands of FDIs ranging from American giants like Apple, to the micro business units prevalent across the world. This, in some way or the other, increased the world's dependence on China manifold, along with enhancing its opulence. Notwithstanding a steady growth and a stable environment, China isn't satiated with its share of power in the world, eyeing the apex seat by usurping power from the USA.

China's visionary plans of the BRI (Belt and Road Initiative), the RCEP (Regional Comprehensive Economic Partnership), Digital Silk route plan, Made in China 2025, Chinese Standards 2035 et al. are pseudonyms to its plans for exploitative expansion. These are superimposed on its behaviour of blatant disrespect for International Rules and Regulations, be it the fisticuff with the Indian forces at Ladakh border, or its South China Sea misadventures much to the dismay of Philippines, or its discrepancy over the territorial integrity of Senkaku islands with Japan among others. Facades created by the Chinese government at multiple junctures have been endorsed by the world so far. However, with its recent record of international criminal activities, China makes its future more uncertain than it would have wanted it to be. One of such activities is its management of Hong Kong.

## China GDP

GDP in current prices (trillions of US dollars)



Data Source: IMF World Economic Outlook, April 2019

Data Analysis by: MGM Research

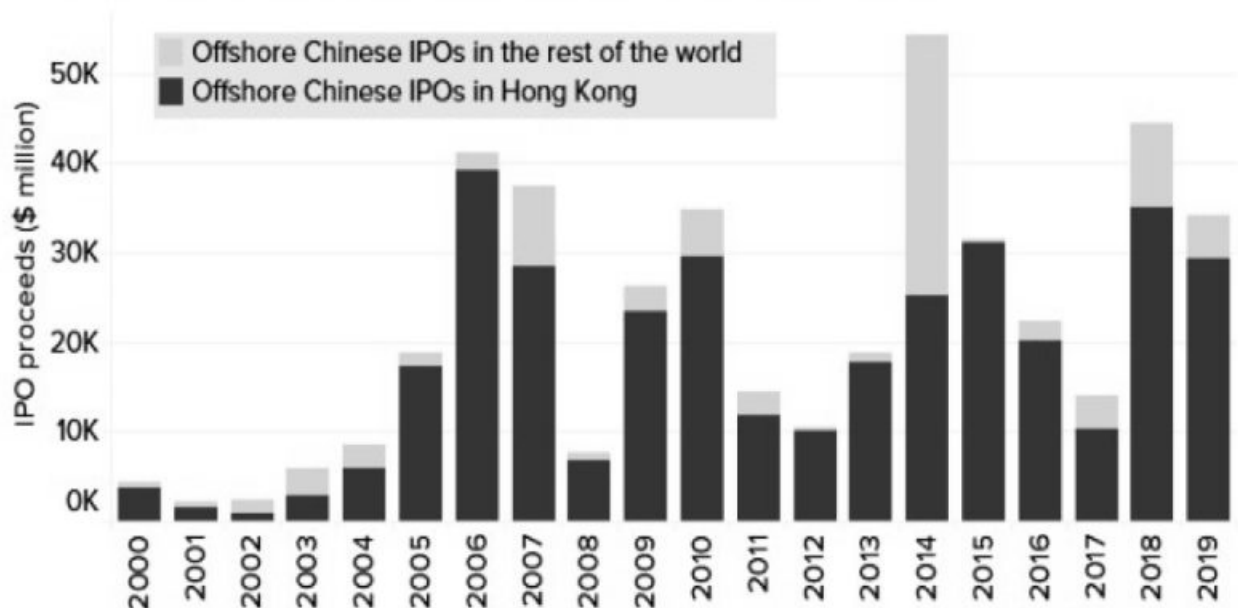
## THE HONG KONG THREAT

Hong Kong had shifted many hands until it was finally handed over to the Chinese government. It was a British colony till 1940, before being captured by Japan during the second world war. In 1945, it was recaptured by the Britishers, who established it as its colony again. It was in 1997, when it was finally decided to shift its management to the Chinese government, which in turn instated a 'One Nation Two Systems' policy, accepting Hong Kong under the Chinese rule. This policy circumscribed autonomy to the political, economic and judicial norms of Hong Kong, thereby specifying that there were no ties with that of the Chinese norms. Such a policy, in turn, gave solace to Hong Kongers from the subservient judicial system (to the Chinese government) of China and the closed economy that China encompasses. Hong Kong was kept open to the outside world for bilateral trade, unlike the unilateral Chinese country, which could only accept, not reciprocate. The consequence of Hong Kong's autonomy was that it became one of the most open economies in the world, favoured by the USA's administration and its companies.

The emerging market of Hong Kong proved to be a magnet, attracting foreign investments, as well as becoming the hub for companies to channel their investments to China. Chinese organisations also, in turn, started using Hong Kong as a zone for outbound investments since it is always better to have an open economy for doing transactions with the world. Therefore, Hong Kong, in other words, became the hen spawning golden eggs for China. The ravenous Chinese government, with its exploitative measures all around the world, could not let Hong Kong's proliferation go unnoticed. In a move to vivisection its golden egg-laying hen in a bid to absorb its entire gold at once, the Chinese government instigated steps against the special policy for Hong Kong, implying that its autonomy was going to suffer.

Hong Kong, China's Special Administrative Region (SAR) has for long protested for democracy in the region and independence from China. But China's dreadful single-party governance and unimpeded ambitions have little window to appreciate the terms of Hong Kongers. The Extradition Law recently passed by China, in a bid to suppress the critics of Beijing in Hong Kong

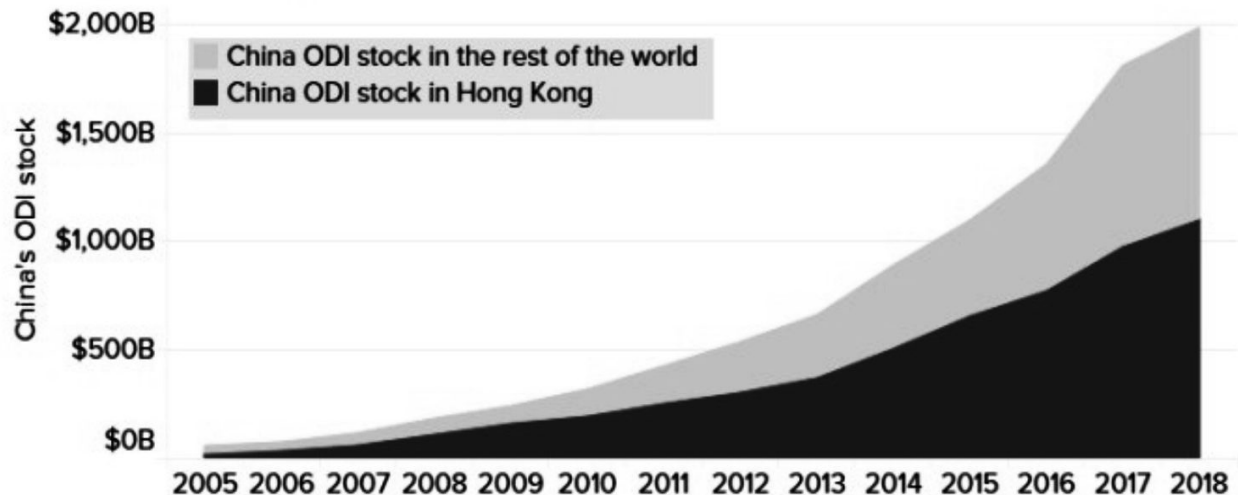
## Hong Kong hosts most overseas Chinese IPOs



Source : CNBC

## Hong Kong receives much of China's outbound investments

Chart shows the cumulative stock of China's overseas direct investments, or ODI, in Hong Kong and the rest of the world



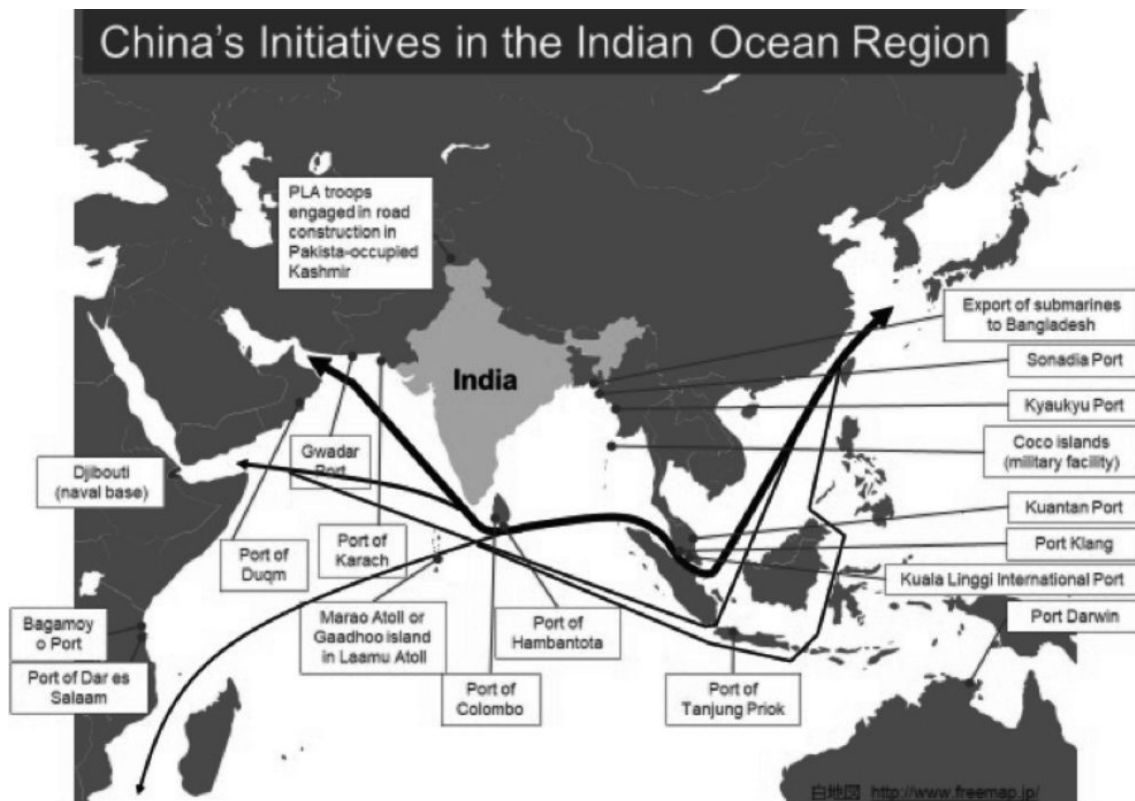
SOURCE: National Bureau Statistics of China



saw mass protests, with lakhs of people rallying against the belligerent incursion of China in Hong Kong's fundamental freedoms and rights. Mass discontentment sprouted on the streets of Hong Kong with ungovernable crowds, demanding independence from Chinese restrictions. But such protests had little consequence. China's grasp on Hong Kong is further fuelled by a pro-Beijing government rule over Hong Kong owing to which Hong Kongers face fury of their own police system. China's persistent yen to stifle all sorts of public protests has been lucid in these past decades. Not only in Hong Kong, even their own countrymen had protested against the authoritarian rule of the government back in 1989, in Tiananmen Square. The incident is now remembered as a dreadful zeitgeist, the Tiananmen Square Massacre, as the Chinese government unleashed tanks and military personnel on their own people, uprooting the seeds of dissent amongst the masses. Public protests symbolize public disappointment in the government, which in turn heralds that China might just be showcasing such political intent due to the will of the people holding

power at the helm, and not the country as a whole, which makes it even more threatening.

Just when protests in Hong Kong were about to subside, China came out with the controversial Security Law for Hong Kong, again in an attempt to curb Hong Kong's autonomy, but securing its grip substantially better this time. All clauses pertaining to the freedom of Hong Kong were projected to be quashed and Hong Kong was to come under the same purview as any other Chinese province. This invited discontent not only from Hong Kongers, but from the entire world. Britain could not allow China to retreat in its agreement with it in 1997, relating to the status of Hong Kong. The US imposed sanctions on Hong Kong as well as China, as the special status of Hong Kong was imperative for its economic proliferation. Multiple countries tried to raise their voice against China. But an unaffected China, with its primary vision in mind overruled all such actions on the pretext of Hong Kong management being its internal matter. Even as China's obnoxious and obtruding activities grow by the day, there is little the world can do to control its dependence on China.



Source : Sasakawa Peace Foundation

### INTERNATIONAL UPPER HAND

Tangible hard power strategies adopted by the Chinese government, boosted by its monetary dominance, has led it in establishing military bases and seaports controlled by Chinese interests throughout the world. A company owned by China now has a 99 year lease over the port of Darwin in northern Australia. Kiribati, a country in Oceania, switched diplomatic recognition from Taiwan to China in 2019. The government of Solomon Islands has been considering leasing out an entire island to a Beijing-based company. Across the Indian Ocean, China is now the supreme power controlling ports, airfields, military bases or observation stations, along the coast of Myanmar, Sri Lanka, Maldives, Pakistan, stretching all the way to Djibouti and Kenya. It will also attempt to get on the US's nerves by taking over the Panama Canal, which has been a future conjectured target.

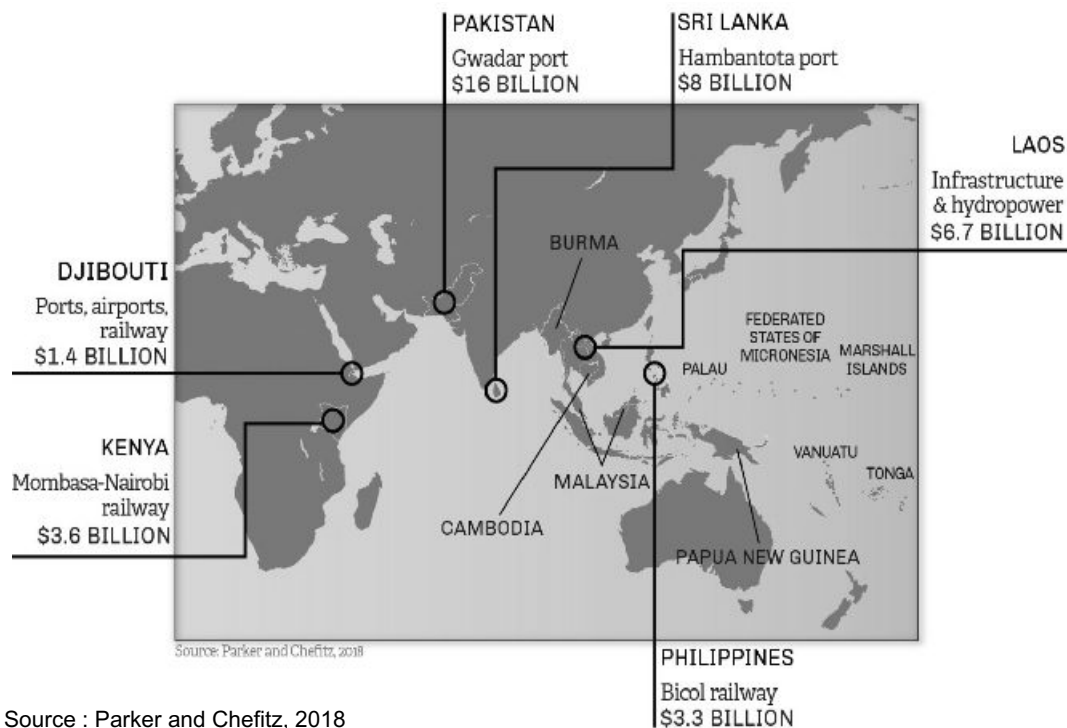
China, in the course of the last few decades has also increased its debt supply substantially, to multiple

developing economies, making it challenging for them to eventually repay their debt. Sri Lanka, today has deficits worth in billions of dollars to China, with little scope of repayment. Countries like Maldives and Zambia have debts worth over 15 per cent of their nominal GDP from China. With tens of more countries being a victim of China's Debt Trap, these only form the tip of the iceberg. This results in China gaining a servile attitude from such countries and in turn, their support.

### CONCLUSION

But looking at the glass half full, the world has just witnessed the horrifying focus of the Chinese government and the mayhem it would wreak upon the world if it achieves in its vision. Moves to reduce Chinese dependence is sacrosanct for all countries, if we want to regain control over China. China's power bases its roots in its \$14 trillion economy which in turn is due to profusion of FDIs and FPIs. China's sagacious farsightedness has resulted in it gaining an edge on 5G





Source : Parker and Chefitz, 2018

technology as well as Artificial Intelligence, the devices of the future. But if the world accepts these from China, the Chinese power would surpass all thresholds and there would be very little that could be done against it. Unison amongst the nations to stand against China is paramount for a sound future, be it for Hong Kong or for the entire world, since its Hong Kong model might as well just be a prototype for the rest of the world to endure once China succeeds in its ambitions. Sacrilegious moves of Beijing have been evident and it is beyond time for the world to deploy countermeasures, lest we want silence to be interpreted as weakness. The world's allegiance to China, which has been palpable so far, needs to quell in the coming future as its very postulates are against the concept of coexistence. The present would decide whether our future would be independent of China or over-dependent on it. We cannot afford to appease China any further since the dragon is no longer willing to control its fire. We cannot perpetually go on mulling whether China has been honest so far or not, and whether its activities have been fair or not. It's time we take a stance, either black or white, with no scope of grey within. It's time we call a spade a spade, permitting

no scope of misconceptions therein. Expecting the world to be a fair place for the human race to live in is a meaningless proposition, with history laying evidence in galore. For instance, remember why the Spanish Flu is called so? Similar has become the case with the Chinese government. It's not a fight for suppression, it has rather become a fight for survival, a fight to negate the allegiance offered to a nation that perhaps never deserved it.

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It can be concluded that only through continuous and increased Public-Private Partnership (PPP) can microinsurance give a satisfactory result.

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# Reality of Microinsurance in Context of the Indian Scenario

Analysis on the Viability of Microinsurance from the Viewpoint of Different Stakeholders

Pratham Bengani

Department of Commerce (Morning)

## ABSTRACT

Microinsurance is widely considered to be the ‘miracle’ of finance. It started out with the broad aim of mass financial inclusion. However, the reality behind microfinance is the opposite of what it aims to be. There are a few ‘rags to riches’ stories in the sector, but a majority of the target market still remains latent. To get a clear idea of the scenario, we have discussed the issue and the cost of microinsurance from the point of view of the different parties involved in it. Any data mentioned henceforth is secondary in nature.

**KEYWORDS:** Microinsurance, Risk, Loss, Premiums, Inequality, Stagnation

Microinsurance, since the last few decades, has been hailed as one of the biggest innovations in the financial and social sector. It aims at reaching out to the poorer sections of the society, resulting in a greater and more equitable financial inclusion and participation. (See Fig. 1) However, in context of the Indian scenario, microinsurance has rather turned into a ‘loss making machinery’. There are several factors that have contributed to the downfall of the ‘miracle’ of finance. We shall discuss upon each one of those.

## LACK OF DECISIVE ACTION FROM IRDAI

The microinsurance sector in India started out as almost wholly operated by the government in close efforts with village Panchayats in the initial stages.

Even after the privatization of the Indian insurance sector in 2001, which ended the duopoly of Life Insurance Corporation of India (LIC) and General Insurance Corporation of India (GIC), the microinsurance sector was largely untouched. As of July 2015, there were only 26 microinsurance policies registered with the Insurance Regulatory and Development Authority of India (IRDAI); provided by 16 insurance companies (See Table 1 and Fig. 2).

Fig 2, shows that private participation is increasing at a much higher rate than LIC (public participation), however, we need to keep in mind the absolute number of policies in force by both players. LIC has a much higher number of policies in force leading to a smaller growth rate and vice-versa.

IRDAI defines micro-insurance as 'a general or life insurance policy with a sum assured of ₹ 50,000 or less'. General Insurance includes health insurance contract or any contract covering belongings such as – hut, livestock, tools or instruments or any personal accident contract. Life insurance includes term insurance contract with or without return of premium; any endowment insurance contract or a health insurance contract. They can be with or without an accident benefit rider. All the policies can be either on an individual or group basis. [1]

### THE RURAL-URBAN DIVIDE

In 2005, IRDAI passed the 'Micro-insurance' regulations, making it mandatory for insurance companies to have a certain proportion of clients from the rural sector within 10 years of operations. The move aimed at increasing financial participation of the rural sector (70.77 per cent) of the total population (in 2005); however, it also exposed the vast infrastructural divide that kept 70 per cent of the populous out of the purview of insurance. [2]

Certain issues were widespread. For example, the financial literacy was very poor. People were not familiar with the concept of insurance. They were sceptical. The idea of paying regular premiums but getting pay-outs only on the 'happening of certain events' did not fit well with the people. (See Fig. 3)

Moreover, companies only offered basic life insurance policies earlier, to only meet the bare minimum statutory requirements. Even currently, the scenario remains almost the same.

### INADEQUATE PRODUCT DIVERSIFICATION

A large part of this untapped rural population engages in agricultural and allied activities. Thus, there is a large market for crop insurance. However, out of the 57 insurance companies operational in India (as of June, 2020) [3], only 10 of them provide crop insurance [4]. Rainfall insurance, a relatively newer product (piloted in 2003) [5], is also offered by only a handful of companies. Agricultural Insurance Company of India Ltd. (a public sector company) is the biggest provider of crop and rainfall protection [6]. This again highlights the lack of private penetration in the sector. (See Fig. 4)

Recipients of rainfall insurance and crop insurance have been noticed to invest more in agriculture sector [7]. This does increase the possibility of higher income but the greater the investments, the higher the risk, prompting insurers to make considerable changes in the policy structure, like for instance, increasing the minimum period of premium payments, increasing premium amounts, reducing surrender value of the policy (if any), et al, which in turn poses an additional burden on the clients.

### EXCESS OPERATIONAL COSTS UNQUALIFIED FOR REIMBURSEMENT

There is also the issue of close partnership with the clients. Insurance will be profitable only when the required premiums are paid on time and for a minimum number of years. Hence, knowing the poor financial history of the clients, it is necessary to make sure that their income and consumption graphs are smooth. Providing access to new markets, helping clients to engage in cooperative farming and so on are ways in which insurers achieve this goal. This for one, gives clients access to expert advice at a minimal or seldom free of cost but cuts down the already minimum profits of the insurer.

The distribution of microinsurance policies are mainly carried out by Self-Help Groups (SHG's), Non-Government Organizations (NGO's) and Micro Finance Institutions (MFI's). The distributors are paid a maximum of 10 per cent of the single premium (under single premium policies) or 20 per cent of the premium for all the years of the premium paying term (under regular premium policies) [8]. This structure encouraged a lot of these institutions to venture into the sector and develop a source of sustainable income in the early years. Subsequently, however, due to the low number of absolute policies-in-force, the actual value of remuneration paid was very low. The cost of marketing and distribution was also to be borne by the distributors, hence, stretching the already bare minimum profit.

#### **ADDITIONAL RISKS SPREAD OUT OVER MUCH SMALLER POOL OF POLICIES**

One of the biggest factors that prevent insurers from entering into the sector is the increased risks associated with it. Rainfall patterns have become extremely erratic. India received 6 per cent less rainfall than usual in June-July, 2018. 56 per cent of the land area received less than average rainfall [9]. This makes rainfall insurance and crop insurance a high-risk sector.

Crude mortality rates have been reducing over time from 7.5 (during 2004-06) to 6.5 (during 2014-16). This shows a decrease in mortality by 13.3 per cent over a span of ten years. Although rural crude death rates were consistently higher than the urban counterparts in 2016, they too saw a reduction of 12.3 per cent in between 2004-06 and 2014-16 [10]. Consequently, the business premium for these policies have risen, making them less accessible to the poor. (See Fig 2). This might be the reason why most microinsurance portfolios consist majorly of life insurance policies.

The total number of road accidents increased by 2.5 per

cent in between 2014-15. The corresponding figure for the number of people killed due to road accidents increased by 4.6 per cent over the same time period [11]. This again makes it riskier to venture into the sector, since most of the policies have an 'accidental death benefit', which increases the value and possibility of pay-outs. Conversely, companies need to have this clause otherwise they might become uncompetitive and lose business to its competitors.

#### **CONCLUSION**

The microinsurance industry is in its very nascent stage even after 19 years of privatization of the insurance industry. The result of this has been accumulation of problems over the years which had been overlooked by the government and the insurers alike. Now, this can only be solved through effective partnership among all the stakeholders (the state, insurance companies, distributors and the general public).

While there are many hurdles in the path of designing and sustaining microinsurance, there have been successful examples in the area as well. For instance, Ola became the largest private microinsurance firm, distributing over 20 million in-trip policies per month as of Feb 7, 2019 [12]. This highlights the fact that unlike traditional insurance products, microinsurance products needs to be tailored according to the specific needs of the client base.

Hence, it can be concluded that only through continuous and increased Public-Private Partnership (PPP) can microinsurance give a satisfactory result. Also, it is important to have such relationship since microinsurance is a sector which can benefit millions of people at once, who have been left out of the economic activities of the country for long. However, a great deal of coordination is a prerequisite for this.

TABLE 1: MICROINSURANCE PRODUCT LIST<sup>[13]</sup>

Ref: --		Date: 04-12-2015		
Updated List as on 1 <sup>st</sup> July, 2015				
Product list updated as on 1st July, 2015				
Financial Year	Name of Insurer	Name of the Product	Product UIN	In operation from (opening date <sup>a</sup> )
2014-15	AVIVA Life Ins. Co. India Pvt. Ltd.	Aviva Nayi Grameen Suraksha-Micro Insurance Product	122N108V01	20-Mar-15
2013-14	AVIVA Life Ins. Co. India Pvt. Ltd.	Credit Plus	122N009V02	15-May-13
2013-14	Bharti AXA Life Insurance Co. Ltd.	Bharti AXA Life Jan Suraksha	130N040V02	16-Jul-13
2001-02	Birla Sun Life Insurance Co. Ltd.	BSLI BimaKavach Yojana	109N005V01	21-Sep-01
2007-08	Birla Sun Life Insurance Co. Ltd.	BSLI Bima Suraksha Super	109N032V01	13-Aug-07
2007-08	Birla Sun Life Insurance Co. Ltd.	BSLI BimaDhanSanchay	109N033V01	13-Aug-07
2013-14	Birla Sun Life Insurance Co. Ltd.	BSLI Grameena Jeevan Raksha Plan	109N086V01	21-May-13
2013-14	Canara HSBC Oriental Bank of Commerce Life Insurance Company Ltd.	Canara HSBC-SampoornaKavach Plan	136N022V02	27-Jun-13
2013-14	DHFL Pramerica Life Insurance Co. Ltd	DHFL Pramerica Sarv Suraksha	140N007V02	28-Jun-13
2013-14	Edelweiss Tokio Life Insurance Co. Ltd	Edelweiss Tokio Life - Raksha Kavach (Micro Insurance Plan)	147N012V02	20-Sep-13
2013-14	Edelweiss Tokio Life Insurance Co. Ltd	Edelweiss Tokio Life - DhanNiveshBima Yojana	147N013V02	20-Sep-13
2013-14	HDFC Standard Life Insurance Co. Ltd.	HDFC SL SarvgrameenBachat Yojana	101N069V02	3-Jul-13
2013-14	ICICI Prudential Life Insurance Co. Ltd.	ICICI PruSarv Jana Suraksha	105N081V02	11-Sep-13
2013-14	ICICI Prudential Life Insurance Co. Ltd.	ICICI Pru Anmol Bachat	105N139V01	11-Dec-13
2013-14	IDBI Federal Life Insurance Co. Ltd.	IDBI Federal Group Microsurance Plan	135N004V02	29-Jul-13
2014-15	IDBI Federal Life Insurance Co. Ltd	IDBI Federal TermsuranceSampoornSurksha Micro Insurance Plan	135N037V01	31-Oct-14
2014-15	Kotak Mahindra OM Life Insurance Ltd.	Kotak SampoornBima Micro-Insurance Plan	107N092V01	2-Mar-15
2013-14	PNB MetLife India Insurance Co. Ltd.	Met Grameen Ashray	117N063V02	28-Jan-14
2013-14	Sahara India Life Insurance Co. Ltd.	Sahara SurakshitPariwar Jeevan Bima	127N032V01	14-Mar-14
2013-14	SBI Life Insurance Co. Ltd.	SBI Life Grameen Shakti	111N038V02	29-Jul-13
2013-14	SBI Life Insurance Co. Ltd.	SBI Life Grameen Super Suraksha	111N039V02	17-Jul-13
2012-13	SBI Life Insurance Co. Ltd.	SBI Life Grameen Bima	111N087V01	27-Nov-12
2006-07	Shriram Life Insurance Co. Ltd.	Shri Sahay	128N011V01	7-Feb-07
2014-15	TATA AIA Life Insurance Co. Ltd.	TATA AIA Life Insurance NavkalyanYojna - Micro Insurance Product	110N115V01	20-Nov-14
2013-14	Life Insurance Corporation of India	LIC's New Jeevan Mangal	512N287V01	2-Jan-14
2014-15	Life Insurance Corporation of India	LIC's Bhagya Lakshmi	512N292V01	21-Oct-14



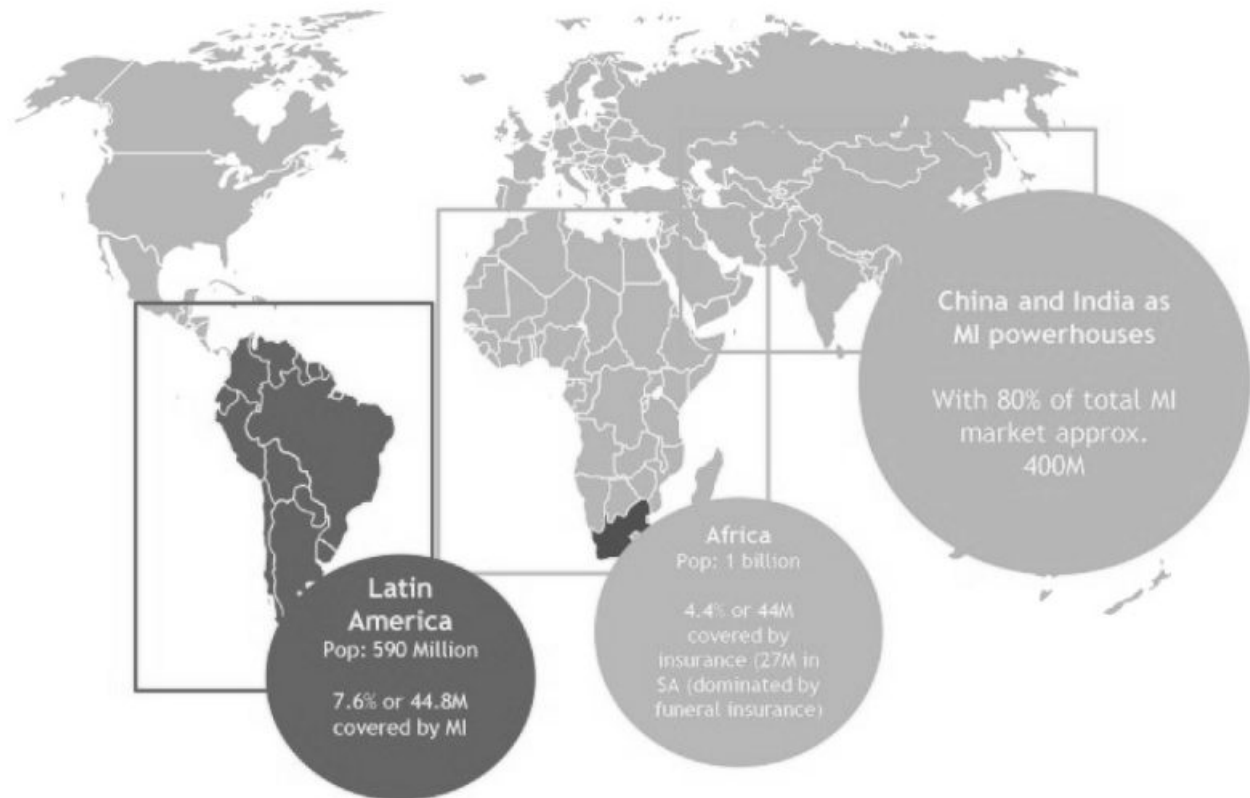


Fig 1 - Region wise classification of market share in microinsurance <sup>[14]</sup>

### Compound Annual Growth Rate of Microinsurance (2007-08 to 2015-16)

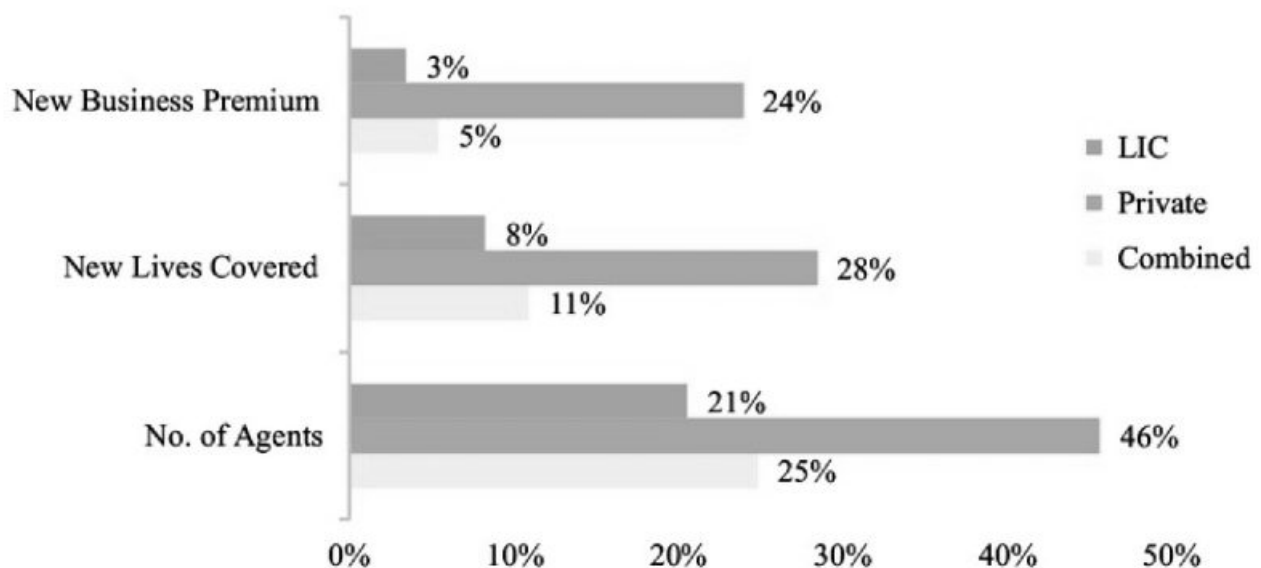


Fig 2 – Growth rate in participation of private players in Microinsurance Sector from 2007-08 to 2015-16 <sup>[15]</sup>

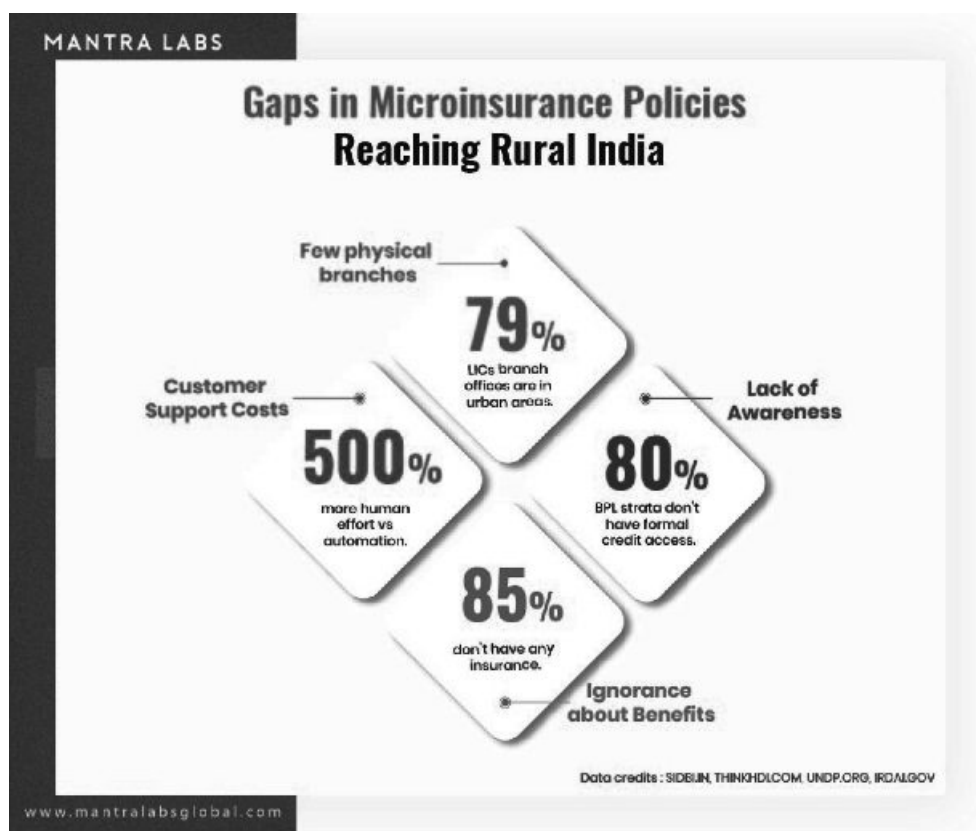


Fig 3 – Gaps in Microinsurance Policies Reaching Rural India<sup>[16]</sup>

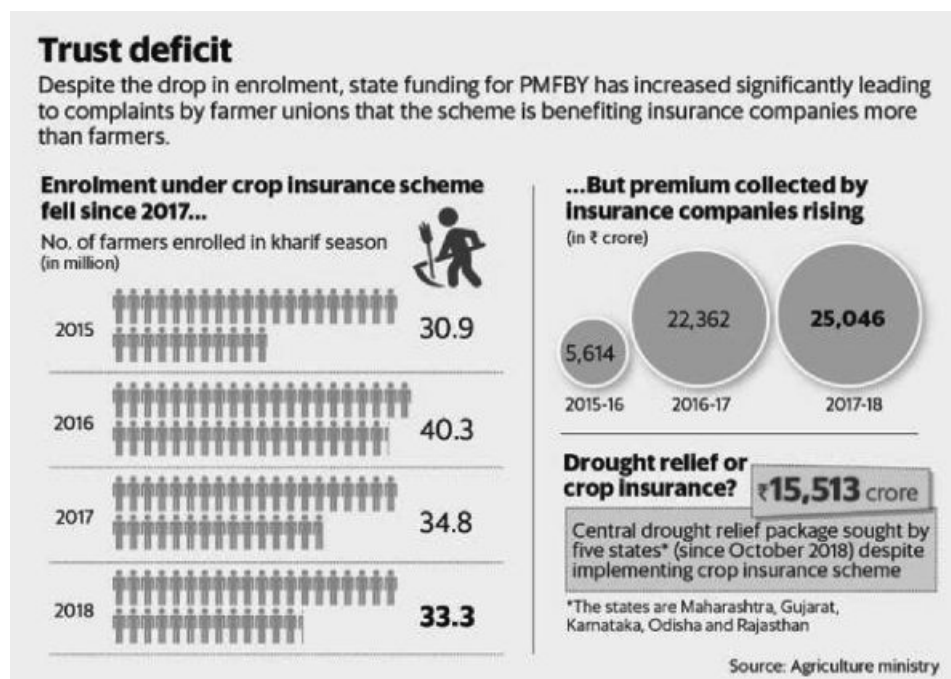


Fig 4 – Trends in Crop Insurance in India from 2015-16 to 2017-18<sup>[17]</sup>

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# Transforming Monetary Landscapes

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A weaker U.S. Dollar will make gold a popular alternative to store wealth in the short-medium term but the world recovery will largely be dependent on the U.S.A.'s recovery.

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## ABSTRACT

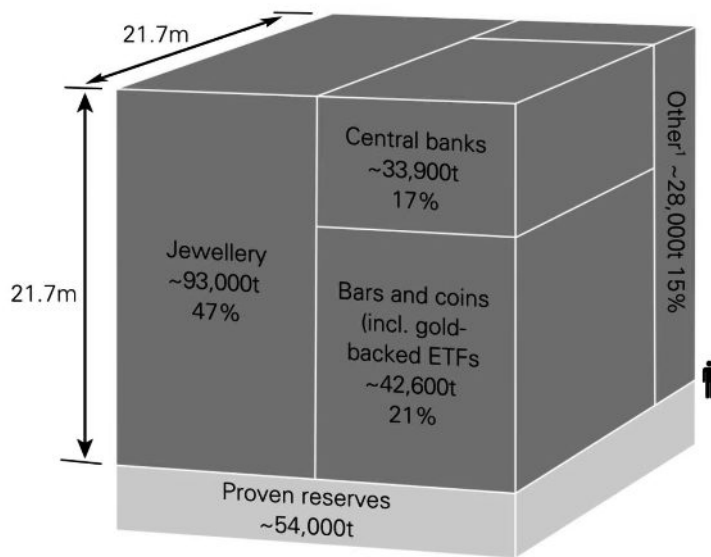
Gold has been long enamoured as a safe haven investment and a store of value, but what is it that makes the shiny yellow metal so precious? Why do investors go flocking to gold in times of a crisis? Apart from economic forces, there are many underrated factors that affect the value of gold. This year alone, the gold prices are up by 40 per cent. It is important to understand what has led to such a significant rally and more importantly, is it sustainable? This article attempts to give an insight into the various drivers of the precious metal and also draw parallels between gold and cryptocurrency, the future of currency. The white paper for cryptocurrency was introduced just after the 2008 financial crisis, and since then it has become relatively mainstream. There is a saying that every crisis is an opportunity. Can this crisis be the dawn of a new era of cryptocurrencies?

**KEYWORDS:** Gold Rush, Cryptocurrency, Libra, Bitcoin, US Dollar, Global Reserve Currency

## GOLD: THE CURRENCY OF LAST RESORT

Gold is a relatively rare metal, just scarce enough to have a sizeable impact in industrial as well as luxury consumption. A lot of gold's perceived value as an alternative currency is to do with the history of civilization. Its appearance has made it a perfect embodiment of love and splendour. Jewellery drives close to 50 per cent of gold demand. Its application as a store of wealth forms 38 per cent of demand.

To understand the long-term pricing of gold, we need to gauge the amount of supply we have. We have approximately 2,00,000t of gold and mine about 3,500t per year. In simpler terms, if we melt all the gold (except rock) ever mined, it would fill 2.6 Olympic sized swimming pools. Also, mining production has levelled in the past years, i.e. if we continue to mine at the



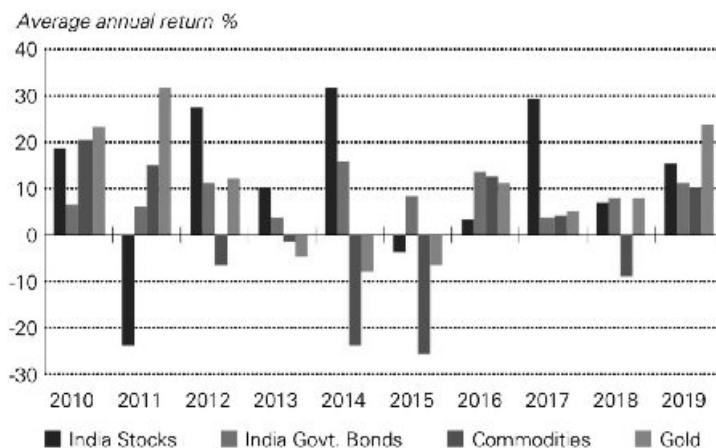
\*Based 2018 above ground estimates and the standard Olympic swimming pool dimensions of (length = 164ft, width = 82ft, depth = 9ft).

¹Includes "other fabrication" (13%) and "unaccounted for" (2%).

Source: Metals Focus, Refinitiv GFMS, US Geological Survey, World Gold Council

**Figure 1: Demand and Supply of physical gold**

same rate, we will run out of gold in about 20 years. Gold mining has a unique characteristic that is it gets difficult and resource-intensive to extract every additional gram of gold but the technological



\* As of 31 December 2019. Computations based on total return indices in INR of Barclays 1-3 year Indian Treasury Index, S&P BSE Sensex, CRISIL Corporate Bond Index, Blended Commodity Index using MCX-ISI and MCX iComdex Index and MCX India Spot Gold Index.

Source: Bloomberg, ICE Benchmark Administration, MCX, World Gold Council

**Figure 2: Gold price return per year since 2010**

improvements ensure that we tap more reserves over time. This characteristic is also shared by cryptocurrencies.

It is tempting to think that gold's value is an unswayable measure of wealth but it is not. Its value rises and falls like any other investment, however, in the past decade it has performed better than stocks.

The price of gold in India is determined according to the international markets; the price of gold in U.S. Dollars is taken as base price and then it is converted into Rupee terms at the existing exchange rate. This means largely that the status of the U.S. economy influences the gold prices, but since gold prices in India are also a function of the exchange rate, it is also influenced by the depreciating Rupee, which is why the 'real return' (inflation-adjusted) on gold in India is higher than its U.S. Dollar counterpart. From analyzing Figure 3, the dependence on the U.S. economy and exchange rate can be established. The line indicates devaluation of the Indian currency which led to an increase in prices of gold.

Gold has a positive correlation in times of expansion and negative correlation in times of recession. In simpler terms, when things are good, it does fine but even in times of distress, it fares very well (See Figure 4). This makes gold a good diversification asset and a safe haven. Accordingly, in this pandemic, along with fears of recession, when we add geopolitical tensions between the U.S.A. and China, and an irrationally buoyed stock market and the movement restrictions, we have a perfect recipe for a gold price rally.

### ARE WE TOO DEPENDENT?

The global debt crisis was already looming over before the pandemic struck and now central banks and governments are deploying 'full range of tools' to save their economies. From low-





**Figure 3: US/INR exchange rate and gold prices**

*Source: TradingEconomics, Gold.org*

negative interest rates to excessive money printing to fund stimulus programs, every developed economy is going all in. The U.S.A. has printed more money in a month than in two centuries. We should be aware of its implications in the future since navigating the post-COVID world in the financial aspect will remain a herculean task for central banks. A weaker U.S. Dollar will make gold a popular alternative to store wealth in the short-medium term but the world recovery will largely be dependent on the U.S.A.'s recovery. The disquieting brandishing (Iran Sanctions) of financial muscle by the U.S.A. and the unintended impact of the

domestic economy on global markets has raised questions about the role of U.S. Dollar as a global currency reserve.

Historically, the average global reserve currency lifespan has been 95 years; it has been almost 100 years for the U.S. Dollar. Shifting balances are hinting that the U.S. Dollar's reign may soon be up.

This growing doubt has popped up the narrative of a need for an alternative global currency. Although gold has been seen as the currency of last resort, it cannot be used for day to day transactions for obvious reasons.

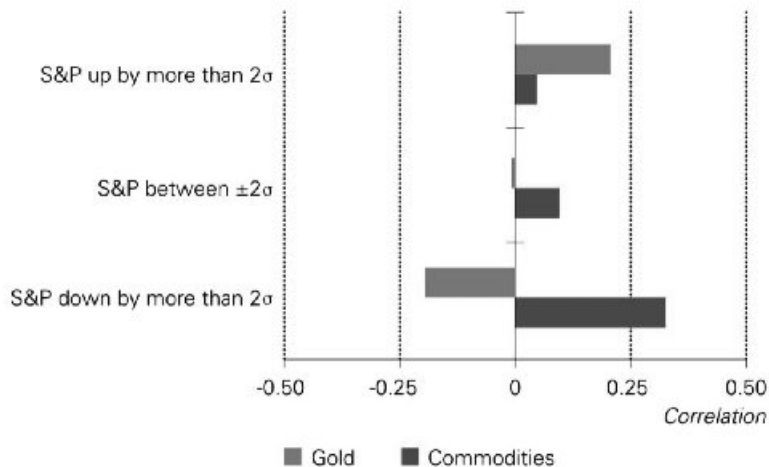


Figure 4

Source: Bloomberg, World Gold Council

### LOOKING INTO ALTERNATIVES: GOLD 2.0

The aftermath of the crisis has the potential to propel us into a new form of currency. In an earlier interview, Robert Kiyosaki, American Businessman and Author (Rich Dad Poor Dad), was asked about his outlook of financial instruments in the year 2040, to which he said gold has been here for eternity and is likely to remain but he indicates that the dollar could be replaced by cryptocurrencies for global trade.

Cryptocurrency has some distinct advantages over the existing framework; it is limited in supply and can truly become a global currency, i.e. one in which an individual economy cannot dictate world trade. In its current form, it has some demerits which makes it a currency for terror financing and crime syndicates as almost anyone can verify the transactions while keeping the identities of the parties anonymous. Although, some of its technological advances like

excessive decentralization and complete anonymity may have to be tweaked for mass adoption and getting legal recognition.

If we compare it to gold, we see that 88 per cent of gold's demand is either superficial or as a store of wealth, which can be extrapolated to blockchain backed cryptocurrencies. It is the perceived value which makes a commodity valuable. In recent times, cryptocurrencies have also been recognized as a promising asset class.

However, it's been plagued by a lot of volatility due to speculation, which is not ideal for any currency. Bitcoin (See Figure 5) is currently the most popular cryptocurrency and the sharp rise in its value after March shows that the investors value it in some parallel to gold but it's the volatility which gives in.

Since Bitcoins are not really backed by any material asset, their prices remain unstable and often form a bubble. So, there is zero chance of them becoming a global currency.

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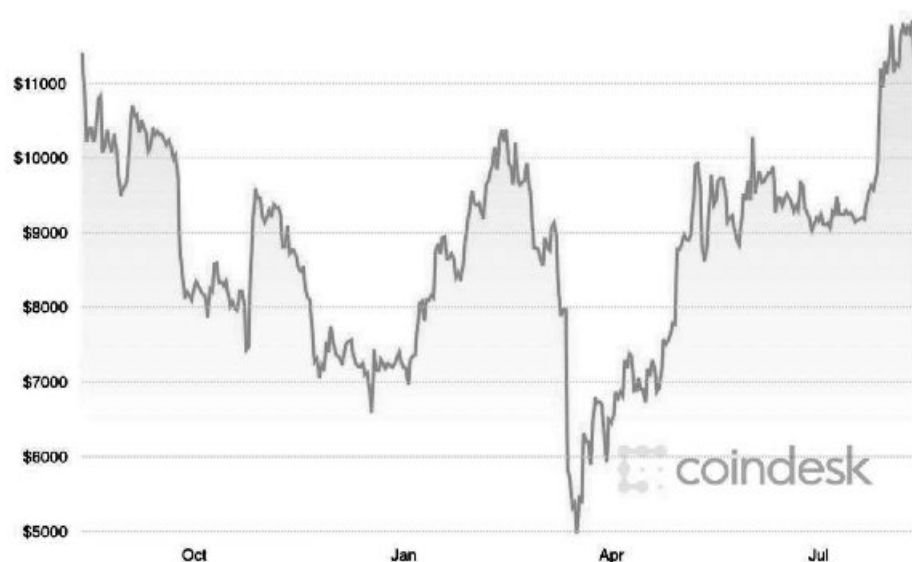


Figure 5: Bitcoin (BTC) Price Chart

Source : Coindesk

*Coming back to the drawing table*

Libra, Facebook's attempt at a cryptocurrency with debatable noble intention showed us the expediency of how the digital currency can reach the unbanked. Libra Association, a member organization of various technologies, payments, telecommunications, online marketplace and non-profits, will act as a de facto central bank to verify transactions. The currency will have full asset backing to reduce volatility. It is currently stuck to get the regulator's approval and given the history of the company with privacy, it may be a hard sell. Also, the technology to support billions of people is not yet ready. Nevertheless, whatever the intentions may be, the step was in the right direction and can hopefully reap benefits in the future.

It is safe to assume that blockchain-based cryptocurrency will become a part of our daily lives in a few decades, but for that to happen, a lot of driven people need to work on the technology to improve it.

Only then mankind will move forward. The current state of cryptocurrencies has laid the foundations to build upon. Along with the technology, we will need a good deal of diplomacy, academic rigour and the economic capital to have a profound change. The aftermath of the crisis may just accentuate the transition when the world realizes that the need for change and economic cooperation is the way forward.

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# The Golden Adage

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## ABSTRACT

Gold has evolved from being a commodity to being an assumed truth. Wars have been waged to possess this treasured resource, with princes and princesses being adorned in gold. First, kings swore their loyalty to the shiny yellow metal. Over the centuries, our emotional attachment with gold has only grown, making it an indispensable part of the investment portfolio. It continues to be a psychological barometer of market sentiment. Economically, gold offers a hedge against inflation and has, historically, fared well when interest rates fall below the rate of inflation. Since central banks all around the world are printing money hand over fist, and fears of inflation are kicking in, gold can serve as a hedging tool. The recent upsurge in the demand for gold is reflective of how investors consider it to be a safe haven during crises. Although investors have been good weather friends to gold, the metal has sworn allegiance.

## KEYWORDS

Assumed truth, Psychological Barometer, Medium of Exchange, Gold Standard, Inflation Hedge, Crisis.

These days, humans seem to fancy this shiny yellow metal a lot, sometimes to the point of obsession. Gold is no longer a commodity. It has now become an assumed truth.

Assume that today, the world collectively decides that gold is bad and decides to ditch it. They are now just heavy blocks of bricks that are hard to store, thus its value will go down to 0, hypothetically.

Indians, in particular, share an emotional relationship with gold. According to the World Gold Council, Indians are sitting on a \$1.5 trillion hoard of gold, consisting mainly of jewellery which families inherit or are gifted at weddings.

Gold is not only a symbol of wealth; it's a metaphor. It's an honour to receive a gold medal, to be told you have a heart of gold or own a gold credit card. The exchange of gold bands symbolizes love and marriage in many societies.

It is eerily similar to the concept of praying to God. In times of crisis, people seek solace in God. Gold has become the pinnacle of human achievement. Interestingly, it continues to be a psychological barometer of market sentiment. The description of gold will become clearer by understanding its evolution.

“

Gold has become the pinnacle of human achievement. Interestingly, it continues to be a psychological barometer of market sentiment.

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There were times when aluminium was more valuable than gold. The kings used to dine in aluminium vessels, and gold vessels were used by the lower-class workers. Centuries evolved, and it dawned upon people that the barter system could no longer suffice, due to the obvious problems of the paucity of items being exchanged.

Gradually, in 700 B.C., gold coins became a medium of exchange. Gold was not too abundant, otherwise many people would have started producing it. Also, it wasn't too rare, which helped in the circulation of enough coins in the market.

It has always been a valuable commodity. Once produced, it stays.

This means, unlike wheat which is eaten by us after being produced, and oil which is converted to gas and used in the petroleum industry, gold is mostly converted to jewellery and it does not deplete.

Gold Standard, which means pegging the value of the currency to the value of gold by a country, was established in almost all countries by the year 1900 because gold had a relatively stable supply and was valuable. The other advantage was that Gold Standard discourages inflation since only that much money can be printed as much money as its country has in gold.

In the 1920s, the U.S. stock market was booming, and people were investing recklessly in baseless companies. This led to the Black Thursday in Wall Street, which initiated rampant panic selling since investors realized that the companies were way overpriced.

Franklin D Roosevelt (POTUS) criminalized the possession of gold by 1933, which meant that the government seized gold from the public at low prices. This is because people were investing heavily in gold after the stock market crash, which had a catastrophic impact on the US economy.

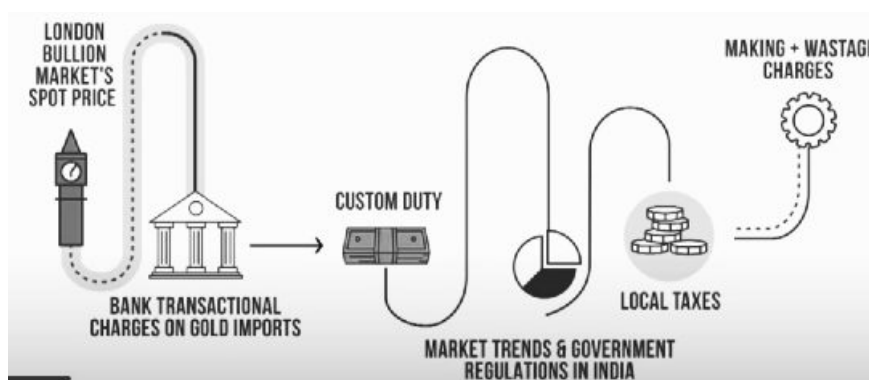
Back then, the government was mandated to back the

USD available in the economy by 40 per cent of it in gold. So, for every \$100 of money circulated in the economy, \$40 worth of gold has to be kept by the government as reserves. By the 1960's, the US was holding 75 per cent of gold in the world, chiefly why gold is always denominated in dollars.

Finally, in 1973, the US abolished the gold standard, implying it would not have to peg the value of USD to gold anymore. This was done as the US feared that the supply of gold wasn't enough to maintain reserves for USD (owing to rampant economic expansion).

Thus, gold evolved as a valuable commodity.

**The next major checkpoint is deducing the price mechanism of gold.**

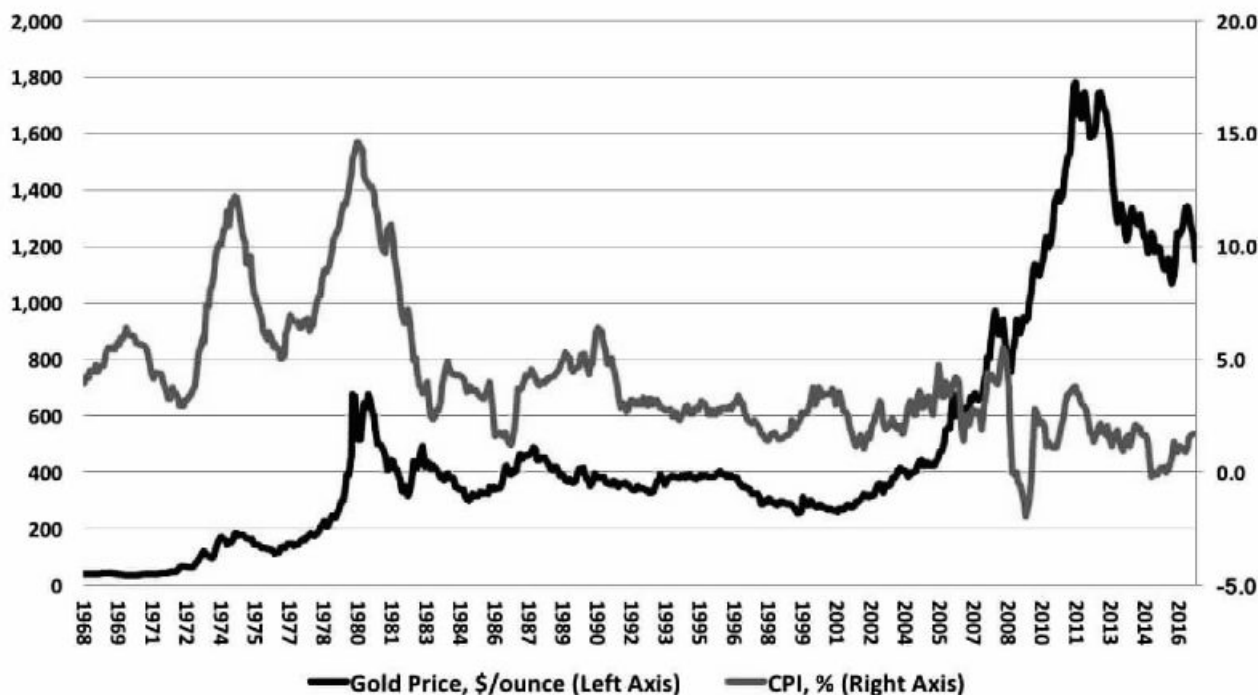


**Figure 1, source: Mygoldduide.in**

The price of gold is pegged to USD. It is ultimately a function of demand and supply in the long run. While a surge in supply can cause the price to fall, demand is ultimately the stronger component between the two. The level of supply of gold only changes slowly, since it takes roughly ten years or more for a discovered gold deposit to be converted into a gold producing mine. For example, if there is an increase in the demand for consumer electronics, the demand for gold increases (since it is used as a raw material). Also, during Diwali, the demand for gold jewellery increases, which spirals its price upwards.

## Gold vs. Inflation

1968 to 2016



Graph 1, source: St.Louis Fed

### Gold is an inflation hedging tool

When inflation occurs (Graph 1), the purchasing power of USD decreases, implying that other countries can buy more goods with the same amount of their respective currencies. Thus, demand for gold increases manifold and accordingly, the price. This is why people start buying gold, because the value of gold is unfettered by inflation and will ultimately increase, providing good returns. Also, investing in bonds becomes less lucrative since real interest income falls.

An investment of ₹ 1000 in a bond, giving 10 percent interest annually, would yield ₹ 100 as interest. Due to inflation, that ₹ 100 will be able to buy fewer goods than before. Hence, the investor stands at a loss.

With the central bank doling out money frantically (owing to the pandemic), inflation is likely to heighten, inducing a mad rush for gold.

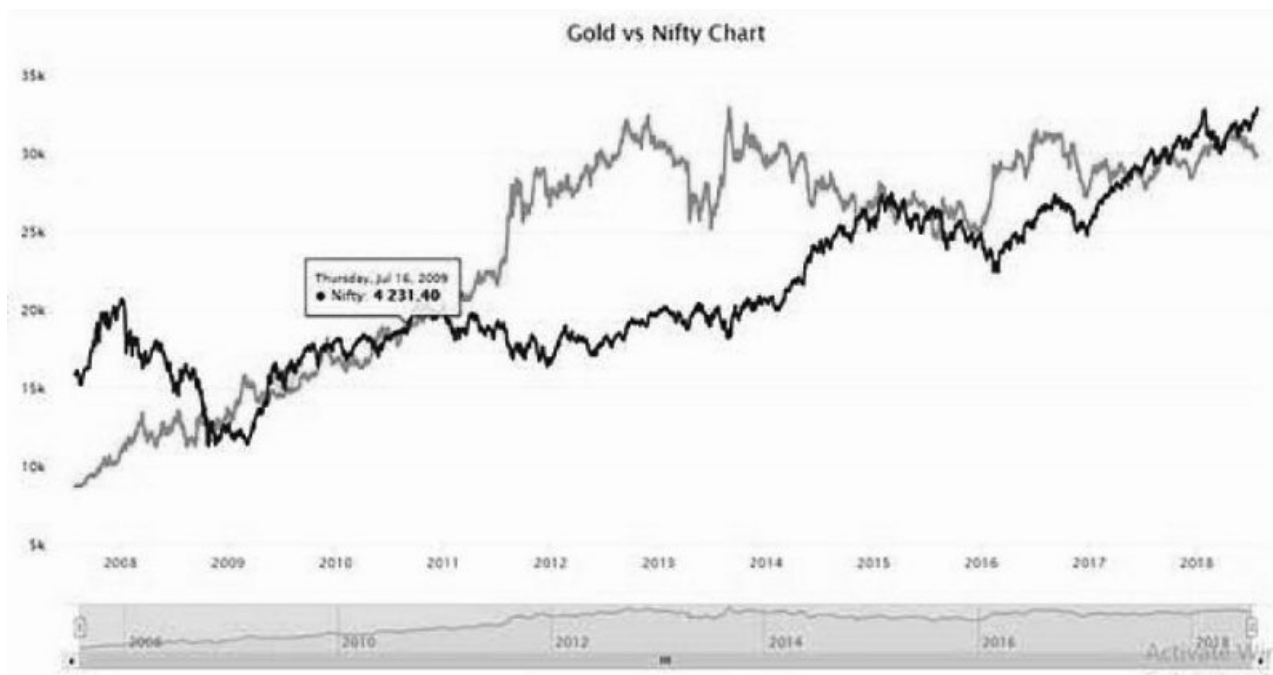
Gold has a rather interesting relationship with interest rates.

The economics behind it is that when interest rates rise, it becomes more lucrative for investors to invest in bonds and earn high interests. Since gold is a non-interest yielding asset, its demand generally tanks. Contrary to this, when the interest rates fall, people tend to invest in gold because investing in fixed income instruments becomes less attractive. Hence, huge investment in gold drives its prices up.

However, in 1971, in the US, short-term interest rates reflected by one-year Treasury Bills, were as low as 3.5 per cent. By 1980, that same interest rate had more than quadrupled, reaching as high as 16 percent. In that same period, the price of gold mushroomed from under \$50 an ounce to a previously unimaginable price of nearly \$850 an ounce.

This shows that gold prices had a strong positive correlation with interest rates, rising in concert with them (contrary to the logic derived above).



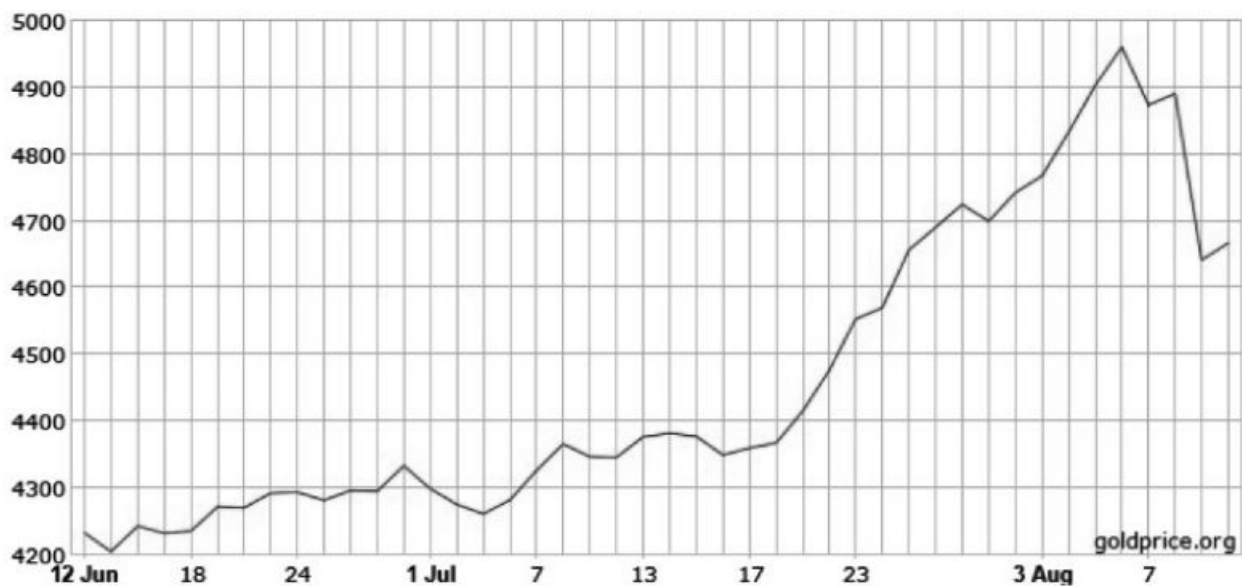


Graph 2, source: Mygoldguide.in

Graph 2 shows a negative correlation between movement in NIFTY and gold's price between 2011-2015, i.e. when equity market tanks, gold performs well. However, between 2016-17, there is a positive correlation between the two.

Hence, nothing can be said with staunch conviction

about the correlation between these factors. Economists may beat their chest about how markets work on fundamentals, but the truth is that the participants in the market are humans, and humans run on emotions. Although humans have been good weather friends to gold, the metal has sworn allegiance even in times of crisis.



Graph 3, source: Goldprice.org

Gold loves a crisis; the adage goes. There has been a recent upsurge in the demand for gold, which has sent its price skyrocketing (Graph 3). Gold offers liquidity during market downturns and has also provided higher returns than money market instruments. The vogue for gold can be attributed to a financial panic or distress, which will reduce as the crisis abates.

People buy physical gold to diversify their portfolio. These days, investors can invest in gold without having to buy physical gold (i.e. in the form of gold bonds).

Sovereign Gold Bonds (SGBs) were introduced in light of the Gold Monetisation Scheme introduced by the Reserve Bank of India in 2015. The RBI, till now, has been able to monetise 25 tonnes of gold since 2015, which is roughly 3 per cent of the annual demand of gold by India.

With the last tranche of the Sovereign Bond issue ending in September, it is starkly evident that this investment vehicle has been concentrated with a limited set of investors. The Indian bond market, in general, is relatively underdeveloped with only a few players driving the significant chunk of transactions. The corporate debt to GDP ratio in India is at a meagre 17 per cent as compared to other developing countries. As per a report by the Confederation of Indian Industries (CII), retail investors in India have a meagre 3 per cent of outstanding issuances in the debt market.

Furthermore, as per reports by the RBI, the government issued SGB's 27 times with very less traction on each issue. The prima facie concern is that the retail investors do not consider these bonds to be a symbol of security, unlike physical gold.

Investors do not want to block-in their capital for a very long duration. The ongoing pandemic has further exacerbated the plight of retail investors. Individuals, across, have been struggling to manage their fixed expenditures due to layoffs and pay cuts.

The Indian banks stare at the absence of a strong ecosystem such as regulated and accredited refineries, a fool-proof transparent aggregation system with approved aggregators and regulated vaulting and logistics service providers, thereby, justifying that banks

may be exposed to uncontrollable risks in the present environment.

However, as the pandemic induced panic is reducing and stocks are finding their feet again, gold is losing its lustre as an investment class, which is quantified by the downside rally in its price in recent times.

Thus, 'a wise investor is one who recognizes gold's place in the market, without attaching too much or too little significance to it.'

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# The Emergence of a New Era

## Analyzing the Impact of Artificial Intelligence

Anuska Saha

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In a world plagued by population explosion, increased mechanization and digitalization of jobs equals unemployment.

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### ABSTRACT

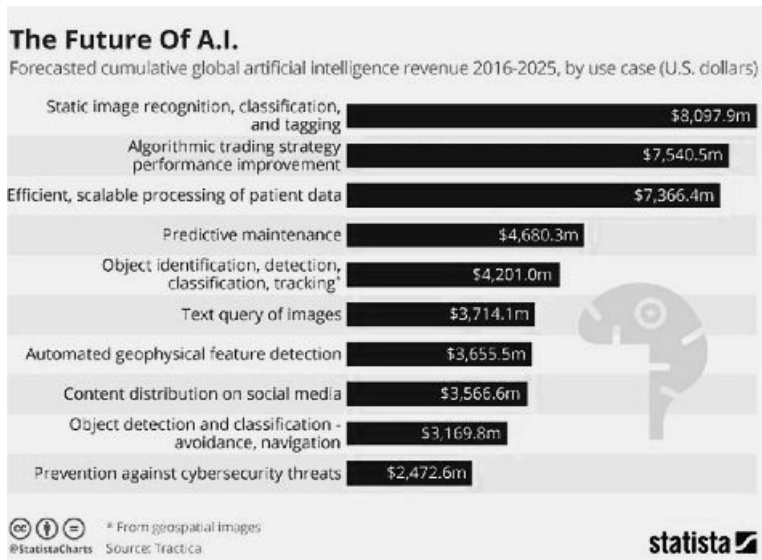
The 21st century has by far been one of the most technologically advanced periods in the history of human existence, and the trajectory only seems to be moving upwards. We have come a long way in the field of digitalization and mechanization, where everyday activities can now happen through a screen or without any human interference at all. The nuances of the human mind can never be completely replicated, however the accuracy with which it can be mimicked is what makes machines so marvellous. Thus, the objective of this article is to explore the different realms of our life which have been penetrated by AI-driven technology and provide an insight into the potential benefits and consequences of this rapid integration.

**KEYWORDS:** Artificial Intelligence, Business, Economy, Digitalization, Mechanization

### INTRODUCTION

Evolution implies the advancement of a species through a gradual process of development from its primitive form. Humans are no different. But what puts us one step ahead of others is our intellectual capacity and ability to harness the possibilities offered by technology. And that is where AI comes in. By definition, Artificial Intelligence means the simulation of human intelligence in machines which are programmed to think like humans and mimic human actions. This term can also be used to define any machine that exhibits traits which are primarily associated with a human brain such as problem solving and learning. The intricate networks of the human brain are considered to be a miracle of nature; however, the potential of AI seems to undermine that statement completely. We created these machines as entities that will pledge their allegiance to us and help us overcome the limits of our own selves. However, they play a much greater role in our lives today than we ever envisioned them to. As we move into an inevitable era of technology, there

will be a day where man will be inseparable from AI and its counterparts. Moreover, as I state this, in some corner of the world, an android that is much more refined and powerful than a mortal human being is being developed. However, that is just one side of the story. In a world plagued by population explosion, increased mechanization and digitalization of jobs equals unemployment. It also brings in many other challenges which make us question where we should draw the line to curb the damage that AI can cause. The dawn of this new era has begun, and it is up to us to optimise technology in a way that it does not defeat the very purpose it was created for.



Let us now proceed to discuss a few broad areas which have been impacted greatly by the advent of the technological era and understand the role AI has played in revolutionizing them:

### BUSINESS AND INDUSTRY – A DOUBLE EDGED SWORD

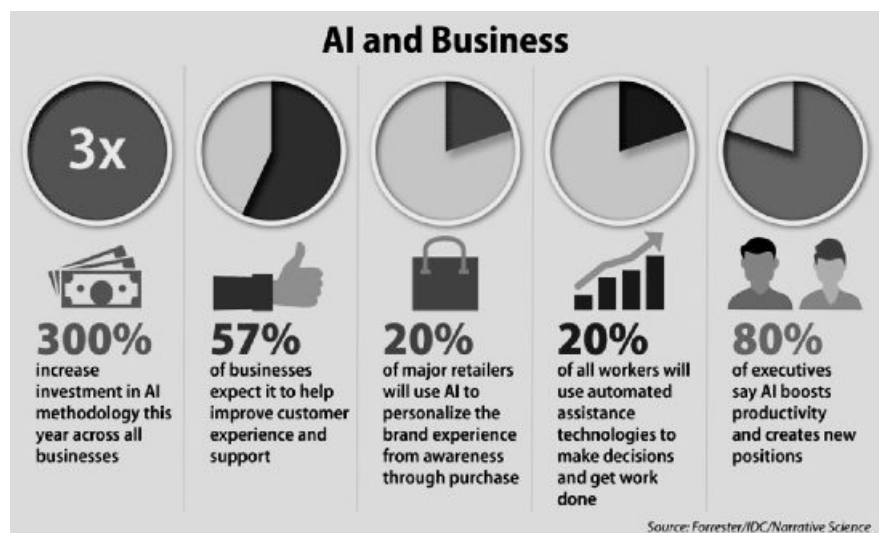
Perhaps the greatest 'revolution' in this sector since the Industrial Revolution in the 18th century, the integration of technology and machine learning to optimize processes has changed the face of business entirely. It has brought

about numerous benefits ranging from cost effectiveness to reduced labour requirements. In essence, it has essentially enabled enterprises to increase their efficiency and carry out their operations much more easily. The primary means through which AI is used in businesses are namely machine learning and deep learning. So, what do we really mean by these terms?

Machine learning is one of the most common types of artificial intelligence used in business today. This type of artificial intelligence is in the form of algorithms that appear to 'learn' over time, gradually getting better at

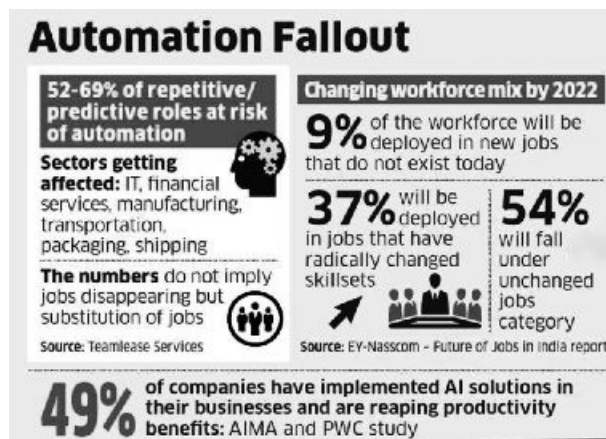
what they do, the more often they do it. Feed a machine learning algorithm more data and its modelling should improve through experience. Deep learning, on the other hand, implies a more specific version of machine learning that relies on neural networks to engage in nonlinear reasoning. Deep learning is critical to performing more advanced functions, such as fraud detection, by analysing a wide range of factors at once.

Consequently, it has replaced human beings as well in certain areas through the process of mechanization. This might spell trouble for densely populated areas with unskilled labour, causing a spike in unemployment. Developing countries have labour intensive industries as a major component of their economy. Thus, an impact on these industries reflect



directly in the performance of the economy. Many economists have correlated the increase in economic inequality with the growth of AI, and it is not far away from the truth. A report by Goldman Sachs predicts that about 25,000 U.S employees face the risk of losing their jobs every month, with the rise of self-driving vehicles.

Businesses prefer a higher level of accuracy and efficiency, which is guaranteed by such artificial intelligence, but the possibility of completely replacing human labour with AI seems a bit far-fetched. This is mainly because human judgement is integral in areas where subjective opinion trumps mere data analysis. This includes advisory services, customer experience areas and many more. Perhaps the only way to use this double-edged sword is to carefully predict its impact in terms of the value created while retaining human labour wherever necessary.

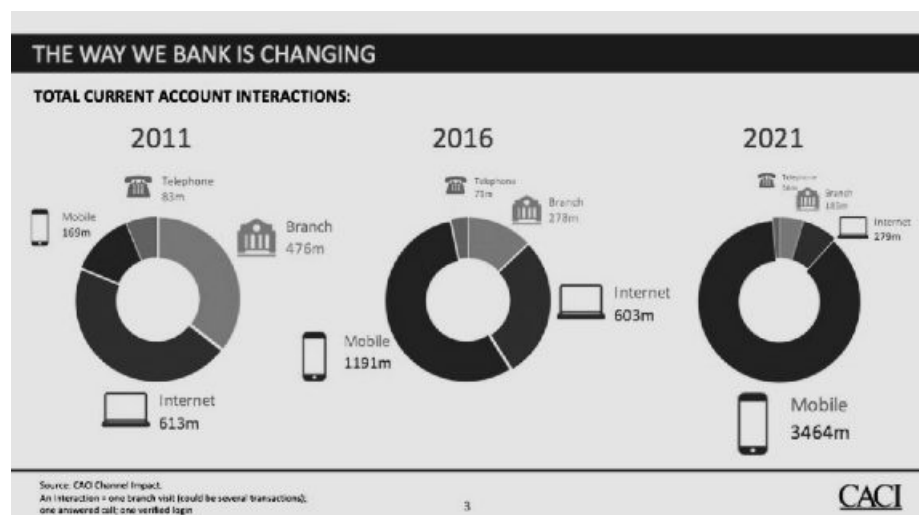


one can predict the financial position of their organization a year into the future, one can also take the necessary steps to reduce the losses they might have to incur. The potential of managing such risk could mean preventing economic disasters like the Great Depression of 2008 from repeating itself in the future. Another aspect of this development is the rise of FinTech or Financial Technology. Financial technology is used to describe new technology that seeks to improve and automate the delivery and use of financial services. Digital payments are, without a doubt, the main driving force of the fintech sector. With a 12.8 per cent projected CAGR from 2019 to 2023, the total value of transactions is expected to reach \$6.7 trillion by 2023. The rise of FinTech has essentially bridged the gap that existed due to economic disparity to a great extent, by enabling individuals to use softwares and applications to gain access to financial services.

However, a problem reflected in the business and industry sector is mirrored here as well – the replacement of physical employees. Customer services, middle and back office roles - making up 50 per cent of all jobs in the sector are in line to be replaced entirely by computers, implying that the workforce will have to become more entrepreneurial. This is because the only area where humans become unmatchable is in our spirit of innovation. Experts claim that despite the rapid increase in the use of technology, banking could be one of the few sectors where human beings will never become completely obsolete. If digitalization can focus primarily not on replacing human employees, but

## BANKING AND FINANCE – A CATALYST OF CHANGE

From predicting stock market changes to making banking services accessible to even the remotest of places, AI and digitalization have moulded the financial ecosystem of today. Since AI was created with the view of removing human folly, it helps to minimise one of the biggest concerns in this sector - risk. If



enhancing what they can do, there will still be as many jobs in financial services after the digital revolution. To put this in simpler terms, as to where human intelligence becomes necessary, is in a scenario like this - if the pricing algorithms at two rival insurance companies were not monitored by a manager, they would drive profits into the ground in their efforts to always be cheaper than the other. In conclusion, technology will probably not supersede human judgement in this area, but the actual situation can only be predicted with as much accuracy as there is to saying an alien invasion is impossible.

### A DIGITAL WORLD – CRAFTING A NEW LIFESTYLE

Perhaps the only instance where technology has benefitted us without jeopardizing much is in the way we go about our everyday life. This includes the growth of online shopping and other such services which are catered to making our lives simpler. The use of AI in the personalization and customization of these services is what makes them so special. Through these services, companies can capitalize on human psychology in order to increase profits, by inducing 'impulse buying' as an example. It almost tricks our brain into thinking we need a certain product when we do not. However, the beneficiary here is the company rather than the customer; at least in monetary terms. It is reported that

88.6 per cent of Americans have given in to the temptations of impulse shopping, with an average expenditure of \$81.75 per session or \$17.78 billion per year. Americans also make up to 156 impulse purchases every year, spending up to \$5400 annually, or \$324,000 over their lifetime.

Consumers, on the other hand, also have a lot to thank artificial intelligence for. A rather unique platform that is spearheaded by AI is Ada, a healthcare app that provides preliminary diagnosis to its users. It simply asks you to enter your symptoms and gives you a basic diagnosis of your conditions. While it might not be useful for serious conditions, it saves you a hefty amount of doctor's fees for common problems, which can be treated with simple medication. This is a pathbreaking instance simply because of the sheer possibility of such applications becoming prevalent in other fields as well. AI robots have already replaced human guides at the Incheon International Airport in South Korea, so it is not completely unbelievable to think that robots and other sophisticated forms of AI will be much more commonplace in the future.

### CONCLUSION

As Darwin rightly said, survival of the fittest ensures that the species living on earth can adapt to the dynamic environment of this planet. As humans, there are





certain weaknesses we will never be able to overcome on our own, that is, without the help of any exogenous force. It is only through the amalgamation of technology and human ability that we can truly become a 'superior' species. This implies that it is inevitable to accept the dominance of technology and artificial intelligence over mere mortal power. But that does not mean we become submissive to our own creation. It is our responsibility to regulate it as well, in order to protect the interests of the larger population. This new era of mankind, heralded by technology, has opened up many possibilities but has also created greater challenges. We can only choose how we deal with it, because this cycle of innovation is an unending one. And just like it is with power- with greater advancements, comes greater responsibility.

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# India's Tryst with 5G: Moulding the Mirage

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For India to optimize this opportunity, it is eminent to bring forward a united allegiance of different stakeholders where each one can play a pertinent role to form an integrated framework enabling faster interoperability and accelerate the progress.

”

## ABSTRACT

Technology has, and will continue to play a profound role in one's life, along with shaping the social and economic status of a country. The Fourth Industrial Revolution, which will tend to further blur the boundaries between the physical, digital and biological worlds, is real and certainly inevitable. A quiddity of assurance grips the belief that 5G will play an indispensable role in bringing the Industry 4.0 to the forefront.

The article strives to provide a coherent view on the advent of 5G technology in the country and answers pertinent questions, such as the need for 5G in India, its positive implications in major sectors, the hurdles facing its implementation and the possible road ahead for the country in the 5G sector. It presents an optimistic stance but gives the reader an insight into the calculated approach that India should embrace.

**KEYWORDS:** 5G Technology, India, Economy, Development, Cautious Optimism

## INTRODUCTION

It is with firm conviction that one may proclaim the revolutionary growth of Digital India in the past decade to be a positive one. This favourable evolution has made it possible for the advent of the Fifth Generation (5G) Technology in the Indian landscape more than just a dream. The obstacles in the way have to be resolved strategically to ensure a healthy transition, which might sculpt India's course in the coming days. As we proceed with this pertinent idea, it is of utmost importance that we list out the why, how, when and what of the 'possible dream' and take a stand that emanates the essence of 'cautious optimism.'

## A QUESTION TO START WITH- WHY 5G FOR INDIA?

The first and foremost answer to the question of 'why the country needs 5G', and exploring the possible pendulum, which will put in motion the process of prosperity en masse, is inherently linked to the country's ability to rise as a potential tech power in the global forum.

India's fragmented sectoral efficiencies have created a huge divide, which has chained the ingenious progress of major sectors drastically. The Internet of Things (IoT) will get a much-needed propulsion with 5G Technology, thus connecting everything to the internet and enabling more seamless communication and rich experience for the customers, industries, and institutions. The transition will have wide-ranging impacts on some crucial industries that shall go on to be the bellwether for unprecedented growth. Some of the profound changes that 5G will bring in India's climacteric sectors are listed below.

### a) Agriculture:

An integrated digitalization of the entire agriculture

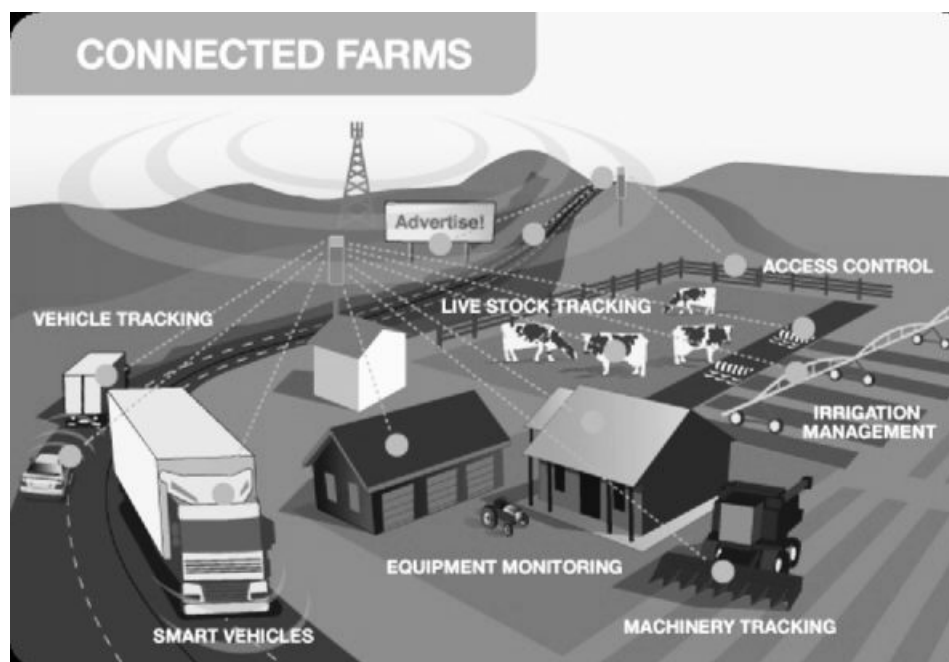


Figure 1, Credits: Sokoine University of Agriculture

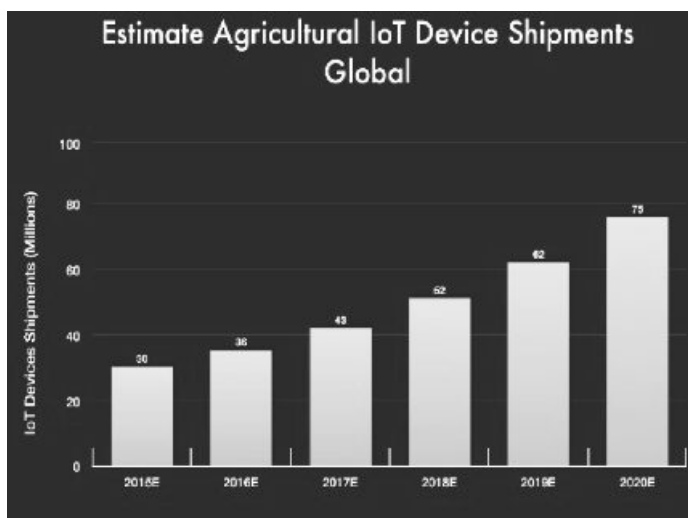


Figure 2, Credits: The IOT Magazine

industry will unleash what is called 'Smart Farming', which is not just a technological luxury that India wants, but a process which the country needs to feed an ever-growing population.

Equipping the farmers with the latest tech, which provides updated weather trends, collects, monitors, and analyzes data on many aspects in the farming field, will create year-round solutions to enhance production. Optimization on the agricultural front would result in an

immense upliftment of the farmers and different stakeholders to a higher level of the economic ladder as well as injecting an enterprising spirit in them, which the country sorely needs.

### b) Healthcare:

The Healthcare sector will experience game-changing results, as physical limitations will no longer exist for the doctors to tend to the needy patients anywhere in the country. Key developments in the healthcare sector will have

a wide impact, thus showing the white light to many amidst the gloomy clouds.

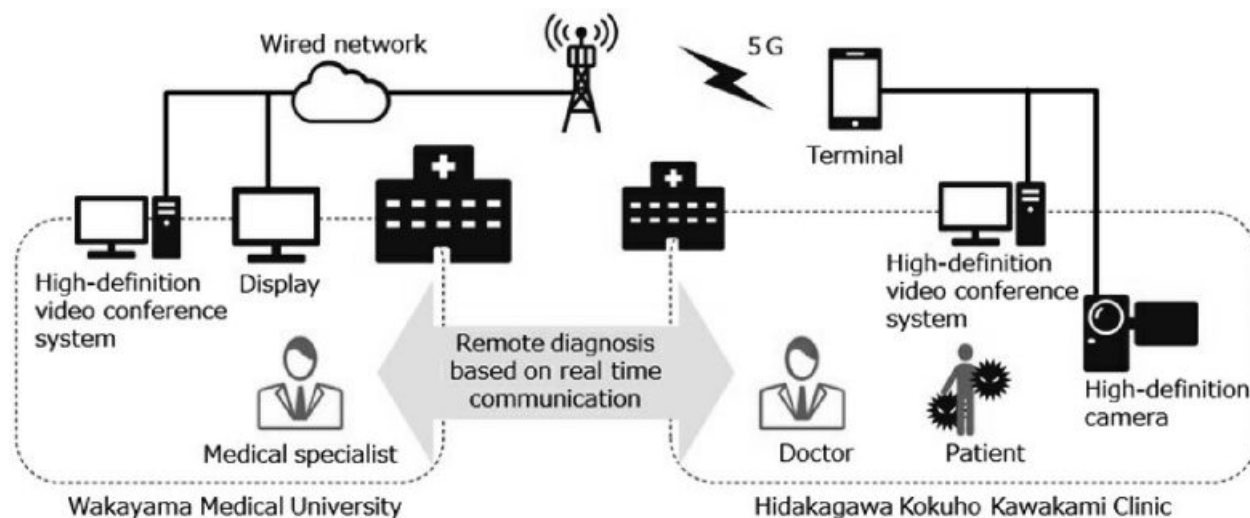


Figure 3, Credits: NEC.com

Clinical Medical devices can form an ecosystem known as the Internet of Medical Things (IoMT) to monitor a patient's vitals and track whether he/she has taken the required medication or not. Online services will cover up the lack of medical healthcare facilities in rural areas. VR using 5G will help the medical students to virtually experience and follow real-life simulations of patient care. These are some possible revamps from the pool of infinite developments, which can bolster the medical sector in the near future and bridge the gap between the have and have-nots.

### c) Education:

The education sector will be a key frontier in determining India's ability to nurture the human resources aspect. An efficient and robust learning system will form the cornerstone of the skill upgradation in the

country. Here are some central developments, which might come into play, setting a foundation for future growth.

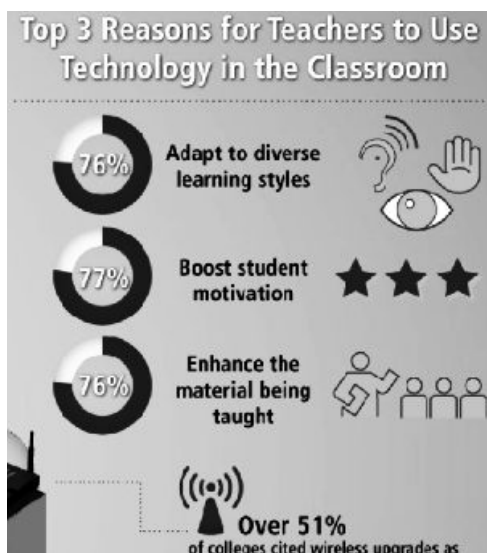


Figure 4

Credits: dontwasteyourtime.co.uk

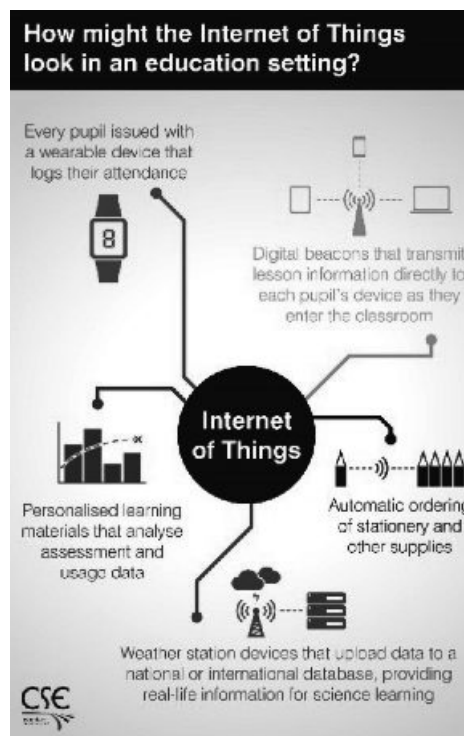


Figure 5

Credits: CSE Education Systems

The introduction of Virtual Reality (VR) and Augmented Reality (AR) in classrooms will provide a seamless learning experience to the students. Implementation of Robot Applications through 5G will assist specially-abled children through personalized teaching, and provide distance learning for the underprivileged at any part of the country. Monitoring, analyzing, and providing relevant engagement to support the skill enhancement for an individual student will be a standout feature too.

### FORMIDABLE FOES TO AN UNBRIDLED AMBITION

Being ambitious is admirable, but only with considerate realism. This especially holds true for all the unchecked problems which demand our unwavering attention, thus, providing us with an assessment of the current scenario from different points of view.

#### a) The Infrastructure View: An Immature Fiber Network

5G will bring with it the ability to be decisive through instant thinking and a higher level of accuracy, which will only be possible through lower latency and higher bandwidth levels. The high-capacity fiber network, which will include aerial and underground optic cables, will eliminate system blockages in the 5G Technology as well as increase mobile coverages, escalate the internet speed and make the networks more reliable.

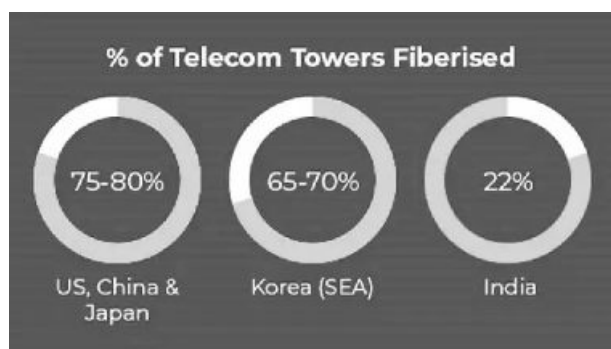


Figure 6, Credits: The Economic Times

As per figure 6, India currently has 500,000 towers of which only 22 per cent are fiberized, compared to

China and Japan's 80 per cent fiberization. Many have emphasized on the need to scale up the fiber footprint to fivefold from the current status quo. The ICRA has estimated the present market value of fiber assets owned by the big Telecom players to be around \$1.25 trillion, which is far shy of the additional investment of \$3 trillion needed for strengthening the fiberization.

#### b) The Policy View: An Extortionate Spectrum Pricing

Perhaps the most important factor which will determine India's 5G growth story is the pricing of the 5G spectrum. It has been a major point of contention between the companies and the Government.

India has earmarked 300 MHz in the mid-band spectrum of the 3.3-3.6 GHz range for 5G, which provides wide coverage and speed while simultaneously having international consensus.

However, despite all the pros, the major con appears to be the pricing that has been set for the spectrum sale. The TRAI has put a price tag of \$4.92 billion per MHz and made it mandatory for the Telecoms to buy at least twenty units, which concludes to an investment of \$98.4 billion on a pan-India basis.

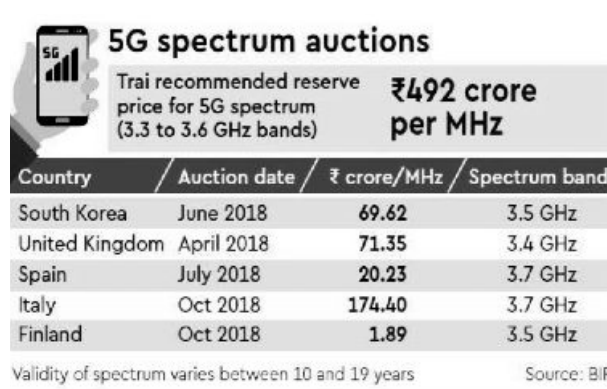
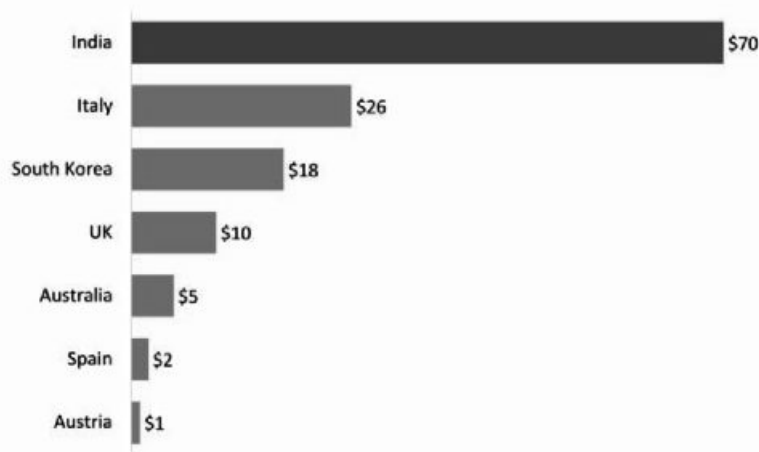


Figure 7, Credits: financialexpress.com

The exorbitant pricing has dented the hopes of the companies who have emphasized that the price is six times higher than that of a similar spectrum sold recently in countries like South Korea, Spain, Italy, and a few others. Figure 8 displays the point accurately.

### India Has The Highest Unit Pricing Of 5G Spectrum

Price per MHz of 5G spectrum in 3.4GHz-to-3.8GHz band, millions (\$)



Source: ACMA, RTR, KCC, Ofcom, European 5G Observatory, CLSA, 2019

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A recent report by Deloitte mentioned that the industry needs an additional investment of \$60-70 billion, which seems to be an onerous task at the moment, making transparent, the far-reaching implications that the industry could be exposed to. The condition was made worse by the Supreme Court ruling on the AGR payment, leading to companies coughing up thousands of crores for unpaid dues putting many on the brink of bankruptcy. Without systematic governmental support, it surely is a tough road ahead for the telecoms.

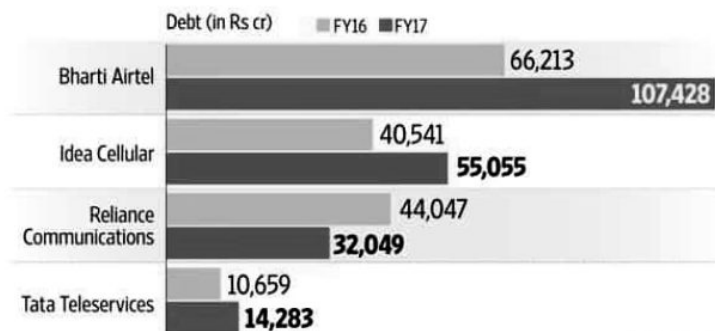
Figure 8, Credits: businessinsider.com

### c) The Corporate View: A Burgeoning Debt Problem

The merger and the recent bankruptcies in the Telecommunications sector are testimony to the grievous financial health of the companies. With a cumulative debt pegged around \$7 trillion, the current scenario seems more like a time bomb, which is ready to explode any moment thus bringing down the house of cards with it.

### RISING BURDEN

India's telcos are loaded with debt and face the burden of payments due to the government for spectrum



Source: Capitaline

Figure 10, Credits: livemint.com

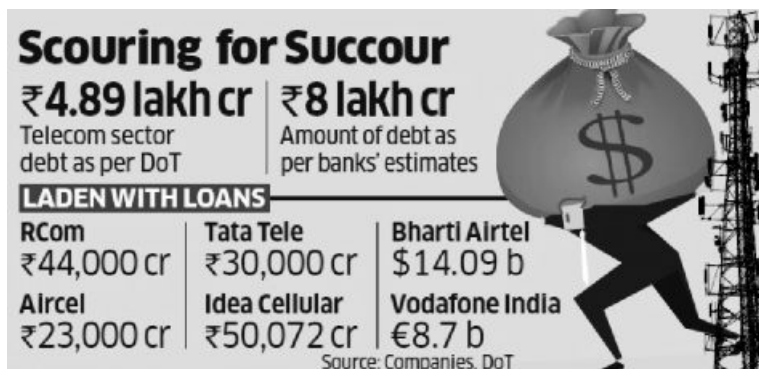


Figure 9, Credits: The Economic Times

### d) The Consumer View: A Price-Sensitive Mindset

A simple yet sophisticated explanation for this section is the pricing factor, which influences the consumer behaviour in the country. A typical Indian consumer is not likely to budge from 4G to 5G unless there is a significant value addition with the same price offering.

The increased price of 5G seems inevitable if one analyzes the above-mentioned obstacles chronologically. Keeping in view the sky-rocketing spectrum price and debt, it is quite uncomplicated to decrypt the fact that companies investing in the 5G Technology will need to notch up its price offerings to cover up for the costs. This certainly will create a hindrance in consumers adopting 5G Technology.

### SUMMING UP: ALIGNING ALLEGIANCE TO MAKE THE CUT

As I pen this last section, a wave of cautiousness, uncertainty, and scepticism has emerged in the economy, which might put to waste the efforts made in the country's 5G arena. The unfolding of the novel Coronavirus and escalations in the Indo-China military front has led the Government to restrict the telecommunication companies from procuring 5G equipment from the Chinese home-grown players like Huawei and ZTE. This leaves the country with the only alternative - to turn towards European Vendors, such as Ericsson and Nokia for 5G equipment, resulting in a price increase of 15-20 per cent. However, a silver lining to this tumult has been the announcement by Jio, stating the building of in-house 5G equipment, which might be ready for deployment soon.

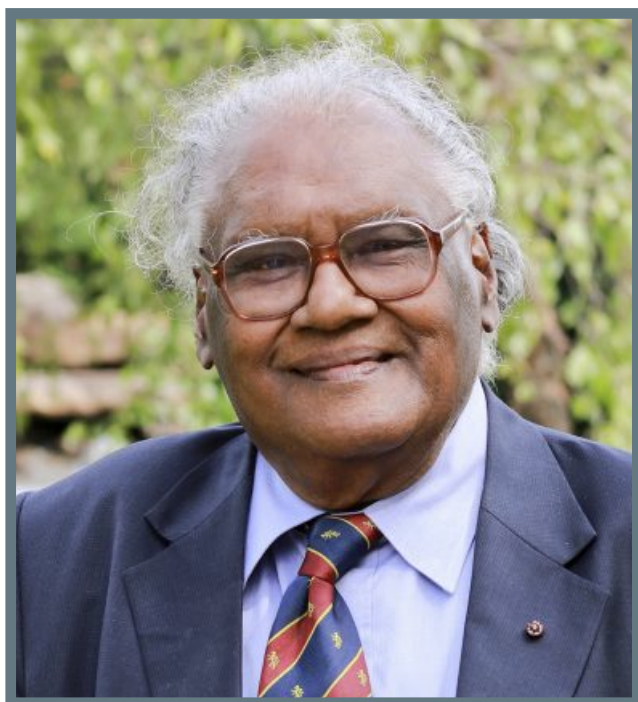
India can surely use its 4G LTE infrastructure (Non-standalone mode) for expediting the process instead of the core Standalone Mode. However, this may turn out to be a short-term solution, making us dependent on an infrastructure which may be outdated in the near future. For India to optimize this opportunity, it is

eminent to bring forward a united allegiance of different stakeholders where each one can play a pertinent role to form an integrated framework enabling faster interoperability and accelerate the progress. India still has miles to go with the 5G dream; but with a spirit of 'cautious optimism' along with an aligned vision, the country still has a chance in making history.

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## DR. C.N.R. RAO

Scientist

Interview taken by  
Soham Chakraborty, Aleya Ghosh  
and Madhav Poddar

**YT:** In the midst of the chaotic freedom struggle, you managed to find your passion which has transformed you into what you are today. With today's youth failing to gain hold of their passion, what message would you like to give to the people struggling with their careers?

**CR:** I was inclined to become an academican from my childhood because of the encouragement of my parents, both of whom reading and discussing issues. I was also encouraged by a few wonderful teachers in high school. That is the crucial stage when young people can be motivated. Furthermore, the independence movement at that time, and in particular Gandhiji, enabled a highly nationalistic atmosphere.

**YT:** A string of important career decisions led you to pursue your diploma overseas and culminated in you choosing research over the IT sector, which a very few students opt for. Why do you think students are intimidated by the research territory?

**CR:** Our society should ensure that there is a proper value system. If money, banking and

management make news all the time, children get wrongly influenced. Teachers and parents should talk to children about many 'satisfying' careers, which are enjoyable and important.

**YT:** In an interview, you spoke about the impact that CV Raman has had in your life. What quality of his should every student adopt in themselves? How was the experience of working with him?

**CR:** I saw Prof. C.V. Raman for the first time when I was 11 years old. His lecture in my school was electrifying. His personality was such. He kept moving around the stage and roared like a lion. He had asked three or four of the students to visit him in IISc. I was one of them. Looking at him and listening to him tempted me to be like him. I feel one such instance is enough to excite the imagination of young people.

**YT:** The government has lagged behind in providing resources and recognising the work done in the field of science. What according to you should the government's approach be, in order to promote science and scientists in the country?

CR: Science and Education are very poorly funded in our country. If you leave out major mission-oriented agencies, money available for scientists in their little laboratories is limited. However, it is small science that gives rise to major discoveries and contributes to better health and a better quality of life.

**YT: You have been the recipient of the Bharat Ratna amongst various other awards for your scientific achievements. What importance do you believe the recognition of one's work and contribution through laurels holds in this field?**

CR: Recognition and rewards are important but good scientists do not practice science only for awards. While I have received innumerable awards and honorary degrees, what has given me the most joy is to accomplish good research and write papers with my young students.

**YT: Brain Drain has been a major barrier for India in the recent years. Having come back to India after your doctorate in the US, do you feel that you would have achieved more there or do you believe one should come back and contribute towards the growth of their country?**

CR: To get a good education, one need not go abroad. It is however useful to work in some leading laboratories abroad after getting a higher degree. Fortunately, many young people are coming back to India but we have not created enough jobs and opportunities for them.

**YT: India's contribution towards science has been proficient yet we remain behind certain countries. Do you feel that India has been underachieving, keeping in mind the potential that we have?**

CR: If we really believe that the future of India depends on our strength in science, we have to work harder and produce more and better quality of science. We have to improve the

quality of scientific education; especially at the school level.

**YT: In an age where most people seek early retirement, you have published more papers after your formal retirement than before. What has kept your passion for scientific research going?**

CR: If one loves science, there is no retirement. One has to keep climbing the ladder of excellence endlessly and there is no limit to it. Both in science and spirituality, there is no limit to one's pursuit of excellence.

**YT: You have been an advocate for imparting good knowledge and education. Having been in the industry for over 65 years, do you think there has been a change in the process of teaching and does the present system serve as an ideal model for education?**

CR: I have been in the field of education and research for over 60 years. I have completed 70 years in scientific research. I am, however, not happy with the educational opportunities for young people, especially in rural India. There are a few good places for undergraduate students. Some of the IISERs are good. I believe that there should be a national mission for a 10 year period devoted to 'Teachers and Teaching'.

**YT: You have been an advocate for imparting good knowledge and education. Having been in the industry for over 65 years, do you think there has been a change in the process of teaching and does the present system serve as an ideal model for education?**

CR: My message to the young people is for them to decide what they want to do early in life and not give up. Dedication, doggedness and tenacity are the main qualities required for success. Do not forget that Gandhiji's dedication and doggedness got us freedom.



## MR. GAUTAM GAMBHIR

Former Indian Cricketer and  
Member of Parliament

Interview taken by  
Rishika Saria, Abhimanyu Kakrania and  
Aleya Ghosh

**YT:** In the 2011 IPL player auction, you were the most sought after player and were given the captaincy of a team you just arrived at. What importance did this responsibility and trust placed in you by the management and the players hold to you? How did you handle being not only a new player but also the captain itself, with respect to understanding the strengths and weaknesses of the team and leading them to the playoffs?

**GG:** The biggest hindrance in the performance of any sportsperson is constantly thinking of proving oneself. So, if you have the backing and support of the management, you put all your efforts and focus on the game which leads to better results and successful campaigns. That is exactly what happened then. Being a new player in the team means building a rapport with other players which became even more important as I was the captain. Cultivating relationships with players is extremely important so that a trust factor is created. You have to back your players to the hilt in order to facilitate them to go out there and give it their best.

**YT:** There is a general opinion that restricting Indian players to only IPL is not only hindering the exposure of the players but is also a major factor in letting the IPL retain its stature, thus, becoming a corporate gimmick. Being a major influence in the IPL, what are your thoughts on this?

**GG:** This is for the BCCI to decide whether Indian players should be restricted to IPL or not. However, IPL has provided a platform to innumerable youngsters to showcase their talent, not only to the country but the entire world. It has also provided them with immense exposure to international players, new techniques and learning opportunities. This is the reason behind IPL's stature in world cricket.

**YT:** In the 2011 World Cup final, you entered the field after Virender Sehwag was dismissed, and soon after Sachin Tendulkar was dismissed. Virat Kohli, back then a new player by World Cup standards came in with a massive total set by the Sri Lankan team led by Kumar Sangakkara. You had all the pressure on you to

**lead the team to a stable position. Even though you were a veteran player, the pressure was no doubt mounting. What strategy did you adopt to deal with that situation knowing what was at stake? What was going through your mind?**

GG: When you are at that stage, your concentration is more important than any complicated strategy. My job was very clear. I had to stabilize the innings while keeping the scoreboard moving at a steady pace. The last thing we needed was being in a position where we had to get too many runs in the last overs. That was the only way to reduce pressure for myself and for the team. The only external thing which had a bearing on my mind was that I cannot let 1.3 billion people down who had been waiting for a world cup for 27 years!

**YT: Even though you have retired from cricket, you continue to be an active analyst, whilst being a Lok Sabha member. How do you balance your time between your professional, national and familial responsibilities? Do you ever feel overburdened and if so, how do you deal with them equitably?**

GG: When you become a public representative, it has to be your first priority over and above everything. I personally meet the people of my constituency for grievance redressal at least 4 times a week and I am available on call 24X7. Then there are sessions in Parliament as well as meetings of Standing Committees where macro level policy decisions are taken. Cricket has been my life ever since I understood what life was. So, it is only natural that I would want to contribute to the growth of the game as much as possible. But as far as being an analyst is concerned, I am only fulfilling contractual obligations which were entered into before I became an MP. My family has been extremely supportive and understanding throughout my life and I make sure that, at the least, I am there for my kids whenever they need me. Now that I do not have to travel too much because of cricket, I am making up for lost time.

**YT: You regard your maternal uncle, with whom you stayed in the 90s, as your mentor and you said**

**that you always called him up before important matches. What role did he play in shaping your career?**

GG: My family is the reason why I have been able to achieve so much in life. They encouraged me to go out and do my best without worrying about anything. When you are young, you need someone who can guide you and motivate you. Someone who can stop you from going down the wrong path and also understands your concerns. My uncle has been my rock. I am truly blessed to have received guidance from several great people in my life.

**YT: You have been commenting on politics since your playing days. On joining so, you installed the first Smog Tower in Delhi which was very well received. Do you think this is just a temporary measure and that the best way forward would be to switch to sustainable sources of energy?**

GG: The rationale behind installing the Smog Tower or as we call it the Giant Air Purifier was to explore unconventional ways of reducing pollution or at least clean the air we breathe to provide much needed respite to the people and give a wake up call to the State Government which was not willing to think out of the box. It is a fact that these measures can only partially solve the problem. Ultimately, we would have to think about new ways of crop disposal which is one of the biggest reasons behind pollution in North India which is also known as stubble burning. In the long run we would have to switch towards renewable sources of energy and transform our lifestyles in order to be environment friendly so as to not put pressure on nature.

**YT: Your measure of installing CCTVs led to widespread appreciation but Delhi is still said to be unsafe for women. What more do you think could and should be done to make our National Capital a safer place?**

GG: Improving law and order, having proper surveillance and developing infrastructure are



necessary to control the situation. I have heavily invested in having self defence classes for women in my constituency. However, a change in the mindset of society is most important. Boys from a very young age need to be taught about consent and women should be encouraged to always complain about any inappropriate behavior. Victim shaming needs to stop completely. If such behavior is called out early on, it might instill a sense of fear and shame in the perpetrator which might stop him from committing such acts in the future.

**YT: A trend seems to be emerging in India as successful people from other fields enter politics, however, most of them fail to make a mark. What attracted you towards politics and what quality of yours sets you apart, making you a successful leader in the nation? What is the practical and the optimal way to get the youth involved in politics given that they often have a pessimistic view towards the same?**

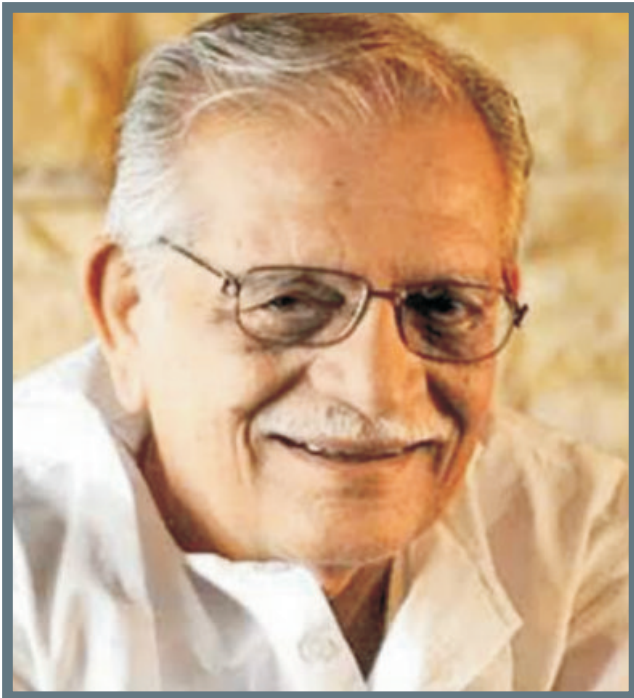
GG: If you only enter politics for limelight, a bungalow or some other perquisites, then ultimately you will fail. You might win once but disappointed voters will see to it that your reputation is tarnished forever. You must genuinely want to change people's lives. Also, many successful people from other fields who enter politics are hesitant in taking a stand or expressing their views due to a fear of backlash. Politics by nature is confrontational and one cannot shy away from taking it head on if one needs to make a mark and grow. As far as young people are concerned, it is important for them to think whether they want to limit themselves just to social media and rallies or they want to become a part of the decision making process. For that they need to bring a skill set to the table and should work in the grassroots. Decentralisation of politics at the lowest level is very important and youngsters can make this dream come true.

**YT: As the pandemic raised expectations of the healthcare provided to the common workforce, you came out in support of "FYI Health", a community health monitoring system for enterprises. Considering that Delhi has been one of the major victims of the crisis, what steps does the government need to take to ensure that the spread can be curbed as the nation opens up?**

GG: Ramping up testing, door to door monitoring in containment zones, reduction in charges of hospitals and tests, developing infrastructure and isolation centres are necessary for keeping COVID in check. Fortunately, most of these things are being done in Delhi especially after the meetings held between our Hon'ble Home Minister and State Chief Minister. In addition to these, underprivileged sections of the society need to be taken care of by providing them subsidies, so that they are not forced to go out in case they are unwell.

**YT: Your unrivalled spirit and zeal to transcend all boundaries has been a source of inspiration for lakhs of people; the students of St. Xavier's College (Autonomous), Kolkata are no different. What message would you like to give to them?**

GG: Xavier's has a special place in my heart as I got so much love and support from fans from this college during my time in KKR. Students of this college have always proved their mettle in various fields. I just want to say that no matter how successful you become, always try to be of service to your country and fellow citizens. All the money and all the knowledge is of no use if it cannot uplift those who are less fortunate than us. Also, never give up, no matter what. There is always light at the end of the tunnel!



## MR. GULZAR

Poet and Lyricist

Interview taken by  
Soham Chakraborty, Ayush Tharad and  
Madhav Poddar

**YT:** Due to the partition, your family split and you had to stop studying and come to Mumbai to support your family by taking up small jobs. At such a young age, how did you deal with the burden of responsibilities that no child dreams to bear and how did it not impede your motivation to achieve greater things?

**MG:** When partition happened, half my family and people were left on the other side and half of them were here, while part of my family was in Delhi already. So it was difficult to accommodate everybody who was coming from the other side of the border and my father had half a settlement here in Delhi. He tried to accommodate as many people, as many refugees and he would go around in the refugee camps and look for people from his own village and would bring them over. It was difficult for him to manage this as our house had become a sort of a refugee camp. My eldest brother was in Mumbai so to make it easy, comfortable and affordable, he took up responsibility for some part of the family and that made me come to Bombay. In those circumstances, I could not continue my education. I wasn't that young either. I was studying in St. Stephens College, Delhi and came

here and joined Khalsa College but could not continue for long.

My experience in Mumbai was very hard. Unemployment was all over the country. Amidst the crisis, there was a flux of refugees coming in and many graduates and undergraduates looking for any kind of job. I landed up in a motor garage and kept working in the garage.

**YT:** Working as a painter on damaged cars, you always believed that you had a knack for colours. How did this vibrance resonate when translated into words through your poetry? What significance does this hold in poetic genres?

**MG:** That was instinctive actually. Cars that have met with accidents would come in the motor garage and I had an instinctive knack to match the colours. We had to mix different ounces of various paints to match the colour, but it came quite naturally to me. I did not learn anything and neither was I a painter. I used to do my job in the motor garage and tried to continue my graduation. Unfortunately, I could not continue for a long time and had to stop in between. I tried to do it again at a later stage of my life but couldn't succeed.

**YT: The name Gulzar is almost synonymous with the infraction of the poetic traditions followed by other poets since a long period of time. Having been loved by the audience for the same, how do you make your own poetic decrees?**

MG: You know, it's not something that you turn to overnight. It just keeps on happening. It's a process that comes to you. You have so much to live for. I started attending Progressive Writers Association. I was fond of literature in my school and in my college. That puts you in touch with people with similar thoughts and similar minds and it further attracted me towards PWA and their meetings. The authors, which I had read and knew through books I read; to see those who were senior to me, and see them right in front of me, was something that pulled me towards literature. People like Sahir Ludhianvi, Krishan Chander, Rajendra Singh Bedi and Ali Sardar Jafri. It was a fascinating world in which you could survive with that kind of inspiration and yet be struggling with your economic condition. Then, you keep on bubbling with so many thoughts and so many experiences and emotions that you want to express. Being in that kind of an atmosphere is a moment of pride. The Bombay Youth Choir was a sort of musical art centre where I met Salim Choudhary and some other musicians as well. Rupaji, Kishore Kumar's first wife and Amit Kumar's mother, used to organize the Bombay Youth Choir. So, I was in touch with fine arts, on and off over different periods. I met Sanjeev Kumar doing the plays. That became sort of a world around me and though, I couldn't really complete my graduation, this served as an education of life. Inconsequently, at some stage you start writing and start reading a lot. At that moment, I started going to PPH and buying books because that was the cheapest source of picking up books. It was very economical indeed and with a company like Salim Choudhary, the master, your choice starts bending their way. Finally I started writing poetry and I still write poetry. It has become my lifeline.

**YT: Your poetry has never been chronically bitter in taste and it's always been very cheerful.**

**How does a poet of your genre breathe hope into the current self-destructive world?**

MG: There was no question of being bitter. You are struggling and you are in the world of fine arts which is very humane. Fine Arts teaches you aesthetics and brings you up emotionally and makes you closer to life. When that happens, in darkness you don't pick up daggers, you have to pick up a match box, light it and light a lamp. That's the only way you can fight the darkness. There is no need for bitterness. I feel when there are two ventilators in a closed room, one gives you light and the other gives you air to breathe. One is humanity and the other is hope. If these windows are open in your life, it becomes easier to live. Life right now, amidst the coronavirus pandemic that is going around, doesn't have to become pessimistic and it is not something which has landed from above. It is something that we created ourselves on this mother earth. It is our own fault we never took care of the environment. When I used to see children putting on masks and going to school because of the pollution in Delhi, I used to think of it as a very tragic incident, that our children have to go to schools with masks on their faces. Now, I look at the whole world putting on masks so it is a worse thing that has happened. At first, I thought of only one city being affected. Today when you look around, it's all over the world, but then life goes on and life has to find its way. That is a moment and life is eternity.

**YT: As you transcended the limits of the industry by beginning your work as a director, your films told a story of human minds entangled in social issues with one of your films never being released due to its objectionable subject. What influenced you to bring to light the stains in Indian society and do you feel like these problems still persist?**

MG: Well, some of the problems persist and some of the problems are solved while new problems always keep coming. That's the process of life, that's evolution. It has been happening right from the beginning of life. It has been happening right from the beginning of civilization. I was



born on the other side of the border. In United India, I was born in Punjab. Naturally, my poetic knowledge was of Bulleh Shah and of Wahid Shah and even folk and classical poetry of the area I grew up in. Later, I came across some translations of Rabindranath Tagore which was a turning point in my life. It changed my choice of books and I started reading different types of literature. The desire to read Tagore kept on increasing. There weren't many translations available since my script was in Urdu. I had some Bengali families in our area and some young Bengali boys in our school. To understand their culture, I became friends with them. This helped me to learn and understand their language. My fascination with the Bengali language led me to reading Tagore in original and that became a fierce burning desire. I wouldn't be wrong in saying that my first guru was Tagore and second, Bimal Roy, who taught me film making in Bombay much later. Bengali literature still remains a fascination to me. I still feel that it's one of the richest. I feel that another classic language of India is Marathi, as reading and listening to Marathi continues to fascinate me till date.

**YT:** Your works span from Urdu and Punjabi to multiple dialects of Hindi. In a country divided by its religious sentiments, what role does language play in bringing people together?

**MG:** I had a repo with different languages being in India, including languages like Marathi, Gujarati, Punjabi and Bengali. Being a part of the Sahitya Academy along with Mr Gopichand Narang as an executive member, I was exposed to South Indian languages and started reading translations of their poetry. I have a constant desire to know more and more from different languages. This desire took me to a place where I wanted to learn about contemporary poetry in India and the active scene of the live poetry culture that is coming up in the nation, which involves the art in different languages. This led me to compile the works that have influenced me since 1947, and moulded me into the poet that I am today. I am calling this book, 'A Poem A Day'. I have translated 272 poets and 34 languages of India. I have been working for almost a decade on it and

it would have been published by now if it wasn't for the current situation of coronavirus. It aims to give you the face of contemporary poetry in India and it served as a learning experience for me.

While we have what we call a national language in the form of Hindi, we are becoming international and global citizens as we adapt to the widespread use of English. Interaction with different languages is an inherent part of our education. Personally, I would like the use of Hindi to be much more expansive. This is where the cinema has played a key role in culturally uniting us. There should be one language so that culturally we are all together. Be it Telugu, Tamil, Marathi, Bengali, Assamese or any other language of India, since we are bound by a single identity of an Indian, it would be a huge benefit to have one Indian language in which we can understand and approach each other. The importance of regional languages is immense, but for the purpose of ease of communication, the adoption of Hindi would make matters much simpler.

**YT:** You've written lyrics and dialogues for the Doordarshan series of Jungle Book and Alice in Wonderland. How is children's writing different from any other form? How does your approach vary when you cater to different kinds of audiences?

**MG:** I feel like there is very little work done for children's literature in India. It is tragic that most of it is just translated work from other countries like the US. We picked up Jungle Book and Alice in Wonderland. The writers, authors and poets in India have always kept a casual approach towards children's literature which should have been treated with much more responsibility. Bengali, Malayalam and Marathi are the three exceptions that stand out where there are quite a few authors that work on poetry and stories for children.

We say that the children are the future of our world but most of it is just words without any meaning. We are not involved with our children in the way that we should be. We should be

working for them and their development. Authors like Sukumar Ray and Satyajit Ray display exceptional calibre as their entire dynasty is written for children. Even their grandfathers have contributed to the legacy of children's literature and it spans across generations. A similar thing should have been seen pan-India. We have focused on dubbing animation films of the west rather than producing animation films in India which our younger generations could relate to. The variation of art seen in India, right down to the Rangolis we see decorated outside the houses prove the potential that India has in animated films. In reality, India should be a leading country in terms of its animated movies, but we have failed to make any major impact. I hope in the coming years, your generations can make great strides in this field.

**YT: An entire generation has grown with your words as those who sang 'Lakdi Ki Kathi' now sing 'Tujhse Naraz Nahin Zindagi'. Do you feel that words and music hold a grip over the people that are inseparable from life?**

**MG:** Music is an internal part of our culture. Take a very simple example, even the milkman that comes to our house in the morning is singing songs on his cycle. The vegetable vendor roaming on the streets always has a tune on his lips. We have had a culture where music is not just a part of our lives but also death. We sing 'bhajans' to pay tribute to their lives and their legacy. In the morning our mothers are singing bhajans while doing the various chores of the house. The toiling farmers in the fields and working women in tea gardens all are bound by a single emotion of music that keeps them distracted from the hardships. We have often resisted music inside the films of India but the presence of songs makes these movies more Indian because it's an age-long tradition of the Indian cinema.

Our marriage ceremonies have music integrated into them and serve to bind souls together. Music in all religious occasions and get-togethers is a part of our tradition.

The influence that artists like Lalon Fakir and Nazrul Geeti have on our society, both as singers and writers is unparalleled. The Rabindra Sangeet, to date, is one of the most known songs throughout India due to the impact it has on our culture. Even theatre has adopted portraying Indian Classical music on the stage as actors sing out their roles in musicals.

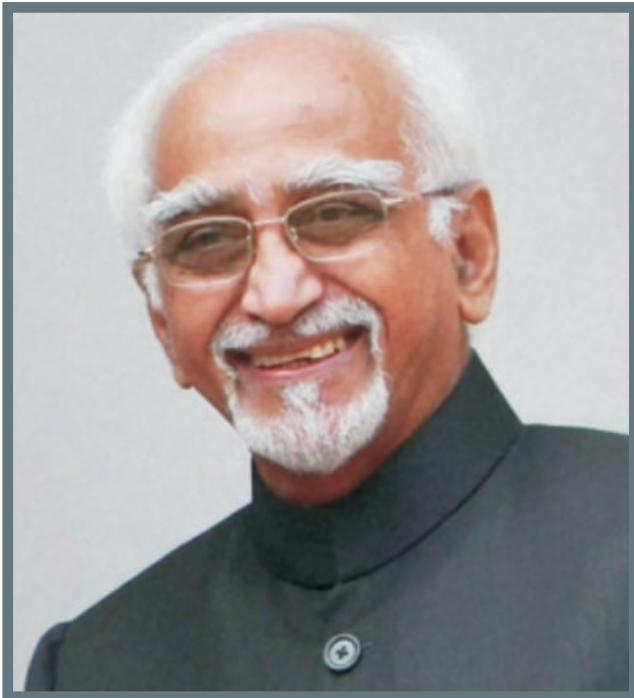
**YT: You wrote the anthem for a peace initiative between India and Pakistan, promoting sincerity between the people of the two nations. Did this initiative have a personal attachment to you and what were the emotions that you went through while writing this piece?**

**MG:** The meaning of a piece of writing varies from a person to another. I wrote something that holds significance to the people of Pakistan because they could relate to my words. Today, I share the poetry of Sir Muhammad Iqbal and also the works of Rabindranath Tagore. The mastery of Tagore comes to light when we consider the fact that he has written, not only the national anthem of India, but also of Bangladesh. Bangladesh could've adopted any song by one of the laureates but they chose Tagore's work because they found meaning in it. They could attach their sentiments to his words. Meanwhile, Dr. Iqbal has not only contributed immensely to Pakistani literature, but also written 'Sare Jahan Se Accha'.

Fine Arts are like rains and rivers. They are eternal and cannot be stopped. It is a value that we share with people all over the world.

**YT: Your art is intertwined in the lives and hearts of lacs of people and the students of St. Xavier's College (Autonomous), Kolkata are no different. What message would you like to give to them?**

**MG:** I would like to tell you one simple thing. I am your past. Hold my hand as you move further and don't leave me behind. I want to keep on walking with you on your path. I want to cope up with your generation and learn about them. Hold my hand and take me along with you.



## MR. MOHAMMAD ANSARI

Former Administrator and  
Diplomat

Interview taken by  
Soham Chakraborty, Reet Nahata and  
Saksham Dalmia

**YT: Your diplomatic career spanned over 38 years before shifting to an administrative role as the Vice President of India from 2007. Was there a particular reason for this shift and how did the responsibilities in the two roles feel different?**

MHA: No; the reason for the shift, as you call it, is very simple. I joined the Indian Foreign Service and like all the Central and State Government services, there is a fixed period during which you serve, age-wise. I reached the age of 55 in 1995 after which I was asked to continue for almost three and a half years. My tenure finished in 1999. It was a perfectly natural parting of ways because when I was on leave from December 1999, I was on the list of retired diplomats or retired bureaucrats, depending on what you call it. After that, I was a free man. I wanted to think and do something else. I had an offer from Jawaharlal Nehru University to serve as a visiting professor. I readily accepted it. However, after a few months, I received another offer to become the vice-chancellor of Aligarh University. I had

been to that university as a student and the idea of going there was irresistible. So, that was the beginning of what you might call a career that was partly academic and partly administrative.

**YT: Your family was part of the freedom struggle as you inherited the legacy of the former president of the INC and a freedom fighter. What influence did it have on you growing up and what made you not follow the path, shifting towards a diplomatic role?**

MHA: In 1947, my siblings and I were small kids of age 8 years, 10 years and 12 years. Thus, everybody was familiar with the freedom struggle; everybody was familiar with the great leaders of the freedom struggle and it had a great impact on us. So my family's influence was a part of the impact on my mind while growing up, which attracted me to shift towards a diplomatic role.

**YT: You have had an eventful tenure of serving as the Ambassador of countries like the United Arab Emirates, witnessing a drastic change in**

**the world's geopolitical situation. How do you feel the dynamics of the world have changed since your tenure?**

MHA: Well, I feel that it hasn't changed. It has perhaps become a little more complicated. Since the turn of the century, there have been violent conflicts in the Middle-Eastern region. The war in Iraq, the on-going conflict in Syria and the conflict in Yemen - all of these are resulting in political fights which end up causing great harm to the public at large. The dynamics are not pleasant, but there is no end to it in the immediate future.

**YT: You are the first Indian Vice President to serve during the terms of three presidents, seeing the internal dynamics evolve greatly. How do you think the state of the country evolved during this time period?**

MHA: No, the relationship between the Vice President and the President of the Republic is of a formal nature with separate functions. Nowhere did my functions overlap with that of the President, or vice-versa. My formal job was to be the Vice President of the Republic and, by the virtue of it, to be the Chairman of the Upper House of the Parliament called the Rajya Sabha. So, I had my duties cut out clearly. As the Vice President, I was number two in the pecking order of the Republic so I did all the things that are expected of the post- to shoulder certain responsibilities including the responsibility of traveling abroad on behalf of the government.

**YT: Serving as the Permanent Representative of India to the UN, you made great strides to establish India on an International Forum. Do you feel that the UN has lost its relevance as a democratic platform for discourse and what importance does India play in the global scenario? In your opinion, should regional organizations be the focus of India in order to put forth her interests closer to home?**

MHA: No, I did not do anything unusual. India has, since its independence in 1947, taken interest in international affairs and has always put forward its own unique view while playing its role in the United Nations. The United Nations is a body where you do several things at the same time. Firstly, you participate in discussing various issues that are of relevance to the world today. Secondly, you articulate India's viewpoint. Thirdly, you safeguard the extent of India's interest in each one of them. India before me and India after me in the United Nations has always played an active role and will continue to do so.

Yes, regional organizations are important; in fact, they have greater relevance because the global agenda has shifted and evolved. It is not just an agenda of peace and stability. It is now an agenda which has a great deal of commercial and environmental interest in it as we see at the moment, with the COVID-19 pandemic. People didn't pay attention to pandemics a few years ago. Today, everyone's attention is grasped by the crisis. So, the global agenda has become very relevant - more relevant than it was before and I must say that our own region, that is the South Asian region is not as active for a variety of reasons as compared to other regions. For example, take South East Asia - the ASEAN countries. They are very closely involved with each other politically, commercially and in other manners. Countries in Western Europe are integrated, and even countries in Africa - East Africa, West Africa and North Africa are very integrated.

The same holds for North America. Thus, we in South Asia are lagging behind for political reasons. The sooner we address the issues, the better it is for us.

**YT: You have often opposed the foreign policy of India, especially on its stance on Iran and Iraq and India's vote in the IAEA. Do you believe**



**that India stayed true to the Non-Alignment policy it adopted post-independence and what problems currently persist in its stance on international affairs?**

MHA: No, let's not say I opposed the policies of the country; because, after all for 40 odd years, I was the channel through which the policies were articulated. But for specific issues that I have, and for that particular reason, I feel that given the totality of India's interest with that country, it would have been better for us to not have voted against it. I think it would have been better if we had abstained. After all, the three options are always available in any International forum. You can support, you can oppose, or you can abstain. If you are not comfortable with supporting something nor have good reasons for opposing it, then it is advisable to abstain from voting.

**YT: You have served as a visiting professor in various prominent universities and served as the vice chancellor of the Aligarh Muslim University. With corporates complaining that universities are churning out unhireable graduates and graduates complaining that corporates have unreasonable hiring requirements, do you have any thoughts as to how this dynamic could be changed?**

MHA: We go to a place of higher learning called a university or a college because we want to widen our horizons and our understanding of the world. We also want to acquire a certain skillset. We don't go to a university only to be trained for a corporate job. We go to universities to expand our mental horizons. I may study philosophy, for example, which is a different world; I may study economics, which is a different world; or I may study accountancy for a professional job which requires me to acquire certain special skills. So from the point of view of the corporates, they are looking for a workforce with different sets of expertise. If you have studied and acquired

those skills then by all means it is excellent. But the corporates are right in saying that they want a certain degree of proficiency. If you are an accountant, can you afford to be an indifferent accountant and cause enormous problems for your employers? The same goes for when you are an engineer; can you afford to be indifferent in your performance? Thus, to join corporates, you are required to have some skills through which you can change yourself. So, both are right in the sense that the universities aren't only there to train people for corporates. However, there are excellent examples for when someone has no formal education but still does well in life. The city of Calcutta is full of such people. A balance has to be struck between the requirements of a university education because, if the only job of a university is to train people to get into big five star commercial companies, then they are not doing their job.

**YT: As you held various positions and also as the Vice President of India, did you ever feel that you had to compromise on your personal dreams?**

MHA: No, I did not. The point is, you must have the confidence to say what you believe to be true and what you believe to be correct. Simply because somebody who is superior to me in ranking says that this is the correct way, you are not obligated to do so. You have a mind - you have a trained mind to reason and understand, and therefore, any participation in the framing of an agenda or articulation of a viewpoint must be done freely on the basis of being well informed. I did not face any such problem, either as a professional diplomat or later in life in other professions including the Vice President of the Republic of India, where I felt that I was being constrained in any manner. I articulated whatever I felt was proper.

**YT: Having held the position of the chairman of India's National Commission for Minorities,**

**you've fought a long battle to uplift the Dalits of the nations and gained recognition because of your role in aiding the victims of communal riots. What motivated you to work towards this social issue amidst your diplomatic and academic career?**

MHA: The National Commission for Minorities is a constitutional body. It has a specified set of duties with regard to the minorities in the country. Everything that the commission does, emanates from the principles of the constitution of India and the laws of India are made pursuant to those principles. It is a difficult job because out of the total population of the country, only 20% consists of religious minorities, and each minority has its own individual interest, its own individual requirements and problems. They have to be accommodated in terms of the constitution and law of the country. But they constitute 20% of the population of the country, which means that every fifth Indian belongs to a different religious faith no matter which part of the country they come from. His faith may be different but he is still a citizen of the country, and because he is a citizen of the country, he is entitled to all the benefits, all the rights as well as the duties which a citizen is required to undergo.

**YT: For years India has been trying to implement a Uniform Civil Code to establish a common set of rules to govern each citizen. Do you feel that this goes against the principles of sovereignty and equality as not all groups face similar issues in the modern society?**

MHA: First, we have to understand what we mean by a civil code. Broadly speaking, the law in any country of the world is the set of laws of two kinds: one is called the criminal code which consists of offenses of criminal nature; and the other, known as the Civil code, basically covers four things: marriage, divorce, inheritance and adoption. Now in our country, where the population is so huge, the marriage, divorce,

inheritance and adoption practices are different. The principle of a uniform law can apply under criminal law for if you indulge in an act of violence, you will be governed by the same set of criminal law rules. However, when it comes to marriage, inheritance, divorce and adoption, each person, under the secular laws of the country is entitled to his or her own rules of their community and their belief. So a Hindu gets married under Hindu customs and a Christian gets married under Christian customs. Muslims, Sikhs and other religious groups do likewise. So when we talk about a uniform civil code it means that everyone will have to observe the same rules and that there will be no more Hindu, Muslim or Christian marriage. Our public is not ready to accept this as of yet. Many years ago, a distinguished professor of law participating in a discussion on the matter of a Uniform Civil Code, asked for a draft of what might be the Uniform Civil Code. Would the laws of inheritance of the Hindu community be the same as that of Muslim community or Christian community? Furthermore, even within the communities there are some divisions. So, one day, the laws of inheritance of this section of the population may be the same as another, but we can't rush it. Someday thinking and practices will evolve in a certain manner in which marriages, divorces, adoptions and inheritance will follow the same norms. However, today we don't have it in the country and I don't see it happening tomorrow or the day after.

**YT: Your passion towards the country and your unparalleled ambition to resolve the various issues we face today has been a source of inspiration for lacs; the students of St. Xavier's College (Autonomous), Kolkata are no different. What message would you like to give to them?**

MHA: Well I can only speak about what I did in college. I studied hard and I got very good grades. My

extracurricular interest was particularly in playing cricket. I played for the college and most afternoons after finishing my classes, I would walk down Park Street to the Maidan area in one of the clubs and practice cricket. Thus, college is an institution that inspires you. The teachers of those days and the teachers of today have a commitment to the cause and therefore, the same is transferred from the teachers to the students, who are actually fortunate enough to get into the college. I recall, in my days, most of the teachers belonged to the Society of Jesuits who were from Belgium. I couldn't really understand why these people from a far off land came to India and spent over 20 years just dedicated to teaching here. It was great to see them here and I admire their dedication. Many years ago when I was a diplomat, I went to

attend a ceremony in a village in Belgium, from where all of these teachers came. The village was holding a special celebration because one of their sons had gone to India and was returning after 25 years. So as a representative of the Indian embassy, I was also there. After the ceremony, I was given the honour of meeting the family of that particular teacher. The family consisted of an old mother of about 90 years. I had only one question for her - "Did you miss your son for these 25 years?". She said, "Of course I did; but I knew that he was doing god's work". That one sentence made me understand why the dedication was there in the teachers of those days and I am certain that that dedication is there in your teachers today. That is what makes college life unique.



## MS. MEDHA PATKAR

Social Activist

Interview taken by  
Rishika Saria, Abhimanyu Kakrania and  
Saksham Dalmia

**YT: Your father, Vasant Khanolkar, was a freedom fighter and labour union leader. What influence did he have on you in terms of what you wanted to do in your life and what was the biggest lesson you took from his work?**

**MP:** When my father came out of jail, he immediately started organising the leaders from our small house of one room and a small kitchen in Mumbai. I had always attended the various meetings of workers that my father used to hold. That, I realised, gave me an understanding of the strategies involved in dealing with people, in organising and motivating them. I also witnessed his conversations with many industrialists. One event I will always remember- a man once came to give us a box of sweets during Diwali, and my father just threw it away. My mother and I were shocked. How could he throw away food like this? He said that we won't understand. "These industrialists refuse to pay bonuses to their workers but they'll bribe me", he said. He was always very strict about this. He said, "Don't work with the organized sector workers. Work with the unorganized sector, who are more deprived. You

need to concentrate on the people who are more in need." He once lost the elections because the other candidate offered puri bhaji to the people, which turned the votes against him. These days, you need to offer laptops and „mangalsutra? for that. He was always aware of the degradation of electoral politics. Once, I remember, I was ironing my clothes and he said, "If you keep ironing your clothes for going to school, how can you work for the common people, in the rural area?" I learnt a lot from him. He taught me commitment and to keep working till my last breath.

**YT: It takes a lot of courage to sacrifice whatever you have achieved to fight for injustices being faced by someone else. You left your PhD unfinished when you decided to immerse yourself in this movement. What inspired you to take such a bold move?**

**MP:** I completed my studies upto M.Phil and then started working on my PhD. After working for a year or two on that, I started reading up about social sciences. I switched from physical sciences to social work and social sciences on which I was doing my PhD. I read about the concepts of



development and the works of Spencer, Humphrey and Parsons which served as an inspiration to me. I was always encouraged by my teachers in the Tata Institute of Social Sciences to not leave my PhD halfway.

However, when I started doing my fieldwork along with it, I realised I can't stay away from the fieldwork. So I started getting involved in it and it went on for a long time which made me think I should leave my degree. I got immersed in the work involving the urban slums in Mumbai and so I left my PhD in the middle.

**YT: You worked as a member of the faculty at Tata Institute of Social Sciences but left your position to take up the fieldwork. What do you think is the difference between a desk job and actually being in the field during social work?**

MP: I am fond of both academic work as well as fieldwork. However, once you see the faces of the deprived population, you cannot stay away. This might not be the best work. But then doing mere academic work would not help me in bringing the change I envisioned. Anyone who can afford to do fieldwork, or is confident enough to work with the poor communities must do so. Once you get older and tired, you can certainly be on a different forum. But that was the time when I could work whole nights and face all the challenges, be it community conflict, casteism or the State not responding to my appeals. My thinking is that, if you can take it, then you must be with the people. I have never repented the decisions taken at that time.

**YT: The World Bank was actively involved in the initial stages of the Narmada Project but failed to address any of the social issues that were being faced, until your testimony on the Bank's role in 1989, which created immense pressure leading to the withdrawal of most of the support. What kept you undeterred from your vision and will to seek justice that you were fearless in your protest against one of the biggest institutions in the world?**

MP: Oh, this is a really long story. The World Bank had always been the hidden force, the strong force in the planning projects. Being an international financial institution, it analysed thoroughly, their functioning, their influence, their investments and everything else. It all began when I was reading the documents related to the Sardar Sarovar Dam Project; that was the phase when simultaneous community organisation of the Adivasi areas was going on. When I got the documents for that, I also got the documents related to the World Bank. I went through those appraisal reports and found that the whole objective they had put forth was once they enter this project, they would get an entry into the whole river valley. That should not have been their objective. In their entire analysis report, there was only one paragraph on the rehabilitation of people.

There were hundreds of communities which would be affected by one single dam and others by the irrigation channels of the same yet they were not being rehabilitated. When I realised that, we started asking questions. Some of the NGOs really came forward when they understood the situation. I wrote some articles. My colleagues did the same. Eventually, a person from the USA, who was working on the World Bank issue, came and visited the village and he saw the condition of the people living there. Some of these NGOs and environmental organizations also took up the cause against the management of the World Bank. I was then called to the USA and given the opportunity to speak in front of the United States Congress, after which the World Bank was told to rethink and revise the project. They said they would rehabilitate the people in six months but we challenged them on it. There was no way they could rehabilitate such a huge population in only six months. The International Commission that came after that did a wonderful job in reviewing those reports. The World Bank finally withdrew in 1993 and they also established an inspection panel. Now, anyone who is affected by a World Bank project or wants to question any aspect of it

can approach the inspection panel and the panel will look into it independently. All in all, the project that would have been completed in the 1990s, got completed in 2017 giving time to rehabilitate the lakhs of people affected by the dam. We got the time to fight this battle on the ground and in the court. But it is certainly a story that tells us how international financial bodies influence the whole process of planning development projects.

**YT: It took almost four years for the movement to take shape back in 1996 with efforts being put in by the senior activists and a long national tour of 15 states. What was your motive behind starting the National Alliance of People's Movements and what drove you to continuously work towards it?**

MP: The times were changing. The states were not responding to people's struggles. We had thought about starting a common platform which gave rise to the Jana Vikas Andolan. It wasn't, however, as successful a movement as we expected it to be since there was a lack of effort to evolve a common stand. But soon after, communal violence like the Babri Masjid demolition started taking place along with the introduction of the globalization and liberalization policy, then called the 'New Economic Policy'. It was facing a lot of criticism and was found to be a very dangerous move for the future of India. So we, a small group of 20 to 25 people, decided that we would start an alliance of people's movements and organisations in India, instead of it being one single alliance or movement. The whole idea behind it was that we were united. It helped us in being complementary to each other's movements. Some were fighting casteism, some were fighting issues of natural resources while others were fighting the issue of globalization. We have human rights organizations, dalit organizations, labour organizations and many more in NAPM. The fact that we had a common strategy and complemented each other's movements and organizations was our strength.

**YT: In 2004 you had initiated the People's Political Front more popularly known as the Lok Rajniti Manch, however, did not participate in it as an active politician nor stand for the elections despite the requests of most of the members? What was the reason that prevented you from contesting elections and entering the political scenario at the time but then contested elections later on behalf of the Aam Aadmi Party?**

MP: For all these years, we had this opinion that politics consisted of degradation and valueless, ideology-less alliances, along with the corruption that was prevalent. It was always thought that bringing transformation through the path of politics isn't possible. Even today, many people question the same. We were convinced by Yogendra Yadav and Prashant Bhushan, who thought that we should take the initiative at the forefront to provide an alternative to the present kind of politics and the parties. We were doubtful whether we could win this battle because many have tried and lost. While a few exceptions did win, we saw that our questions hardly got truthful answers when raised in the parliament. At the end of the day, we had to fight the battle outside the parliament. That is what really mattered. Aam Aadmi Party's movement with Anna Hazare on the corruption issue and the subsequent victory in the Delhi elections created an environment of hope for us. But when we joined the party and fought the elections, most of us lost. The Delhi Government also did not provide much support to the state-level organizations. Many activists felt that there was a lack of commonality in our vision. Although AAP is doing good work, better than some other parties, there are still various issues and problems. Prashant Bhushan and Yogendra Yadav have also left. Most of us, after our experience with elections, felt that we should go back to the path that we were following. Today, as we look back, there is no regret as many politicians now recognize that nothing can change without the strong movements of the people.

Unless there are some serious political reforms, I don't think people like us can win the battle. Vote Banks are created based upon casteism and communalism instead of genuine support for a politician's causes. Even inside the Houses, there is barely any serious discussion.

**YT: As a commissioner on the World Commission on Dams, you had the opportunity to work alongside Nelson Mandela under whose patronage, the report of the socio-economic and environmental aspects and impacts of large scale dams was published. What was the experience like to be a representative of the country on a global level along with other world leaders and what message would you like to convey from your findings there?**

MP: I did not work directly with Nelson Mandela. I worked with his colleague named Kader Asmal, the water resource minister of South Africa, who was a great man. He was the Chairman of the Commission and twelve of us were members. Mr. Mandela came to release the reports in London where we met on the dais in the presence of the World Bank President. It needs to be mentioned that the water policy of South Africa is much better as the minimum magnitude of water is given free of cost to the needy population and as per the increase in the usage per unit, the charges are increased. That kind of equitability in the policies of the water or power sector is a must. Kader Asmal really appreciated my perspective and presentation because he was also a politician and I led people's movements. The whole experience gave an enriching idea of how we can peacefully work with each other in spite of our differences and how the thorough analysis and the in-depth studies, which had been conducted by us for the first time on dams, was useful. People tend to debate endlessly on it, but it is necessary to form a vision and perspective to change the opinion of the power holders with the proper research.

**YT: The NBA has been running Jeevanshalas-schools of life, since 1992 with about 5,000 students have passed out and many graduated. Tens of them are under training in athletics and**

**some have won many awards. Being at the forefront of this movement, what do you think were the appalling obstacles faced by you?**

MP: The hilly areas of the Satpuras had 13 schools running but it was all on paper. In reality, there were no schools running. That is when we started the Jeevanshalas. We tried to convey to the government that the money is being wasted and that not even 2% of the youth received education. The system was corrupt and flawed and did not work effectively. We decided what the schools would be like along with the curriculum. We even got various educationists like Krishna Kumar, Anil Sadgopal in our first meeting. We then decided that we should have Adivasi teachers who would use the regional dialect to teach. We also included extra curriculums into the curriculum and taught them about forests and rivers. It took a long time to train the teachers as new batches continued to come along with a lack of support from the government. Our work was recognized only after twenty years. Until then, the government insisted that we hand over all our material to the panchayat who, according to them, were already running schools. In reality, these schools were showing fake results and reports to the extent that their list of students consisted of dead people studying in the fourth grade. Despite donations from some organizations and communities, we still face the problem of proper funding. However, with time, the students have achieved various milestones and some of them held ranks in various competitive examinations. People who questioned us now realize that the students have not only excelled in academics, but also in extra curriculums.

**YT: Which social or political issue is most important to you today and what do you wish to achieve with regard to that matter?**

MP: In today's age, inequity is the main issue that needs to be tackled but everything is going exactly the opposite way and many activists are worried about it. If they are not behind bars, they are speaking out and raising their voice but the democratic space that has been granted by the

Constitution of India and the directive principles that the Government has to follow and be duty-bound to, is fading. If you cannot challenge the government on those principles in the court then they should be removed from the constitution and amendments must be made. But the rulers who hold power tend to not follow the constitutional framework, and hence, change should be brought in favour of the needy for which we would need to change the mindset of the society at large with successful experience of strong united communities and alternative technologies in various sectors. This scope should be present, for if this isn't allowed by the State, then nothing remains. The cooperative sector should be considered as an alternative between the state-owned and corporate-owned processes, that is labour intensive and not capital intensive. But with the rise of corporates, these are not likely to survive as they are taking over every sector and looting the people's sources of livelihood like the natural resources by mining. The acts in the country state that the minerals have to be in the public sector, but nothing has changed with the big corporations taking over which is shocking and challenging.

**YT: Having changed the lives of millions of people for the better, you continue to serve as the beacon of hope and inspiration for millions of others; the students of St. Xavier's College**

**(Autonomous), Kolkata are no exception. What message would you like to give to them?**

**MP:** Your focus should not be limited to your corporate job. You should also pick up community work and help in dealing with the basic issues in the country. At this stage, we cannot leave out technology, but we must also work to support the exploited population who are facing injustice. So, bringing equity in justice should be the motto of life. Even though you might think that it would be really difficult to go ahead with it and it might not be possible, I believe that nothing is impossible. There are various paths open and you should choose whichever you feel satisfied with. Never take up a path or join a movement with the glamorous idea of it; rather take it as an experience, as an honorary work, with and for the society. Unless one practically stays with the poor section of society, one cannot know what their world is like and bring about a change. Rather than being afraid of how to bring about change, you should take up the challenge and start the process. Even when you grow up and start a corporate job, you have to take risks of uncertainty. It is the same case here. If you believe that you can tackle inequity and injustice and not allow any discrimination, exploitation and natural resource destruction, then you should take up the job. Things start coming your way and the plan as a whole works out.





## MR. SHAAN

Singer

Interview taken by  
Rishika Saria, Ayush Tharad and  
Reet Nahata

**YT: Growing up in a household filled with musicians, the path was set for you to enter into the industry. What inspiration did you draw from your immediate surroundings? If you could have chosen an alternative career path what would that have been?**

SM: Honestly, I would be the fourth generation in my family who was into music - my father, grandfather and great-grandfather preceded me; so that would make me fourth in line. Without seeing that kind of success, I would not be encouraged to get into music myself. Since I lost my father early, I figured at an early age that I needed to get myself a job, and that I could not sit around merely thinking that I am a great singer and that I am going to become a famous singer. I started doing a lot of other things and also started a business. I started a small company where we used to create printable materials like visiting cards, letter-heads, and even making the layout and design for books and magazines. This business was doing quite okay; but in the meantime, I think music came much easier to me, and I used to sing jingles and people eventually came to know about me. I kept getting

calls asking me to sing and eventually, I realised that people seemed to like what I am doing and it was then when I said to myself that if I take this path more seriously, I might be able to make a successful career as a singer. So music came to me, I didn't go to music. It literally was my lifeguard - it saved me. Without it, I would have been sitting somewhere right now, typing something or doing an odd job.

**YT: You have been a coach and a judge for singing competitions such as The Voice India and SaReGaMaPa. In your opinion, what role do these singing competitions play in facilitating the growth of the music industry in a country like India?**

SM: Well, if you love music and are someone who really wants to learn about it in-depth or want to know where you stand as a musician or a vocalist, then these competitions will help you a lot. It puts you out there on a national platform where you compete with one of the finest talents, so it really gives you a perspective on how good you are in what you do. What you make of that is a completely different ball game. When you come

into these competitions and end up winning in them, there is no guarantee that you will become a super-successful singer. People know that you have potential, but potential is not all that one needs. You also have to have perseverance, you need to have determination, you have to have a lot of patience sometimes, and a sense of commitment towards what you do. Once you put all these things together, then success will definitely come to you. It is surely a good stepping stone and a great way to gauge your talent and get to know how good you are. It's an eye-opener for many people and some of them have definitely done great. However, if you think of it, you have 3 to 4 music shows every year and that makes almost a hundred new voices coming in every year. This does not mean that everyone will get absorbed into the industry. So some will be left out, and some, maybe not initially but in a few years time, might make their mark. It all comes down to sticking to the qualities and virtues that I mentioned. They should have that determination, that commitment, the love for music and the fire in their spirits to want to prove themselves.

**YT: The music industry in India is quite different from the others in the sense that it revolves entirely around Bollywood and solo artists do not enjoy such levels of fame as the ones working in Bollywood do. What do you think is the reason behind this and what do you think could be done to place both on the same platform?**

**SM:** It's a mindset thing primarily. I have not done many Bollywood songs in the past six to seven years so a lot of people say that they haven't heard me for quite some time. But I have been releasing songs more or less regularly; be it on my Youtube channel, or be it through any social awareness song. There are so many other songs and if you look for them, you'll find them. It's just a mindset that people in the country have developed that a song qualifies to be a song if it is sung in a Bollywood movie, or else it doesn't. There are several singers, especially regional singers, who are doing quite well - folk musicians, classical

musicians, musicians who sing their own Indie music. It's just that we have changed our mindset and we need to look out for music outside Bollywood. Anyway, I feel that the Bollywood music right now has become very streamlined and very prototype, revolving around similar item songs. There is nothing personal about these songs anymore. Rarely do you find any song that is personal or one with which you can connect on a personal level. Earlier, Bollywood songs were made with a purpose and to move the story forward. Now, they are making Bollywood songs as if they were coming out of a bank and there are many songs which do not even connect to the film they are being played in. People are still in the mindset that if it's a Bollywood song, I am going to listen to it. The song is attached to a film in which they have spent crores. Whereas, today a song can be created in literally a few lakh rupees. When it gets attached to a bigger picture, the song automatically seems to look bigger than it actually is, and this is why the people want to connect it to a film. So it's just a mindset thing and once this mindset changes, things will get easy. If people start listening to songs for the sake of the song, and if they start enjoying the vocals for the sake of the song rather than who has sung it or which film the song associated with or which actor is performing on screen, there can be a change. But it's a tough call because at the end of the day, people are looking for entertainment, they are not looking for music. Music is a part of entertainment. The more the people look at it from this viewpoint, the more difficult it will be to compete with Bollywood.

**YT: You have been releasing singles on your YouTube channel since 2017. Do you think artists need to adapt to the changing technology and trends to stay relevant and be successful? Does this open up more opportunities for artists by giving them more visibility? Does this also help them diversify their revenue streams or make them further vulnerable to plagiarism?**

**SM:** No, you are not vulnerable to plagiarism because once you put the song on Youtube, the song is

yours, unless of course you have plagiarised it yourself! After you've put it on YouTube, if someone is using your song or your material, you are free to sue them. There are courts to go to and you are sure to win the case. Do not worry about plagiarism, if you have a good song, just put it out there because with trends changing quickly, if you keep a song with you for too long, the thought itself might become obsolete and you might lose out on a good song that people don't want to hear anymore simply because it is outdated in its content. So definitely use YouTube. I, for one, being an established playback singer or a singer who has been releasing albums in CDs for all these years, feel that people might not have that much of an interest in listening to my original songs but I still continue with that because it gives me a lot of satisfaction and it gives me a lot of creative freedom to put out songs that I want to put out. At the same time, I also enjoy making videos. For a new artist, I feel that it is the perfect way to begin because instead of sitting there and making covers without any creative freedom, through such a platform, you can end up making great singles and great originals. There are so many artists who have done well following this path - Punjabi artists like Arjun Kanungo and Gajendra Verma, and many other artists who have come in with their singles. Even though Neha Kakkar has made a big mark in Bollywood in terms of success, her biggest breakthrough is still a non-film song which was produced by Tony Kakkar, her brother. All these people are the best examples of individuals who have done perfectly well by releasing their songs on YouTube. Thus, I would definitely encourage people to go out there and post their original songs on YouTube, because at the end of the day, you create your own audience. Don't worry about music companies, don't worry about films.

**YT: Having been in the industry for more than a decade, you must have seen a number of trends rise and fall. Is there a particular trend which you wanted to continue or, alternatively, is there a trend which you think needs to discontinue? What made you stick to your core**

**and specialise in it rather than diverting your attention towards being a part of some of these trends?**

**SM:** Trends are something that I have been dealing with since the beginning of my time in this industry. In the late 90s, Indie-pop came in and that is what got me into the industry as a part of the Indie-pop trend. Then, remixes came in and I did quite a few remakes as well - like old songs of Kishore Kumar and Mohammed Rafi. With every two or three years, there were new trends. I tried to stay versatile and so I managed to blend into quite a few of those trends. For example, songs which were part English and part Hindi came in, and following that item songs came in and I managed to pull off both. The one genre where I probably didn't quite fall in place was the Sufi genre because I didn't really do too much of that stuff, and of course, the Punjabi bhangra songs, for obvious reasons! Having said that, I would like to think of myself as a versatile artist and not as one who has stuck to my strongholds and not tried to shift from that. So I think I can cover quite a few genres and I enjoy doing them- whether it be Hip-Hop and other western styles of singing, or the pure semi-classical way of singing, or maybe soulful and dance genres. I think one must explore themselves to the fullest as an artist and not merely run the race in the direction that is working for them. If you are a true artist, you are going to feel saturated doing the same thing again and again. I cannot imagine that there are artists and songwriters who have been singing the same type of songs, with a few words here and there, having the same tune. Someone has to tell them that they have been singing the same song for ten years now. However, they get continued success, so you can't really say anything. People like to type-cast. The audience likes to put you in a box and make you do the same thing again and again. As an artist it is not fulfilling at all, despite the fact that it may work commercially for you. It won't work for you as an artist and you won't be remembered. If Madan Mohan Ji or the great RD Burman conserved themselves as one-dimensional artists,

they wouldn't have been remembered till today. But their amazing work across the gamut is why they are remembered. So you must stretch yourself as a musician. Trends come and go but the true artists and good music will always stay. It's just like the waves of an ocean- they come and then pull themselves behind, but there are always beautiful shells which they leave behind!

**YT: You've previously mentioned that music directors tend to avoid established singers to bring some novelty into playback singing, and are overusing auto-tune softwares to make any voice sound better. Do you believe that this tampers with the purity of music and dilutes the recognition of artists who avoid the usage of the same?**

SM: Autotune has now become the mainstay of any song, so much so that you can see internal tribes singing folk music using it as well. People now have gotten so used to autotune that if they don't hear it, they might just find the music outdated and stale. When it came in, it was extremely jarring to my ears and it was very disturbing to see that almost everyone is using autotune but I think I must admit, I have gotten used to it now. It is just like urea, or one of those pesticides, which they use just to ensure that they do not lose the crop - whether they're good or bad is not the point; it just helps to maintain the standards today. That is why they use autotune. Having said that, composers are using new voices and that is something that is very much welcome because when you hear a song and you hear a unique voice with the song, the identity of the song becomes even stronger. If you hear a voice that is singing every other song, then the compositions might turn out to be just another song. The song will not stand out like that. For example, someone like Rahat Fateh Ali Khan or Atif Aslam, do not sing many songs, probably three or four a year, but because their voices come in so sparingly and selectively, all of their songs turn out to be a hit. Sometimes it just works for the song if you use a very different voice, but if you overkill it with the same artist again and again, it becomes just

another song like the ones you have heard before and the song loses its identity.

**YT: Most of your songs are famously composed by yourself. With such a hectic lifestyle, including professional and personal commitments, how do you happen to find the time and inspiration to write down lyrics while a number of artists outsource it?**

SM: When you mention most of my songs, I think you mean most of my non-film songs because in the film songs, we really don't have that much of an option. We just go in as the singer and are given the song that we have to sing; it doesn't matter whether you like the lyrics or the tune - you just have to do it. When it comes to non-film songs, that is, songs which I have more control on, I like to take inspiration from a lot of Western artists or generally any artist outside India, since they are usually song-writers themselves, unless they are those young dancer-cum-performer types. I would like to think that I would like a song when it has my name or identity to it. It would only make more sense if I wrote the song myself or if I was involved in creating the song. Just being there and calling it your song when you haven't written or composed or had any input on it feels like cheating to me. Ever since my first album, I started writing my own songs and composing them whenever I got the chance.

Even now, all the songs on my Youtube channel are songs that I have composed and a few of which have been written by me. But it's not so much about a hectic lifestyle. What is the point of talking about lifestyle if there is no creative joy? My lifestyle is only possible because I am a musician and being a musician has just given me that slight additional benefit. Having a lifestyle is not my life, music is my life. If I can't find time to write my music or compose my music and be involved with it, I don't want such a lifestyle.

**YT: With time, the musical industry in India has seen ground-breaking shifts in terms of the kind of music people tend to listen to, with rap and remixes gaining huge popularity. Do you**



**think that this would increase the audience of the music industry and how do you feel about the change since your personal style is quite different from it?**

SM: We have a population of more than 130 million, so we have the numbers in our country. Even a very niche genre of music will have lakhs of people enjoying it and they will have an audience. If you look at a pan-India scale, it still stands for the music which is rooted in our culture - the folk and classical, which defines our Indian ethos. There are new genres that people are really enjoying - like rap, and day by day it is shifting towards actual rap. Artists like Divine and Emiway, who are going forward with it are getting an increasing audience. But then Bollywood does have a habit of making a mixture of all genres in a single composition. Having said that, on a personal note, I feel that I don't need to be everywhere and jump into every genre to be relevant. What is important is that I need to adapt to what a young listener will like to listen to. If I stick to the kind of songs I was into in the 90s and the 00s, then I might not have an audience. But if I have to make an album today, I'll need to include a bit of rap and other modern trends. So I have to adapt to trends in my music while staying true to my genre and my own self as a musician. I cannot just force myself to anything

that is working because that is like pasteurization of my own creativity. I have to believe in it first, and if I believe in it, I will do it!

**YT: Your vitality and dedication has been a source of inspiration for lakhs of Indians; the students of St. Xavier's College (Autonomous), Kolkata are no different. What message would you like to pass on to them?**

SM: I think dedication for whatever you do is easy to understand, but where does vitality or that passion come in? That extra passion will come in when you live your life with a certain feeling of service to people. When you feel that you are not just living for yourself and not just to grow your own personal bank balance, but because you are a part of society and you have to make some kind of constructive contribution to society. This very thought makes you feel better and love yourself. It keeps your head high when you walk into a room full of people because if we live for ourselves, how do we give relevance and importance to anyone else? If you compliment someone and they smile and appreciate it, it makes you feel nice. So we need to have that kind of compassion and sense of service to society and people, and that will be my message for the students of St. Xavier's - don't just live for yourself, live for your passion and have a sense of compassion towards other people.



# How the News Ecosystem is Changing in India

Suvojit Bagchi  
Indian Journalist



Governmental restrictions, economic slowdown and the growth of television had shook the newspaper industry in the past, but never before was the survival of print in India questioned.



*Newspapers, or even television channels, will have to bypass Google and Facebook to survive. Question is — how do they do that?*

## ABSTRACT

This article focuses on the recent transformation in the landscape of news and journalism, wherein a shift from the traditional print towards digital news is highlighted. It outlines the setbacks that the Indian newspaper industry has faced, the reasons why the survival of print has come under threat, and the factors which are contributing towards its further downfall. The article discusses the attributes that have led to the surge of digital news, especially the demand and popularity of biased stories, and how the digital platforms facilitate the dissemination of such stories. The case study of the New York Times and its turnaround is used as a basis to examine how newspapers can adapt themselves to survive the evolving reality. Finally, the article spotlights a few examples of high-end journalism which has been facilitated by the digital platform.

**KEYWORDS:** Covid-19, Digital Advertising, Doxing, Journalism, Newsgathering, Printing press

Traditional journalism disseminated through newspapers has witnessed many highs and lows in India since the first English language newspaper — the *Bengal Gazette* — by James Hickey was published in 1779, and since the Indian language press started publishing in the first half of the 19th century. Governmental restrictions, economic slowdown and the growth of television had shook the newspaper industry in the past, but never before was the survival of print in India questioned. Over the last four months, ever since the lockdown began, the Indian newspaper industry which was running at a snail's pace has collapsed. The immediate impact was on the numerous employees who were asked to step down. The reason being an outstanding loss of revenue.

The Indian Newspaper Society, which represents around 1,000 publishers, expects that the industry may lose around \$2 billion by the year-end, which is almost half of its 2019 revenue. The revenue may come back to an extent once the economy recovers, but it is difficult to predict the size of the return as the economy is contracting. Naturally, the companies will cut the publicity budget, damaging the print further. This is worrying as newspapers are still credible because of the format which is 'fixed', as the editor of *The Guardian*, Katharine Viner explained.

This *completeness* is a newspapers' strength. Once something is published, it cannot be changed unlike in television or digital platforms.

'A newspaper is complete. It is finished, sure of itself, certain. By contrast, digital news is constantly updated, improved upon, changed,' Viner said. This *completeness* is a newspapers' strength. Once something is published, it cannot be changed unlike in television or digital platforms. However, challenges for the fixed format are growing.

The most critical factor is the growth of the news carriers — Google, Facebook and others. On one hand they carry news produced by someone else and on the other, they suck the lifeblood — the revenue of the newspapers. Newspapers, or even television channels, will have to bypass Google and Facebook to survive. Question is — how do they do that? Many feel that producing high value content with subscription from readers on digital platforms is the way forward.

One of the biggest turnaround stories is that of *The New York Times* (NYT), which was reducing jobs about a decade back, and is now posting serious profits in 2017-18. The NYT has managed to bring back what belongs to them, the revenue, by ensuring a smooth roll out — from free to non-free content — with the help of a cutting edge technical team. Indian papers ought to follow, but are divided about the model and not without a reason. The big dilemma is: are the Indian readers interested in high value content paying a price, when free content is widely available? It is not easy to answer this question.

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from free to non-free content — with the help of a cutting edge technical team.

Newspapers' biggest asset, its infrastructure, is also its problem. It is huge, as the industry is labour intensive with large editorial teams, printing press, circulation and marketing networks. Most of the papers subsidise the cost of production with advertising revenue. That source was drying up even before Covid-19 hit the world, while it was growing on digital platforms.

'Digital advertising in 2019 witnessed a 26 per cent increase over 2018 to reach ₹ 136,830 million, even as overall advertising witnessed a sober 9.4 per cent growth,' concluded a January 2020 report by *Dentsu Aegis Network*. In comparison, print grew by 4.5 per cent in 2019, indicating that the gap between print and digital is narrowing, with digital having a relatively small operation. Digital has one small centralised unit to commission and run the platform, while catering to consumers with audio, text and video content. They source content from contributors with a fee and far less overhead cost.

The other 'problem' of newspapers is, howsoever biased; a paper has a legacy to establish that it does not take sides — it is objective and unbiased. The readers, on the other hand, often love to read biased stories; they like campaigns for or against candidates. Large section of digital is designed to excite and polarise people, which is exactly the opposite of what newspapers tend to practice.

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The public demand for biased information has created organisations such as Cambridge Analytica (CA), which studies and modifies behavior of users for political parties. CA, which is now defunct, and similar organisations, use psychographics to create stories, often to swing elections.

'These stories and incendiary posts bounce between social networks, including Facebook, its subsidiary Instagram, and Twitter. They often perform better than content from real people and media companies. Bots generated one out of every five political messages posted on Twitter in America's presidential campaign

[2016],’ noted *The Economist* in 2017. Campaigns on social media, often targeted and personal, are made to look like news using a range of social-media tools, texts, videos, and documents — a practice described as ‘doxing’. Doxing, a parallel news industry, is a premier threat to serious news.

In this context, some very high-end journalism is evolving which has already taken shape in the West. For example, the editor of *The Economist*, Zanny Minton Beddoes has highlighted that a team of medical professionals, and not just journalists or writers has managed the newspaper’s non-stop Covid-19 coverage.

The serious news business can still survive by providing high value content as it still has a robust reporting team curated by solid, old school editors who are not averse to technology and ready to work with the fast paced and upcoming generation.

In India, specialised news portals such as ‘Live Law’ are gaining momentum. Working on a partly funded and partly subscription-based model, Live Law covers courts with about two dozen staffers, freelancers and few contributors. All of the writers have a legal background and the specialised legal news platform is growing steadily. Increasingly, newspapers are facing challenges from specialised platforms such as Live Law.

Finally, individual driven video blogs, social media platforms, messaging groups and applications are gaining huge traction as well, driving away traffic from newspapers’ portals as consumers realise that their messages on social media can act faster. Thus, consumers are arguably moving away from traditional media globally.

The serious news business can still survive by providing high value content as it still has a robust reporting team curated by solid, old school editors who are not averse

to technology and ready to work with the fast paced and upcoming generation. Newspapers or serious news business just cannot do one thing — that is newsgathering — anymore, but engage with everything from embracing technology to working with multiple small outlets and individuals with a better understanding of digital ecosystems, from telling stories in multiple formats to exploring alternative marketing strategies. Hopefully, papers would focus on these realities before it is too late.

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# Obedience to the Unenforceable

## – How do organizations and individuals define their moral compass?

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The greatness of individuals and organizations, therefore, emanates from the extent of personal and organizational adherence to the self-imposed laws are demonstrated and the ways in which ‘Obedience to the Unenforceable’ manifests.



### ABSTRACT

This article articulates the decision-making processes and frameworks that organizations deal with, not necessarily in the context of law, but rather in what can be deemed to be ethical and right. It addresses how an individual or organization would face an ethical dilemma, which commonly falls under the two categories of ‘right versus wrong’ and ‘right versus right’. The article outlines the underlying principles and philosophies that dictate ethical decision-making with the help of examples of situations that an organization may come across in its day-to-day operations. The concept of ‘obedience to the unenforceable’, which refers to the grey area between regulatory frameworks and moral principles, stands as the core idea around which the analysis is undertaken.

**KEYWORDS:** Ethics, Decision-Making, Dilemma, Moral Obligations, Legal Frameworks.

Nearly a century ago, Lord Moulton defined a grey zone between ‘positive law’ (adherence to the legal and regulatory relevant frameworks) and ‘absolute freedom’ (as espoused by the principles of liberty).

*‘The great principle of Obedience to the Unenforceable is no mere ideal, but in some form or other it is strong in the hearts of all except the most depraved. Obedience to the unenforceable is the extent to which the individuals composing the nation can be trusted to obey self-imposed law.’*

– John Fletcher Moulton, first Baron,  
Minister of Munitions for Great Britain

Published in the ‘Law and Manners,’ The Atlantic, July 1927

Lord Moulton referred to these boundaries of decision making by individuals as one not constrained by law, but more influenced by the consciousness of duty and personal moral choice. This is the domain that he referred to as the 'obedience of the unenforceable', where even today, organizations and individuals face challenges on daily basis to take a stand.

Organizations and individuals grapple with the dilemmas of what Badaracco Jr., 2013, states are the 'defining moments' of choosing between right and right. Many of the decisions, and subsequent outcomes get influenced by what Sims, 1992, calls as 'counter norms' or 'accepted organizational practices that are contrary to prevailing ethical standards.' An organization's ethical practices generally evolves from the ethical ambivalence that organizations exhibit through their reward systems (Jansen and Von Glinow, 1985) where societal norms (being open and honest, follow rules at all costs, take responsibility, be team player) conflicts with organizational norms (be it secretive or deceitful, use it or lose it, pass the buck, grandstand and take credit). This results in the perception of integrity and ethics, much like beauty, 'to lie in the eye of the beholder' (Kaiser and Hogan, 2010).

This article reviews the common ethical dilemmas in the grey domain of unenforceable that organizations and individuals face and helps define a decision making framework. However, how organizations and individuals use this framework will eventually shape the culture of the organizations and define the character of individuals.

## ETHICAL DILEMMAS

Broadly speaking, a debate on matters of ethical decision-making falls into two buckets of 'right versus wrong' and 'right versus right'.

Organizations tend to view decisions on 'right versus wrong' through the decision-making lens as shown in Figure 1. At the basic level, it is a compliance to the

regulatory frameworks and adherence to the law of the land. Once this basic hygiene is covered, organizations tend to get into defining their 'code of conduct' and provide the necessary scaffolding in terms of education to reinforce the understanding and checks and balances to audit the same. However, culture building happens when the leadership team reinforces the desired behaviours and walk the talk.

Decision making on any situations not covered by the principles of the code of conduct tend to occur with the 'Times Headline' litmus test. The decision processes shown in Step 2 and Step 3 (Figure 1) may be interchanged, depending on how much of spotlight is on the organizations. Gatewood and Carroll, 1991, state that the process of ethical decision making 'requires behaviours or results to be assessed against standards or norms of acceptability'. Hence, they defined the similar three stage process as:

- The codified law defined by society,
- the belief system and code of conduct adopted by organizations and
- the codes of behaviour promulgated by industry or professional associations.

Normative judgment defined by ethical decision-making philosophies such as rights, justice and utilitarianism, therefore, shape the boundaries of all these stages.



**Figure 1: Decision making steps by organizations - 'Right Versus Wrong' interpretation cases**

**Source : Author's Compilation**

Individuals also follow a similar decision-making heuristics process, as shown in Figure 2. As in the case of organizations, the boundaries of decision making

between Steps 2 and 3 (Figure 2) tend to get blurred and sometimes rolled into one.

pressures and constraints.’ Essentially, the decisions taken under these boundaries define the character of individuals and organizations.



**Figure 2: Decision-making steps by individuals- 'Right Versus Wrong' interpretation cases**

*Source : Author's Compilation*

### THE DILEMMA OF 'RIGHT VERSUS RIGHT'

The true challenge and test of character for individuals and organizations comes when decisions have to be taken between what Badaracco Jr., 2013, called as 'Right versus Right'. As Badaracco Jr. (2013) mentions, '... right versus right problems typically involve choices between two or more courses of action, each of which is a complicated bundle of ethical responsibilities, personal commitments, moral hazards, and practical

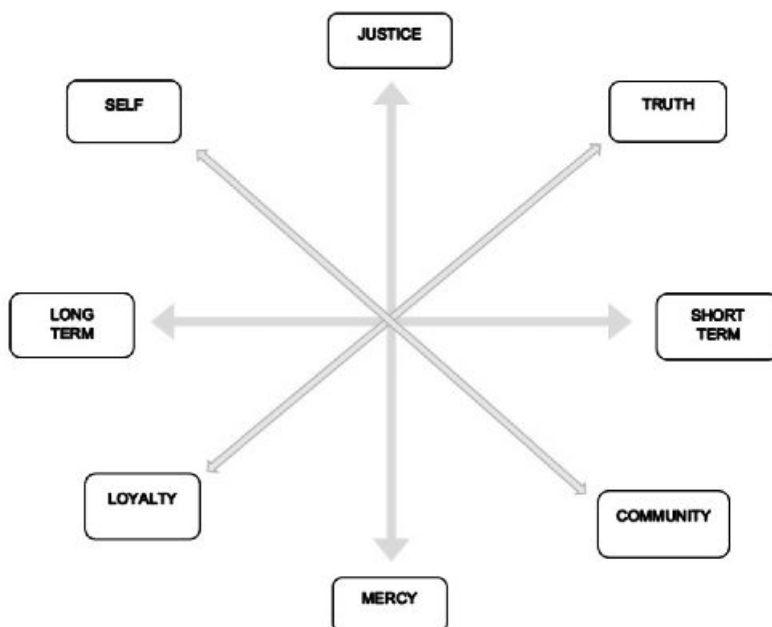
the organizations interests (selecting a candidate known to hiring manager versus recruiting the best talent).

**Long term versus Short Term:** Typically, entrepreneurial organizations face this litmus test first. Young organizations who embrace the Keynesian philosophy of 'in the long run we are all dead', may chose to focus on short term goals. The challenge obviously is that when does the tipping point occur when the transition will be done and how easy would it

be to change the culture of the organization at that point? Investment in innovation versus milking the cash cow could be another business dilemma that organizations could face rather than an ethical dilemma.

**Community versus Self:** Increasing focus on sustainability has brought this debate to the fore front. Focus on increasing shareholder wealth versus CSR (Corporate Social Responsibility) spending could be another facet of this dilemma.

**Mercy versus Justice:** For organizations, justice refers to behaving according to the defined precedence, established norms and ways of doing business and expectations while mercy refers to exception to the rules.



**Figure 3**

*Source: Author's Compilation*

All individual ethical dilemmas can also be covered under the above mentioned criteria and require a similar decision-making approach. Gatewood and Carroll, 1991, cite the most common and prominent stands taken to resolve these dilemmas as:

**RIGHTS THEORY** – essentially holds that ethical decisions must protect an individual's legal and moral entitlements and emanates from the Kantian philosophy.

**JUSTICE THEORY** – is grounded in the traditional philosophies of Plato and Aristotle where the underlying principles of fairness, impartiality and equity prevail.

**UTILITARIANISM** – commonly understood as the 'greatest good for greatest number' employs a teleological approach to ethics and assesses all behaviours in terms of their consequences.

Using all the three theories may result in conflicting decisions, but individuals and organizations generally veer towards the decisions which 'feel right' when evaluated against these yardsticks. While the decisions on 'right versus wrong' seems relatively simple to take, it is the decisions taken on the 'right versus right' paradigm which truly define us as individuals and

establish the character of organizations. The greatness of individuals and organizations, therefore, emanates from the extent of personal and organizational adherence to the self-imposed laws are demonstrated and the ways in which 'Obedience to the Unenforceable' manifests.

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# Prudent Asset-liability Management in the time of Covid-19

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Without being able to maintain proper spread and enough diversity in their portfolio, banks face the risk of extra provisioning which in turn will affect the capital adversely.

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## ABSTRACT

This article focuses on the importance of prudent Asset-Liability Management (ALM) that has come to the forefront following the onset of the Covid-19 pandemic. It outlines the meaning, significance, and the implication of Asset-Liability Management in the current scenario. The article highlights the various setbacks that economies throughout the world presently face, the steps taken by the different governments to address the crises and the effectiveness of the same with special emphasis on the methods adopted by the Bangladesh Bank. Finally, the article discusses the two kinds of assets- income generating and non-income generating, and the risks associated with them.

**KEYWORDS:** Asset-Liability Management, Covid-19, Market Risk, Financial Stability.

2020 has been a happening year to say the least. The pandemic, Covid-19, has hit every aspect of the economy throughout the world quite badly. The central banks as well as the governments of all countries are coming ahead with different plans to support the economy. Without these plans and stimulus packages, it will be very difficult for the world economy to revive. First world countries like USA, UK, Japan, Germany and Italy have all come forward with very large sums of stimulus packages. USA is currently topping the chart with \$2.3 trillion, followed by Japan with \$1.09 trillion, Italy with \$823 billion, UK with \$496 billion, and Germany with \$384 billion. The

Bangladeshi Government has already announced 19 different stimulus packages worth \$11.6 billion which is about 3.5 percent of the country's GDP since the first reported positive case of Covid-19 on 8th March, 2020. Being in the thick of the matters, banks have not been spared from the mayhem of this pandemic. On top of that, most of the funding of these stimulus packages are being done through banks. To ensure that both the borrower and the banks survive, banks will have to manage their asset-liability prudently.

Asset-Liability Management (ALM) is the process of planning, organizing and controlling asset and liability volumes, maturities, rates, and yields in order to minimize interest rate risk and maintain an acceptable profitability level as well as strengthen the core of the bank. Simply stated, ALM is another form of planning. It allows banks to be proactive and anticipate change, rather than react to unanticipated change. Realizing the importance of ALM, the central banks of all the countries have instructed to form an Asset-Liability Committee (ALCO) presided over by the senior management of the bank to oversee the matters. As we all know, banks collect deposits from the customers at a lower rate and lend the money to other customers at a higher rate. The difference between these two rates is called the 'Interest Rate Spread'. Now, to maintain profitability, the banks must keep this spread up to a certain level. Along with this, diversification of loan portfolio is a must. This has always been emphasized by all the regulatory authorities throughout the world. The reason behind this is that during any kind of economic slowdown, those banks or financial institutions having a diversified portfolio have always fared better than the others. Without being able to maintain proper spread and enough diversity in their portfolio, banks face the risk of extra provisioning which in turn will affect the capital adversely. Apart from these, there are other aspects like duration as well. Duration is an aspect that needs to be taken into account as banks have to run day to day activities and pay off its depositors whenever necessary.

Banks have various kinds of assets which can broadly be classified into two categories. One is income generating assets and the other is fixed or non-income generating assets. Amidst the pandemic, it's the income generating

assets that should be the concern of banks. The reason for this is that they are the ones that are most closely linked with liquidity. The banks borrow money and then lend. The banks cannot lend all the money as they have some regulatory requirements to be fulfilled. Banks have to maintain an ADR (Advance Deposit Ratio). In Bangladesh, the banks have to generally maintain an ADR of 85 percent. But due to this pandemic situation and with a view to inject liquidity into the economy, Bangladesh Bank has allowed the ADR (Advance Deposit Ratio) to be as high as 87 percent. A higher ADR will allow the banks to lend more to its customers as well as help the government fulfill its targets. However, this exposes the banks to more risk. Also, while the higher ADR will inject money supply into the economy, it may create a liquidity crisis for the banks. Due to the current situation, the customers may not be able to pay back the loan and hence, it will impose liquidity pressure on the banks as well as inflict loss. Thankfully, many governments have thought about the loss aspect and that is the reason why deferral periods have been announced. In that way, the banks have been spared of some losses for the time being. Bangladesh Bank has announced a loan deferral period for the whole of 2020. This will have both long term and short term effects. In the short term, it will bring some good results for the banks in terms of profit. However, on the other hand, banks will likely face liquidity crisis for both short term and long term. Because of this liquidity risk, banks may become unable to pay off its depositors which in turn can lead to a serious reputation loss for the banks.

ALM guidelines around the world have broadly mentioned two specific risks that are likely to impact a financial institution. They are – market risk and liquidity risk. As the liquidity risk has been addressed earlier, let's look at the market risk. Market risk is the risk of potential losses in the on-balance sheet and off-balance sheet positions of a bank. It stems from adverse movements in market rates or prices such as interest rates, foreign exchange rates, equity prices, credit spreads and/or commodity prices. During this period, the banks need to reevaluate some key points related to ALM as well as the risks mentioned. These points are–

**1. Managing the market risk:** Market risk is the

combination of all the risk factors of the market. The fluctuation in exchange rates need to be monitored. As the demand for luxury items is likely to be slowed down, the prices of these products will fall. So, financing in these sectors should be monitored closely. Hence, diversification of the loan portfolio in managing the asset-liability is of more importance than ever before.

2. **Balance sheet cash flows:** Balance sheets will continue to grow during the pandemic, but the cash flow is likely to change. Banks must consider the impact of loan amortizations and maturities, prepayments, curtailments, deferrals, as well as the changing frequency of loan originations. Also, they must consider the impact of the reduced fee income from loan originations or sales.
3. **Interest rate regime:** Interest rates all over the world are likely to face a shock. The current situation will not allow the banks to raise interest

rate on loans. On the other hand, customers, knowing the risks, may want to invest in government securities as they are perceived to be a safer option. As a result, because of this risk premium, the customer will want more return. This is going to be a definite challenge. In Bangladesh, the Central Bank has set the upper limit for loans at 9 per cent. As the return on government securities is more than this, the banks will have to come out with strategies to maintain a favourable spread.

All the matters addressed above will determine how the overall economy fares. Banks are at the centre of any economy and the health of the banks is of foremost importance. In the upcoming months, Asset-Liability Management (ALM) will be one of the key factors in determining how each bank maintains their profitability and whether they barely survive or are able to thrive under the current situation.



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With the advent of digitalization in the financial markets, there has been a paradigm shift in the client – server operations in finance.

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# Financial Performances of Leading Indian Fin-tech Start-ups: Operations Infused with Transcendence

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## ABSTRACT

In this paper, the financial performances of two leading Indian Fin-Tech start-ups are analyzed through an empirical study in the field of e-wallets and digital insurance. Through the study, we find that one start-up – Paytm Payments Bank has recently witnessed profits, whereas the other start-up – Policy Bazaar is earning losses. The rising trend of the customer base is also portrayed and finally, we will see whether the start-ups will be having a stable future in this country.

The sample period of the study is FY'17 to FY'19.

**KEYWORDS:** Fin-Tech, Paytm Payments Bank (PPB), Policy Bazaar, Digitalization, Government of India (GOI), E – Wallets.

## INTRODUCTION

Fin-Tech is the abbreviation of Financial Technology, which is a burning issue of the modern times globally, since it has successfully shown a direction towards the modernization of the financial sector by way of deploying sophisticated technologies while rendering financial services. Fin-Tech is crowned as the 'Future of Financial Industry Worldwide'. With the advent of digitalization in the financial markets, there has been a paradigm shift in the client – server operations in finance. Such a modernized version of the financial industry offers enormous opportunities for the young minds of the entrepreneurs to prosper by posing serious threats to the traditional financial institutions.

The Indian economy is highly dominated by the usage of hard cash and physical human interaction while delivering financial services which in turn

shatters the operation of e- transactions. The degree of Fin-Tech penetration in India is far away from reaching its peak; yet, the Fin-Tech start-ups are highly infused with the notion of change.

## GENERATION OF REVENUE

One of the most important sources of revenue for any bank is through interest collection from their lending activities; however, since Paytm Payments Bank (PPB) is a Fin-Tech based bank, the RBI doesn't authorize the company to grant loans to their customers. Hence, they generate operating revenues only from the fees that they charge from the customers while sending funds from the PPB based wallet to the bank. The company also earns income by way of investing. The bank gives 4 per cent interest annually to their savings account holders, and to perform this obligation, the bank invests the deposits received from their customers in government securities with yields 8 per cent p.a. interest. Hence, a profit of 4 per cent p.a. is generated against each deposit.

## FINANCIAL PERFORMANCE

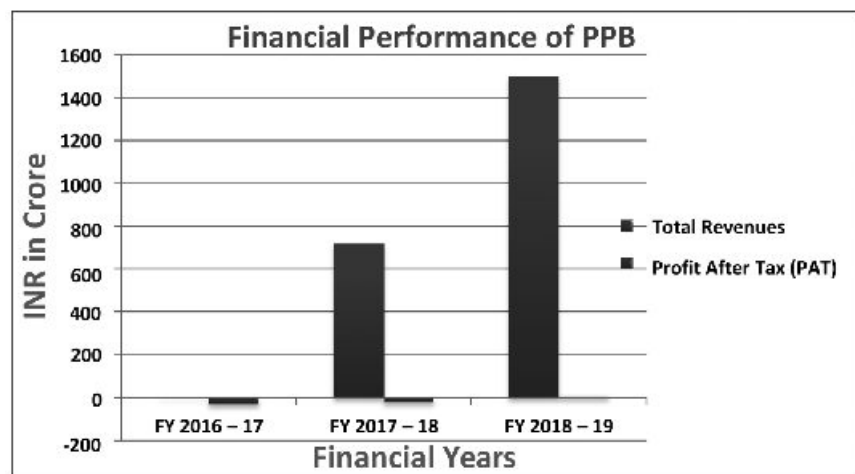


Figure 1

Source: The Economic Times

**paytm** payments Bank

The advent of e-wallets in India occurred quite late; it took time for the start-ups to surpass the hurdle of inculcating the notion of handling digital money by way of treating

smart phones as their virtual wallet. Similarly, the business model of Paytm was not sufficiently addressed by the Indians until 2016. The incidence of November 2016 i.e., demonetization pushed the economy one step towards cashless transactions, initiating a favourable situation for the start-up. The need for e-banking and online wallets was highly felt by the citizens. Skimming off such advantage, the start-up had been able to earn 125 million additional customers resulting in a total revenue of ₹ 24.7 million by the end of March 2017. However, simultaneously, the start-up was highly burdened with advertising expenses needed to outperform their rival brands like Google Pay, Pay U, Ali Pay, et al, and increased administration cost which led to a net loss of ₹ 300 million for 2016.

The customer base continued to expand. Finally, in November 2017 the start-up was officially inaugurated as India's first payment bank being licensed by the Government of India, after which the company started to attract customers by way of providing savings account facility, that too yielding a better rate of interest than the normal banks. Nearly 100,000 branches of PPB were opened in India, which resulted in the customer base rising to 185 million by the end of the financial year, 2017, leading to a sharp increase in the revenues up to ₹ 72.1 million (by 290 per cent). However, despite having made such favourable strides, the company continued to earn loss, with the quantum being ₹ 20.7 million due to the persistent cost of brand strengthening.

By the end of May 2018, the total deposits in Paytm wallet + savings bank account stood at ₹ 1.94 billion. The revenues of the company nearly doubled in the financial year 2019 to ₹ 15 billion, leading to a customer base of 300 million users (see Figure 2). As of April 2019, more than ₹ 5 billion worth of deposits were made in the savings bank account of the bank, which has been found to be growing by 3 times annually. The start-up witnessed a profit for the first time after incurring tremendous losses

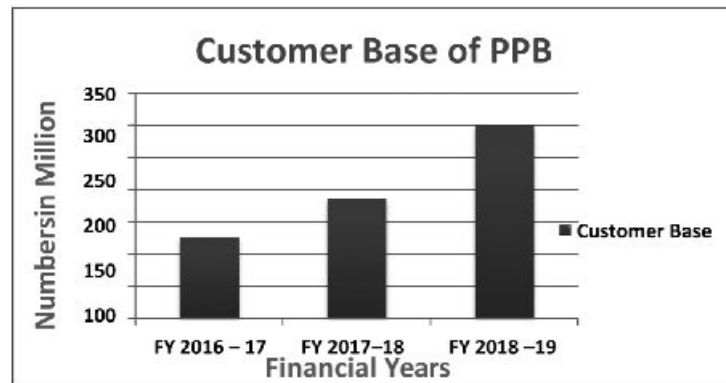


Figure 2

Source: Authors' Compilation

over the years. The amount of profit for the year of 2018-19 was ₹ 190 million (see Figure 1).

Currently Paytm holds 19 per cent of the market share in online payments (see Figure 3) and nearly 500 to 600 million transactions take place monthly via the Paytm wallet out of which 20 per cent are from the savings bank account. The company could have gained more market share but got curtailed as the RBI suspended the start-up from accepting new customers for the period of October 2019 to January 2020, since they failed to adhere to the RBI regulation of maintaining a net worth of at least ₹ 1 billion.

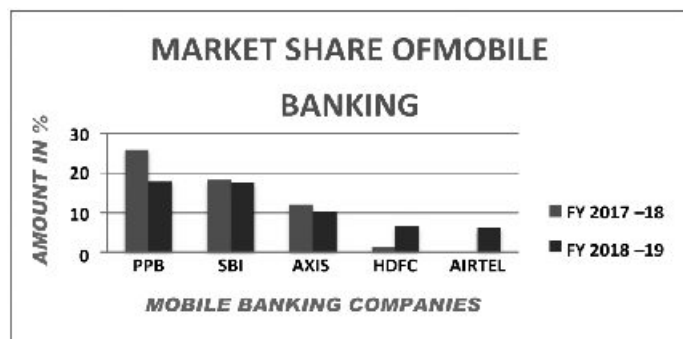


Figure 3

Source: RBI

## GENERATION OF REVENUE



When a buyer purchases a particular policy offered by a particular insurer via Policy Bazaar, the insurance aggregator generates revenue by charging a percentage of commission from that particular insurance company whose policy has been purchased.

**FINANCIAL PERFORMANCE**

Particulars	FY 2016 – 17	FY 2017 – 18	FY 2018 – 19
1. Total Revenue	₹ 490.6 million	₹ 1593.6 million	₹ 3123 million
2. Total Expenses	₹ 1684.9 million	₹ 2490.6 million	₹ 5255.1 million
3. Loss	<b>₹ 1194.3 million</b>	<b>₹ 894.2 million</b>	<b>₹ 2131.2 million</b>

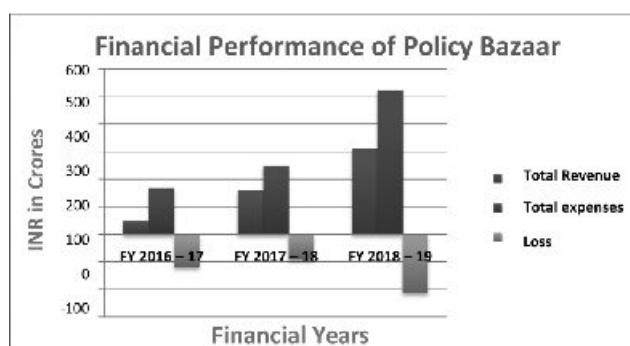
**Table 1**  
**Source: Inc42**

Policy bazaar has been suffering losses over the years. Furthermore, the quantum of the losses is observed to be multiplying in nature as the start-up is getting older (see Table 1). However, on a contrasting image, the revenues earned are found to be at a sharp hike. Furthermore, the customer base does not have a precarious trend. The reasons for having such negative profits are:

1. It is found that the insurance penetration in India is as low as 4 per cent. The Government of India has shown a concern on this issue whereby initiatives have been taken to attract foreign investors into the market with the limit of FDI being increased from 26 per cent to 49 per cent in the insurance sector. In India, only 3 per cent out of all insurance services are brought online in a market of nearly \$800 million. As per a report by PwC, only 35 per cent of all Indian citizens are being covered by insurance and out of all those who are covered, only 20 per cent of such population opts for online means because in India, physical human interaction (between customers and agents) plays a significant role which shatters the practice of decision making through e-based services. As per a survey conducted by DataLabs by Inc42, between the years 2015 and the first quarter of 2019, the total amount of investment made towards the Indian Fin-Tech start-ups is estimated to be \$7.62 billion, out of which only \$612 million (8.03 per cent) has been invested in Insur-Tech.
2. Mr. Aman Dhall, the Head of Corporate Relations of Policy Bazaar said that in the financial year 2019, the company heavily expended funds for strengthening their technological infrastructure, product capabilities, customer service, and

communication campaigns in order to upgrade consumer awareness by educating masses about Insur-Tech. Once the common public becomes educated, the company will be able to recover their costs.

3. To establish a strong brand positioning in the market, the company has spent robust amounts towards advertisement and promotional activities. From sources such as ET Now, it was found that such robust spending by the company has jumped 6.5 times from ₹ 318.5 million in 2017-18 to ₹ 2070.24 million in 2018-19. Thus, the aggregator is sacrificing its profits for expansion and creation of a customer base through brand image.
4. The employee rate at the company has increased and they have started to block more funds towards employee benefit expenditures. The employee benefit cost has risen 2.24 times from ₹ 993.9 million in 2017-18 to ₹ 2225.7 million in 2018-19.
5. The company has been burdened with a lot of administrative costs which associates the cost of having three subsidiary companies.



**Figure 4**  
**Source: Authors' Compilation**

By undertaking activities for expansion, the aggregator is forgoing their profits for which the company is temporarily earning massive losses which imposes a big hurdle towards getting listed on stock exchanges.



However, in spite of incurring losses, the company is expanding and enhancing their quality of operations. Policy Bazaar has collected nearly ₹18 billion in premium in 2018 of which ₹1.3 billion was through fresh premium.

Due to such a rising trend in the user adaptability, Policy Bazaar currently accounts for 25 per cent of life insurances that are being sold in India, and 10 per cent of health insurances.

There is scope for Policy Bazaar to enhance their user-base at an increasing rate by not just simply providing a platform for comparison of the prices of different policies, but also rendering consultancy services. Agency services to the customers are kept void by this start-up which plays a key element while taking up an insurance policy.

## CONCLUSION

Fin-Tech in the Indian economy does have a bright and glorious future as the market is vast. Currently, as per a study conducted by EY, India stands second in adopting Fin-Tech for 2019 after China.

However, it has been found that these start-ups are yet to penetrate the market sufficiently since they are still lagging behind in exploring each and every avenue to digitalize owing to the presence of the staunch ideology of making transactions with hard cash which is deeply

rooted in the minds of the citizens. The demand for e-transactions comes down due its inbuilt con of security issues. The Fin-Tech start-ups as well as the Government of India should address these matters with utmost priority. It took a long time to germinate the habit of banking among the Indians, and similarly, Fin-Tech is a recent trend which will also take a few years to establish its prominence in the Indian economy.

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<https://www.google.com/amp/s/m.bbusinesstoday.in/lite/story/paytm-payments-bank-profit-of-rs-19-cr-in-fy19/1/349320.html>



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The ascendance of the dollar has fuelled concerns of another outbreak of violent crime, such as the one that began in the late 1990s when gun-toting bandits on motorcycles preyed on drivers waiting at red lights.

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# Dollar Trumped Bolivar

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## ABSTRACT

‘Dollar Dollar all around, where are the other currencies gone?’

Among all the currencies in the world, the United States Dollar is accepted globally, leading to other currencies like the Euro, British Pound Sterling, Australian Dollar, Swiss Franc, Japanese Yen, Belgian Franc, et al. to follow its footsteps.

All currencies are traded in pairs and although currencies may not find their pair against other currencies, they definitely find a pair in the Dollar. Thus, even in times of economic slowdown, investors in emerging countries like Venezuela, India, et al. resort to USD and not any other currency.

Even after World War II ended, the USA was the only country least affected and the USD was both reliable and stable. Gradually, it became the world’s reserve currency and the economic valuation of a particular country was based on ‘how many Dollar reserves does a country possess?’

The power of USD could be seen when it captured the entire market of

Venezuela, thus replacing the Venezuelan currency Bolivar with Dollars. There even came a situation when people were bound to store Dollars in office drawers and in washrooms as well.

**KEYWORDS:** Currency Fluctuation; Dollar; Bolivar; Currency Superpower; Inflation; Economic Slowdown.

## INTRODUCTION

The Foreign Exchange Market is the largest and most traded financial market in the world, wherein a country's currency reflects whatever the market thinks about the current and future health of its economy. The value of all currencies fluctuates constantly but usually within a very finite range. The changes in value of a currency brought about by the trade or market forces are considered completely natural and fair. The best means for a currency to remain valuable is to ensure that other nations require the domestic currency to pursue trade.

Currency rate fluctuations are market fluctuations wherein the currency price of one country gets stronger or weaker compared to another country's currency, which occurs on an everyday basis. Currency fluctuations are a result of the floating exchange rate system that functions in most economies. While the impact of currency fluctuations is far-reaching for the economy, individuals who are not working closely with the market do not feel the impact because most of their everyday transactions are carried out in the domestic currency. One can realize the implications of these fluctuations while undertaking activities or transactions like foreign travel, import payment and overseas remittances.

## LITERATURE REVIEW

Edwards, 1993, analyzed four Latin American nations including Venezuela, on exchange rates, inflation levels and disinflation. Those countries followed the rule in the conduct of domestic monetary and credit policies during the era of fixed exchange rates. However, some of these countries have ignored the constraints and suffered depletion of foreign reserves and high inflation despite adopting a flexible exchange rate regime. With respect to difference exchange rates, Holmes, 2002,

stated that seven out of thirteen Latin American countries had nonlinear exchange rate trends, and that Venezuela and Colombia had the sharpest difference between low and high exchange rates.

## OBJECTIVES

1. To analyze in depth a superpower vis-à-vis the weakest currency, namely the United States Dollar and Bolivar.
2. To analyze the reasons, on the basis of the study, behind the currencies being termed as strong and weak respectively.

## RESEARCH METHODOLOGY

Secondary sources are resorted to in order to collect the necessary information. Various websites, journals, articles, magazines, charts, et al. are used to substantiate the objectives stated. The data is collected up to 31st March, 2020 and the analysis is conducted thereon.

## U.S. DOLLAR AND ITS DOMINANCE

As the world's financial transactions are conducted in Dollars, since it occupies about 90 per cent of market share, calculating a country's economic value includes analyzing Dollars in its foreign reserves.

Now, let's understand how the Dollar became so significant and got the title of 'World Reserve Currency'. The issue of restructuring the world came into play at the end of World War II. To resolve this, about 730 delegates from 44 allied nations came together to participate in the Bretton Wood Conference. The U.S. was least affected during World War II. The USD was then the only currency that was both strong and stable. Due to Britain's support, transactions undertaken by the World Bank and IMF compulsorily involved the use of USD, thus fetching it the title of the 'World's Reserve Currency'. Therefore, in return, America vowed not only to restrict the Dollar's printing, but also to grant other countries the freedom to exchange an ounce of gold for \$35. Even today, the USA has the world's largest gold reserves. However, during the Vietnam War period

(1955-1975), the entire world discovered that the U.S. was not only printing Dollars on its own, but the Federal Reserve also denied all other countries printing their own currency. As a result, the Dollar's value started to decrease. By 1966, international banks kept around \$14 billion worth of U.S. Dollars, but the U.S. had just \$13.2 billion in actual gold reserves, so most of them had to protect domestic holdings. The French President questioned the U.S. dollar's place in the international economy in 1965, and in August 1971, France sent a naval warship carrying U.S. Dollars to America to buy gold at the official exchange rate. But as it approached, Nixon had a clandestine meeting at Camp David, the results of which suspended the Dollar's convertibility into gold or other reserve assets. He not only denied exchanging gold, he also temporarily abandoned the Bretton Wood programme. It was then, the American Dollars' worth became zero for the entire world. There were Dollar reserves with almost every nation at that time. However, unlike America, China and Russia had nuclear weapons. America was bound to give something back for the Dollar. So, America's president, Richard Nixon, made a clever move and went to Saudi Arabia, which then had the world's largest oil reserves. He somehow convinced the Saudi Arabian king to sell oil in U.S. Dollars to the entire world, and in exchange, America secured Saudi Arabia's oil fields. Thus, petrodollars emerged, which not only made America strong, but also brought Saudi Arabia under America.

Because of this move, the U.S. Dollar, which was previously valued zero, became the most important currency and has been rising since then and fluctuating as well. Thus, USD got labelled as the 'World's Reserve Currency'.

It's the king of kings, while other currencies follow in its footsteps.

2. All currencies are pair-traded. There may be currencies that don't find their pair with other currencies, but certainly every currency finds its pair with the dollar.
3. Even in times of recession, investors in developing countries like Venezuela, India, et al. are resorting to the USD, and not any other currency.
4. There are about 20 top B-schools worldwide, 10 of which are in the U.S., and most educational payments are made in USD. Plus, people around the world appear for international exams like the CFA, FRM, Actuaries, et al.; so, the demand for USD is generated continuously.
5. As we all know, the global pandemic COVID-19 has violently struck Dow Jones, Nifty, Sensex, S&P 500, NASDAQ 100, NIKKEI 225, et al. The USD, nevertheless, managed to outshine other currencies. The Dollar kept gains against most currencies after a swap spread blowout showed investors faced a Dollar shortage as stock markets plunged into concerns about the flu-like virus' economic effects.

In the past five years, the Dollar has reached as high as

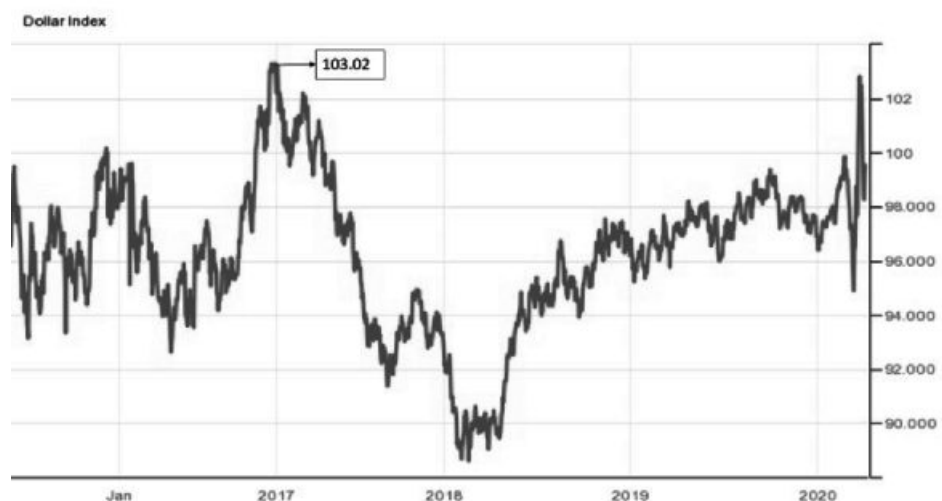


FIGURE 1

SOURCE: <https://tradingeconomics.com/united-states/currency>

## REASONS JUSTIFYING USD AS A SUPERPOWER CURRENCY

1. The USD is the world's most recognized currency.

103.02 as on December 21, 2016, but the ups and downs shown in the chart reflect the Dollar's pressure from around the world.

When the Dollar falls, oil-exporting countries' sales fall;

their share prices fall in turn, thus, affecting a large economic segment.

### VENEZUELAN BOLIVAR AND ITS DOWNFALL

An excess of anything is not bad, but instead, it is the worst. There is a country characterized by excessive corruption, excessive crime, excessive oil, excess money supply, and inflation which is even greater than that. It's a poverty-stricken country. But the biggest problem here is two Presidents ruling together. So, let's talk about a Latin American country named Venezuela.

From 2013 onwards, Nicolas Maduro is the country's official President. But in January 2019, the opposition leader, Juan Gaido, declared himself as the President of Venezuela, and the United States of America, Brazil and various other nations supported him as the President. However, the existing and the official ruler, Nicolas Maduro, still possesses all powers.

is known as the crime capital of the world, and Venezuela is most famous for its inflation rate.

India's inflation rate is 4 per cent, China's inflation rate is 2.5 per cent, America's inflation rate is 2 per cent. Compared to these, Venezuela's inflation rate seems to be fictitious. It is 1 million per cent.

In 2018, the IMF had predicted that Venezuela's inflation rate will be 10 million per cent in 2019, which did happen in August 2019.

Their official currency is Bolivar. The things which used to cost 1 Bolivar earlier, now cost 10 million Bolivars. No one will believe such things happening in a country. But as we say, facts are stranger than fiction. This is the worst possible state any country can ever face. It is facing hyperinflation leading to soaring hunger, disease, crime, death rate and massive amounts of people leaving the country. So, what is hyperinflation?

Hyperinflation is a phenomenon where the monthly rise in price is 60 per cent or at-least 50 per cent. But

Venezuela's inflation rate is 10 million per cent.

In the 1930's, the USA was hit strongly by the Great Depression. It's said that the condition in Venezuela is even worse, as the GDP record has fallen drastically in the past four to five years. It has affected all average Venezuelans at all levels. 80 per cent of the population doesn't have a constant source of food, 90 per cent of the population is below the poverty line, 10 per cent of the population who are highly educated professionals, have left Venezuela. They don't get

electricity for entire days, so schools and offices remain closed. Running water has already stopped. They are drinking polluted river water and drain water for their survival. Most of the graves have been looted for jewellery, gold teeth or even bones which can be sold to survive the crisis. There were reports that the thieves were stealing Venezuela zoo animals to eat them. Such is the crisis in Venezuela.



FIGURE 2

SOURCE: <https://www.rajeevpoddar.com/>

Venezuela was first seen by Christopher Columbus in 1498. Venezuela has always remained famous for its crude oil reserves, currently having the world's 11th highest reserves. But of late, Venezuela has become infamous for a few reasons; so let's have a look:

It has been ranked as the most miserable country to live in. Poverty is said to be the highest and it has also defeated Africa's poorest countries. Its capital, Caracas,



FIGURE 3

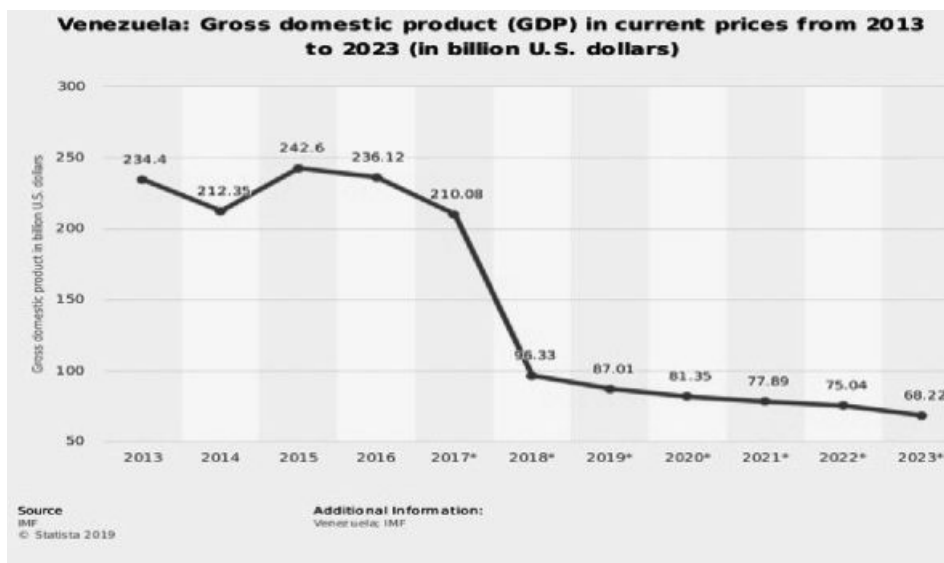
SOURCE: <https://www.rajeevpoddar.com/>

FIGURE 4

SOURCE: <https://venezuelanalysis.com/analysis>

The question that arises is how can a country be in such a deep crisis, despite the fact that it possesses the world's highest oil reserves? One of the most surprising facts is that 10 years ago, there was a situation, when the president, Hugo Chavez, had enormous amounts of wealth and they had repaid all the borrowed loans. It used to be a prosperous nation and yet, it has become

one of the most backwards countries in the world.

The tragedy happened because of a sharp decline in oil prices. Because the economy was prospering by earning wealth through oil, the government focused only on oil production and ignored other sectors like agriculture, health, education, real estate, et al. The president was employing people in oil producing units even when there was no need of labour. Thus, when oil prices declined sharply, people lost their jobs, and unemployment peaked.

To control this deficit, the next Venezuelan President, Nicolas Maduro ordered to print more paper currency notes.

Maduro printed so many currency notes that due to salary, bonus, pension and wages, everyone's houses were stocked with notes. But the goods in the market were limited. Since too much money was chasing too little goods, auction for goods started in Venezuela. So, everyone carried around 10,000 bolivars, 20,000 bolivars, 50,000 bolivars, 100,000 bolivars, 500,000 Bolivars to the market, and money there became like salt.

Venezuela's currency became worthless. People were weaving bank notes into baskets. Bolivar was as good as toilet paper.

So, all of these reasons led to a downfall of the currency Bolivar.



FIGURE 5

SOURCE: <https://tradingeconomics.com/commodity/crude-oil>

FIGURE 6

SOURCE : <https://tradingeconomics.com/venezuela/consumer-price-index-cpi>

### CURRENT SCENARIO IN VENEZUELA

In December 2019, Venezuela's annual inflation rate dropped to 9585.5 per cent from 14291.4 per cent in November, according to the Central Bank. This happened as the government suddenly relaxed nearly two decades of strict economic regulation last year,

abandoning the implementation of price controls and enabling Dollar transactions.

The government has also sharply curtailed domestic currency circulation, which helped control inflation but left many people struggling to get bolivars.

Venezuela's latest problem is that there are too many dollars now.

In this inflation-wracked nation, where one dollar on the black market buys about 80,069.42 bolivars, the greenback is steadily gaining the currency market. This poses local business problems, as Venezuelan banks are prohibited from providing foreign-currency accounts.

Since Venezuela is a major oil exporter, almost everything else depends on imports. Therefore, the Dollars from oil exports are valuable because they are used to pay the import bill. The government released its petrodollars at artificially controlled subsidized rates, and this Dollar 'subsidy' generated economic and social problems because the common man didn't feel the benefits.

An insurance saleswoman in western San Cristóbal tapes Dollar stacks from clients inside a toilet tank in her office bathroom for safekeeping. A general contractor, unable to wire cash to his U.S.

accounts, flew his elderly mother and wife from Caracas to Miami with \$9,900 each in cash, just below the amount needed to report money to the U.S. customs.

The collapse of the bolivar, which lost 99 per cent of its value against the dollar in 2019, mirrors the Venezuelan economy, which has undergone 21 consecutive quarters of declines. Global sanctions prohibiting oil



exports to the U.S. and limiting access to external financing have exacerbated the situation. While inflation has shrunk somewhat, mostly through severe lending constraints, it still remains the world's highest at an approximate annual rate of 6,567 per cent, according to Bloomberg's Café Con Leche Index.

The bolivar is primarily used to pay for a few subsidized items, such as subway tickets and former petrostate fuel, which costs less than a penny a tank. For about everything else, the dollar has crept in.

The ascendance of the dollar has fuelled concerns of another outbreak of violent crime, such as the one that began in the late 1990s when gun-toting bandits on motorcycles preyed on drivers waiting at red lights. The number of so-called express kidnappings-day-long ransom abductions have skyrocketed.

## CONCLUSION AND FUTURE SCOPE OF THE STUDY

### U.S. DOLLAR AND THE OVERALL ECONOMY

As we all know, due to COVID-19, the entire world economy came to a halt, factories were shut down, countries went on lockdown, aircrafts stood still, foreign trade did not take place and amidst this scenario, an oil price war had led to excess oil supply. IB companies such as JP Morgan Chase predicted that if the situation which is hit hard by the Coronavirus continued for a longer time, there will come a period when oil will be sold at negative prices, i.e. oil exporting countries will have to pay people money to purchase oil from them. Seeing the markets and production standing still, the Dollar will certainly remain unpredictable in the near future unless the economy starts functioning again.

Moreover, the U.S. economy's GDP growth rate and inflation rate will decrease in the near future, and to keep the economy going, prices of goods and services would have to be reduced so that the economy takes up its size again. GDP will decline, as revenue generation will not be high due to production halt and crashing oil prices. Interest rates will be close to zero to stimulate the economy. Donald Trump wants people to borrow from

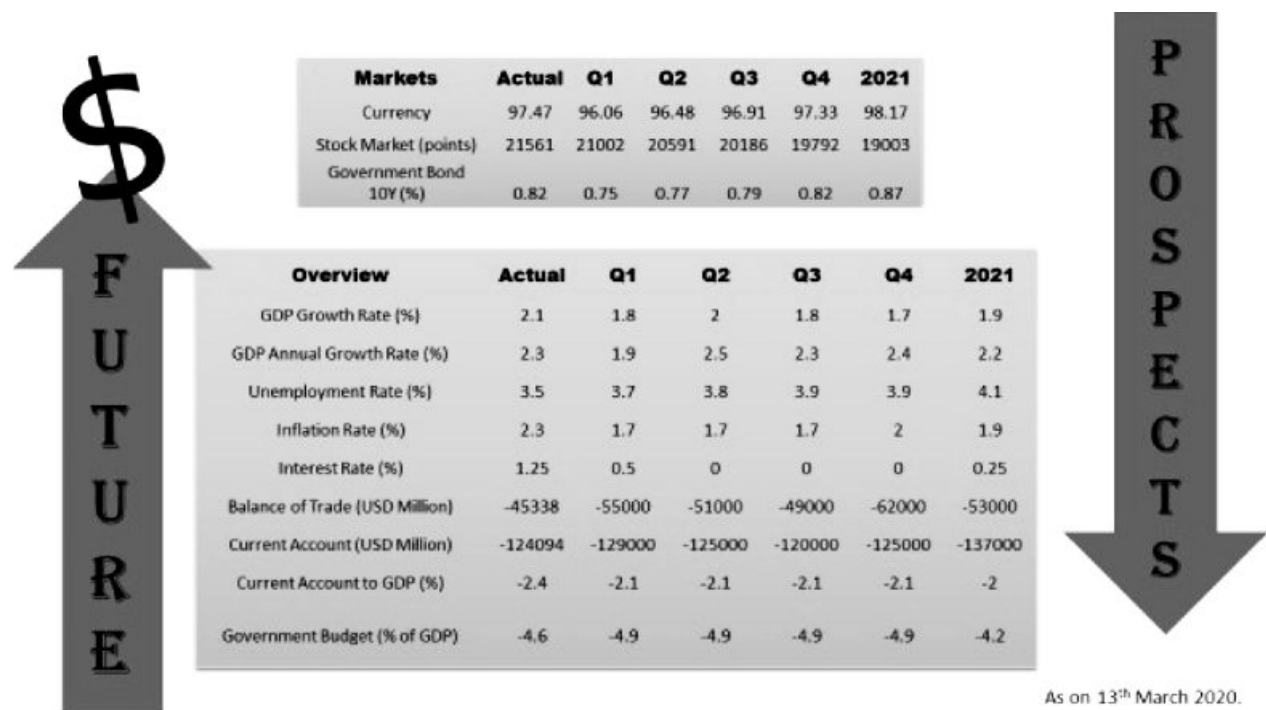


FIGURE 7

SOURCE: <https://tradingeconomics.com/united-states/forecast>

the bank at no interest to boost the economy so that spending in the nation rises, and the market regains its capacity and starts to grow. We can't imagine interest rates becoming negative, because if that happens, it will lead to a trap for the economy. People from Europe are investing in the U.S. because of its positive return and if negative interest rates come into view, that will affect the banks, savers and companies in the long run. The financial sector, the banks, the insurance companies, the pension, and the security settlement is all structured and invented on one assumption i.e., positive interest rates.

### VENEZUELAN BOLIVAR AND THE OVERALL ECONOMY

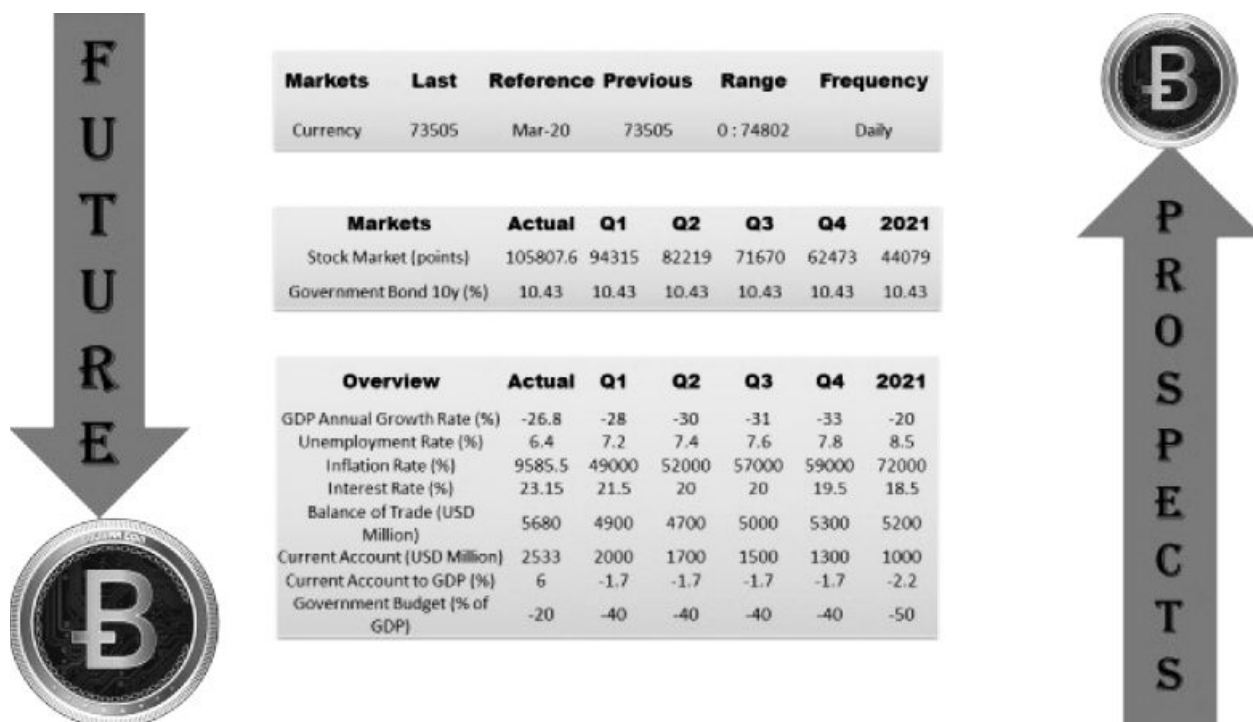


FIGURE 8

SOURCE: <https://tradingeconomics.com/venezuela/forecast>

Venezuela's future is overly dependent on oil reserves. The law and order is in terrible shape. Even though it is a very beautiful country, its capital city, Caracas, is now in a sorry state of affairs. Inflation doesn't seem to be subsiding soon, even if they follow a restrictive policy. The GDP is on a standstill. Shops don't sell much more than maybe once a week, which goes to show that people don't have the purchasing power to buy

essentials, forget about an increase in the production of goods. Furthermore, things don't look positive unless countries make bailout investments in Venezuela, its debt is waived off, and there is a diversification of revenue centres instead of just oil. Plus, everything needs to be reconstructed from scratch for Venezuela to function akin to other emerging countries like India. The banking system, health care system, education, real estate sector, et al. also need to be given importance apart from just focusing on the oil industry.

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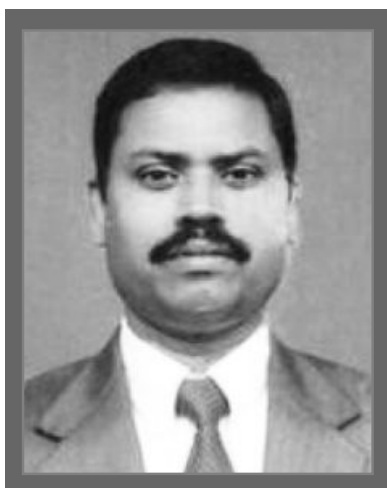
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The growth prospects of the cement industry have a close linkage with the growth and development of the overall economy and the real estate and construction sector in particular.



# Financial Performance of the Indian Cement Industry Over the Years 2016, 2017, 2018

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## ABSTRACT

The Indian cement industry is on a roll. India is the second largest producer of cement in the world and the booming and flourishing housing sector, global demand and growth in infrastructural development has driven the cement industry to outperform itself, expand the capacity of production and trigger a series of mergers and acquisitions to prompt growth.

This report examines the financial statements of the top three companies in the Indian cement industry according to their production capacity. The top three companies are UltraTech Cement, Ambuja Cements and Shree Cements. The project report titled 'Financial Performance Analysis of the

Cement Industry' studies the overall financial performance and profitability of these three companies and aims to study the overall profitability of the companies over the years 2016, 2017, and 2018 by analyzing the financial statements of the companies.

The financial performance of a firm is its capacity to generate revenue and produce income and refers to the act of performing financial activity. It is used to measure a firm's overall financial health and monetary well-being over a given time frame and can likewise, be utilized to analogize similar firms across the same industry or to study industries or sectors in aggregation.

**KEYWORDS:** Indian Cement Industry, Financial Performance of the Cement Companies of India, UltraTech Cement, Ambuja Cement, Shree Cements, Financial Trend and Ratio Analysis of Cement Producing Companies

## INTRODUCTION

The cement industry is encountering a boost and boom by virtue of the development of the Indian economy principally due to the prospering and thriving land and real estate business, developing construction activities and growing investment in the infrastructural segment. The infrastructural development of a country significantly relies upon the growth and development of the cement industry, and the expansion in the housing and construction industry has worked wonders for the Indian cement manufacturing companies. The performance of the industry really sets up the decontrol of the industry and growth of the economy has prompted noteworthy improvement in the markers and indicators, for example, installed capacity, limit or capacity utilization, per capita consumption and exports. The industry encountered an overall and total move in the innovation of production, from wet procedure to dry procedure.

India comes next in the world after China, the largest producer of cement in the global cement industry. In spite of the fact that in the present situation, consolidation has taken place in the Indian cement industry with the five main players controlling practically 60 per cent of the capacity, yet, at the same time the

balance capacity despite everything stays mostly divided and fragmented. The Indian cement industry has clocked a production of more than 100 Mt throughout the previous five years. This shows the underlying tremendous scope for growth and development in the Indian cement industry in the long run.

## OVERVIEW

### Limitations of the Study

This study is mainly based on the data derived from different sources, which may not be completely accurate. Moreover, the ratios depend on the figures that appeared on the financial statements.

Mentioned below are the constraints under which the study is carried out-

- i) Lack of availability of ample information as most of the internal information was kept confidential as a part of the company's policy. Furthermore, no primary data is used for the study.
- ii) The study covers the financial performance of a period of three years only, i.e., 2016, 2017 and 2018.
- iii) To analyze the movement and financial performance of the Indian cement industry, a study of the top three cement companies (i.e., UltraTech Cement, Ambuja Cement, and Shree Cement) in the above stated period is done.

### Profile of the Companies

- A. ULTRATECH CEMENT - The biggest producer of grey and white cement and ready-mix concrete in India, UltraTech Cement Ltd., which represents 'Strength', 'Reliability' and 'Innovation' by its brand, is also one of the biggest cement producing companies throughout the world having a capacity of around 102.75 Million Tons Per Annum (MTPA) of grey cement. Its activities, sales and marketing length pan India and its neighbouring countries, including U.A.E. and Bahrain. In the segment of white cement, UltraTech operates and sells under the brand name of Birla White.

- B. **AMBUJA CEMENT** - India's premier cement brand known for its problem-free home building solutions, Ambuja Cements Ltd., which follows the novel philosophy- 'I Can', is one of the main cement producing companies in India, having a producing capacity of around 29.65 MTPA. The company's remarkable products are customized for Indian climatic conditions and its adoption of 'True Value' to become the most competitive and sustainable company in the industry, encompasses the three pillars of sustainability – people, planet, and profit, and have made it the most beloved cement brand in India.
- C. **SHREE CEMENT** - An energy effective, environment friendly, economical and sustainable company occupied with cement and power sector, Shree Cement Ltd. is the biggest cement player in North India and is among the five main cement-producing companies in India, having a cement capacity of more than 29.30 MTPA. The company follows a multi-brand systematic strategy and sells its cement under the well-known brands of Shree Ultra, Bangur, and Rockstrong. The vision of Shree Cement is to lead in creating prosperity and happiness for all the stakeholders through innovation and sustainable practices.

The Gross Profit of the company has recorded an increase of 2.993 per cent in 2016-17 and an increase of 30.449 per cent in 2017-18, whereas Net Profit increases by 9.559 per cent in 2016-17 and it decreases by 18.15 per cent in 2017-18.

Considerably, Net Profit before Tax to Net Revenue from Operations of UltraTech Cement has increased from 12.0504 per cent in the year 2015-16 to 13.5170 per cent in the year 2016-17 and has decreased to 10.2198 per cent in the year 2017-18. This sudden fall takes our attention to the increase in financial obligation by 3.3933 per cent (3.8164 - 0.4231 per cent), which indicates that more debt was raised during the period 2017-18. However, we see a decrease of the fixed financial obligation of the company by 1.109 per cent (1.5321 - 0.4231 per cent) of Net Revenue from Operations, which may be due to the fact that long term debt was redeemed during the period 2016-17.

**Interpretation:** The Trend Analysis of UltraTech

#### Trend Analysis

YEAR	BASE YEAR – 2016					
	Revenue from Operations		Operating profit		Net Profit before Taxes	
	Amount	%	Amount	%	Amount	%
2016	283916	100	35238.8	100	34213.1	100
2017	286459	100.896	38662.2	109.715	38720.6	113.175
2018	323046	113.782	43828.1	124.375	35014.7	102.343

**Table:1 Trend Analysis of UltraTech Cement**

**Source:** From the Annual Financial Report of UltraTech Cement

#### DATA ANALYSIS AND FINDINGS

- A. **ULTRATECH CEMENT** - (see Table 7 and Table 8 for Comparative Income Statement and Common Size Income Statement respectively)

In relative terms, the Net Revenue from Operations has improved by 0.896 per cent in 2016-17 and by 12.772 per cent in 2017-18. While the Cost of Revenue from Operations has gone down by 1.366 per cent in 2016-17 and by 7.101 per cent in 2017-18. It indicates that the addition in Net Revenue from Operations in the year 2016-17 may be due to increase in Selling Price, and reduction in Cost of Revenue from Operations may be due to operational efficiency, whereas in 2017-18 the increase in Revenue from Operations may be due to increase in the scale of production.

Cement clearly exhibits an upward trend in all the three variables throughout the period of study. The study of related trends helps an analyst draw a meaningful conclusion about the company's financial performance, whereas the study of trends of each variable in isolation may lead to a misleading inference.

In the ultimate year of the study period, the Revenue from Operations increased by 13.782 per cent whereas Net Profit before Taxes increased only by 2.3429 per cent as compared to the base years' figure. Correspondingly, the Operating Profit increased by 24.3745 per cent indicating that operating expenses may have declined as compared to the proportionate increase in sales.

### Ratio Analysis

YEAR	Gross Profit Ratio (in %)	Net Profit Ratio (in %)	Operating Profit Ratio (in %)	Return on Capital Employed (in %)
	(Gross Profit/Revenue from Operations)* 100	(Net Profit /Revenue from Operations) * 100	(Operating Profit /Revenue from Operations)* 100	(Net Profit before Interest and Tax/Revenue from Operations)*100
2016	51.8874	8.7281	12.4117	11.911
2017	52.9658	9.4775	13.4966	11.4083
2018	61.2542	6.8787	13.5671	7.9492

**Table 2: Ratio Analysis of UltraTech Cement**

**Source: From the Annual Financial Report of UltraTech Cement**

### Interpretation:

- 1. Return on Capital Employed:** This ratio shows the efficiency of the firm with which the capital employed is being utilized. A high ratio is a sign of capability of the firm to earn maximum sales with minimum amount of capital employed, but this firm is declining its ratio from 2016 to 2017 except for 2018 where it declined considerably.
- 2. Gross Profit Ratio:** This ratio indicates the relation between production cost and sales and the efficiency with which goods are produced or purchased. Gross profit is the profit we earn before we take off any administration costs, selling costs and so on. If a firm has a very high gross profit ratio, it may indicate that the organization is able to produce more or purchase at a relatively lower cost. Here, the company has achieved very good efficiency in 2018 compared to other financial years.
- 3. Net Profit Ratio:** The Net Profit Ratio determines the relation between the Net profit and the sales of a business firm. It is depicted from Table 2 that the company has been trying to improve its profitability year by year but because of the economic meltdown in the country and the whole world, it witnessed a huge fall in the year 2018.
- 4. Operating Profit Ratio:** This ratio is used to measure a company's pricing strategy and operating efficiency. A healthy operating margin is required for a firm to be able to pay its fixed costs. The company's operating profit ratio is seen to be

increasing year by year and is the highest in the year 2018.

B. AMBUJA CEMENT - (see Table: 9 and Table:10 for Comparative Income Statement and Common Size Income Statement respectively)

In relative terms, Net Revenue from Operations has increased by 10.2926 per cent in 2016-17 and by 2.9589 per cent in 2017-18. While the Cost of Revenue from Operations has gone down by 10.2262

per cent in 2016-17 and by 6.6532 per cent in 2017-18. It indicates that the addition in Net Revenue from Operations in the year 2016-17 may be due to increase in Selling Price, and reduction in Cost of Revenue from Operations may be due to operational efficiency, whereas in 2017-18 the increase in Revenue from Operations may be due to increase in the scale of production.

The Gross Profit of the company has recorded an increase of 27.5766 per cent in 2016-17 and an increase of 8.6565 per cent in 2017-18 whereas Net Profit increases by 37.2172 per cent in 2016-17 and it decreases by 43.5939 per cent in 2017-18.

Considerably, Net Profit before Tax to Net Revenue from Operations of Ambuja Cement has increased from 8.7555 per cent in the year 2015-16 to 10.9429 per cent in the year 2016-17 and has further increased to 11.2075 per cent in 2017-18. This consistent increase in Net Profit before Tax takes our attention to-

- The increase in Net Revenue from Operations by 10.2926 per cent during the period 2016-2017.
- The decrease of the fixed financial obligation of the company during the years 2017-2018 by 0.1565 per cent (0.7631 - 0.6066 per cent) of Net Revenue from Operations, which may be due to the fact that long term debt has been redeemed during the period 2017-18.

**Interpretation:** The Trend Analysis of Ambuja Cement clearly exhibits an upward trend in all the three variables throughout the period of study. The study of



**Trend Analysis**

BASE YEAR – 2016						
YEAR	Revenue from Operations		Operating profit		Net Profit before Taxes	
	Amount	%	Amount	%	Amount	%
2016	229322	100	16816.7	100	20078.4	100
2017	252926	110.293	26381.3	156.876	27677.3	137.846
2018	260409	113.556	27050.7	160.856	29185.4	145.357

**Table 3: Trend Analysis of Ambuja Cement**  
**Source: From the Annual Financial Report of Ambuja Cement**

related trends helps an analyst draw a meaningful conclusion about the company's financial performance, whereas the study of trends of each variable in isolation may lead to a misleading inference.

In the ultimate year of the study period, the Revenue from Operations increased by 13.5561 per cent whereas Net Profit before Taxes increased by 45.3572 per cent as compared to base years' figure, indicating the increase in profitability of the company. Similarly, the Operating Profit increased by 24.3745 per cent, indicating that operating expenses may have declined as compared to the proportionate increase in sales.

**Ratio Analysis**

YEAR	Gross Profit Ratio (in %)	Net Profit Ratio (in %)	Operating Profit Ratio (in %)	Return on Capital Employed (in %)
	(Gross Profit/Revenue from Operations)*100	(Net Profit /Revenue from Operations) *100	(Operating Profit /Revenue from Operations)*100	(Net Profit before Interest and Tax/Revenue from Operations)*100
2016	54.2786	4.8189	7.3332	6.6167
2017	62.7846	5.9953	10.4304	7.619
2018	66.259	8.3614	10.3878	9.3451

**Table 4: Ratio Analysis of Ambuja Cement**  
**Source: From the Annual Financial Report of Ambuja Cement**

**Interpretation:**

**1. Return on Capital Employed:** This ratio of the firm is constantly increasing from 2016 to 2017 and from 2017 to 2018 where it increased a bit more and thus, gives a sign of capability of the firm to earn optimum sales with minimum amount of capital employed.

**2. Gross Profit Ratio:** Here, the company has achieved very good efficiency and level of Gross Profit Ratio in 2018 (66.2590 per cent) compared to the other financial years.

**3. Net Profit Ratio:** It is depicted from Table 4 that the company has been trying to improve its profitability year by year and had a huge increase in the year 2018.

**4. Operating Profit Ratio:** As per this ratio, the company's operating profit is the highest in the year 2017, and had a considerably small decrease in 2018, which means that the firm's ability to pay its fixed costs decreased a bit.

C. SHREE CEMENT - (see Table 11 and Table 12 for Comparative Income Statement and Common Size Income Statement respectively)

In relative terms, Net Revenue from Operations has improved by 5.6086 per cent in 2016-17 and by 5.1531 per cent in 2017-18. While the Cost of Revenue from Operations has gone up by 40.6165 per cent in 2016-17 and gone down by 2.4316 per cent in 2017-18. It indicates that the addition in Net Revenue from Operations in the year 2016-17 may be due to an increase in Selling Price, and reduction in Cost of Revenue from Operations may be due to operational efficiency in 2016-17 and in 2017-18, whereas in 2017-18 the increase in Revenue from Operations may be due to an increase in the scale of production. Selling or general or administrative expenses are the major expense contributing to Total Operating Expenses by 60.3486 per cent in 2016-17 and by 22.8375 per cent in 2017-18.

The Gross Profit of the company has recorded an increase of 67.5643 per cent in 2016-17 and an increase of 9.8758 per cent in 2017-18, whereas Net Profit increases by 17.1446 per cent in 2016-17 and by 3.3657 per cent in 2017-18.

Considerably, Net Profit before Tax to Net Revenue from Operations of Shree Cement has decreased from 19.0021 per cent in the year 2015-16 to 15.8439 per cent in the year 2016-17 and increased to 17.9844 per cent in the year 2017-18. This sudden fall takes our attention to the increase in financial obligation by 0.1448 per cent (2.0316 - 1.8868 per cent), which indicates that more debt was raised during the period 2016-2017. However, we see a decrease of the fixed financial obligation of the company by 0.2531 per cent (2.0316 - 1.7785 per cent) of Net Revenue from Operations which may be due to the fact that long term debt was redeemed during the period 2017-2018.

per cent indicating that operating expenses may have highly declined as compared to the proportionate increase in sales.

#### Interpretation:

#### Ratio Analysis

YEAR	Gross Profit Ratio (in %)	Net Profit Ratio (in %)	Operating Profit Ratio (in %)	Return on Capital Employed (in %)
	(Gross Profit / Revenue from Operations)*100	(Net Profit / Revenue from Operations)*100	(Operating Profit / Revenue from Operations)*100	(Net Profit before Interest and Tax/Revenue from Operations)*100
2016	57.4054	18.467	9.4012	7.01
2017	61.6269	13.8597	13.6601	14.3816
2018	64.3947	13.6242	15.6617	13.0696

Table 6: Ratio Analysis of Shree Cement

Source: From the Annual Financial Report of Shree Cement

#### Trend Analysis

BASE YEAR – 2016						
YEAR	Revenue from Operations		Operating profit		Net Profit before Taxes	
	Amount	%	Amount	%	Amount	%
2016	61899.6	100	5819.3	100	11762.2	100
2017	96616.6	156.086	13197.9	226.795	15307.8	130.144
2018	101595	164.129	15911.6	273.428	18271.3	155.339

Table 5: Trend Analysis of Shree Cement

Source: From the Annual Financial Report of Shree Cement

**Interpretation:** The Trend Analysis of Shree Cement clearly exhibits an upward trend in all the three variables throughout the period of study. The study of related trends helps an analyst draw a meaningful conclusion about the company's financial performance, whereas the study of trends of each variable in isolation may lead to a misleading inference.

In the ultimate year of the study period, the Revenue from Operations increased by 64.1292 per cent whereas Net Profit before Taxes increased by 55.3391 per cent as compared to base years' figure, indicating the increase in profitability of the company. Similarly, the Operating Profit increased the most by 173.4281

#### 1. Return on Capital Employed:

This ratio of the firm has witnessed a steep increase from 2016 to 2017 but it decreased a bit in 2018 and thus, it can be said that the capability of the firm to earn optimum sales with minimum amount of capital employed increased from 2017.

#### 2. Gross Profit Ratio: Here, the company has achieved very

good efficiency and level of Gross Profit Ratio in 2018 (64.3947 per cent) compared to the other financial years.

**3. Net Profit Ratio:** Table 6 depicts that due to the economic slowdown in the country and the whole world, and due to other operational inefficiencies, the Net Profit ratio of the firm is decreasing every year, though it is at its highest in 2016.

**4. Operating Profit Ratio:** As per this ratio, the company's operating profit has been increasing year by year and is the highest in the ultimate year, 2018, which indicates that the company is able to float well above its fixed costs.

#### 4. SUMMARY OF FINDINGS

The findings of the study reflect the relative competitive position of the sample firms and the overall picture of the industry.

UltraTech is the largest cement company in India with an annual capacity of 102.75 Million Tonnes Per Annum (MTPA) and a total sales revenue of around ₹ 323.046 billion in the year 2018. Ambuja Cement, the second largest cement company in India with an annual plant capacity of 29.65 MTPA, needs to harness best out of these initiatives. Today, Ambuja has a revenue of around ₹ 260.409 billion. Shree Cement is the third largest cement company in India with an annual capacity of 29.30 MTPA and has an annual turnover of around ₹ 101.595 billion.

The growth and development of the Indian economy has witnessed a slowdown because of the rising inflation, high loan costs and interest rates, significantly high prices of products, commodities and fuels. The companies should aim at increasing their numbers of net sales and decreasing and lowering the various costs associated with the operations of the company in order to improve their overall financial performances.

#### 5. CONCLUSION

The growth of the Indian economy has slowed down and has seen decreasing rates in recent times on account of the rising inflation, high interest rates, high prices of commodities and fuels. However, the Indian cement industry is amongst one of the fastest growing sectors because of the rapid development of infrastructure and real estate projects in the country. The growth prospects of the cement industry have a close linkage with the growth and development of the overall economy and the real estate and construction sector in particular. The significance of the housing sector in cement demand can be gauged from the fact that it consumes almost 60 - 70 per cent of the country's cement. Further, for instance, in the Union Budget 2011-12, the government restructured the excise duty on cement in a way that would effectively increase the tax incidence on the cement industry. Notwithstanding the fact that the Indian cement industry has seen

commendable rates of growth and development in the last decade, registering a growth of nearly 9 per cent to 10 per cent, the per capita consumption still remains substantially poor when analyzed in comparison with the world average.

The data and findings of the study reflect the relative serious competitive position of the sample firms and furthermore, the overall and general image of the industry. With the growth, it additionally illuminates the regional predominance of the players, making the entire industry dominated by a handful of companies creating an oligopoly-like structure. A few firms perform comparatively better in one over the other. In the regional rankings, it is found out that the Western region is dominated by Ambuja Cements Ltd., whereas South and Central regions are dominated by UltraTech Cement Ltd. and the North by Shree Cements. However, both Ambuja Cement and Shree Cements dominate the Eastern region.

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TABLES: (All amounts in ₹ 000000)

PARTICULARS	2018 31-Mar	2017 31-Mar	2016 31-Mar	Absolute Change 1 (2018- 2017)	Absolute Change 2 (2017- 2016)	Percentage Change 1 (Absolute change 1 / 2017) * 100	Percentage Change 2 (Absolute change 2 / 2016) * 100
Net Revenue from Operations	323046.3	286459.3	283915.9	36587	2543.4	12.772	0.896
Cost of Revenue from Operations	125166.8	134733.8	136599.3	-9567	-1865.5	-7.101	-1.366
Gross Profit	197879.5	151725.5	147316.6	46154	4408.9	30.419	2.993
Total Operating Expenses	279218.2	247797.1	248677.1	31421.1	-880	12.68	-0.354
Selling/General/Adm in. Expenses, Total	91202.3	92913.5	92214.5	-1711.2	699	-1.842	0.758
Depreciation / Amortization	18479.3	13115	13218.6	5364.3	-103.6	40.902	-0.784
Unusual Expense (Income)	3466	0	0	3466	0	0	0
Other Operating Expenses, Total	40903.8	7034.8	6644.7	33869	390.1	481.449	5.871
Operating Profit	43828.1	38662.2	35238.8	5165.9	3423.4	13.361	9.715
Interest Income (expense), Net Non-Operating	-12328.8	-1211.9	-4349.8	-11116.9	3137.9	917.312	-72.139
Gain/Loss on Sale of Asset	0	0.1	1.7	-0.1	-1.6	-100	-94.118
Other, Net	1515.4	1270.2	3322.4	7651.2	-2052.2	602.362	-61.769
Net Profit before Taxes	33014.7	38720.5	34213.1	-5705.9	4507.5	-14.736	13.175
Provision for Income Tax	10770.1	11585.5	9416.9	-815.4	2168.6	-7.038	23.029
Net Profit after Taxes	22244.6	27135.1	24796.2	-4890.5	2338.9	-18.023	9.433
Minority Interest	-22.9	14.1	-15.8	-37	29.9	-262.411	-189.241
Equity in Affiliates	0	0	0	0	0	0	0
Net Profit	22221.7	27149.2	24780.4	-4927.5	2368.8	-18.15	9.559
Source – From the Annual Financial Report of UltraTech Cement.							

Table 7: COMPARATIVE INCOME STATEMENT OF ULTRATECH CEMENT

PARTICULARS	2018 31-Mar	Percentage Change 1 (2018 / Net Revenue from Operations of 2018) * 100	2017 31-Mar	Percentage Change 2 (2017 / Net Revenue from Operations of 2017) * 100	2016 31-Mar	Percentage Change 3 (2016 / Net Revenue from Operations of 2016) * 100
<b>Net Revenue from Operations</b>	323046.3	100	286459.3	100	283915.9	100
<b>Cost of Revenue from Operations</b>	125166.8	38.7458	134733.8	47.0342	136599.3	48.1126
<b>Gross Profit</b>	197879.5	61.2542	151725.5	52.9658	147316.6	51.8874
<b>Total Operating Expenses</b>	279218.2	86.4328	247797.1	86.5034	248677.1	87.5883
Selling/General/Adm in. Expenses, Total	91202.3	28.2319	92913.5	32.4351	92214.5	32.4795
Depreciation /Amortization	18479.3	5.7203	13115	4.5783	13218.6	4.6558
Unusual Expense (Income)	3466	1.0729	0	0	0	0
Other Operating Expenses, , Total	40903.8	12.6619	7034.8	2.4558	6644.7	2.3404
<b>Operating Profit</b>	43828.1	13.5671	38662.2	13.4966	35238.8	12.4117
Interest Income (expense), Net Non-Operating	-12328.8	-3.8164	-1211.9	-0.4231	-4349.8	-1.5321
Gain/Loss on Sale of Asset	0	0	0.1	-0.00004	1.7	0.0006
Other, Net	1515.4	0.4691	1270.2	0.4434	3322.4	1.1702
<b>Net Profit before Taxes</b>	33014.7	10.2198	38720.6	13.517	34213.1	12.0504
Provision for Income Tax	10770.1	3.3339	11585.5	4.0444	9416.9	3.3168
<b>Net Profit after Taxes</b>	22244.6	6.8858	27135.1	9.4726	24796.2	8.7336
Minority Interest	-22.9	-0.0071	14.1	0.0049	-15.8	-0.0056
Equity in Affiliates	0	0	0	0	0	0
<b>Net Profit</b>	22221.7	6.8787	27149.2	9.4775	24780.4	8.7281

Source – From the Annual Financial Reports of  
UltraTech Cement.

**Table 8: COMMON-SIZE INCOME STATEMENT OF ULTRATECH CEMENT**

PARTICULARS	2018 31-Mar	2017 31-Mar	2016 31-Mar	Absolute Change 1 (2018- 2017)	Absolute Change 2 (2017- 2016)	Percentage Change 1 (Absolute Change 1 / 2017) * 100	Percentage Change 2 (Absolute Change 2 / 2016) * 100
<b>Net Revenue from Operations</b>	260409	252926	229322	7483.9	23603.3	2.9589	10.2926
<b>Cost of Revenue from Operations</b>	87864.7	94127.2	104849	-6262.5	-10722.1	-6.6532	-10.2262
<b>Gross Profit</b>	172545	158798	124473	13746.4	34325.4	8.6565	27.5766
<b>Total Operating Expenses</b>	233359	226544	212506	6814.5	14038.7	3.008	6.6063
Selling/General/Adm in. Expenses, Total	87967.8	78187.7	77077.5	9780.1	1110.2	12.5085	1.4404
Depreciation / Amortization	11539.4	12194.5	14609.3	-655.1	-2414.8	-5.3721	-16.5292
Unusual Expense (Income)	1517.8	0	385.9	1517.8	-385.9	0	-100
Other Operating Expenses, Total	44469	42034.8	15583.5	2434.2	26451.3	5.7909	169.7391
<b>Operating Profit</b>	27050.7	26381.3	16816.7	669.4	9564.6	2.5374	56.8756
Interest Income (expense), Net Non-Operating	-1579.7	-1930.1	1489.3	350.4	-3419.4	-18.1545	-229.5978
Other, Net	3714.4	3226.1	1772.4	488.3	1453.7	15.1359	82.0187
<b>Net Profit Before Taxes</b>	29185.4	27677.3	20078.4	1508.1	7598.9	5.4489	37.8461
Provision for Income Taxes	-541.5	8228.5	5737.7	-8770	2490.8	-106.5808	43.4111
<b>Net Profit After Taxes</b>	29726.9	19448.8	14340.7	10278.1	5108.1	52.847	35.6196
Minority Interest	-7952.9	-4285.2	-3289.9	-3667.7	-995.3	85.5899	30.2532
Equity in Affiliates	0	0	113.1	0	-113.1	0	-100
<b>Net Profit</b>	21774	15163.6	11050.8	6610.4	4112.8	43.5939	37.2172

Source – From the Annual Financial Reports of Ambuja Cement.

**Table 9: COMPARATIVE INCOME STATEMENT OF AMBUJA CEMENT**

<b>PARTICULARS</b>	<b>2018 31-Mar</b>	<b>Percentage Change 1 (2018 / Net Revenue from Operations of 2018) * 100</b>	<b>2017 31-Mar</b>	<b>Percentage Change 2 (2017 / Net Revenue from Operations of 2017) * 100</b>	<b>2016 31-Mar</b>	<b>Percentage Change 3 (2016 / Net Revenue from Operations of 2016) * 100</b>
<b>Net Revenue from Operations</b>	260409.4	100	252925.5	100	229322.2	100
<b>Cost of Revenue from Operations</b>	87864.7	33.741	94127.2	37.2154	104849.3	45.7214
<b>Gross Profit</b>	172544.7	66.259	158798.3	62.7846	124472.9	54.2786
<b>Total Operating Expenses</b>	233358.7	89.6122	226544.2	89.5695	212505.5	92.6668
Selling/General/Adm in. Expenses, Total	87967.8	33.7806	78187.7	30.9133	77077.5	33.611
Depreciation / Amortization	11539.4	4.4313	12194.5	4.8214	14609.3	6.3706
Unusual Expense (Income)	1517.8	0.5829	0	0	385.9	0.1683
Other Operating Expenses, Total	44469	17.0766	42034.8	16.6194	15583.5	6.7955
<b>Operating Profit</b>	27050.7	10.3878	26381.3	10.4305	16816.7	7.3332
Interest Income (expense), Net Non-Operating	-1579.7	-0.6066	-1930.1	-0.7631	1489.3	0.6494
Other, Net	3714.4	1.4264	3226.1	1.2755	1772.4	0.7729
<b>Net Profit Before Taxes</b>	29185.4	11.2075	27677.3	10.9429	20078.4	8.7555
Provision for Income Taxes	-541.5	-0.2079	8228.5	3.2533	5737.7	2.502
<b>Net Profit After Taxes</b>	29726.9	11.4154	19448.8	7.6895	14340.7	6.2535
Minority Interest	-7952.9	-3.054	-4285.2	-1.6943	-3289.9	-1.4346
Equity in Affiliates	0	0	0	0	113.1	0.0493
<b>Net Profit</b>	21774	8.3614	15163.6	5.9953	11050.8	4.8189

Source – From the Annual Financial Report of Ambuja Cement.

**Table 10: COMMON-SIZE INCOME STATEMENT OF AMBUJA CEMENT**



PARTICULARS	2018 31-Mar	2017 31-Mar	2016 31-Mar	Absolute Change 1 (2018- 2017)	Absolute Change 2 (2017- 2016)	Percentage Change 1 (Absolute Change 1 / 2017) * 100	Percentage Change 2 (Absolute Change 2 / 2016) * 100
<b>Net Revenue from Operations</b>	101595.3	96616.6	61899.6	4978.7	34717	5.1531	5.6086
<b>Cost of Revenue from Operations</b>	36173.3	37074.8	26365.9	-901.5	10708.9	-2.4316	40.6165
<b>Gross Profit</b>	65422	59541.8	35533.7	5880.2	24008.1	9.8758	67.5643
<b>Total Operating Expenses</b>	85683.7	83418.7	56080.3	2265	27338.4	2.7152	48.7487
Selling/General/Ad min. Expenses, Total	36764.9	29929.7	18665.4	6835.2	11264.3	22.8375	60.3486
Depreciation/ Amortization	8994	12147.1	8275.7	-3153.1	3871.4	-25.9576	46.7803
Unusual Expense /(Income)	23.6	50.7	93.6	-27.1	-42.9	-53.4517	-45.8333
Other Operating Expenses, Total	3727.9	4216.4	679.7	-488.5	1536.7	-11.5857	57.346
<b>Operating Profit</b>	15911.6	13197.9	5819.3	2713.7	7378.6	20.5616	126.7953
Interest Income/(expense), Net Non- Operating	1806.9	1962.9	1167.9	-156	795	-7.9474	68.0709
Gain/(Loss) on sale of Asset	12.6	10.2	6	2.4	4.2	23.5294	70
Other, Net	540.2	136.8	4769	403.4	-4632.2	294.883	-97.1315
<b>Net Profit Before Taxes</b>	1871.3	15307.8	11762.2	2963.5	3545.6	19.3594	30.144
Provision for Income Taxes	4429.8	1917	331.2	2512.8	1585.8	131.0798	478.8043
<b>Net Profit After Taxes</b>	13841.5	13390.8	11431	450.7	1959.8	3.3657	17.1446
Minority Interest	0	0	0	0	0	0	0
Equity in Affiliates	0	0	0	0	0	0	0
<b>Net Profit</b>	13841.5	13390.8	11431	450.7	1959.8	3.3657	17.1446

Source – From the Annual Financial Report of Shree Cement.

Table 11: COMPARATIVE INCOME STATEMENT OF SHREE CEMENT

Particulars	2018 31-Mar	Percentage Change 1 (2018 / Net Revenue from Operations of 2018) * 100	2017 31-Mar	Percentage Change 2 (2017 / Net Revenue from Operations of 2017) * 100	2016 31-Mar	Percentage Change 3 (2016 / Net Revenue from Operations of 2016) * 100
Net Revenue from Operations	101595.3	100	96616.6	100	61899.6	100
Cost of Revenue from Operations	36173.3	35.6053	37074.8	38.3731	26365.9	42.5946
Gross Profit	65422	64.3947	59541.8	61.6269	35533.7	57.4054
Total Operating Expenses	85683.7	84.3383	83418.7	86.3399	56080.3	90.5988
Selling/General/Adm in. Expenses, Total	36764.9	36.1876	29929.7	30.9778	18665.4	30.1543
Depreciation / Amortization	8994	8.8528	12147.1	12.5725	8275.7	13.3696
Unusual Expense (Income)	23.6	0.0232	50.7	0.0525	93.6	0.1512
Other Operating Expenses, Total	3727.9	3.6694	4216.4	4.3641	2679.7	4.3291
Operating Profit	15911.6	15.6617	13197.9	13.6601	5819.3	9.4012
Interest Income (expense), Net Non-Operating	1806.9	1.7785	1962.9	2.0316	1167.9	1.8868
Gain (Loss) on Sale of Asset	12.6	0.0124	10.2	0.0106	6	0.0097
Other, Net	540.2	0.5317	136.8	0.1416	4769	7.7044
Net Profit Before Taxes	18271.3	17.9844	15307.8	15.8439	11762.2	19.0021
Provision for Income Taxes	4429.8	4.3602	1917	1.9841	331.2	0.5351
Net Profit After Taxes	13841.5	13.6242	13390.8	13.8597	11431	18.467
Minority Interest	0	0	0	0	0	0
Net Profit	13841.5	13.6242	13390.8	13.8597	11431	18.467

Source – From the Annual Financial Report of Shree Cement.

Table 12: COMMON-SIZE INCOME STATEMENT OF SHREE CEMENT



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Nowadays, marketers engage in social media marketing and overall digital marketing, providing various offers and discounts resulting in the increase of impulsive buying and thus, have the ability to extend their sales.

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# Impulsive Buying Behaviour among Consumers over the Internet and how Marketers Exploit this to their Advantage

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## ABSTRACT

In today's technology-driven environment where almost everyone seems to be accustomed to shopping online, impulsive buying has become quite

common. Technology makes buying over the internet smarter as well as faster and thus, helps in supplying endless opportunities for impulsive buying. Technology doesn't create impulsive buyers; it just provides methods to the consumers to speed up their buying transactions, thus, leading to more and more consumers making impulsive purchases over the internet. This research paper aims to get to know the factors that drive the consumers to make impulsive purchases online, and what the marketers do to exploit this to their advantage, i.e., generally to increase their sales.

**KEYWORDS:** Impulsive buying, Impulsive purchases, Online, Technology, Internet.

## INTRODUCTION

Impulsive buying is basically the tendency of the consumers to make an unplanned impulsive purchase.

Impulse or sudden urges are a very common part of human behaviour. Every human being tends to take impulsive decisions at some point or another and these decisions may differ from person to person depending upon their lifestyle and other factors. Impulsive buying is itself not a new concept; it occurs in offline as well as online modes. Offline or impulsive buying in retail stores is triggered because of various factors including store environment, display of the products, et al. but generally, there is not much of a time constraint while shopping in offline mode. However, when someone shops online, there are various offers which have time constraints and so consumers buy on impulse because of the time crunch.

With online shopping increasing continuously, impulse purchases are increasing and marketers profit off of this to extend their sales. Nowadays, marketers engage in social media marketing and overall digital marketing, providing various offers and discounts resulting in the increase of impulsive buying and thus, have the ability to extend their sales. Many marketers engage in hardcore marketing over the web just to target impulsive buyers.

Websites such as HauteLook.com are examples of websites that continuously work towards encouraging consumers to make impulse purchases. Adam Bernhard, who is founder of this website, has described

such kind of shopping as 'discovery based' shopping and says that this is the future of shopping over the internet. Thus, online impulse buying among consumers is increasing day by day and studying this type of behaviour has become important for marketers and researchers. In this study, we will research in detail upon what prompts the consumers to make impulse purchases and what strategies and tactics marketers use to encourage impulsive purchases among consumers.

## LITERATURE REVIEW

- Many researchers have had different views on impulsive buying behaviour of consumers. Aplebaum, 1915 has described impulsive purchase as a response to external stimuli and as an unplanned purchase. Rook, 1987 explains impulses in his study as a sudden wish or urge with no regard to consequences. He explained that impulses see no consequences and an individual has no plans of buying that product.
- Moods and emotions: Merlyn Paula Gardner, Francis Piron (1993), Dennis W. Rook (1987) and many other researchers found a relationship between mood and impulsive buying. It was seen that consumers engaged more in impulse purchases when they were happy or excited. They explained that impulsive buying is more emotional than rational.
- Costa and Laren, 2003 studied impulse buying on the internet on Brazilian consumers. They went on to explain how the web made impulse purchases more frequent due to easy access, availability and convenience.
- Vohs and Faber, 2007 - Spent Resources: Self-Regulatory Resource Availability Affects Impulsive Buying. Here, the researchers have tried to find out reasons as to why people engage in impulsive buying. This theory explained that the amount of self-regulatory resources available with an individual are limited and when they exhaust these resources for one action, they will have less control in case of the other. For example, if one exercises self-control in one case, they may not be able to do so later if they come across a situation in which they have to decide whether to make an impulse purchase or not.

- Ekeng et al. (2012): In this study, it was concluded that statistical qualities impact impulse purchase decisions. Impulsive buying differs between males and females with females being more engaged in impulsive buying. This study also explained how the period of development of individuals and impulsive buying conduct are inversely related. It was seen that teenagers engaged more in impulsive buying as they generally had no obligation of raising families and cared less about burning through their cash. Moreover, it was seen that an increase in the pay of consumers led to more impulsive purchases by them.

## OBJECTIVES

This research paper aims at fulfilling the following objectives –

- To find out and show the effect that various demographic factors like age, gender and occupation have on the impulsive buying behaviour of the consumers.
- To find out the factors that influence the consumer's decision regarding their impulsive purchase.
- To find out what strategies and tactics marketers use to encourage impulsive buying behaviour among consumers.

## RESEARCH METHODOLOGY

In this study, descriptive design has been used through surveys and fact-finding enquiries. In such a kind of research design, the demographics that will be used, the attitudes of the consumers, et al. are clearly defined. Both primary as well as secondary data has been used for attaining the objectives of this paper.

Primary data was collected through a survey where a questionnaire was circulated among the residents of Kolkata to get a better insight into the objectives of this research. For this research, a sample of 130 responses had been surveyed. The questionnaire contained around 18 questions regarding various demographic factors and numerous other questions relating to impulse purchases. The sampling technique used is Convenience Sampling, wherein the researchers select

the most accessible members to interview or send questionnaires in order to obtain information.

Secondary data was also used to find out what tactics and strategies marketers use to encourage impulse buying among consumers. The information and data so obtained were analyzed with the help of various statistical tools like - bar graphs, pie charts, pivot tables and charts, et al. SPSS software was also used to find out the correlation between certain questions.

## FACTORS INFLUENCING THE CONSUMERS TO MAKE AN IMPULSIVE PURCHASE ONLINE

There are a lot of factors that influence a consumer's decision to make an online impulsive purchase. Some of these factors are as follows –

### Moods and Emotions

This is a very important factor when it comes to impulse purchases. When people shop, they face a variety of emotions. These emotions can be both positive as well as negative. People have been seen shopping in both moods. People make more impulse purchases when they are happy or excited, but they have been seen to shop even when they are sad to make themselves feel better.

### Price

Price is also a factor for impulse purchase decision. People generally make more impulse purchases when the products are available at a lower rate. Price can also be taken as the psychological pricing of different products. For instance, when products are marked with prices like ₹199, ₹499, ₹299, et al, it hits the psychological aspect of the consumers and leads to more impulse purchases.

### Advertisements and Promotional Offers (Including Time Crunch)

Advertisements on various social media platforms such as Facebook, Instagram, Twitter, et al. play a crucial role in influencing impulsive purchase decisions. Many a times, people come across websites through advertisements on social media, get attracted to the offers and then make an impulse purchase. Promotional offers and various vouchers like free gift bonus vouchers, free shipping, flat 50 per cent off, et al. offered only for a limited period of time have an

influence on the consumer's mind and also lead them into making impulse purchases especially due to the time crunch.

### **Website's Qualities and Attributes**

Website characteristics have an important role to play in influencing consumer's decision to purchase impulsively as it is all that the consumer interacts with and thus, it can provide features to encourage impulsive buying. The more personalized and attractive the shopping experience of the consumer is, the more he/she is inclined towards making an impulsive purchase.

### **Familiarity with the Website**

It has been observed that people are generally more inclined to making an impulse purchase when they see an offer at a trusted website i.e. a website from which they have already made a purchase before. Therefore, familiarity with the website plays an important role in influencing impulsive purchase decisions.

## **STRATEGIES AND TACTICS ADOPTED BY MARKETERS TO ENCOURAGE ONLINE IMPULSIVE BUYING AMONG CONSUMERS**

Impulsive buying happens in both retail stores as well as in online stores. Here, we will discuss a marketer's strategies with reference to only online modes of shopping. These are –

**Social media advertising and promotions:** The most important strategy that marketers adopt is to advertise their product on various social media platforms such as Facebook, Instagram, Twitter and even on Google. They create the advertisement in such a way that the consumer gets attracted to the offer and feels the urge to buy the product or service so advertised. What they do is that they target the fear of missing out among consumers to encourage impulsive purchase. Marketers adopt various promotional offers such as *free shipping, free gift bonus offers*, et al. for a limited time-frame to urge the consumers to make impulsive purchases.

**Superb web design and mobile optimization:** As discussed earlier, a website's design and attributes influence a consumer's impulsive buying decision to a

great extent. The higher the perceived value of design and more objective measures like understandability, the more likely a consumer is to make an impulse purchase. Marketers try and design their websites in such a way that it is mobile-optimized and provides easy accessibility to the consumers.

**Suggestions and reminders:** Another excellent tactic used by marketers is providing suggestions and reminders to their customers. They develop their websites in such a way that it intelligently recognizes items placed in the shopping carts or items which the consumers wish-listed and suggests similar products on the consumers feed so that they get attracted to it and make an impulse purchase. They also send reminders with offers to consumers either through emails or messages, so that the consumers are tempted to go back to the website and make a purchase.

Thus, marketers can earn a significant amount of income from impulsive shoppers. Marketers have understood that if they do not take steps to appeal impulse buying among consumers, they may be missing out on a major money-making opportunity and therefore, they use these strategies and tactics to encourage impulsive buying among consumers.

## **ANALYSIS AND FINDINGS**

The following findings are obtained after analyzing the results of the survey conducted through a questionnaire circulated among the residents of Kolkata. The questionnaire consisted of various questions to understand the respondent's perception on impulsive buying. The results from the survey show that consumers do engage in impulsive buying and the factors discussed earlier have a major impact on their impulsive buying behaviour.

Through the survey, the respondents were asked three demographic questions – their age, gender and occupation. As per the responses, we see that the majority of the respondents lie between the age group 18-26, 63.8 per cent of the respondents are female and the rest 36.2 per cent are male respondents, and the majority of the responses are from students.

These demographic factors had a major effect on the consumer's impulsive purchase behaviour.

Gender	Do you think of yourself as an online impulsive buyer?			
	Yes	No	Maybe	Grand Total
Female	23	27	33	83
Male	26	11	10	47
Grand Total	49	38	43	130

**Table 1 – Relationship between gender and consumers' perception of themselves as impulsive buyers**

Source: Primary Data

The respondents were asked if they viewed themselves as online impulsive buyers. From the data, we get to know that a greater number of males replied with a yes than females which contradicts the study of Ekeng and et al. (2012) who said that females shop more impulsively than males.

them while making an impulsive purchase online'. They were asked to choose between six different factors – Price, Recommendation, Free shipping, Free gift bonus offers, Mood while shopping and Time crunch.

According to the respondents, price and mood while shopping played a major role in influencing their impulsive purchase decisions, followed by free shipping and gift bonus offers. All the factors have some effect or the other on the impulsive purchase decision. Some of them may have more influence than the other.

To prove that every factor has some effect or the other on the consumer's impulsive purchase decision, let us use correlation as a tool.

Now, in Table 3, we are testing the correlation between two variables - the factor price and the consumers' perception about themselves as an online impulsive

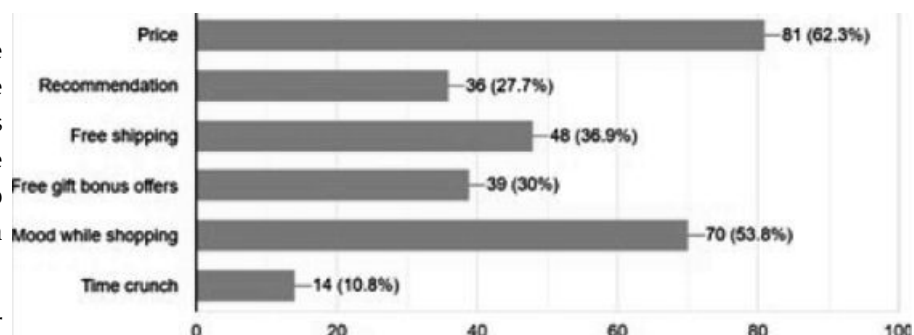
How often do you make impulsive purchases online?	Age					
	Below 18	18-26	27-35	36-45	46 and above	Grand Total
More than once a week		2				2
Once a week	3	7	2	1		13
2-3 times a month	7	19	3	2	2	33
Once a month	6	24	8	6	1	45
Very rarely	9	16	4	5	3	37
Grand Total	25	68	17	14	6	130

**Table 2 – Relationship between age and the frequency of making impulsive purchases by the consumers**

Source: Primary Data

Next, the consumers were asked how often they made impulse purchases online. As per Table 2, we see that people from all age groups shop impulsively around once a month.

The consumers were further asked a question as to 'which are the deciding factors for



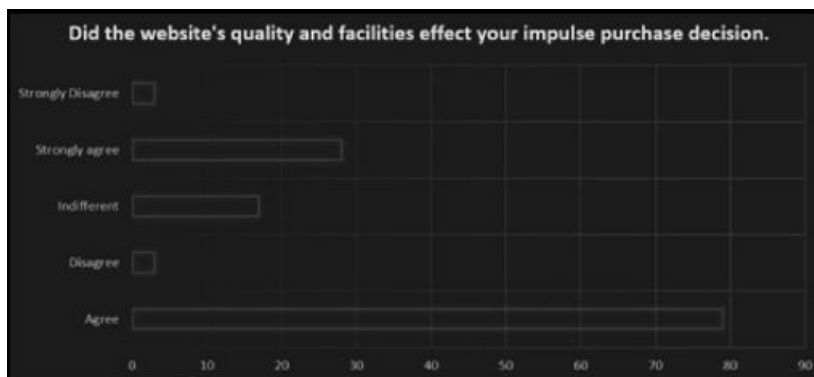
**Figure 1**  
Source: Primary Data

Correlations		Price_Factor	Make_Impulsiv e Decision
Price_Factor	Pearson Correlation	1	.081
	Sig. (2-tailed)		.360
	N	130	130
Make_Impulsive_Decision	Pearson Correlation	.081	1
	Sig. (2-tailed)	.360	
	N	130	130

**Table 3 – Correlation between price and consumers' perception of themselves as online impulsive purchasers**  
Source: Primary Data

buyer where price is the independent variable. We see that there exists a low positive correlation of 0.081 between the two variables which implies that price does affect the consumer's impulsive purchase decision but there is a low correlation, which shows that the other factors such as mood while shopping, offers, et al. also impact the consumer's impulsive purchase decision making process.

Analyzing further, we find that according to a majority of the respondents, *social media advertisements do trigger impulsive purchases online to a great extent*. Almost 80 per cent of the time that they indulge in impulse purchases is due to advertisements on various social media platforms. We also find that people prefer making impulse purchases from those websites which they are familiar with and thus, familiarity of the website plays a major role in influencing impulse purchases. Thus, marketers should keep adopting reminder and suggestion strategies for their existing customers.



**Figure 2**  
Source: Primary Data

The people were further asked *whether the website's quality, attributes and features affected their recent impulse purchase or not*.

As per the responses, we see that most of the respondents either replied with agree or strongly agree which means that the website attributes do affect the impulsive purchase decision.

Therefore, marketers should continuously work on improving the website and making the shopper's experience more and more personalized.

Further analysis shows that maximum number of respondents made the impulse purchase because they were attracted to an offer online. Data also revealed that most of these offers had a limited time which prompted them to make the purchase instantly, proving our point that time crunch is a major factor when it comes to making impulse purchases. The data further shows that people tend to purchase clothes, accessories or shoes on impulse more as compared to others, followed by food products. Therefore, marketers should advertise and promote these products a bit more than the others.

The respondents were further asked a question as to *'what were they doing before they made the impulse purchase'* to get to know how the consumer came across the website from which he/she made an impulsive purchase. Most of the respondents said that

they were already shopping online and looking for something. Therefore, the consumer must have been shopping online and in the process, came across an advertisement of the product or was suggested the product on the website.

Lastly, the consumers were asked *whether they were satisfied with their recent impulse purchase or not*. A majority of the respondents said that they were satisfied with their purchase and did not regret purchasing on an



impulse. Therefore, we see that impulsive buying does exist among people and with increase in technology, it will continue to do so.

### LIMITATIONS OF THE STUDY

This study has the following limitations –

- The area of the study is limited to Kolkata. Hence, there is a possibility that the results may not be true for other geographic areas.
- The sample size is only 130 which may not reflect the perception of the entire population of Kolkata.
- The majority of the responses are from students and therefore, the data obtained may not reflect the true preferences of the entire population.
- The reliability of the analysis and findings depends on the responses of the individuals who took the questionnaire.

### CONCLUSION AND RECOMMENDATIONS

Overall, through the literature review and the analysis, the current study has made an effort in the direction of understanding online impulsive buying behaviour among consumers.

Through this research paper, we get an understanding of what factors influence impulsive buying among the consumers and also what marketers do in order to encourage impulsive buying. After conducting the analysis, a lot of things have been discovered. Some of them are as follows.

We see that impulsive buying is more common among the youth and also people in their late 20's and mid 30's (generally because of the fear of missing out, or because they want to follow the trend) and the most common things that people tend to purchase impulsively over the internet are clothes, accessories or shoes. Thus, keeping all this in mind, the marketers should focus on these groups of consumers and these kinds of products more when they are planning the strategies and tactics to get their consumers to purchase impulsively.

We also see that all the factors discussed in this paper

affect a consumer's online impulsive purchase behaviour in some way or the other among which price, advertisements and mood of the consumer play a very vital role. The website's quality and attributes also play a very important role and thus, marketers should continuously work towards making the websites mobile-optimized and the shopping experience more and more personalized for the consumers. They should not only target new consumers but also their existing consumers.

Lastly, we see that most of the responses showed that the consumers are satisfied with, and do not regret their impulsive purchase decision. This implies that with further advancement in technology, impulsive buying will increase more and more. If a marketer does not take advantage of this, he/she will be missing out on a significant money-making opportunity and thus, marketers should continuously work towards encouraging impulsive buying among consumers.

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“

The key difference between competitive advantage and sustainable competitive advantage is ‘durability’.

”

# Economic Moats: Why Does it Matter in Companies?

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‘The most important thing [is] trying to find a business with a wide and long-lasting Moat around it protecting a terrific economic castle with an honest lord in charge of the castle.’ Warren Buffett said.

## ABSTRACT

There are numerous ways through which you can invest in the stock market. Choosing the correct one is the most important factor in order to generate greater returns. This is where identifying ‘economic moats’ becomes necessary. A concept proposed by Warren Buffet, it can simply be described as the durable and sustainable advantage of a firm.

Finding moats should be a core part of one's stock-picking process. This paper entails how one can understand the industries and pick out the profitable ones by checking if it possesses the attributes needed to sustain. It throws light on the various Indian companies having wide moats and how mistakes can lead to the erosion of a company's moat.

## LITERATURE REVIEW

Loudon Et Al. (2010) spoke about customer satisfaction and how to gain a customer base. With firms being very dynamic, they should be updated with customer needs and preferences. However, his research report lacked real-life examples.

Boone and Kurtz (2013) discussed how cost advantage can be duplicated by people getting access to cheaper sources. They focused on technological innovation and the adoption of a strong brand image.

Michael Porter (1985) analyzed the five threats that the companies are exposed to, including the threat of entry, threat of substitutes, bargaining power of suppliers, bargaining power of buyers, and industry rivalry. Later on, he added government policies, availability of manpower, and infrastructure.

Barney JB (2002) spoke about gaining a sustainable competitive advantage, the importance of company actions, and the steps it can take to get a durable advantage. He also stressed on how a company can gain superiority with less competition around.

## RESEARCH OBJECTIVES

- i) To study the attributes and sources leading to a company's economic moat.
- ii) To learn how to identify and measure moats quantitatively.
- iii) To analyze Indian companies with wide moats.
- iv) To know about the erosion of moats by focusing on the disruption of Nokia Ltd.

## DATA COLLECTION SOURCES

The methodology adopted for collecting information is based on secondary research collected from journals, websites and presentations, in particular, The Economic Times and Morningstar.

Financial metrics like Return on Invested Capital, Return on Equity, and Return on Assets have been used to explain the concept. Average five year ROCE of Indian companies has been extracted from secondary sources as well. Simple tools including graphs and line diagrams have proven helpful in analyzing the trends.

## INTRODUCTION

The word 'moat' means a ditch that is dug around a castle to stop invaders from entering and thus, keeping them at bay. Drawing a parallel, companies having strong economic moats can withstand the persistent onslaught of competitors with much more resilience than the companies without one. Companies like Coca Cola and Gillette were labelled as the 'The Inevitable' because of their unbreakable moats. They have their structural advantage to fall back on whenever economies get rough.

Let's look at an example - Suppose there are two companies, one with a moat and the other without one. Both have similar capital structures. The company with the moat will be able to generate high economic profits as it will reinvest its cash flows at a higher rate of return. On the other hand, the company without a moat will experience declining returns on invested capital.

The key difference between competitive advantage and sustainable competitive advantage is 'durability'. While competitive advantage might be a one-time advantage for the company, sustainability goes on for decades.

In Figure 1, the ROIC of the company with the moat takes a longer period to slide downwards while the company without one faces the decline faster.

A company with a moat v/s a company without a moat

Moats matter for a lot of reasons. It furnishes the company with great benefits as they can offer their

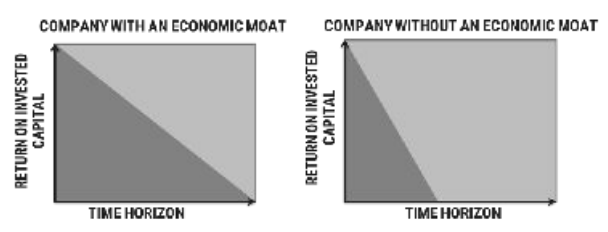


Figure 1

Source: Safalniveshak.com

products and services at a reasonable price and quality along with a superior value. Investors are assured of high earning growth, huge free cash flows, good dividends, and predictable earnings. They can enjoy the returns as the intrinsic value increases with time.

### WHAT ARE MISTAKEN MOATS?

‘Moats depend less on how a company plays the hand it is dealt than they do on what cards the company holds in the first place’, says Pat Dorsey in his book, ‘The Little Book That Builds Wealth’.

As investors, we need to understand and carefully judge if the company has an economic moat. Some of the competitive advantages which are mistaken to be moats include:

- i) **Quality Products** - They do not essentially make a moat every time and will only produce short term results. Ford’s EcoSport was an excellent car but was soon replaced by similar offerings.
- ii) **Huge Market Share** - Large market share does not imply a ‘moat company’ or a small market share doesn’t imply a ‘no moat company’. Kodak Films failed despite having a considerable amount of market share and investor optimism as they were unable to cope up with the market trends.
- iii) **Great execution** - Some companies are great at blocking and tackling but these strategies can be easily reproduced.

The question that the investors should seek to answer is not ‘if’ the company possesses the above traits but rather ‘how’ they reached to that level of competitiveness and whether it will sustain in the long run.

### SOURCES AND ATTRIBUTES TO CREATE A MOAT

To create an economic moat, the company needs to demonstrate certain characteristics. If the company has one of these advantages alongside high returns, it is most likely that we have found a company with a moat.

**Intangible Assets:** Though not quantifiable, intangible assets act as a major attribute in helping a company hold a strong position in the market. They incorporate-

- i) **Brand Equity** - All popular brands are not profitable unless they increase their customer’s desire, readiness, and willingness to pay a premium as compared to their competing products. Starbucks has maintained its position in the beverage industry by offering high-quality coffee. Customers do not hesitate to pay extra for the positive experience that Starbucks offers.
- ii) **Patents** - Patents that are not expiring in the upcoming years will give the company an advantage. The more profitable the patent, the more legal hurdles it will face. Sanofi, being a leader in the insulin industry, benefits greatly from patent protection. Coca Cola’s recipe has been patented to prevent others from replicating it.
- iii) **Licensing** - A little help from the government makes it impossible to enter the market. Credit rating agencies like CRISIL, ICRA, and others enjoy this intangible asset.

To maintain a regulatory moat, companies should aim for small scale rules rather than a big one that can be changed anytime.

**Switching Cost:** As exclaimed by Pat Dorsey, ‘Sticky customers aren’t messy. They are golden!’ If customer retention is high, companies can charge higher prices and thus, maintain an excellent return on capital. This type of moat is difficult to spot but it is worth the time to identify the companies having high switching costs.

#### Different types of switching cost include -

- i) **Transaction costs**- People are required to pay a cancellation fee before exiting.
- ii) **Learning costs**- A person who is switching from Microsoft to Apple would have to learn the new

ways of operating it. Others could include learning Adobe Photoshop or Adobe Illustrator.

- iii) **Uncertainty**-The quality of the product may turn out inferior to the one being used before.
- iv) **Process Disruption**- The productivity and efficiency of the individual gets hampered.
- v) **Lost Benefits Costs**- These are non-transferable benefits that the individual loses like airline travel points or extra minutes for a mobile subscription.

Before changing, customers need to weigh the benefits of the product with the cost and risks of change. If the costs outweigh the benefits, the customers will likely stick to the company and vice-versa.

**Cost Advantages:** Having a cost advantage is crucial in industries where substitutes are available in abundance and price forms a bigger part of the consumer's purchase decision. A company that is keeping its operating expenses low as compared to its sales in comparison to its peers, experiences cost advantage. This helps them maintain greater profit margins. They also achieve economies of scale through increased sales. Cost advantages can be maintained through process advantages, superior locations, and a low-cost resource base.

Walmart, a multinational retail corporation, has successfully built a moat through this attribute owing to its vast distribution network and tremendous bargaining power with its suppliers.

**Efficient Scale:** This occurs when a particular market has a very limited number of players giving them a natural monopoly. Utility firms are examples of such efficient scale companies including pipelines, railways, and airports. Companies do not have an incentive to enter the market and compete because the market size

remains limited and there is a high fixed cost to enter. In case they do enter, their returns will turn out to be lower than their cost of capital.

**Network Effect:** A company benefits from the network effect when its value increases with the number of users. The more the sellers, the easier it is for the buyers to buy. This increases the buyers and thus, it is easier to sell things. This type of moat is mostly found in companies that are involved in connecting people by sharing information rather than the commodity type industry. Credit card companies, eBay and Uber are good examples of the same.

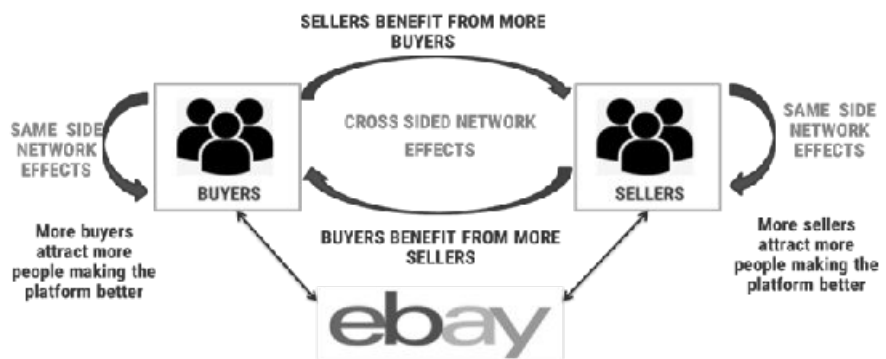


Figure 2: Network effect of eBay  
Source: Digital.hbs.edu

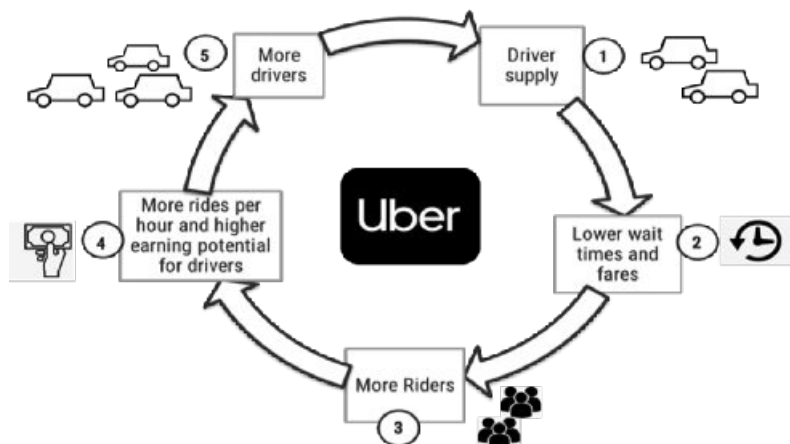


Figure 3: Network effect of Uber  
Source: Authors' Compilation

## WAYS INWHICH INVESTORS IDENTIFY MOATS

There are three different kinds of moats being:

- i) **Wide Moat** - Excess normalized returns should be positive for more than 20 years.

- ii) **Narrow Moat** - Excess normalized returns should be positive for at least 10 years. They have a slim advantage over their competitors. These exist in highly competitive markets and have a small ability to protect their intellectual property and therefore, gain limited economic benefits.
- iii) **No Moat** - No sustainable competitive advantage as they fail to generate positive excess returns. Since their quality is lower than the others, they will see their ROIC approaching their WACC faster than the above two.

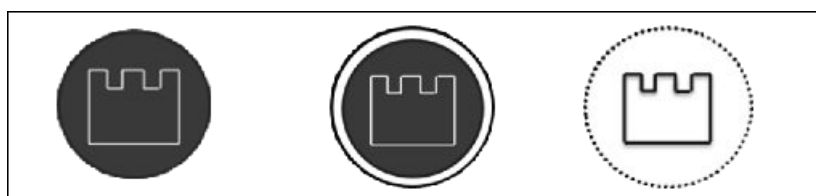


Figure 4

Source: Authors' Compilation

What is the best way of identifying moats? From a broader perspective, the companies that are generating more profit than what they have invested in the business is a company that can potentially possess a moat, keeping in mind other qualitative factors. This is called Return on Capital which serves as the primary factor in identification. To measure return on capital, we can look at metrics like ROA, ROE, and ROIC among others.

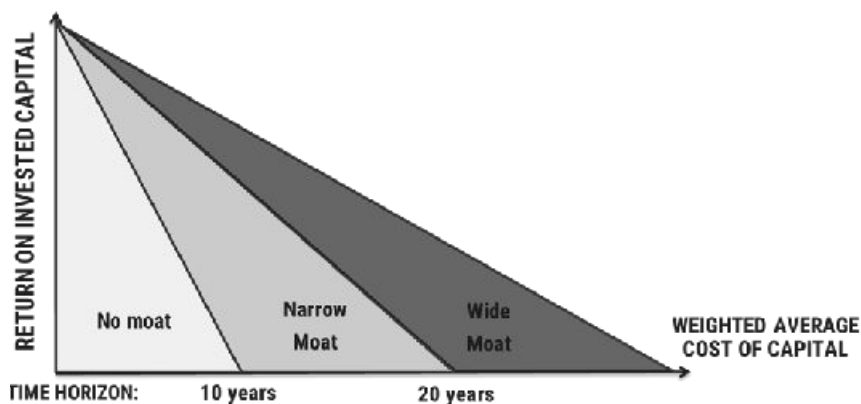


Figure 5

Source: Morningstar

- i) **Return on Assets (ROA)** - This metric measures how efficiently a company uses its assets to generate returns. ROA of more than 7 per cent is generally considered good. However, since the company employs some amount of leverage, we have to look at other metrics too.
- ii) **Return on Equity (ROE)** - This metric measures the efficiency with which the company uses its shareholder's wealth. It shows the profits that the company generates per unit invested with the given wealth. ROE of a company can effectively be taken out by conducting a DuPont analysis. Again, if the ROE is more than 15 per cent, it is considered profitable enough.

- iii) **Return on Invested Capital (ROIC)** - Being the most important metric out of all, it includes both debt and equity. It is preferred as it

includes the debt factor unlike ROA and doesn't distort results like ROE (a highly leveraged company produces high ROE, thus, misleading the investors). The ROIC of the company should be higher than its WACC (Weighted Average Cost of Capital) consistently for it to be deemed as a company with an economic moat.

An important thing to note here is- 'It's easy to get caught up in big profit margins and fast growth, but the duration of those big profits is what really matters.' The magnitude of returns doesn't matter as much as their sustainability and persistence.

Other factors which can be kept in the back of our mind when finding a moat is whether or not the management is competent enough, what was the performance of the company during financial turmoil, and how well is it doing compared to its competitors.

The bottom line is that finding moats should be a core part of the stock-picking process. One doesn't need to invest in every part of the stock market. Understanding the industries and picking out the profitable ones will get you ahead. Keeping a herd mentality and investing in unattractive industries will always be a bad idea. There is the reason why Willie Sutton famously robbed banks because 'that's where the money is.'

To sum up how investors can identify economic moats, let's look at the following diagram-

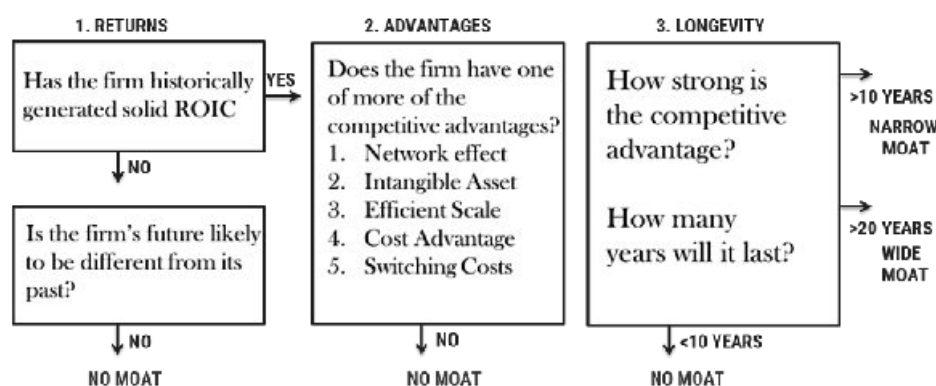


Figure 6

Source: Semantic Scholar.org

## INDIAN MOAT COMPANIES IN VARIOUS SECTORS

Superior performance has led these Indian companies to succeed and become market leaders in their industries. Not only have they sensibly widened their moat, but have also carefully allocated their capital to avail the best opportunities in front of them. Let's throw light on the wide moat companies of India and the factors that enabled them to become so:

- i) **Asian Paints** - Asian Paints understood its customers better than its competitors through innovation, latest technology, top quality management, and strong supply chain management. Asian Paints constantly focused on advertising, thus, building a strong brand with recall value. Intangible assets are the main source of their moat. (Average five year ROCE- 40.84 per cent)
- ii) **Britannia** - Britannia has been able to build an

impenetrable moat through its cost leadership strategy. 'We have got this intense mindset of cost savings and cost efficiency programmes. So that is something I don't think any large FMCG in India has been able to create' says Varun Berry, Britannia's MD. As seen in their recently built plants in Bidai and Bangalore, Britannia's strong distribution network brings operational efficiencies and cuts manufacturing costs. (Average five year ROCE- 52.68 per cent)

- iii) **Tata Consultancy Services** - Technology companies enjoy high switching costs and this is the source around which TCS built its moat. The willingness of TCS to invest in customer relationships has provided them with satisfied customers and a high rate of repeat business, thus, locking in customers for a longer period. (Average five year ROCE - 49.13 per cent).

- iv) **India Tobacco Company (ITC)** - ITC has been able to successfully build a moat considering the brand and the addictive nature of the substance - tobacco. Its strong distribution network reaches the remotest of towns. High cash generation and strong research and development facilities have helped them diversify their business in the FMCG sector. (Average five year ROCE - 35.24 per cent).

- v) **HDFC Bank** - The financial-services sector is another great place to look for companies with moats. The bank has differentiated itself by being a low-cost franchise, a very important source of a moat in the finance sector. HDFC has been efficiently managing its overall asset portfolio. The company has been consistently maintaining a NIM (Net Interest Margin) of 3.95 per cent and a net NPA (Non-Performing Assets) of 0.35 per cent for the last five years. It has never compromised on the quality of its loans and has still been able to maintain high profitability and a good loanbook.

## EROSION OF MOATS

Every moat has a lifecycle. An emerging moat is one where the company is still in the process of forming and is incurring huge investments and fixed costs. Enduring moats start giving the business recognition and customers start accepting it which eventually increases the valuation of the business and its returns. Eroding moats are companies losing their valuation because of various inefficiencies like technology, innovation, operations, and hyper-competition.

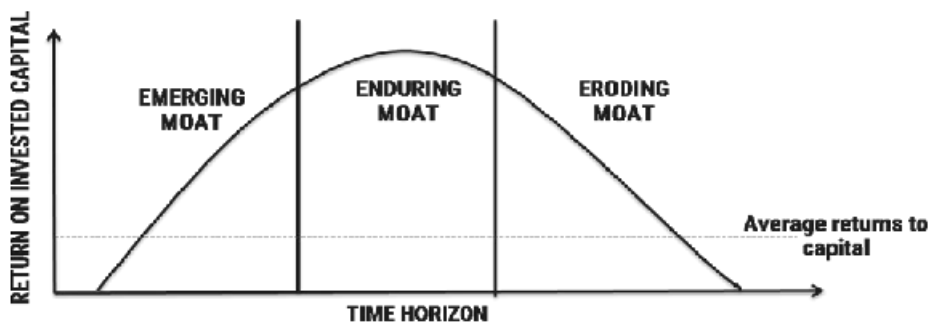


Figure 7

Source: Authors' Compilation

The core challenges that the company faces include the following-

- i) **Hyper-Competition** - Just when the company thinks they are doing well, a competitor arises. They can either have better quality products, cost advantage or a unique product.
- ii) **Customer Preferences** - A company that fails to connect with its customers never wins. Companies need to act as soon as they observe customers switching from their company to another. 'Fall in love with your client and not your product or service, because your product or service is going to change anyway,' said Tony Robbins, a business strategist.
- iii) **Internal Challenges** - This can range from an incompetent management style, poor research and development, and obsolete technology to companies not being able to cope up due to the widening of markets.

Companies need to constantly increase their knowledge of markets. Those who sacredly follow the market trends never erode.

What factors do the companies need to be aware of in order to stop their moat from getting eroded?

- i) **Switching Costs** - Constantly check if there are any cheaper alternatives available with better quality. This would prevent your pricing power from declining.
- ii) **Network Effects** - Too much congestion and reduction of user commitment can affect this moat adversely.
- iii) **Intangible Assets** - Licenses being revoked, patents expiring soon, and losing brand value are negative signs.
- iv) **Cost advantage** - The process adopted by a company to reduce costs can be easily replicated. New technologies would reduce costs all over.

**Erosion of Nokia's Moat:** Nokia was once the largest handset brand and despite being the leader and having the highest market share in 2007, it declined drastically as they did not pay heed to the changing environment. This was one of the biggest mistakes on part of Nokia. They failed to 'connect with people' as they were not able to predict and understand the demand of their customers.

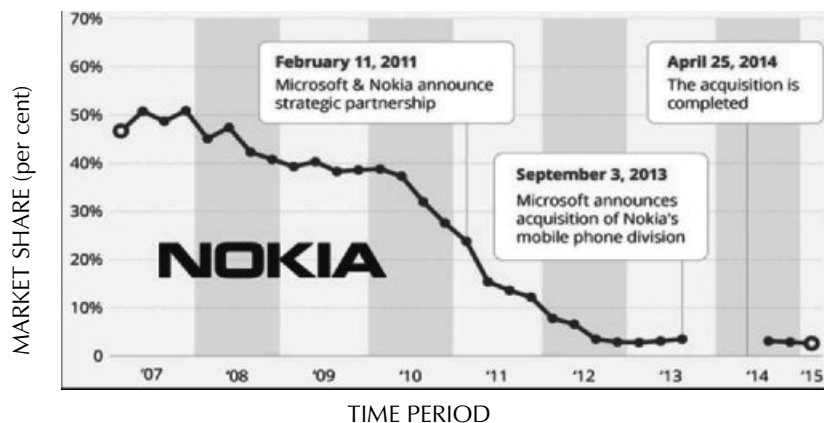


Figure 8

Source: Gartner



What were the factors that led to the disruption of its moat?

- i) Failed to cope up with the upcoming trends and stuck to obsolete technology.
- ii) Failed to invest in marketing and sales.
- iii) Incompetent management and employees.
- iv) Spent money on research and development but not according to people's needs.
- v) Strong competitors including Apple, Samsung, et al.

### CONCLUSION AND RECOMMENDATIONS

Moats are the backbone of any company and they predict its survival. An economic moat is a benefit that is sustainable in the long-term. Analyzing moats qualitatively and quantitatively can help investors understand which moat to invest in. It holds benefits not only for the companies but also for the shareholders.

To reiterate, moats certainly don't last forever and the company has to continuously line themselves with the ever-changing environment to survive their holding period.

After concluding the project, the following recommendations can be made -

#### Recommendations for the Companies

- i) Recognizing the trends in due time can have an early impact on the customers rather than being defensive and reacting after all the competitors have made the required changes.
- ii) Executions of the various innovations should be done on time.
- iii) Always hire people who are smarter than you and possess diverse skills in order to have a vast team with knowledge in every field.
- iv) Don't succumb to short term incentives. A company that sets long term goals wins.
- v) Not only be aware of the competitors but also of the environment and the restrictions that the government presents.

#### Recommendations to the Investors

- i) Peer analysis is important before investing.
- ii) Look at the growth and the size of the particular industry.
- iii) Check whether the company is fair, under or overvalued by performing a comparison between the intrinsic value and the market value.
- iv) Check if the track record of the company's fundamentals and capital allocation is strong.
- v) Check whether the company is sensitive to the business cycle and whether it's volatile or uncertain.

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- 'The Unusual Billionaires' -Saurabh Mukherjea
- 'The Little Book That Builds Wealth' -Pat Dorsey



# Experiential Marketing in the Covid-19 Circa: The Recalibration of Brands Amidst Coronavirus Lockdown

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In a nutshell, customers want to actively join or participate in the brand rather than just having an ephemeral experience of buying as passive customers.

## ABSTRACT

The contagious outbreak of the menacing pandemic of Covid-19 novel Coronavirus sent the whole world into a ramshackle. Since then, the pandemic has wreaked havoc across the world, triggering lockdowns which resulted in a plummeted global economy, blighted growth prospects and death of over 500,000 people. The lockdown that was imposed as a precautionary measure against curtailing the pandemic brought everything to a standstill; be it the postponement of the much-hyped Summer Olympics or the unfathomable sights of completely empty streets. In this context, the landscape of marketing has been left scrambled to salvage effective brand building through digital media by reshuffling their tried-and-true methods of connecting with the audiences, thus, providing enriching customer experiences. This article is an endeavour to discuss as to how brands have been communicating with the masses during the lockdown.

**KEYWORDS:** Coronavirus lockdown, Experiential Marketing, Brands, Customers Engagement

## BACKGROUND OBSERVATIONS

The emergence of novel Coronavirus has petrified the entire world. The boisterous and bloodthirsty pandemic started spreading across nations and

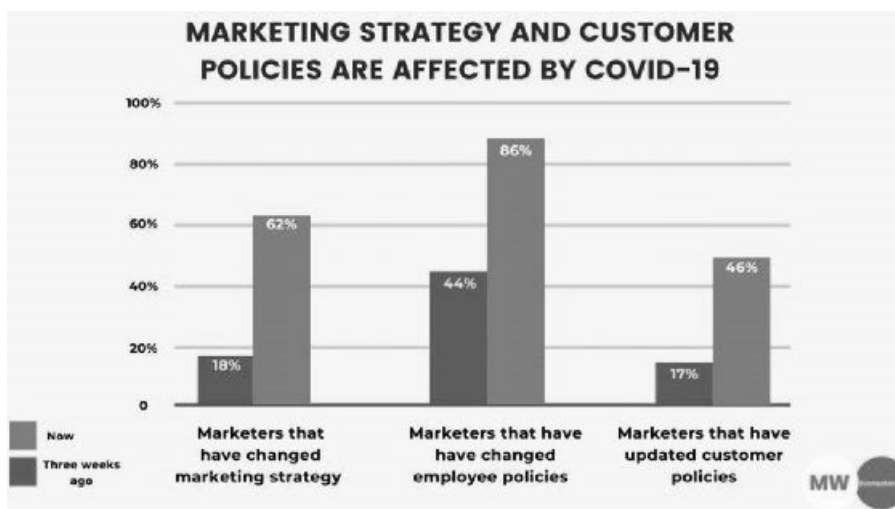
claimed lives of people at an alarming rate. As a result, the respective governments of all countries were forced to impose lockdowns to combat the deadly virus. The closure of the manufacturing and retails sectors, temporary suspension of flights, shutting down of malls, theatres, pubs, hotels and restaurants, complete restriction on tourism, et al. devastated the economy of all nations creating fears of an inevitable global recession. Amidst all these, marketers have been relentlessly excogitating about ways to interact with audiences in times of these tough days of lockdown.

With non-essential stores closed and distribution limited across the world, brands have been reassessing their marketing strategies and have been mulling over ways to communicate with their customers in new and innovative ways that not only keep the brands afloat in the minds of the customers, but also allure them to experience something different altogether. Social media platforms which have for long been a hub for advertisements of products and services are now cluttered with online chats, styling games, drawing challenges, cooking tutorials, and fitness sessions. In a nutshell, the intention of brand building during lockdown has been built upon a more emotional side of the audiences, making them feel as if they are a part of a community, thereby, aiming at experiential marketing.

the customers' mercurial needs amidst an unprecedented global health crisis by making the audiences address the feelings of isolation, and henceforth, building a community. However, community building by the marketers during lockdown has proved to be an arduous task as the audiences are hunkered down at home.

## INTRODUCTORY REFLECTIONS

The outbreak of Coronavirus has spiraled some key areas of marketing including OOH (out-of-home). With customers at home mired in quarantines and marketing chains dismantled, it is likely that people will not get to see the typical billboards and advertisements on public transit. Minor tweaks can serve the purpose of marketers to deftly pivot to the successful resurgence of campaigns, while simultaneously adhering to all safety precautions coupled with engaging with customers. It is a no-brainer that brands are facing the heat in developing full-fledged campaigns at a time when all works are being managed remotely. This has called upon the marketers to explore methods of reworking archives creatively and supporting employees, customers and community befitting to these times of lockdown.



**Figure 1: The impact of Covid-19 on Marketing Strategy and Customer Policies (Source of Image: marketingweek.com)**

Retailers have been extending online discounts to keep their brands upbeat; fitness companies have been posting free workout resources and brands have been sharing uplifting messages. Community brand seems to be tricky at the moment when juxtaposed to traditional Ad campaigns. However, metrics like emotions, eye-twitching marketing techniques and customer engagements are actually helping gauge customer response, boosting app downloads and social

Thus, brands have been dabbling with more interactive ways to forge ties during lockdown, aiming at meeting

followings. Even the non-digital brands have not jettisoned themselves from exploring new ways to

explore corral folks and delivering intriguing experiences. This is where the pivotal relevance of Experiential Marketing has come to the forefront.

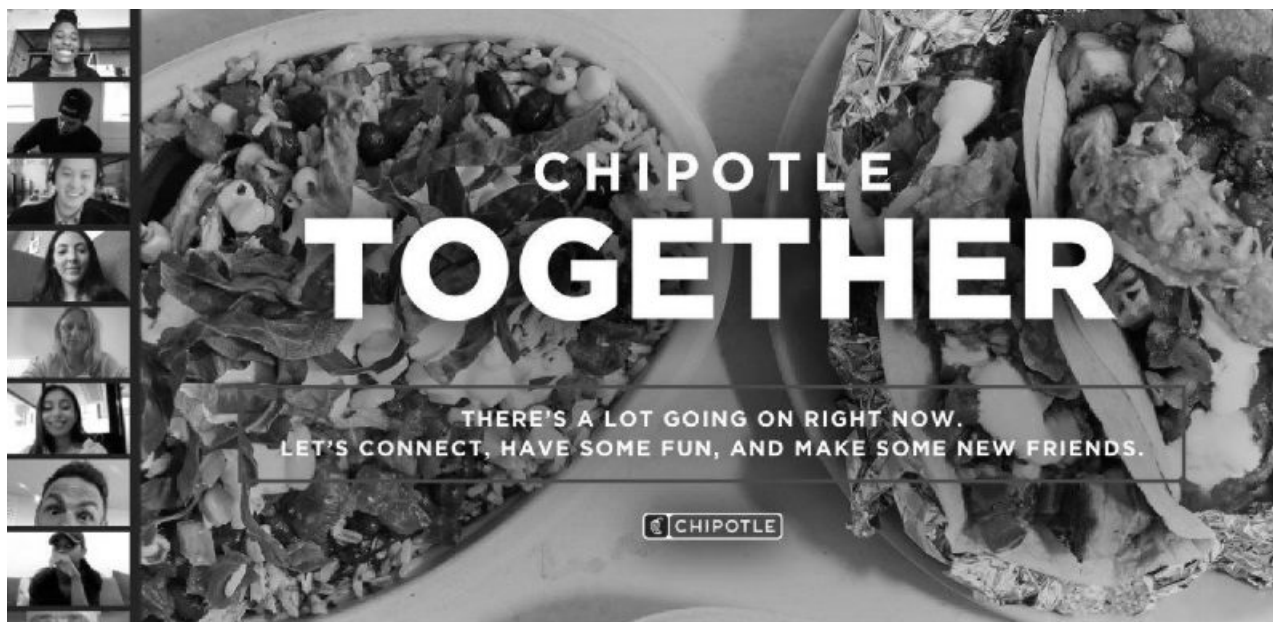
Experiential Marketing is defined as a type of marketing strategy that directly engages customers and invites and encourages them to participate in the evolution of a brand or brand experience, stirs positive emotions and creates a lasting connection between the brands and the customers. Experiential marketers believe in the active involvement of the customers in the production and co-creation of marketing programmes and campaigns.

Chipotle, the American chain of fast casual restaurants located in the U.S. had launched a series of daily

McQueen have allured customers with their spectacular creative online presence and acted as entertainers for their followers through their aggressive musical performances, guided drawing sessions, and creating Spotify play lists as well, with a manifestation of a mammoth 2,500 people having subscribed to McQueen Music playlist.

The renowned Barcelona based fashion brand, Paloma Wool hosted an online dance party on Zoom which lasted till 4 am in the early morning with more than 100 fans turning up active.

Italian based brand, Bottega Veneta launched the epic 'virtual residency' spanning across notable social platforms like Instagram, YouTube, Spotify,



**Figure 2: Video-conferencing of Chipotle Together on Zoom (Source of Image: qsr magazine.com)**

'Chipotle Together' sessions on Zoom. This brought more than 3,000 fans including celebrity guests and generated more than 500,000,000 impressions with 100 earning media stories. The live video series paid rich dividends as the Chipotle's team saw an upsurge in app downloads of platforms like Zoom.

#### **SOME BRANDS THAT MASTERED THE ART OF EXPERIENTIAL MARKETING DURING THIS LOCKDOWN**

Major brands such as Chanel, Marc Jacobs and

SoundCloud, Apple Music, Kakao, Weibo and WeChat featuring live performances and cooking recipes.

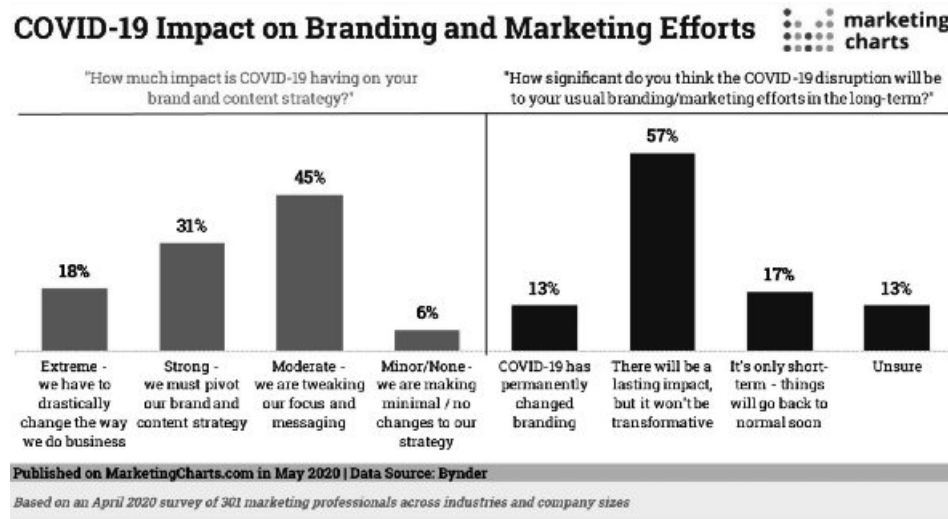
French luxury goods company, Dior, reopened its Designer of Dreams exhibition which was held in Paris. From the couture dresses to the immaculate archival photographs to the exquisite sketches by Christian Dior himself, the exhibition took its viewers through the 70-year-old rich history of the French luxury house via Instagram and YouTube, racking 350,000 views and over 10,000 likes.

The London based fashion brand Shrimp ran a competition on Instagram asking its followers to post a sketch of their dream outfit with hashtag #StayAtHomeShrimps, with an alluring prize of being gifted a Shrimp bag according to the choice of the winner.

Reffstrup initiative of #HomelsWhereTheHeartIs asked the followers to create artwork inspired by the theme, with the winner and the runner up receiving gift cards worth €1,500 and €500 respectively, and artworks of a few selected others to feature at Copenhagen Fashion Week in August 2020.

Experiential Marketing, by way of conversations and interactions between the brand and customers on digital platforms, can trigger a large number of customers to be permanent customers of the brand. In a nutshell, customers want to actively join or participate in the brand rather than just having an ephemeral experience of buying as passive customers. However, the brands have faced prodigious heat in the creation of quality content. In time of a global economic meltdown and large scale bedlam, it is quite astounding that the private spaces of people have been exposed and almost made public as they have become places of work and socializing. With this kind of inexorable public

exposure, the houses of people have become a competitive landscape and a creative breeding ground for brands. Brands are coming up with eye-twitching ways of engaging with customers online, thereby, getting crafty with their experiential campaigns. In the post Covid-19 world, brands would continue to interact with customers in new and innovative ways aiming to engage with them emotionally, thereby, just highlighting the ineluctable



**Figure 3: Impact of Coronavirus on Branding and Marketing efforts**  
Source of Image: marketingcharts.com

relevance of Experiential Marketing in a tumultuous Covid-19 era.

## CONCLUSIVE REMARKS

The Coronavirus lockdown has clearly jolted up the landscape of marketing, posing a litmus test for the marketers. It also gives the marketers ample opportunities to put their thinking cap on as marketers would try unique methods to allure customers and engage with them during these times when customers are at home following the measures of social distancing and spending a lot of time online. This is a crucial time especially for the budding and resurgent brands to successfully engage customers and establish a long term relationship with them. The way the brands have been communicating with the customers amidst these quarantines has really been exciting to watch.

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The predicted probability of loan repayment increases with the increase in the monthly instalments.

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# What Factors Decide the Success of Repayment of A Home Loan - A Study Based On Logistic Regression Analysis

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## ABSTRACT

The 'housing bubble' has shown to the world that cheaper availability of loans can result in defaults to the extent that the economy can go into

recession. In the context of difficulties faced by the banking sector in India regarding the loan repayments, the present study tries to throw light on the major factors that explain the successful repayments of home loans. The financial institutions engaged in extending housing loans to the people can take account of these factors before approval of such loans and also guide the real estate firms to minimize their risks associated with the non-payment of dues arising on account of sale of properties.

**KEYWORDS:** Housing Bubble, Logistic Regression, Loan Repayment

### OBJECTIVES OF THE STUDY

- To determine the major factors that explain successful repayments of home loans.
- To see whether the record of one's proper tax filing or moral character play any role in the disbursement of housing loans.
- To understand the role of the real estate firm in influencing the purchase decisions of the buyers.
- To find what impact a unit change in interest rates and instalments have on the estimated success of loan repayment.

### METHODOLOGY

- The present study is based on an empirical probe into the major determinants that influence the success of loan repayments.
- A logistic regression is used to find the predicted change in the log odds ratio for every one-unit change in the explanatory variable.
- The study tries to establish a relationship between the predicted probability of loan approvals.

### INTRODUCTION

In finance, a loan is defined as a sum of monetary consideration being lent out by one or more individuals, organizations, et al. with the objective of

earning interest income. The borrower of such loan enters into a loan agreement with the lender of such loan. The agreement can be upheld in any court of law and is binding upon all the parties to the agreement. The loan agreement shall contain details about the amount of loan being approved, the instalment due date and amount, and the interest to be paid on such loan. This loan agreement is a form of a contract which enforces such legal obligations and restrictions known as loan covenants upon the borrower of such loan. Therefore:

- The act of lending out involves forwarding money to an individual or organization by one or more individuals or institutions.
- Loans are given out with the objective of earning interest income.
- Financial institutions and banks are major lenders in the organized sector.

A house loan or a home loan is a type of loan in which a sum of money is borrowed from a bank to purchase a house. They may have a fixed or adjustable rate of interest with liability being discharged regularly every month. The property is taken as security by the lending company for a home loan. The lender will possess all legal rights to the property to recover the outstanding loan amount by the sale of said property, in case the borrower fails to payback the dues.

The developing economy of India has a mixed financing system for housing. Despite various attempts to organize the housing finance market in the 1990s, the informal sector continued to play a dominant role in supplying housing finance to the majority. The housing credit market was biased towards urban areas and served a guaranteed income class. (M. Mahadeva, 2004)

The establishment of the National Housing Bank and entry of many private and joint sector companies in the housing finance market made the system not only grow a lot but also shift it towards a market-oriented approach. The main beneficiaries of such a system would be middle-class and upper-class strata of society. (Meera Mehta, Dinesh Mehta, 1991)

The key difference between the housing finance system and policies for the Indian and Chinese economies was that the Indian system does not benefit the poor at all whereas the Chinese system benefits them partially. (Sonia Pati, Dr. Mantu Kumar Mahalik, 2015)

The banks after entering the housing finance market brought about phenomenal growth and a real boom in the sector in less than two decades, making housing finance a primary function of their portfolio. This made the housing finance market highly competitive and left the customers with many benefits; but with the Housing Bubble Crisis observed in the United States of America, this rapid growth has become a cause of potential worry for the RBI. (Dr. N. K. Thingalaya, Dr. M. S. Moodithya, Dr. N. S. Shetty, 2009)

Since the establishment of the National Housing Bank, the housing finance business has seen rapid reforms. The structural reforms initiated under this system are giving slower results and are yet to be successful in connecting the market demand and supply. (Prof. Rekha D.M., Gangamma S.E., 2019)

A comparative study between two of the most preferred banks in the Indian Economy in terms of housing finance established that HDFC Bank (private sector bank) is preferred over Allahabad Bank (public sector bank) because the facilities and services provided by a private bank are more customer satisfaction oriented. (Anju Otewani, 2017)

A primary research on consumer awareness by collecting information from 281 commercial bank users in the state of Tamil Nadu has shown that the majority of consumers in high literacy state of Tamil Nadu were not aware of the various clauses in a home loan agreement and were also not aware of the importance of reading it. (M. Vijayakumar, B. Subburaj, 2010)

#### Descriptive Statistics:

Variable	Observation	Mean	Standard Deviation	Minimum	Maximum
not. full. Paid	200	0.395	0.4900774	0	1
int. rate	200	0.1182755	0.027209	0.712	0.2164
Instalment	200	22533.86	15342.87	1992.9	63144.2
log.annual.inc	200	11.18689	0.6081982	9.392662	13.12236
days.with.cr.line	200	5025.46	2479.933	239	13499
revol.bal	200	1289918	2198912	0	1.74E+07
pub.rec	200	0.1	0.3007528	0	1

#### DATA, ANALYSIS AND FINDINGS

**Area of Study:** The area of study is the home loan market in Kolkata.

**Tools for Data Collection:** The data was collected from the records of a real estate firm in Kolkata named Display Vinimay Private Limited through the means of a questionnaire.

**Sample Size:** A sample of 200 was collected for the study.

**Period of Study:** The data is for the Financial Year 2017-18 and has been extracted from the records of a real estate firm in Kolkata named Display Vinimay Private Limited.

#### Analysis and Research Findings:

##### DEPENDENT VARIABLE:

Probability (Loan paid/Not paid) = The probability of a housing loan being paid back or not.

##### INDEPENDENT VARIABLES:

int. rate=The interest rate of the loan.

instalment=The monthly instalments owed by the borrower if the loan is funded.

log.annual.inc=The natural log of the self-reported annual income of the borrower.

days.with.cr. line=The number of days that have passed since a line of credit has been extended to a borrower.

revol.bal=The amount of loan principal and interest standing unpaid at the end of the year.

pub.rec=The borrower's number of derogatory public records.

Table 1

Source: Authors' Compilation



## INTERPRETATION OF RESULTS

### Interpretation of Logistic Regression using SPSS:

After running the SPSS, the following outputs are obtained:

#### The Beginning Block:

This is a model which contains no predictors. It is called an irrelevant or null model. No inference can be made from this block.

Observed			Predicted		
			not. fully. paid		Percentage Correct
			0.0	1.0	
Step 0	not. fully. paid	.0	121	0	100.0
		1.0	79	0	.0
Overall Percentage					60.5

Table 2: Classification Table<sup>a, b</sup>

Source: Authors' Compilation

a. Constant is included in the model.

b. The cut value is .500

	B	S.E.	Wald	df	Sig.	Exp(B)
Step 0 Constant	-0.426	0.145	8.688	1	0.003	0.653

Table 3: Variables in the Equation

Source: Authors' Compilation

Step 0	Variables	int. rate	Score	df	Sig.
		Instalment	31.394	1	0.000
		log.annual.inc	15.475	1	0.000
		days.with.cr.	0.055	1	0.814
		line	0.471	1	0.493
		revol.bal	0.540	1	0.462
		pub.rec	1.025	1	0.311

Table 4: Variables not in the Equation

Source: Authors' Compilation

a. Residual Chi-Squares are not computed because of redundancies.

Block 1:

In Block 1, we try to find whether the model has improved in comparison to the model where the predictor variables were not included.

H0: no improvement in the model.

H1: improvement in the model.

To check for this, the chi-square

statistic at 6 degrees of freedom shows that the p value is less than .05 (.000 is less than .05). The probability is that the H0 is less than 5 per cent so we reject null or we fail to accept null. Thus, the alternate hypothesis H1 is accepted, which shows that the model after the inclusion of predictors has improved.

There are other measures like Cox and Snell R Square and Nagelkerke R Square which are pseudo R Square measures which are not that good in explaining the variation in dependent variable due to one-unit change in predictor variable, unlike R Square, whose value rises as the number of predictors rise and it is considered to be a goodness of fit and therefore, can explain changes in the total sum of squares in a better way.

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	229.131a	0.178	0.241

Table 5: Model Summary

Source: Authors' Compilation

Another test to check for the improvement of the model with the inclusion of the predictor variables is the Hosmer and Lemeshow Test. The model will improve only when the p value of the Hosmer and Lemeshow Test exceeds 5 per cent. Thus, the null hypothesis in the Hosmer and Lemeshow Test is that the model has improved with the alternative hypothesis being that model has not improved. We accept the null hypothesis because p value is more than .05 (0.490 is more than .05).

Step	Chi-square	df	Sig.
1	7.442	8	0.490

Table 6: Hosmer and Lemeshow Test

Source: Authors' Compilation

		not. fully. paid = .0		not. fully. paid = 1.0		Total
		Observed	Expected	Observed	Expected	
Step1	1	19	17.784	1	2.216	20
	2	17	16.798	3	3.202	20
	3	16	15.685	4	4.315	20
	4	11	14.486	9	5.514	20
	5	13	13.345	7	6.655	20
	6	11	12.026	9	7.974	20
	7	14	10.593	6	9.407	20
	8	7	8.872	13	11.128	20
	9	8	7.119	12	12.881	20
	10	5	4.292	15	15.708	20

Table 7: Contingency Table for Hosmer and Lemeshow Test

Source : Authors' Compilation

**Classification Table:**

The classification table shows the following results:

- a) Out of a total of 121 cases, the model correctly predicted 99 cases of people not fully paying back their home loans. 81.8 per cent is the accuracy of the model correctly predicting cases of not fully paying back home loans which is considered good.
- b) Out of a total of 79 cases, the model correctly predicted 41 cases of people fully paying back their home loans. 51.9 per cent is the accuracy of the model correctly predicting cases of fully paying back home loans which is considered average.

Observed	Predicted		
	not. fully. paid		Percentage Correct
	0.0	1.0	
Step 1 not. fully. paid .0	99	22	81.8
1.0	38	41	51.9
Overall Percentage			70.0

**Table 8: Classification Table**  
**Source: Authors' Compilation**

- a. The cut value is .500

**Variables in the Equation:**

The relationship between the predictors and the probability is non-linear. To make the regression linear, we take the log odds ratio. The logistic regression is based on the idea of finding the relationship between the predictor variables and their log odds ratio. The logistic regression finds the predicted change in the log odds for every one-unit change in the predicted variable. We consider the target group as that of fully paid loan. The following inference can be made from the test statistic used for the logistic regression:

- a) INTEREST RATE - The interest rate has got a positive coefficient which shows that there is a greater likelihood to pay back loans as interest rate rises. The p value is less than .05 (.000 is less than .05) which shows that interest rate is statistically significant in explaining the predicted changes in log odds. Exp(B) denotes the ratio of loans paid back to loans not paid back. Here, the loans paid back on account of interest rate is greater than loans

not paid back since Exp(B) is greater than 1 (Exp(B)= 5106503873884.832).

- b) INSTALMENT - The instalment is also significant in explaining the likelihood of people paying back home loans because the coefficient of significance is positive, which shows that there is a greater likelihood to pay back loans as instalment rises. The p value is less than .05 (.022 is less than .05) which shows that instalment is statistically significant in explaining the predicted changes in log odds. Exp(B) denotes the ratio of loans paid back to loans not paid back. Here, the loans paid back on account of instalment is equal to loans not paid back since Exp(B) is equal to 1 (Exp(B)= 1.000).
- c) LOG ANNUAL INCOME - The log annual income is statistically insignificant and has got a negative coefficient which shows that there is a greater likelihood to pay back loans as log annual income falls. The p value is greater than .05 (.599 is greater than .05) which shows that log of annual income is statistically non-significant in explaining the predicted changes in log odds. Exp(B) denotes the ratio of loans paid back to loans not paid back. Here, the loans paid back on account of log of annual income is less than loans not paid back since Exp(B) is less than 1 (Exp(B)= 0.848).
- d) DAYS WITH CREDIT LINE - The days with credit line is statistically insignificant and has got a positive coefficient which shows that there is a greater likelihood to pay back loans as days with credit line increases. The p value is greater than .05 (.863 is greater than .05) which shows that days with credit line is statistically non-significant in explaining the predicted changes in log odds. Exp(B) denotes the ratio of loans paid back to loans not paid back. Here, the loans paid back on account of days with credit line is equal to loans not paid back since Exp(B) is equal to 1 (Exp(B)= 1.000).
- e) REVOLVING BALANCE - The revolving balance is statistically insignificant and has got a positive coefficient which shows that there is a greater

likelihood to pay back loans as revolving balance increases. The p value is greater than .05 (.697 is greater than .05) which shows that revolving balance is statistically non-significant in explaining the predicted changes in log odds. Exp(B) denotes the ratio of loans paid back to loans not paid back. Here, the loans paid back on account of revolving balance is equal to loans not paid back since Exp(B) is equal to 1 (Exp(B)= 1.000).

- f) **PUBLIC RECORD** – The public record is statistically insignificant and has got a positive coefficient which shows that there is a greater likelihood to pay back loans as number of public records increases. The p value is greater than .05 (.918 is greater than .05) which shows that public record is statistically non-significant in explaining the predicted changes in log odds. Exp(B) denotes the ratio of loans paid back to loans not paid back. Here, the loans paid back on account of public record is greater than loans not paid back since Exp(B) is greater than 1 (Exp(B)= 1.058).

Null Hypothesis  $H_0$ : predictor is not significant.

Alternate Hypothesis  $H_1$ : predictors are significant.

We can write the log likelihood regression equation as:

$$L = -2.720256 + 29.26158 * \text{int.rate} - 0.0000276 * \text{instalment} - 0.165244 * \log.\text{annual.inc} - 0.0000126 * \text{days.with.cr.line} + 3.1 * \text{revol.bal} + 0.0560219 * \text{pub.rec}$$

Where L = Log (Probability (Loan paid/Loan not paid))

int. rate = The interest rate of the loan

instalment = The monthly instalments owed by the borrower if the loan is funded

log.annual.inc = The natural log of the self-reported annual income of the borrower

days.with.cr. line = The number of days that have passed since a line of credit has been extended to a borrower

revol.bal = The amount of loan principal and interest standing unpaid at the end of the year

pub.rec = The borrower's number of derogatory public records

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Step 1 <sup>a</sup>						5106503873884.832	2517399.219	10358461072742330000.000
int. rate	29.262	7.410	15.595	1	.000	1.000	1.000	1.000
instalment	.000	.000	5.216	1	.022	.848	.458	1.569
log.annual.inc	-.165	.314	.277	1	.599	1.000	1.000	1.000
days.with.cr. line	.000	.000	.030	1	.863	1.000	1.000	1.000
revol.bal	.000	.000	.151	1	.697	1.000	1.000	1.000
pub.rec	.056	.544	.011	1	.918	1.058	.364	3.073
Constant	-2.720	3.682	.546	1	.460	.066		

**Table 9: Variables in the Equation**

**Source: Authors' Compilation**

- a. Variable(s) entered on step 1: int. rate, installment, log.annual.inc, days.with.cr. line, revol.bal, pub.rec.

### Interpretation of Logistic Regression using Z-Statistic:

The following results are obtained using Stata:

The explanatory variables interest rate and instalment are statistically significant in explaining the probability of people paying back loans because their p value is less than 5 per cent. The other predictors are not statistically significant in explaining the probability of people paying back loans because their p value is greater than 5 per cent.

### CONCLUSION

- The likelihood of loan repayment increases with an increase in the interest rates. The interest rate will increase the interest on interest, thereby increasing the future cost of delayed payments.
- The predicted probability of loan repayment increases with the increase in the monthly instalments. The monthly instalment induces the

interest rate to rise further, thereby creating additional burden of higher cost on the borrowers in the future.

## RECOMMENDATIONS

- The study concludes that the probability of paying back housing loans increases with the increase in the interest rate and instalment amount. The banks must, therefore, carefully decide on the cost of lending and period of instalment to raise the probability of repayment of home loans.
- The variable depicting past record of a person, although insignificant, has been observed to have a positive coefficient which means that a person with derogatory public record is more likely to default in paying back the housing loan. Hence, the study recommends financial institutions and banks to follow a more detailed background check in an applicant's records before issuing a home loan.

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We are in the midst of a ‘hot’ period, entered into from 2015 and there is a slight rise in the level of underpricing as well as issue sizes, implying that the firms are more willing to come forward and float IPOs.

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# Underpricing of IPOs in India and in Public Sector Units

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## ABSTRACT

The underpricing of IPOs is an anomaly observed across the globe. This paper attempts a detailed analysis of the initial performance of IPOs in the Indian equity markets from 2010 to 2019. This study looks to identify the primary determinants of underpricing in India. It classifies the IPO returns based on time of issue and sectoral distribution, highlighting the level of underpricing and the subsequent money left on the table for investors. It identifies the ‘hot’ and ‘cold’ cycles and their unique characteristics in terms of volume and underpricing relationship. It also looks to analyze the public sector IPOs in light of the recent issue of IRCTC. Evidence suggests that the

most significant determinant of underpricing is the subscription level and the listing delay. It is observed that the financial sector enjoyed the most investor confidence. High incidence of underpricing in PSUs was isolated to two instances only, but with a very high magnitude.

**KEYWORDS:** Initial public offering (IPO), underpricing, cycles, Indian equity markets, PSU, sectors.

## INTRODUCTION

Initial Public Offerings (IPOs) are an extensively debated topic among investors. This is primarily due to the high abnormal returns seen on the listing day or over the first week, an explanation of which is highly sought after. Underpricing refers to the positive initial returns on the date of listing of the IPOs. These returns are well in excess of the larger market movement and generate a lot of interest in the media. The long term returns of IPOs are highly mixed but the initial performance remains a regular occurrence. One of the widely popular explanations for this phenomenon is the 'Money Left on the Table' (MLT) concept put forward by Loughran and Ritter (2002). Ideally, a company will aim to reduce all indirect costs and attempt to raise the maximum amount of money for its offerings but issuers purposely leave some returns for the investors in order to generate interest and maintain good short-term performance. This in turn makes the company more valuable and the shareholders richer. Besides, extant information asymmetries in the book-building process between various parties involved is a major source of underpricing.

In India, the IPO market took off in the 1990s and witnessed a 'hot' period from 1993 to 1996 (Ghosh, 2004). With the onset of the free pricing systems in 1992 and a bias towards book-building of issues, companies were better able to realize their valuations by issuing shares at a premium. This meant that underpricing was greatly reduced. Empirical studies suggest book-built issues have a lower degree of underpricing. So, the mean underpricing fell from about 105 per cent to approximately 14 per cent (Shah, 1995; Mishra, 2010).

From 2010 to 2019, a total of 246 equity IPOs were listed in the National Stock Exchange (NSE) and the Bombay Stock Exchange (BSE), of which only three were fixed price issues. There has been an uptick in IPO activity since 2015. This practice of underpricing issues has greatly increased with the markets witnessing higher subscription levels and underpricing than before. This coincided with a shift in government policies in 2014. Thus, it is important to analyze the IPO performance with political uncertainty and evolving policies. The study aims to delineate the level of underpricing and understand the IPO performance post the financial crisis of 2007-08.

One of the important participants are the Public Sector Units (PSUs). Disinvestments are important in this area primarily for two reasons; firstly, the PSUs need private management to improve the performance and profitability of the entity; secondly, for the government to raise funds from the public for meeting its committed expenditure requirements. Similar to private sector units, taking an IPO route for the disinvestment of PSUs should allow the exit of government stake at higher valuation levels as compared to other methods and thus, higher revenue for the government. However, due to the high underpricing levels, the government is leaving too much on the table against the backdrop of ever-increasing budget deficit.

## LITERATURE REVIEW

Extant literature on IPO underpricing has focused on various financial markets across the globe. Leyland and Pyle (1977) concluded that information asymmetries between the issuers and investors can be adjudged by the level of the promoter's equity. Baron's (1982) model states that the investment banker has better information than the issuer and is allowed to underprice and thus, its services are needed for setting the price of an IPO. Rock (1986) states that underwriters are sensitive to the aspect of allocation as it directly reflects their ability. Investors expect over subscription if the tender price is too high and vice versa, thus giving up the good shares and oversubscribing on poor quality shares. Benveniste and Spindt (1989) find that issues offered on the higher side of a price band tend to be more underpriced than

the others. Allen and Faulhaber (1989) state that underpricing can signal favourable prospects about the firm as it is the best place to judge its future prospects. Loughran and Ritter (2002) inferred that companies leave 'money on the table' which is approximately twice of the fees paid to the underwriter which enables the issuers to be more wealthy post issue, even though they lose on the IPO itself.

In the Indian context, Shah (1995) concludes that there is a high degree of underpricing present in the market which has a strong relationship with the listing delay. The volume of IPO's flooding the markets is dependent on the performance of the BSE Sensex. Ghosh (2004) highlights the boom and slump cycle in the IPO market in India and establishes that the IPO volume series was autocorrelated and highly dependent on the companies getting listed in the previous months. Pande and Vaidyanathan (2007) state that the final offer price, higher or lower side of the price band, is a signal for underpricing. Mishra (2010) highlighted the difference in the performance of book-built issues versus fixed price issues. Bansal and Khanna (2012) confirmed that a significant difference exists and is higher for fixed price issues. Madhusoodan and Thiripalraju (1997) observed that the short-run returns of IPO's were considerably higher than other countries and continued to give higher returns in the long-run compared to negative returns in other countries.

Study	Period	Sample size	Underpricing
Shah (1995)	1991-95	2056	105.6%
Narasimhan and Ramana (1998)	1993-94	103	92.16%
Baral & Obaidullah (1998)	1994-95	433	153.17%
Madhusoodan & Thiripalraju (1998)	1992-95	1922	85.75%
Pande & Vaidyanathan (2007)	2004-06	155	22.62%
Mishra (2010)	1997-2008	235	14.45%

**Table 1: Research Inference for Under pricing of IPOs in India**  
Source: Authors' Compilation

## RESEARCH OBJECTIVE

The objectives of the study can be enumerated as follows:

1. To ascertain the extent of underpricing and the determinants of this phenomenon prevalent in the Indian IPO market.
2. To analyze the case of IRCTC elucidating the phenomenon.

## RESEARCH METHODOLOGY

The offer price and the listing day performance serves as a measure for calculating the degree of underpricing. Loughran and Ritter (2002) method is used for classifying an IPOs opening day performance with regards to the price range, i.e., the high and low prices of the listing day and calculate MLT to analyze how issuers incentivize investors to enhance the performance of the issue. To categorize the boom and slump cycle in the Indian IPO market (Ghosh, 2004), we use IPO volumes of each year and highlight the distinct differences in the performance of IPOs during the 'hot' and 'cold' periods. Further, to comprehend the underpricing of IPOs, the following hypothesis have been formulated:

**Hypothesis 1: The degree of underpricing is inversely related to the listing delay for a firm**

A big delay signals regulatory complications and issues which do not fare well with investors. If a firm takes long in getting listed, market participants may begin to revalue the issue and the demand may substantially subside and result in lower listing gains.

**Hypothesis 2: The degree of underpricing is higher for those issues that are more popularly subscribed during the offer period.**

The degree of underpricing is explained by the demand for the IPO in the market, which is a reflection of its popularity. As per Benveniste and Spindt (1989), the cut off price works as a signalling mechanism but contrary to this belief, price ranges have become increasingly narrower and do not quite signal the demand for the issue. Thus, the actual subscription levels over the days of offer of the issue serve as a better indicator.

## MODEL

To test the above, we use the following model. The model uses the following variables:

- To measure the demand for the issue, we use the

total subscriptions received. It is measured in respect to the total number of shares received for subscription in relation to the number of shares on offer. Thus, it reflects the number of times the total issue was subscribed.

- The listing delay of the firm is measured as the time between the final day of the offer and the date of listing, measured in days.
- The issue size was measured as the natural logarithm of the issue size in INR (₹) crores.
- The return of market index (Nifty50) in the previous four months, as suggested by Shah (1995).

The regression equation is estimated as:

$$\text{Underpricing} = \beta_0 + \beta_1(\text{Demand}) + \beta_2(\text{Nifty Return}) + \beta_3(\text{Listing Delay}) + \beta_4(\ln\_ \text{Issue Size}) + \varepsilon$$

The equation is a modified version of the one used by Pande and Vaidyanathan (2007). The demand here is represented by the subscription levels as compared to the qualitative demand variable taken in their study. Market return for the listing day is ignored.

## DATA

The data has been collected from the NSE and BSE websites respectively, including historical returns of the Nifty50 index. A total of 246 equity IPOs were listed between 2010 and 2019 consisting of 243 IPOs priced through the book-building method (i.e. 98.78 per cent) and three IPOs using fixed price issue method. Thus, we have utilized these 243 IPOs as the sample for our study. The sample constitutes of the maximum number of IPOs from the finance sector to the tune of 26 IPOs, which is almost 10 per cent of the total, but has a reported average underpricing of only 11.41 per cent. Comparatively, the highest mean underpricing can be observed in the paper sector (53.59 per cent) followed by mining (46.01 per cent), agricultural, (38.77 per cent) and electricals (35.03 per cent) which have less than six issues

during the tenure. All offering with regards to REITs, ADRs and other forms of IPOs apart from equities are excluded from the study. The data for government fiscal deficit has been taken from Open Government Data (OGD) Platform India. The data was limited to estimated figures for 2014.

## ANALYSIS AND DISCUSSION

### Level of underpricing:

Underpricing is calculated as:

$$\text{Underpricing} = \left\{ \frac{(\text{Listing Day Closing Price})}{(\text{Final Offer Price})} \right\} \times 100$$

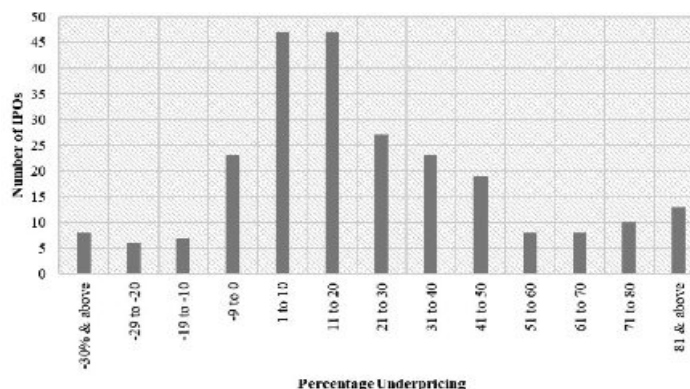
Studies suggest that adjusted underpricing or excess returns are calculated by deducting the return of the index from the final day of the offer to the listing day. However, this return is miniscule and does not alter the conclusions of our study and is not adjusted for. The descriptive statistics for the underpricing found in our sample of IPOs is as follows:

	Underpricing	Listing Delay	Issue Size
Mean	12.80%	13.74	865.55
Standard Error	2.16%	0.59	110.57
Median	5.55%	13	409.93
Mode	-5.00%	14	400
Standard Deviation	33.68%	9.24	1723.61
Range	222.22%	133	15179.44
Minimum	-68.72%	7	20
Maximum	153.50%	140	15199.44

**Table 2: Descriptive Statistics of Underpricing found in the Indian IPOs**

Source: Authors' Compilation

The mean underpricing observed in the sample was 12.8 per cent as compared to 105.6 per cent (Shah,



**Figure 1: Histogram of Underpricing of 246 IPOs between 2010 and 2019**

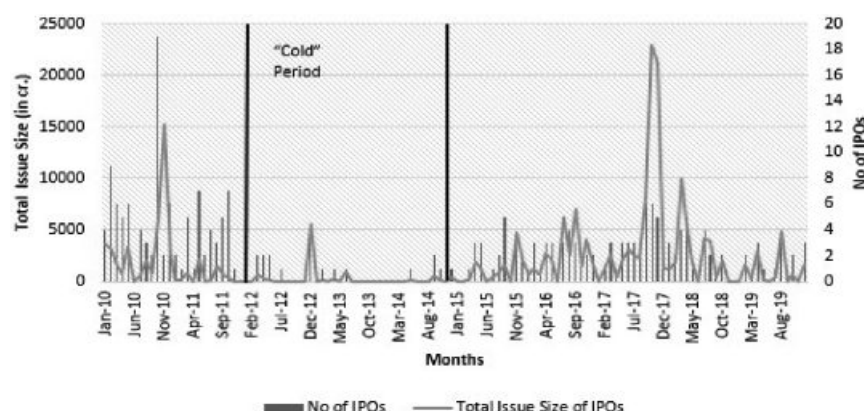
Source: Authors' Compilation



1995) and also 22.62 per cent (Pande and Vaidyanathan, 2007). Thus, it can be seen that the level of underpricing has been in decline over the years. The mean listing delay was 13.74 days which is very less as compared to 11 weeks (Shah, 1995) and 151 days (Majumdar, 2003). The mean issue size is about ₹ 8.65 billion.

### ‘Hot’ and ‘Cold’ Periods of IPO Activity

As seen before by Ghosh (2004), periods of high volume and returns were followed by lower volume and returns. In Figure 2, we can see an initial ‘hot’ period from 2010 to 2011 following which IPO volumes dried up till 2014. From 2015, IPO activity picked up again and continued for the remaining period under study.



**Figure 2: Monthly IPO Volumes and Issue Size**  
Source: Authors' Compilation

The volume of IPOs per year is significantly different between the periods. During the ‘cold’ period, IPO activity falls dramatically to 6.33 per year as compared to 52 in the previous two year ‘hot’ period. The next period does not have as much volume as the period before but the mean issue size is significantly higher at ₹ 12.63 billion. It is observed that the level of underpricing is higher during the ‘hot periods’ at 15.48 per cent and 10.33 per cent as compared to 9.67 per cent.

Period	Mean Issue Size (in ₹ cr.)	Mean Underpricing	Average IPOs per year
2010-11 “Hot” Period	441.61	10.33%	52
2012-14 “Cold” Period	481.67	9.67%	6.33
2015-19 “Hot” Period	1263.31	15.48%	24.6

**Table 3: Summary statistics for the different ‘hot’ and ‘cold’ periods of IPO Activity**  
Source: Authors' Compilation

### Sector-Wise Distribution of IPOs

The finance and infrastructure sectors floated the highest number of IPOs in the markets (Annexure 1). Along with the finance sector, we should also consider the allied banking and insurance sector which floated seven and six IPOs respectively. The IT, media and healthcare sectors with 17, 18 and 16 respectively were also popular among investors. In terms of IPO size, the insurance sector floated IPOs worth ₹ 437.68 billion.

The finance and the banking sector raised a combined total of ₹ 432.84 billion. IPOs raised ₹ 112.54 billion and ₹ 164.90 billion in the healthcare and mining sectors respectively. Highest degree of underpricing was seen in paper, mining, electricals and metals at 53.59 per cent, 46.01 per cent, 35.03 per cent and 33.91 per cent respectively. The plastics and the jewellery sector IPOs tended to be on average overpriced at 7.95 per cent and 7.34 per cent respectively.

Year	Volume of Issues	Total Issue Size (in ₹ cr.)	OP < LO	LO < OP < HI	OP > HI	% of OP < LO	% of OP in the middle	% of OP > HI	Under - pricing
2010	66	₹ 39,808.88	34	24	8	51.52%	36.36%	12.12%	13.80%
2011	38	₹ 6,118.47	8	25	5	21.05%	65.79%	13.16%	4.40%
2012	11	₹ 6,654.17	5	4	2	45.45%	36.36%	18.18%	4.07%
2013	3	₹ 1,291.96	1	2	0	33.33%	66.67%	0.00%	2.14%
2014	5	₹ 1,205.61	4	0	1	80.00%	0.00%	20.00%	26.52%
2015	20	₹ 13,075.06	8	8	4	40.00%	40.00%	20.00%	8.52%
2016	27	₹ 30,584.36	18	5	4	66.67%	18.52%	14.81%	14.25%
2017	36	₹ 67,336.47	19	12	5	52.78%	33.33%	13.89%	23.78%
2018	24	₹ 31,686.33	11	5	8	45.83%	20.83%	33.33%	7.27%
2019	16	₹ 12,704.45	9	4	3	56.25%	25.00%	18.75%	19.92%
<b>TOTAL</b>	<b>246</b>	<b>₹ 2,10,465.75</b>	<b>117</b>	<b>89</b>	<b>40</b>	<b>47.56%</b>	<b>36.18%</b>	<b>16.26%</b>	

**Table 4: Year-wise No. of IPOs classification as per Listing Day Price Range**  
Source: Authors' Compilation

Table 4 shows that for almost half (47.56 per cent) of the issues, the offer price was well below the listing day low, suggesting that it was significantly underpriced. 16.26 per cent of the IPOs failed to even touch their offer price on the day of listing, suggesting significant overpricing of the IPO. The remaining 36.18 per cent IPOs were fairly priced and fluctuated over their original offer price, between the day's high and low.

Year	Volume of Issues	Total Issue Size (in cr.)	Money Left on the Table
2010	66	₹ 39,808.88	₹ 7,200.65
2011	38	₹ 6,118.47	₹ -225.93
2012	11	₹ 6,654.17	₹ -165.72
2013	3	₹ 1,291.96	₹ 125.01
2014	5	₹ 1,205.61	₹ 312.89
2015	20	₹ 13,075.06	₹ 1,731.32
2016	27	₹ 30,584.36	₹ 4,815.41
2017	36	₹ 67,336.47	₹ 6,673.69
2018	24	₹ 31,686.33	₹ 2,740.17
2019	16	₹ 12,704.45	₹ 1,964.68
<b>TOTAL</b>	<b>246</b>	<b>₹ 2,10,465.75</b>	<b>₹ 25,172.17</b>

**Table 5: MLT from 2010 to 2019**

**Source: Authors' Compilation**

Table 5 shows that a total of ₹ 251.72 billion was left on the table for the investors in order to incentivize them to invest in the IPOs. This in turn benefited the promoters and existing shareholders as the company value went higher due to good initial performance. Thus, where we expect shareholders to maximize the value received for the shares offered, they deliberately under-priced issues for good initial performance and favourable market sentiments. By giving away some of what they are to gain, they are able to profit even further when share prices soar abnormally higher on listing day.

### Regression Results

The regression model has a R-square of 32.4 per cent and adjusted R-square of 31.27 per cent. The model has a F-statistic of 28.528 and the p-value is extremely small making it significant even at the 99 per cent level.

	Coefficients	Standard Error	t Stat	P-value
Intercept	0.199858854	0.093056221	2.147722	0.032746091
Demand	0.004324922	0.00042964	10.06639	4.36274E-20
Nifty Return	-0.02798986	0.277651616	-0.10081	0.919786732
Listing Delay	-0.00413726	0.002033334	-2.03472	0.042988086
Ln_Issue Size	-0.01983661	0.013737778	-1.44395	0.150069327
<b>ANOVA</b>				
	df	SS	MS	F
Regression	4	8.89583607	2.223959	28.52871042
Residual	238	18.55331834	0.077955	
Total	242	27.4491544		

**Table 6**

**Source: Authors' Compilation**

The coefficient of demand is significant at both the 95 per cent and 99 per cent confidence level with a t-statistic of 10.06639 and extremely small p-value. The value of the coefficient infers that higher the demand, higher is the level of underpricing, as hypothesized earlier. Thus, the abnormal underpricing observed can be explained by the abnormal subscription levels.

The coefficient of listing delay is significant at the 95 per cent confidence level with a t-statistic of -2.03472 and p-value of 0.043 which is less than 0.05. We can see from the value of the coefficient that higher the listing delay, lower is the level of underpricing, as hypothesized. Thus, the investors view the longer listing delay as a negative signal and performance on the listing day is affected negatively.

The intercept of the regression model is also significant at the 95 per cent confidence level. The remaining variables – Nifty Return and Ln\_Issue Size are not significant at the 95 per cent confidence level.

The adjusted R-square of 31.27 per cent is quite significant given the heterogeneous nature of the IPOs and the long time period under study. The existence of 'hot' and 'cold' periods present in the study also alter the characteristics of IPOs and their level of underpricing. This value is quite higher than that of the model used by Pande and Vaidyanathan (2007) which has an adjusted R-square of 18.54 per cent.

### Public Sector Units

An important participant in the primary market is the Government of India (GoI), that disinvests PSUs as a means of generating revenue for the union budget. The mean underpricing is in line with the sample - 12.84 per cent as compared to 12.80 per cent.

There have been 15 IPOs floated for PSUs aggregating up to ₹ 284.82 billion, in which the GoI left ₹ 74.16 billion on the table for the investors totalling a major loss of revenue for the government. The bulk of this loss came from the Coal India IPO in 2010 where the government left ₹ 61.61 billion on the table amounting to approximately 3.8 per cent of the fiscal deficit of that year.

PSU	No of IPOs	Total Issue Size (in ₹ cr.)	Underpricing	Money Left on the Table (in ₹ cr.)
2010	3	₹ 17,499.69	20.12%	₹ 6,426.83
2011	0	₹ -		₹ -
2012	1	₹ 127.20	-8.54%	₹ -10.86
2013	0	₹ -		₹ -
2014	0	₹ -		₹ -
2015	0	₹ -		₹ -
2016	0	₹ -		₹ -
2017	2	₹ 2,692.46	21.59%	₹ 582.85
2018	6	₹ 6,824.77	-4.23%	₹ -396.47
2019	3	₹ 1,338.73	40.97%	₹ 814.31
<b>TOTAL</b>	<b>15</b>	<b>₹ 28,482.85</b>	<b>12.84%</b>	<b>₹ 7,416.66</b>

**Table 7: Public Sector Units IPOs from 2010 to 2019**

**Source: Authors' Compilation**

In October, the government floated the IRCTC IPO for ₹ 6.45 billion, but in the process, left ₹ 8.23 billion on the table listing at a massive 127.69 per cent premium. Such underpricing in a PSU like IRCTC which has a monopoly in its industry and with the Indian Railways being the largest rail network in the world raises serious questions about its valuations. Moreover, the price of IRCTC went on to reach approximately 506 per cent higher than its offer price on 20th February 2020, merely four months later.

### CONCLUSION

This study demonstrates how the underpricing prevalent in the Indian IPO Market has fallen and is

becoming more in line with other countries. Thus, the money left on table for the investors has fallen and firms are raising as much money as they can. We are in the midst of a 'hot' period, entered into from 2015 and there is a slight rise in the level of underpricing as well as issue sizes, implying that the firms are more willing to come forward and float IPOs. The model shows that underpricing is a function of the demand measured by subscription levels and the listing delay. Higher the number of times the issue is subscribed, higher is the first day return. The listing delay is inversely related to the level of underpricing. The returns of the indices do not significantly affect the underpricing and neither does the issue size. It appears that the subscription levels are the best indicators of underpricing in India.

They are reported daily throughout the course when the IPO is open to investors and this can be used to estimate the level of underpricing. Fixing of offer price above or below the midpoint of the price band does not serve as a proper indicator for demand and thus, was replaced. The subscription level for

retail investors remains more or stable, as it is the institutional demand that drives the IPO demand. As retail investors, we can utilize this information to select the IPOs we should invest in.

The IPOs listed in the exchange were more concentrated in a few sectors than the others. The finance and allied sectors raised the largest sum as well as floated the greatest number of IPOs. Thus, it appears that investor confidence in the financial sector IPOs is higher. The government left a large amount of money on the table for the investors, which results in a loss of revenue for the union budget. This was concentrated to mainly two instances – that of Coal India in 2010 and of IRCTC in 2019.

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## Annexure 1: Sector-Wise Distribution of IPOs

Sector	No of IPOs	Total Issue Size (in cr.)	Average Underpricing
Agri	2	₹ 1,509.17	38.77 per cent
Alcohol	1	₹ 73.60	25.08 per cent
Automobiles	5	₹ 2,136.66	17.46 per cent
Aviation	1	₹ 3,025.33	14.67 per cent
Bank	7	₹ 9,566.62	32.09 per cent
Capital Goods	7	₹ 7,284.57	29.40 per cent
Chemicals	5	₹ 819.38	16.68 per cent
Diamond & Jewellery	6	₹ 1,339.07	-7.34 per cent
Diversified	2	₹ 4,610.26	4.27 per cent
Electricals	6	₹ 2,642.26	35.03 per cent
Finance	26	₹ 33,717.07	11.41 per cent
FMCG	13	₹ 8,056.21	-2.38 per cent
Healthcare	18	₹ 11,254.86	19.30 per cent
Hospitality	5	₹ 3,365.93	24.55 per cent
Infrastructure	22	₹ 8,095.87	4.66 per cent
Insurance	5	₹ 43,768.59	1.94 per cent
IT	17	₹ 6,278.09	-1.22 per cent
Logistics	8	₹ 4,868.44	22.24 per cent
Media and Entertainment	16	₹ 5,394.54	4.77 per cent
Metals	2	₹ 483.38	33.91 per cent
Mining	3	₹ 16,490.05	46.01 per cent
Miscellaneous	22	₹ 7,635.94	16.67 per cent
Oil	1	₹ 1,039.64	23.59 per cent
Paper	2	₹ 130.00	53.59 per cent
Plastics	3	₹ 607.82	-7.95 per cent
Power	8	₹ 9,359.00	6.23 per cent
Real Estate	10	₹ 6,860.89	8.62 per cent
Retail	3	₹ 2,069.42	29.72 per cent
Steel	7	₹ 622.79	22.87 per cent
Sugar	1	₹ 60.00	0.58 per cent
Telecom	3	₹ 5,122.94	14.46 per cent
Textiles	9	₹ 2,177.39	8.74 per cent
<b>TOTAL</b>	<b>246</b>	<b>₹ 210465.75</b>	

Source: Authors' Compilation



“

With the growing acceptability of services by gig workers, one can safely conclude that the gig economy is here to stay, but the growth will be staggered and steady because of several challenges the supply side faces.

”

# An Analytical Study on the Prospects of the Gig Economy

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## ABSTRACT

The gig economy is said to be a major contributor to India's workforce. As 'freelancing' grows in India, 41 per cent of Indian gig workers experienced growth in the past one year according to a PayPal study. By one estimate, India has about 10-20 million gig workers and they have seen a growth in the previous years. Housekeeping services, salon, application development, and data entry are the hot areas for Indian freelancers, while some of them are also engaged in accounting, graphic design and consulting. Higher pay, flexibility in work schedules, independence, and no contracts are some of

the reasons why the gig workers are attracted to carry out freelancing. This study was made to conclude upon the prospects of the gig economy by studying both the supply side and the demand side in India, across five types of services prevalent in the gig economy. It was found that the gig economy is here to stay, but its growth will be gradual and would need extra incentives and state endeavour to flourish. The demand seems to be stagnant owing to preferences for traditional methods and the Indian notion of job security.

**KEYWORDS:** Gig Economy, Freelance Income, Services, Full-Time Freelancing, Future of Work

## INTRODUCTION

The gig economy is an ecosystem in which there are no fixed work hours and the organizations contract with freelancers or independent workers for a short term, i.e. till the time when the work is delivered. Although India is a growing market for the gig economy, it is most commonly seen in the U.S. and European markets. India has the potential to not only become the top gig economy in the Asia-Pacific region, but also globally, as per experts. A paradigm shift in how services are provided is underway.

Many have started shifting towards temporary and flexible positions, treating them as the best suit for their gratifying lifestyles, heeding to money. This shift has eventually led to the gig economy – where temporary or fixed contract options are much greater than permanent jobs.

The research deals with the popularity and prospects of the gig economy, i.e. provision of freelancing services to people. The study has been divided into four main chapters. Each area collectively contributes to show how the gig economy evolved, its progress in our country and the effectiveness of the same. Freelancing fosters independent working habits in service providers and ease of contract for service recipients.

## LITERATURE REVIEW

Kahkashan Khan (2019) studied the factors that led to the growth of the gig economy in India. The research

concludes that the gig economy was prevalent in India for long but now it has gained momentum among the higher classes of the population. Job security and peer pressure are two major factors because of which the gig economy will never be able to wipe off the traditional method of work.

R. Kathuria, M. Kedia, G. Varma, K. Bagchi, S. Khullar (2017), ICRIER concluded that freelancing platforms are constantly innovating to get more freelancers and contractual workers on-board. Growth and awareness remains limited. The research states that online freelancing's future is not very bright.

Amol Pawar and Khushboo Dhaiya (2018) formulated four reasons why and how India should focus on the gig economy. Gig economy engages students from Tier-2 and Tier-3 cities of India in gainful employment, it promotes diversity and inclusion, improves organizational competitiveness, and provides a new way of working for the Gen-Z workers.

Paul Oyer (2020) summarized that despite the steady growth in the gig economy, there has not been any decline in the traditional method of employment. One interesting fact as found by this research was that Uber drivers' (a great proportion of gig workers) pay declines as they age. This is in contradiction to the formal employment structure where promotion and perks increase with age and seniority. The average CEO is likely to be 42-45 years in age.

## RESEARCH OBJECTIVE

The objective of the study is to analyze the prospective viability of the gig economy as a paradigm shift and to assess the scope of freelancing as a career.

## RESEARCH METHODOLOGY

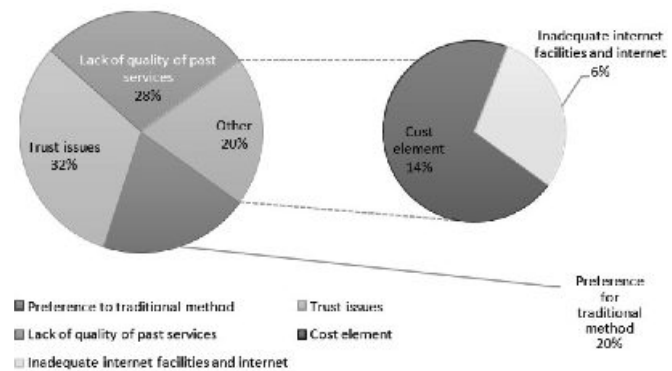
The primary source of data collection used in the study for service recipients was through the distribution of structured questionnaires to respondents through emails and other social media networks, while the data from freelancers (service providers) was collected through telephonic interviews.

Five service categories are selected to be studied.

They are:

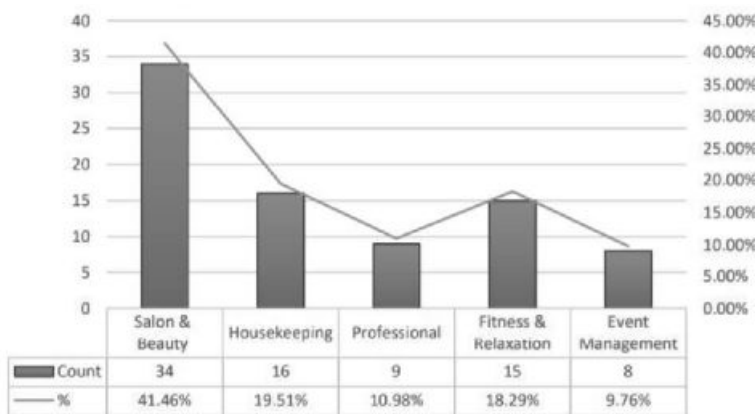
1. Salon and Beauty services
2. Housekeeping services
3. Event Management services
4. Fitness and Relaxation services
5. Professional services

Three freelancers of each category were interviewed and the data so collected has been analyzed and concluded upon.



**Figure 3 : Reasons for not choosing freelancing services**

Source: Authors' Compilation



**Figure 1 : Popular freelancing services**

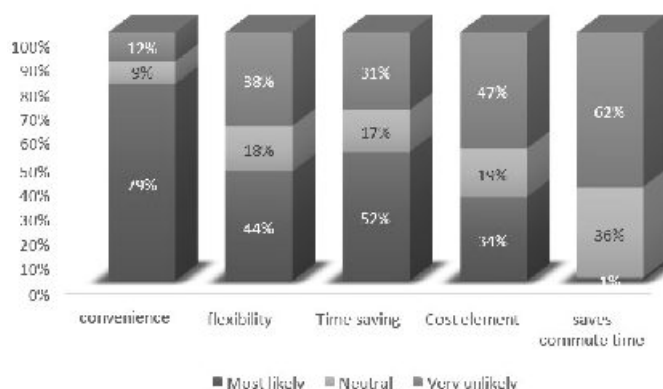
Source: Authors' Compilation

professional services and event management services are not so popular among the masses. (Refer Figure 1).

The respondents were asked to rank their choices between 1-3 (1 as the most likely and as 3 very unlikely reasons) for why they would favour freelancing services. Convenience, flexibility and time saving aspects emerged as the star factors. They were voted as the most likely reasons one would choose the services of gig workers. Other factors included cost element and saving in commute time. (Refer Figure 2).

## DEMAND SIDE ANALYSIS

Salon and beauty services are the most used and popular services among customers. It is then followed by housekeeping services which includes all kinds of cleaning and repair works. It is safe to assume that



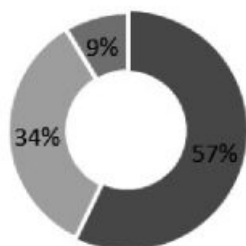
**Figure 2: Reasons for choosing freelancing services**

Source: Authors' Compilation

The pie chart (refer figure 3) suggests very strongly that trust issues and lack of knowledge of the quality of services rendered in the past, play a major role in dissuading people to use freelancing services, in the respective order. The two other important factors include preference for using traditional method and cost element. 14.2 per cent of the respondents think that online freelancing is more expensive than the traditional methods. This shows that there are still a lot of gaps that need to be overcome for a bright future of the gig economy.

From the graph (refer figure 4), of those who are willing to spend on for freelancing services, a majority of them would want to limit their expenditure up to ₹ 2,000 per month. While 34.3 per cent are willing to spend in the range of ₹ 2,001 - ₹ 5,000, only 8.6 per cent or 5 respondents are willing to make expenditures above ₹ 5,000. They

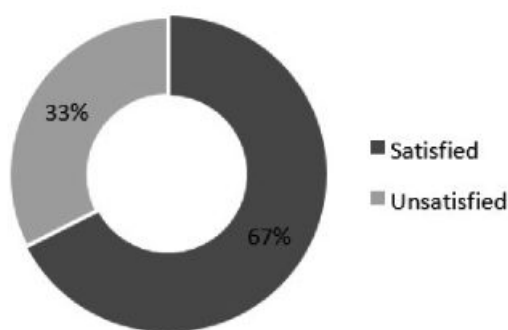
■ Below ₹2000 ■ ₹2001-₹5000 ■ Above ₹5000



**Figure 4 : Willingness to spend in monetary terms (per month)**

Source: Authors' Compilation

are the ones who would use freelancing services for a lot of their daily needs. This shows that people would be willing to spend for these services.

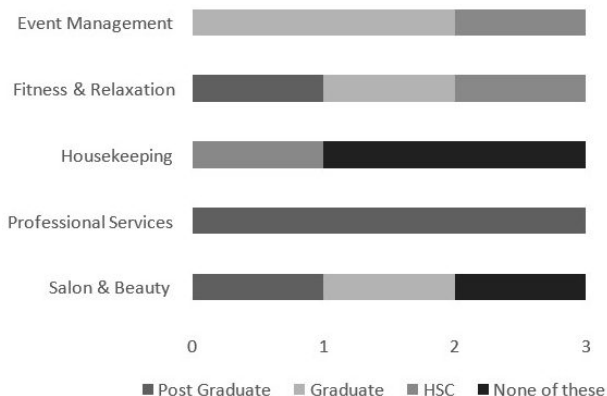


**Figure 5 : Percentage of customers satisfied with freelancing services**

Source: Authors' Compilation

Among the respondents who used the freelancing services, a mixed response is seen. (Refer Figure 5) Although the majority, i.e. 67.5 per cent of the respondents were satisfied with the services they received, a large number or 32.5 per cent respondents were not satisfied. This means that there is still room for improvement in the quality of services, and the freelancing platforms must attempt to improve them in order to achieve tremendous growth.

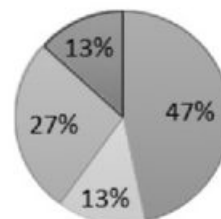
## SUPPLY SIDE ANALYSIS



**Figure 6 : Education level among freelancers**

Source: Authors' Compilation

From the data (Refer Figure 6), it can be seen that 12 out of the 15 freelancers interviewed have some kind of formal education. Freelancers providing professional services (eg. IT/GST consultants, website or app developers, SEO experts and others) have postgraduate qualifications, while those among the housekeeping service providers have a lower level of education.



■ Freelancing ■ Professional ■ Salaried ■ Student

**Figure 7 : Occupational Status of Freelancers**

Source: Authors' Compilation

Of those interviewed, 46.7 per cent or 7 are full-time freelancers while the rest have other occupations. 2 are students, 2 are professionals, and 4 are salaried and employed in an organization. Therefore, it is safe to conclude that the freelancing activity is popular as a part time work and not carried on by them full time. (Refer Figure 7).



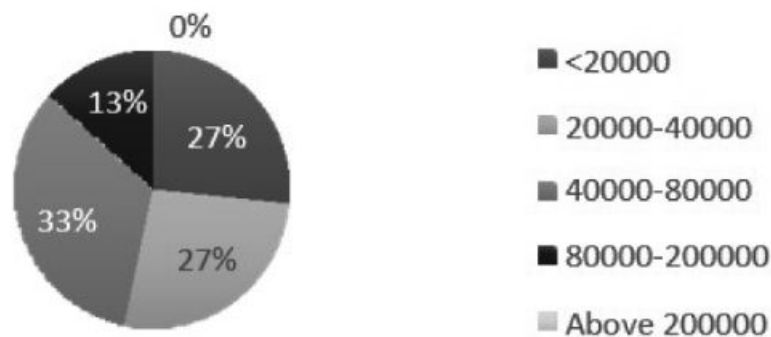
**Table 1: Time spent on per job or assignment and number of hours of work done per week<sup>a</sup>**

Service Type	Time spent on one job/assignment (hours)	Number of hours of work per week (hours)
Salon & Beauty	4	5
	2	3
	1	22
Professional Services	1	3
	2	4
	Data available in weekly terms	30
Housekeeping	1	13
	1	19
	.75	47
Fitness & Relaxation	1	8
	1	13
	1	50
Event Management	3	15
	4	15
	2	9

*#Cells highlighted show the time spent on one job/assignment and working hours per week of full time freelancers.*

Source: Authors' Compilation

(Refer Table 1) - Time spent on one booking by a full-time freelancer providing salon and beauty services is significantly more than a part-time freelancer. The time spent on a booking is different considering the nature of appointment and efficiency of the freelancers. Those engaged in professional services devote very little of their work week towards the freelancing activities. The average time spent by freelancers providing housekeeping services is too little, and around one hour per job. An interesting pattern is noted in the fitness and relaxation category where the time spent on an average by both kinds of freelancers are same, but since the jobs done per week by the full timers are more, their working hours per week are significantly higher.



\*includes non-freelancing income as well

**Figure 8 : Income level of the freelancers (monthly)\***  
Source: Authors' Compilation

**Table 2: Income from freelancing of full timers and non- full timers**

Service Type	Charges per job (on average) [A]	Number of jobs done per month(average) [B]	Income from freelancing [C=A*B]	Total income
Salon & Beauty	1500	5	7500	46500
	1000	5	5000	
	400	85	34000	
Professional Services	2000	10	20000	77000
	1500	8	12000	
	15000	3	45000	
Housekeeping	300	50	15000	67500
	200	75	15000	
	150	250	37500	
Fitness & Relaxation	800	30	24000	114000
	1000	50	50000	
	200	200	40000	
Event Management	800	20	16000	107500
	2500	15	37500	
	3000	18	54000	

#Cells highlighted show the rates, jobs and monthly income of full time freelancers.

Source: Authors' Compilation

From Table 2, it can be interpreted that among the salon and beauty category, two full-time freelancers were interviewed, and their monthly incomes from freelancing is significantly different. This is because of the nature of work that they do. Among professionals, none of them are full time freelancers. They all work for gigs as a source of extra income. Their primary source is dependent on their occupation. The income they receive from freelancing is not much. Freelancers providing housekeeping services of cleaning and repairs are full timers. They freelance for a living and their charges are not largely dispersed.

## FUTURE PROSPECTS

Hypothesis Testing (Refer data from Figure 9):

$\mu_1$  = mean no. of freelancers getting extra income due to freelancing

$\mu_2$  = mean no. of customers paying for freelance services

Hypothesis testing at 95 per cent level of significance

$H_0: \mu_1 = \mu_2$ ,  $H_1: \mu_1 \neq \mu_2$

Using t-test, value of test statistic = -1.9

$\alpha = 0.05$ ,  $p = 0.197$  in this case

df	2
t Stat	-1.90
P(T<=t) two-tail	0.197

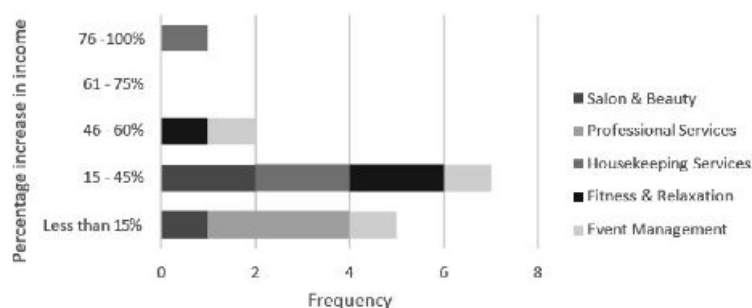
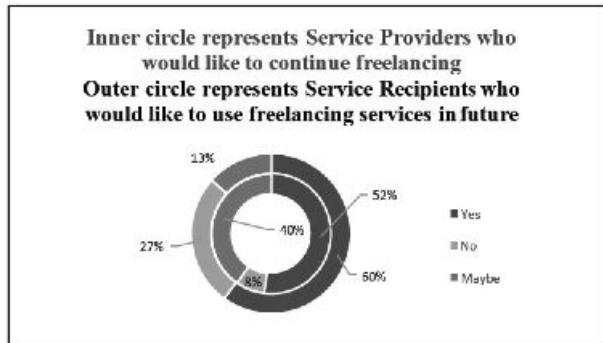


Figure 9 : Percentage increase in income due to freelancing among various service types  
Source: Authors' Compilation

This means that online freelancing does not present a very bright future. The equilibrium like situation is missing in this sector with incongruent expectations and attractiveness between the service providers and service recipients.



Source: Authors' Compilation

When this data (Refer Figure 10) was correlated, the correlation coefficient was found to be equal to 0.4802.

$$r = 0.4802$$

**This suggests low level of correlation between the two variables.**

Hypothesis Testing (Refer data from Figure 10):

$\mu_1$  = mean no. of freelancers who would choose to continue freelancing

$\mu_2$  = mean no. of who service recipients who would choose freelancing services

Then the hypotheses would be: (Hypothesis testing at 95 per cent level of significance)

$$H_0: \mu_1 = \mu_2, H_1: \mu_1 \neq \mu_2$$

Using t-test, we get value of test statistic = 1.99

df	2
t Stat	1.99
P(T<=t) two-tail	0.184

$$\alpha = 0.05 \quad p = 0.184 \text{ in this case.}$$

This means that both the supply and the demand side of the online freelancing industry is not keen on continuing with these services. They have a low level of correlation between them and the market suffers from a mismatch between customer's expectations and service provider's delivery.

## CONCLUSION

With the aid of the research methodology, both primary and secondary, we have understood a few aspects which had formed the objectives of our study:

1. The factors why freelancing services are popular (especially salon and beauty services and housekeeping services) are successful in our primary research, with factors such as convenience and flexibility as the main reasons.
2. It was found that because of trust issues and lack of knowledge of the quality of past services (by the gig workers), many people were reluctant to use freelancers' services.
3. About 67 per cent of the users of freelancing services were satisfied by the service they received. This shows a massive scope of improvement in the quality of services rendered.
4. For those services requiring skills like professional services, all the freelancers had qualifications; for those like housekeeping, some did not have any degrees.
5. Online freelancing does lead to more clients and more incomes. However, when enquired about the percentage increase in income from freelancing, it was noted that only a handful of freelancers were able to get an extraordinary increase in income through freelancing. For the majority, the increase was up to 30 per cent.

With the growing acceptability of services by gig workers, one can safely conclude that the gig economy is here to stay, but the growth will be staggered and steady because of several challenges the supply side faces.

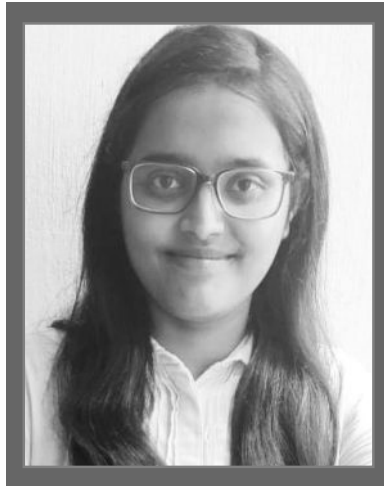
## RECOMMENDATIONS

The gig economy has so far grown on its own without any governmental intervention. The State can look for policies and laws that would change the perceptions of people regarding the unreliability of this freelance industry and trust issues. It can offer a legal backing to it.

1. With the increasing use and awareness of freelancing services, the online platforms or applications must ensure quality control of the work provided by freelancers. Urban Company takes their quality control policies very seriously. However, platforms such as Upwork, Fiver, and Truelancer are free and so any gig worker whose history is not known can be listed.
2. Preference for the traditional method and personal contacts continue to be demotivating for new users to try freelance services. Freelancers can do a bit of advertising on social media with real-life testimonials of the customers they have served.
3. The majority of the freelancers interviewed practice it part-time. This is because they don't get recognition or flamboyant incomes from freelancing. The Government of India can take up steps to establish a platform for freelancers and roll-out schemes that give freelancing an occupational status and leverage on such kind of work culture. Governmental endeavours under the Digital India and Skill India platforms to provide freelancing opportunities to computer literates in India have shown progress and increased the pool of online gig workers.

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“

Investors invest their funds in those sectors where they assess a scope for growth. Thus, the stock market has the responsibility of mobilizing the national savings and lead to the economic growth of a country.

”

# Role of BSE in the Growth of Indian Economy

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## ABSTRACT

The economic growth of a country depends on its Gross Domestic Product (GDP). An increasing trend in the economic growth attracts the investors to invest their funds into the stock market, whereby they can gain returns. The stock exchanges provide a proper infrastructure for the same. In India, there are multiple popular stock exchanges, but for the purpose of this paper, only the performance of the BSE is considered. The movement of the stock prices and their effect on the economic growth is to be analyzed for a period of five years starting from 2014-15 till 2018-19.

**KEYWORDS:** Stock Market, GDP, Nominal GDP, Market Capitalization, SENSEX

## INTRODUCTION

### Economic Growth

It refers to the change in the production of goods and services compared to that of the last period (period generally means a particular accounting year). If there is an increase, then we will see positive economic growth and vice versa. This growth depends on various factors and can be measured in terms of the Gross Domestic Product (GDP), i.e., the market price (MP) of all the final economic goods and services produced within the national boundaries in a particular period, gross of depreciation. This includes those products and services which are exchanged in the market at a value and does not include any non-economic activity. Thus,

$GDP_{MP} = \text{Value of Output} - \text{Value of Intermediate Consumption (within the domestic territory)}$

### Bombay Stock Exchange (BSE)

The Bombay Stock Exchange (BSE) is one of the oldest stock exchanges in Asia. It was established in 1875 as 'The Native Share and Stock Brokers' Association', and now, it is the fastest stock exchange of the world. There are about 5,000 companies listed on it. It ranks 10th in the world with a market capitalization of ₹ 158,507.1962 billion as of 20th February, 2020.

### Market Capitalization (Market Cap.)

In simple terms, market capitalization means the market value of a company determined by the total number of shares multiplied by the current market price (MPS) of those shares. The annual market capitalization is provided by the World Bank as a percentage of the Nominal GDP of the country. The market capitalization includes the domestic companies which are listed on the stock exchange at the end of the year but excludes the different investment companies, mutual funds and other types of investment vehicles. The BSE is an efficient platform for raising capital and provides information about the movement of different securities and its effect on the overall market cap.

Thus, we can find the aggregate stock value being traded in the market in relation to the total output produced in a country for a particular period of time (i.e., Market Capitalization to the GDP), and comment

upon the progress of the economy in relation to the market performances.

## LITERATURE REVIEW

- Uma Jayender's and Monika Dudani's 'Role of Stock Market in the Growth of Indian Economy': This is a conference paper where the effect of stock market changes on the Indian economy, from 2008 till 2014, is shown with the help of various statistical tools and measures.
- Certain blogs of Advisory Mandi and various articles of The Economic Times were considered.

## OBJECTIVES OF THE PROJECT

- Performance of the market capitalization of the BSE from 2014-15 till 2018-19
- Economic growth of India on the basis of the GDP of India from 2014-15 till 2018-19
- GDP growth affected by the performance of BSE – impact and analysis

## RESEARCH METHODOLOGY






- Data Source - Majorly from the official websites of:
  - o Reserve Bank of India (RBI) – GDP Details
  - o Bombay Stock Exchange (BSE) – Market Capitalization
- Data Type – Secondary Data
- Data Period – From 2014-15 till 2018-19
- Tools used for the analysis – Various graphs showing diagrammatically, the upward or downward trend, the different ratios and simple percentages.

## CASE STUDY

### Demonetization:

Demonetization means seizing the use of a currency. The old ₹ 500 and ₹ 1,000 notes were not considered

as legal tender since the midnight of 8th of November, 2016. Its effect on some of the sectors of the stock market is shown as per the indices of the Bombay Stock Exchange:

Sectors	Pre Demonetization Returns(15 days) (1)	Post Demonetization Returns(15 days) (2)	Columnar View Former- 1 Later- 2
<i>Automobile</i>	(0.077027980)	(0.637841413)	
<i>Consumer Durables</i>	(0.187090300)	(0.596381694)	
<i>Telecom</i>	(0.130624844)	0.270275593	
<i>Banking</i>	0.07227618	0.296059767	
<i>Oil and Gas</i>	0.172951773	0.140163347	

**Table 1**

**Source:** A study on the Impact of Demonetization on Bombay Stock Exchange by R. Siva Kumar, MBA student; William Robert, Asst. Professor; Dr. CH. Bala Nageswara Rao, Director, Saveetha School of Management, India

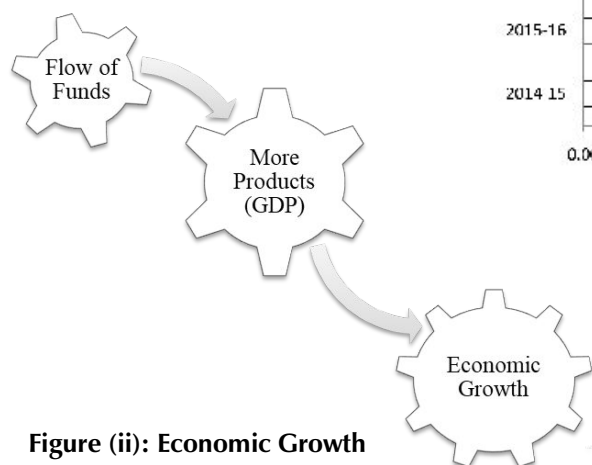
## FINDINGS AND ANALYSIS

Stock markets are the deficit sector which ensure the capital flows of a country and generate returns. These returns are earned by the investors who invest the surplus funds again. Basically, it is a cycle which maintains the flow of funds in an economy and leads to the multiplier effect on the capital.



**Figure (I): Flow of Funds**  
Source : Authors' Compilation

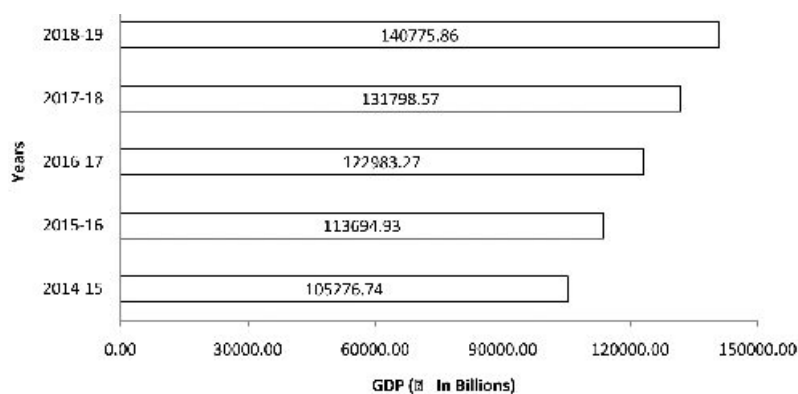
This flow ensures that more products are available in an economy. These products and services produced within the national boundaries of a country in a particular period, gross of depreciation, are the Gross Domestic Product (GDP) of that country. This GDP is a measure of the economic growth.



**Figure (ii): Economic Growth**  
Source: Authors' Compilation

#### A. Growth of GDP from 2014-15 till 2018-19:

As per the annual publications of the Reserve Bank of India, the GDP from the expenditure side is as follows at the constant prices of 2011-12 (taken as the base year).



**Figure (iii)**  
Source: Authors' Compilation

Figure (iii) shows that the GDP is increasing every year, however, the growth rate may not be uniform. For this, we also calculate the percentage increase in GDP and represent it graphically in Figure (iv). We see that the increase in GDP was rising till 2016-17 but started falling thereafter.

GROSS DOMESTIC PRODUCT					
(Amount in ` Billions)					
(Base Year : 2011-12) Constant Prices					
Items/Year	2014-15	2015-16	2016-17	2017-18	2018-19
Private Final Consumption Expenditure	59126.57	63814.19	69040.85	74174.89	80166.74
Government Final Consumption Expenditure	10541.51	11328.02	11990.41	13785.63	15060.35
Gross Fixed Capital Formation	32780.96	34921.83	37837.78	41365.72	45484.52
Changes in Stocks	2747.51	2395.57	1240.87	1504.17	1576.37
Valuables	1879.57	1859.86	1507.84	1921.20	1747.80
Exports of Goods and Services	25121.45	23702.82	24904.37	26073.10	29339.69
Import of Goods and Services	26675.95	25115.40	26215.86	30835.60	35579.01
Discrepancies	(244.87)	788.04	2677.00	3809.47	2979.39
<b>Gross Domestic Product</b>	<b>105276.74</b>	<b>113694.93</b>	<b>122983.27</b>	<b>131798.57</b>	<b>140775.86</b>

Source: National Statistical Office (NSO).

Table 2

Source: <https://www.rbi.org.in/Scripts/PublicationsView.aspx?id=18995>



Year	GDP (₹ In Billions)	Increase (In per cent)
2013-14	98013.70	6.39%
2014-15	105276.74	7.41%
2015-16	113694.93	8.00%
2016-17	122983.27	8.17%
2017-18	131798.57	7.17%
2018-19	140775.86	6.81%

Table: 3

Source: <https://www.rbi.org.in/Scripts/PublicationsView.aspx?id=18995>

#### B. Study of the Market Capitalization of the BSE from 2014-15 till 2018-19:

Year	Market Capitalization (₹ In Billions)	Increase (In per cent)
2013-14	74152.96	16.08%
2014-15	101492.90	36.87%
2015-16	94753.28	-6.64%
2016-17	121545.25	28.28%
2017-18	142249.97	17.03%
2018-19	151087.11	6.21%

Table: 4

Source: [https://www.bseindia.com/markets/keystat/ics/Keystat\\_maktcap.aspx](https://www.bseindia.com/markets/keystat/ics/Keystat_maktcap.aspx)

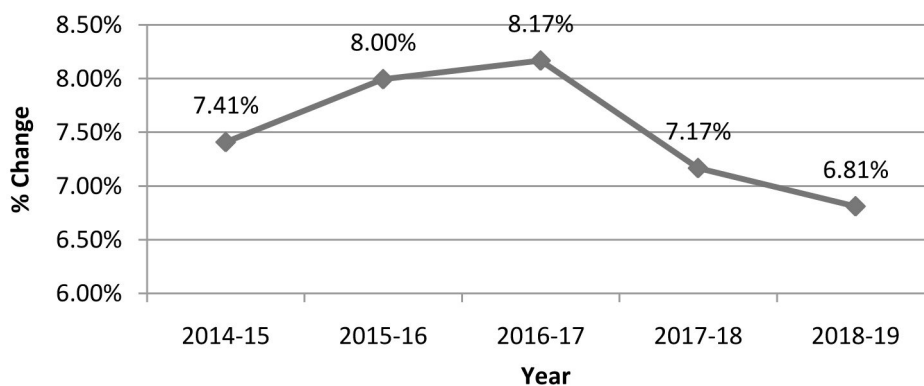


Figure (iv)

Source: Authors' Compilation

The graphical representation follows:

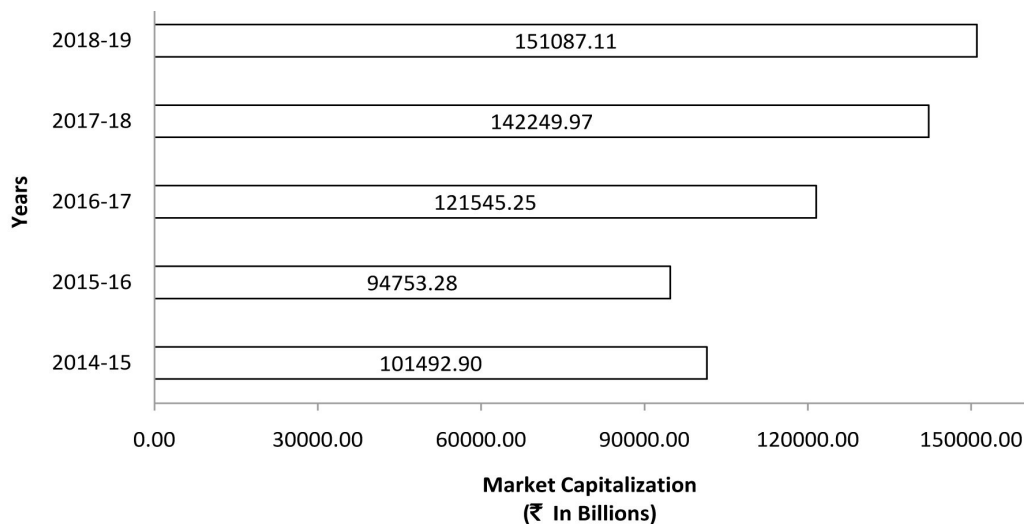


Figure (v)

Source: Authors' Compilation

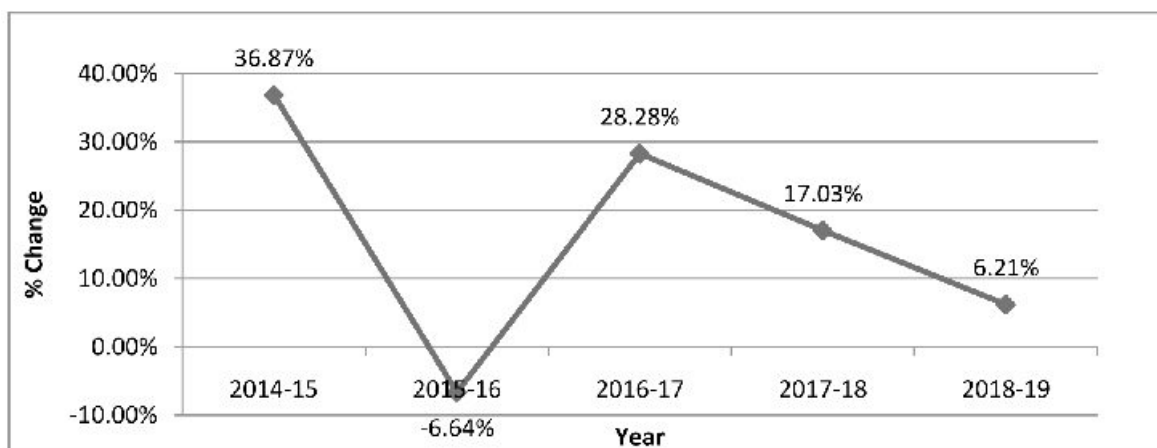


Figure (vi)

Source: Authors' Compilation

It is evident from Figure (v) that the market capitalization went down in 2015-16 but it was only -6.64 per cent as seen in Figure (vi). From there, it started to gain pace again in the very next year (2016-17) with a percentage increase of 28.28 per cent.

### C. Market Capitalization to Gross Domestic Product Ratio:

(₹ In Billions)

Year	Market Capitalization	Gross Domestic Product	Ratio
	1	2	(1 / 2)
2014-15	101492.90	105276.74	0.964
2015-16	94753.28	113694.93	0.833
2016-17	121545.25	122983.27	0.988
2017-18	142249.97	131798.57	1.079
2018-19	151087.11	140775.86	1.073

Table: 5

Source: Authors' Compilation

We can use this measure to analyze the performance of the stock market with the changing factors in the economy.

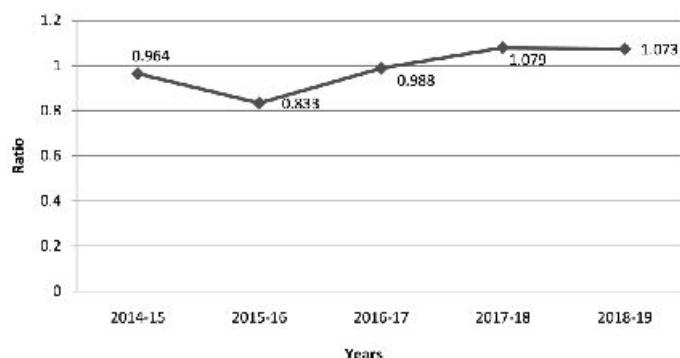


Figure (vii)

Source: Authors' Compilation

Figure (vii) can be related to the figures (iv) and (vi). In 2015-16, the slight decline of the ratio line is because of the immense fall of the market capitalization during that period. After that, both the GDP and the market capitalization begin to rise resulting in the upward movement of the ratio line. From 2016-17 onwards, the percentage lines start falling simultaneously and the ratio line is stable after that. The reason for the fall may be some other economic factors.

### CONCLUSION

The growth projection by the RBI for the financial year 2020 was at 5 per cent in December, 2019. However, the performance of the market cannot be assured, it can only be predicted. In recent times, we have witnessed the Coronavirus pandemic. It has shaken the confidence of the investors. The SENSEX (Sensitivity + Index) plunged by 3934.72 points on 23rd March, 2020 after a lockdown was declared in some of the Indian states as per reports given by News 18. The fall of the market from 2014 could be because of the change in the governing party and the immediate bringing up of policies like demonetization and GST. Not only this, but the annual budgets also affected the sentiments of the investors. The Citizenship (Amendment) Act, 2019 (CAA), which was passed in December, 2019 also impacted the market. As a result of the CAA, there were protests going on in different parts of the

country. This gave rise to negative thoughts in the minds of the investors that the government will be making expenditure on fighting the protestors and will thus, focus less on the other structural reforms which are needed for the country. Investors invest their funds in those sectors where they assess a scope for growth. Thus, the stock market has the responsibility of mobilizing the national savings and lead to the economic growth of a country.

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“

And if there is anything that epitomizes the power of minimalism and relevant popular culture in the age of social media, it's the cultural phenomenon: Memes.

”

# Making Way for the New Entrant in the Marketing Empire

## THE MAKING OF THE MEME MARKET

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### ABSTRACT

The world of marketing is dynamic and unpredictable, yet, one would observe the persistence of some clichés. Some key parameters continue to govern successful marketing visions. We focus on two, the first being

minimalism and second being the reflection of the contemporary socio-cultural environment. In the modern internet age marred by addiction to gadgets and social media, if anything encapsulates the two aforementioned criteria, it's the 'meme'. Brands are realizing the importance of capturing this market and have found the solution to the decline of conventional forms of marketing, especially advertisements, in the form of a lower cost - higher engagement package of the meme. However, it is prudent to question whether the choice is as obvious and rosy as it seems or if there are things to be careful about. Maybe, an even bigger question would be if it's merely a passing fad or something that's here to stay in the long run, changing marketing activities forever.

**KEYWORDS:** Minimalism, Socio-Cultural Phenomenon, Meme, Engagement, In-The-Moment Marketing

'Show, don't tell', 'Keep it Simple', 'Less is more'. These words will sound familiar to any marketing enthusiast. One can find them almost everywhere, in every second blog post, in a random digital course or YouTube video, or in any book by a self-proclaimed pundit, to the point that they might be characterized as clichés. But unlike many reiterative adverts, some clichés are called so because they reflect the truth. *Minimalism* and Marketing have always been related, even before minimalist marketing was a thing, or even before the marketing concept shifted from the informational and aggressive inside-out approach to the perceptive and reflective outside-in approach. From its origins as a word in Old Norse, termed to describe the mark made to identify cattle, *branding* has always been concerned with distinguishing oneself in the most effective and economical manner, cutting through the clutter and making one's mark in the consumer's psyche. And today, with all the noise and transience, branding might be one of the most important, if not the most important aspect of a company's marketing vision, and minimalism might just be a key to this lock encompassing endless possibilities.

However, capturing the customer's attention is not enough. Success is not determined by a heftier advertising budget or a more recognizable logo, it's determined by the emotional connections a brand makes with its target audience. Marketers are often

accused of creating artificial demand and influencing social behaviour. That might just be true, but what is more likely to be true is that successful marketing endeavours actually reflect and capitalize on the socio-cultural sentiment of their time; they mirror what the society desires. And nothing exudes more about the society's fancies than the day's prevailing popular culture. From the genius of Marlboro in launching the cowboy-inspired Marlboro man during the escalating popularity of American Westerns in the mid-fifties, to Coca Cola reinventing its brand from a family beverage to one celebrating the youth culture- time and again, brands that have shown to be receptive to the overall public sentiment and mass culture, have gone on to trump the marketing mayhem. The key, it seems, is not necessarily to innovate, but to stay relevant. And how one does that is hardly the matter of contention, it can be clever and intentional like a Starbucks cup in almost every scene of *Fight Club* or even purely coincidental (and almost embarrassing) as a coffee cup in the middle of a banquet in medieval-like *Game of Thrones*. (Figure 1: *Game of Thrones*: Coffee Gate)

Now, let's steer the wheels of time and take a bus to the turn of the millennium, to the age of the Internet where new technology gets outdated in months, bubbles get created and burst in days, physical and political boundaries hardly pose considerable hindrances, information is abundant but impossible to control, and consumers experience an explosion of choices. The noise is louder than ever and staying relevant seems like an unsustainable hustle. However, amidst this exponential chaos, the fundamentals for assuming control might just be as simple and humbling as before. The foundations of minimalism and reflecting social behaviour can still prove to be quite effective. And if there is anything that epitomizes the power of minimalism and relevant popular culture in the age of social media, it's the cultural phenomenon: *Memes*.

The origins of the word 'meme' can be traced back to a time when even the idea of a Facebook or Twitter was beyond the wildest fantasies, let alone their existence. In 1976, Richard Dawkins used the term 'meme' in his book, *The Selfish Gene* to describe the way a cultural trend spreads or becomes viral. Though much of this definition's essence remains intact in modern usage, it cannot justifiably encapsulate the whole social

phenomenon that the word represents. On the surface, a meme might just seem like a picture with a funny caption or a short clip for laughs. However, a slightly closer look at the macro-level would reflect its sociological significance, and thereby equip one to recognize and capitalize on its immense potential. For centuries, literature was the cornerstone of popular discourse: ballroom discussions, dinner parties, fan clubs and casual conversations. When encountered with a new but familiar experience, it was a normal response to say, 'I read a book about this.' The advent of celluloid and television, and the birth of cinema shifted the response to 'I have watched a movie about this.' Today, it wouldn't be a surprise for a smartphone-dependent millennial and Gen Z to respond with, 'There's a meme for it.' Memes are no longer just parts of our conversations, rather, they are how the current generation converses. They reflect the prevailing trends and capture the latest developments into the small and accessible screens of the consumers' smartphones and personal computers.

And, how much time does one spend on their smartphone? The answer for most of us is: a lot! We're no longer close to being addicted to our gizmos, we already are! And all this is reflected in the fact that more than 5 billion people in the world today own a mobile device, and this number is constantly growing and set to reach 7.33 billion by 2023. Moreover, an average user spends close to 3 hours on their smartphones every day, most of it on social media. Now, while companies have realized this trend and are moving away from ads on traditional platforms, the masses seem to be moving away from ads and sponsored content in general. The 'Skip Ad' button has probably become one of the most-used features and platforms that do not provide the facility face a lot of flak. What could be a huge problem for companies seeking to showcase their brand to the public, has been conveniently and effectively solved by memes. The humorous and subtle way of marketing has resonated deeply with today's generation who can relate to the content and share it with their friends. In fact, it has resonated so deeply that about 85 per cent of the content shared on social media today contains memes. In the increasingly anti-social environment created primarily by our obsession with tech, it's ironic that panacea comes in the form of technology itself as memes become the social fabric bringing us all together.

Memes are inseparable from the modern form of communication, hence inseparable from the prevalent social behaviour of the time and thus inseparable from the vision of ambitious marketers.

While robust demand is extremely important for a venture to gain traction in a dynamic market, it's actually production that drives economic growth. So, it's crucial to understand what motivates companies and brands to use memes as marketing tools besides the obvious demand for them. Now, one can argue that the ridiculously low (read almost free) cost of creating a meme, especially in comparison with a colossal advertising expenditure, would be enough to tip the scales in its favour, but they actually offer so much more that it almost seems too good to be true. The lower cost is accompanied by a higher engagement rate, and memes help substantially in keeping the brand relevant and fresh. Brands like Forever 21 (Figure 2: Forever 21 Engagement Rate Comparison) and Chipotle (Figure 3: Chipotle Engagement Rate Comparison) have shown that both the engagement rate and effectiveness rate (a measure of the saves and impressions) have increased by a huge margin once they started posting memes on their Instagram account. The proof, as always, is in the pudding.

All these advantages should make memes a must-use for all companies today, but that's not really true. While there are many strategic advantages to be gained, a company can only do so if they recognize their target audience and if said audience comes within the ambit of the consumers influenced by meme marketing. A company selling multivitamins for the elderly, for example, would not see much rise in revenue or engagement if it decides to use memes for advertising. Like any other marketing strategy, the use of memes too has to be meticulously planned and curated to offer the optimum results.

Some brands have succeeded marvellously in doing so, and as a result, enjoy the benefits of a prominent positioning in the consumer's mind. What's astounding is the diverse range of brands that are a part of this bracket. From Barkbox (a subscription service for dog treats and toys) and Nickelodeon (a TV channel for younger kids) being somewhat expected users of this culture because of their target audience, to luxury brands like Gucci and even the Mumbai Police, which

has constantly strived to shed its serious image in favour of a more humorous approach. This move has essentially achieved its target of spreading awareness to citizens in a format that reflects the way they converse now, and has also succeeded in lending an approachable image to the Mumbai Police. (Figure 4: Mumbai Police Meme)

An innovative way of further reducing the hassles associated with creating one's own meme templates is to use pre-existing ones that fit the brand's narrative. This process, called meme jacking, can be extremely effective as it involves piggybacking off the success of something that is already viral, but brands must use it with a healthy dose of caution because using a template that isn't really relevant anymore or one that doesn't reflect their brand ideology, can have disastrous consequences. (Figure 5: Example of successful meme jacking by Hipchat)

Netflix, which has always been a fan of using interactive means to build its brand, has realized the reach of meme-marketing to such an extent that it has a sub-account called 'Netflix is a Joke' on its social media platforms, which it uses just for meme advertising. In fact, what makes its campaigns specifically unique is that it makes memes out of its own shows instead of using already viral templates, thereby promoting its shows and increasing viewership. (Figure 6: Netflix Meme)

The meme marketing world, however, can be fraught with challenges and obstacles and quite a few brands have succumbed to the pressure, ultimately misunderstanding the pulse point of the masses and wrongly predicting where the newest trends could lead. As a result, the companies have been perceived as 'trying too hard' or 'irrelevant', which in branding are words that could easily lead to their demise.

For McDonald's, the use of the 'say no more, fam' Barber Meme years after it was popular was the first transgression. However, it didn't stop there, as it went on to create a meme that left everyone confused and bewildered, wondering what the brand wanted to communicate. The Barber Meme generally showed a funny haircut, followed by a character or picture that represents it. The McDonald's meme didn't even mention hair and was supposedly meant to promote

McSteaks. It's probably safe to say that McSteaks was the mistake they were alluding to. (Figure 7: McDonald's unsuccessful attempt at Meme Marketing)

Ruffles, on the other hand, invited the ire of its consumers because the meme used by them was not original and not particularly funny. They suffered a low engagement rate and were called 'boring and unimaginative.' (Figure 8: Ruffles' failed memevertising)

Creating an effective marketing campaign with the help of memes, thus, is a bit like carefully walking on a tightrope over shark infested waters, where one has to consider numerous factors that threaten to derail their progress as the risk of falling and becoming a shark-bait is very real. In a world where consumers are becoming increasingly fickle and finding the correct marketing tool to please their delicate sensibilities is even tougher, will meme marketing find the strength to become more than a trend? Or, will it simply be lost down the ages as a passing fad?

A plausible approach to find the answer might be in identifying the type of product life cycle of memes, in general. Are they just popular for a temporary period marred by feeble consumer interest (fad); or are they supposed to grow slowly in popularity and descend gradually as well (fashion); or will they see constant ups and downs marked by several periods of renewed interests (style)? (Figure 9: Style, Fashion, Fad Graphs)

After a while, one will realize the futility in trying to characterize this phenomenon into any watertight category; because the actual power doesn't lie in the format, it lies in the moment. Moment marketing might seem like a new buzzword, but it has existed for a long time. Google has been doodling on trends long before memes burst into the scene and the Amul Girl has been topical even before the internet surged. And today, memes seem to be the most potent tool to capture the moment. Memes may not be the way of the future, but they are here to stay for a while, and at the moment, they can make anything go viral, be it an egg, a movie, (strangely even) a name (Figure 10: Binod Meme), and definitely your brand.

But as we said, they aren't magical tools. The magic lies in the moment. Brands that are successful in identifying, understanding and astutely executing this magic will keep climbing the steps of an unending

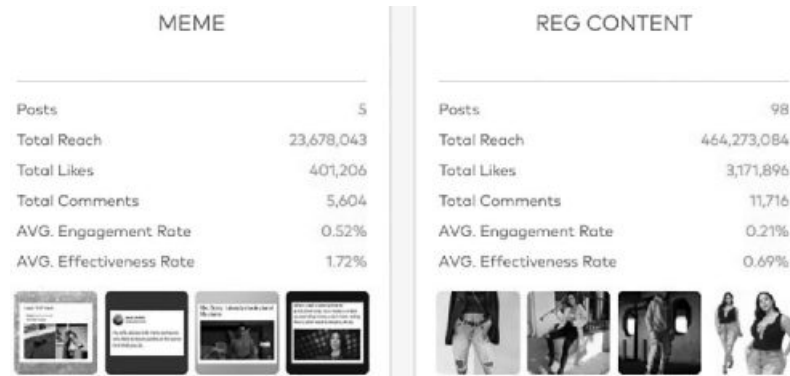
ladder and will most likely emerge on the top. Clinging on to the traditions of the past could be unsustainable and downright destructive, while, thinking way ahead into an uncertain future would distance your ideas from reality, and thereby, the consumers from your brand. The most prudent answer seems to be the obvious answer (as we said, some clichés are clichés for a reason). Make most of the moment today, and be ready and on your feet to do the same tomorrow when a new moment arrives (Figure 11: Moment Marketing). The best time to market isn't gone or yet to come, it is now.

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**Figure 1:**  
**Game of Thrones:**  
**Coffee Gate**



**Figure 2: Forever 21 Engagement Rate Comparison**



**Figure 3: Chipotle Engagement Rate Comparison**



**Figure 4: Mumbai Police Meme**





Figure 5: Example of successful meme jacking by Hipchat



Figure 6: Netflix Meme



Figure 7: McDonald's unsuccessful attempt at Meme Marketing



Figure 8: Ruffles' failed Memevertising

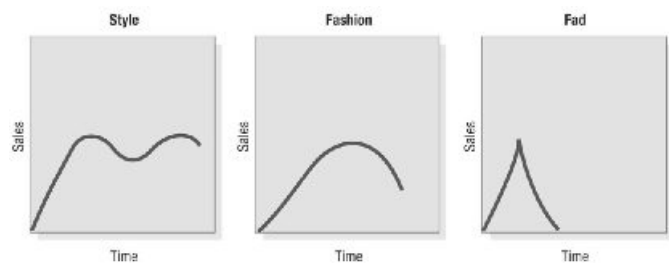


Figure 9: Style, Fashion, Fad Graphs

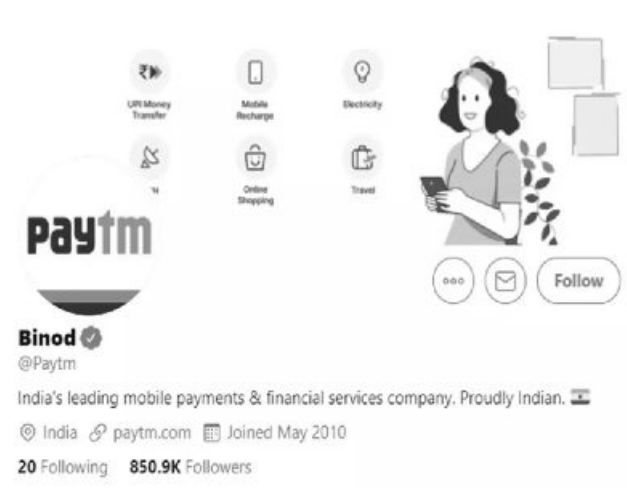


Figure 10: Binod Meme

A new trend emerges...

Moment Marketers:



Figure 11: Moment Marketing



“

After successfully establishing the Indian market, the Government of India aims to promote domestic manufacturing using domestic factors of production without any dependence on foreign investment.

”

## Will Make in India Make India?

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### ABSTRACT

Manufacturing has always been considered a key feature of the economic development of a country. However, for India, this has not been the case. Foreign Direct Investment of a country comes in handy in the long-term development of the country not only as a debt-less source of capital but also for maintaining a certain level of competitiveness in the domestic market. For years, the economy of India has been solely reliant on the service sector for its economic growth and development. To unlock the full growth potential of India and to pave the path to become the world's leading economy, Prime Minister Narendra Modi, on 25th September, 2014, launched the 'Make in India' initiative. This involved a flurry of economic reforms and major policies on the part of Government of India.

This project aims to study the initiatives taken by the Government of India, the progress that the various sectors have shown, the trends of Foreign Direct Investment, and the achievements of the 'Make in India' initiative.

**KEYWORDS:** Make in India, Foreign Direct Investment, Initiatives, Progress, Achievements.

## INTRODUCTION

### Background

‘Make in India’ is a major nation-wide programme launched by Prime Minister Narendra Modi on 25th September, 2014, with the aim of promoting the manufacturing sector of India by providing lucrative incentives to multinational as well as domestic companies, and thereby using the manufacturing sector as a vehicle for job growth. This scheme is led by the Department of Industrial Policy and Promotion, and it aims to increase the contribution of the manufacturing sector to 25 per cent of the GDP by the year 2025<sup>[1]</sup> from its current 18.32 per cent. Further, the main focus of this scheme is to concentrate on job creation and skill development in mainly 25 sectors of the economy, i.e., Automobiles, Automobile Components, Aviation, Biotechnology, Chemicals, Construction, Defence Manufacturing, Electrical Machinery, Electronic system, Food Processing, Information Technology and Business Process Management, Leather, Media and Entertainment, Mining, Oil and Gas, Pharmaceuticals, Ports and Shipping, Railways, Renewable Energy, Roads and Highways, Space, Textiles and Garments, Thermal Power, Tourism and Hospitality, and Wellness.

### Objectives of the Study

The main objective of this study is:

- To understand why ‘Make in India’ was introduced, how it has affected the Automobile, Defence Manufacturing, and the Tourism and Hospitality sector of the Indian Economy, and what it has achieved till date.
- To showcase the emerging trends of FDI due to ‘Make in India’.
- To understand the difference between ‘Make in India’ and ‘Made in India’.

### Research Methodology

The research for this project is based on secondary data collection. The data is collected for approximately ten years and may vary due to the availability of data from government websites. The data has been derived from:

- Various research articles written by honourable professors and researchers.
- Various print media such as Economic Times and The Times of India.
- Press releases from the Press Information Bureau (PIB).
- From scheme-specific government websites.

## CONCEPTUAL FRAMEWORK

### Objectives of ‘Make in India’

The underlying objectives that the ‘Make in India’ programme aims to achieve are similar to the objectives set out in the National Manufacturing Policy 2011. The objectives are as follows:

- To make the manufacturing sector the engine of growth for India’s economy.
- To create a minimum of a hundred million additional jobs in the manufacturing sector by the year 2022.<sup>[2]</sup>
- To accelerate the global competitiveness of the Indian manufacturing sector.
- To ensure the stability of growth, particularly with reference to the environment.
- To develop infrastructure and invite state-of-art technology.
- To increase the total Foreign Direct Investment inflows over the years.

### Major Initiatives taken by the Government

The Government of India has taken the following major steps and initiatives to boost the manufacturing sector of India in regards to the ‘Make in India’ programme:

- Creating a Conducive Environment and Smart Cities:

The government intends to provide a strong infrastructure to businesses by developing industrial corridors as well as smart cities to provide a conducive working environment with state-of-the-art technology. Also, efforts are being made to facilitate the provision of skilled manpower via a national skill development programme. Approximately, the development of a

hundred smart cities and the modernization of current mid-sized cities in India will be undertaken.

- Investor Facilitation Cell:

An Investor Facilitation Cell has been formed by the government with a dedicated team to provide guidance and assistance to first time investors regarding state-wise policies with respect to land, labour, capital and investment.

- Ease of Doing Business:

The Government of India is continuously taking steps in order to improve its ease of doing business ranking. Significant improvements in areas of resolving insolvency, registering property, dealing with construction permits, paying taxes and trading across borders have aided in India's improvement in ease of doing business ranking.

### Major Achievements of 'Make in India'

Some of the major achievements of the 'Make in India' initiative are:

- Ease of Doing Business – India jumped 14 places to the 63rd position from the 77th position out of the 190 countries on the World Bank's Ease of Doing Business rankings.<sup>[3]</sup>
- Automobile Sector - Two prototype locomotives of

WAGC3 and WAG11 were developed by converting existing diesel locomotive to upgraded electric locomotive.

- Six Industrial Corridors covering Punjab, Haryana, Uttar Pradesh, Bihar, Jharkhand and West Bengal are being developed across India including industrial cities.
- In September 2016, one of the world's largest 648 MW solar plant was commissioned.<sup>[4]</sup>
- During June 2014 to August 2018, 88 cold chain projects were commissioned resulting in the creation of additional food processing capacity of 390,000 tonnes.<sup>[5]</sup>
- In 2020, the technology giants Apple and Hewlett-Packard have started manufacturing their primary products, PC and mobile phones, in India, to support the growth of the local manufacturing system.

### Difference between 'Make in India' and 'Made in India'

With Prime Minister Narendra Modi launching the 'Make in India' initiative in September 2014, a lot of confusion is being circulated in identifying the difference between 'Make in India' and 'Made in India'.

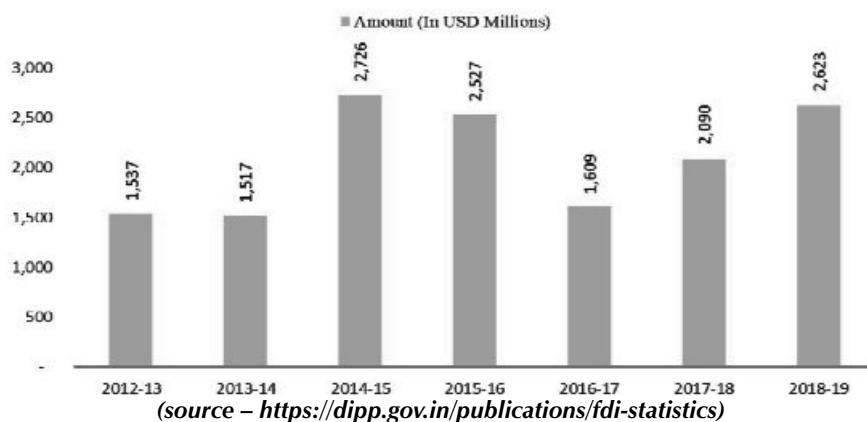
Make in India	Made in India
'Make in India' is aimed at making India an attractive destination so as to generate more Foreign Direct Investment in the 25 sectors targeted by this initiative. <sup>[1]</sup>	'Made in India' aims at efficient utilization of the resources of India. It does not attract any extra Foreign Direct Investment.
'Make in India' aims at employing more people in the country through the development of manufacturing sectors.	Due to endorsing the domestic manufacturing of goods using the domestic factors of production, 'Made in India' creates a value chain which generates employment across various sectors other than the manufacturing sector.
With the help of a boost in Foreign Direct Investment, the government plans to reduce the fiscal deficit and strengthen the rupee.	With the help of a boost in the manufacturing sector of India, the government plans to make 'Made in India' a brand, just like 'Made in China'.
Under 'Make in India', India is heavily reliant on the investments from foreign investors.	Under 'Made in India', India is self-dependent and does not rely on the investments from foreign investors.
In 'Make in India', the earnings and profits from the selling of manufactured products are split between the government and the foreign investor.	In 'Made in India', the earnings and profits from the selling of manufactured products fully belong to the government.

## DATA ANALYSIS

### Analysis of Automobile Sector

The automobile industry, along with the automobile components industry, is a part of India's core industries. It is one of the most important sectors as it contributes a total of 7.1 per cent to India's GDP and nearly 45 per cent of India's manufacturing GDP<sup>[6]</sup>. The growth of this sector is crucial for the growth of India's economy because it has a strong multiplier effect. By 2026, in accordance with the Automotive Mission Plan, India's automobile industry is set to contribute around 12 per cent to the GDP and generate around 65 million jobs<sup>[6]</sup>.

### FDI IN AUTOMOBILE SECTOR



**Figure 1:** Figure 1 shows the increase in Foreign Direct Investment after a steep fall in 2016-17 due to adverse economic conditions and low demand in the Indian market.

The steps taken under the 'Make in India' initiative for this sector are as follows:

- Foreign Direct Investment Policy:

100 per cent FDI is allowed under the automatic route with no minimum investment criteria and no requirement of licensing and approvals for the manufacturing imports.<sup>[6]</sup>

- Automotive Mission Plan (2016-26):

This plan sets a framework of regulations and policies that govern research, design, manufacturing, testing, technology and the other major factors in the automobile sector. It foresees the automobile sector to generate a revenue of \$300 billion, contributing 12 per cent to the GDP and 65 million additional jobs by the end of 2026.<sup>[6]</sup>

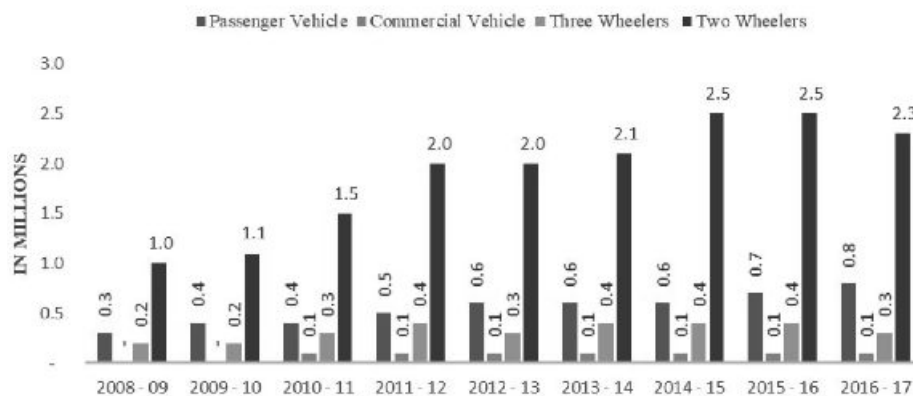
- Faster Adaptation and Manufacturing of Hybrid and Electric Vehicles (FAME) Scheme II Phase:

FAME India Scheme II Phase is to be applied in the course of three years from 2019–22 in order to facilitate faster adoption of the electric mode of transportation as well as the growth of electric and hybrid technologies.<sup>[6]</sup>

- Green Urban Transport Scheme (GUTS) 2017

GUTS promotes low carbon emission public transport in select major urban cities. Such urban cities are those whose population exceeds 500,000. The Government of India has initially invested an approximate of ₹ 250 billion in this scheme.<sup>[6]</sup>

### TOTAL EXPORT OF AUTOMOBILES



(source – <https://www.ibef.org/industry/india-automobiles.aspx> and <https://www.statista.com/statistics/608494/export-trends-automobile-industry-india/>)

**Figure 2:** Figure 2 shows the yearly increase in the exports of India. A sharp increase in the export of automobiles, especially two-wheelers, can be seen in FY 2018–19.

The major investments made in the automobile sector after the 'Make in India' initiative was announced are as follows:

- General Motors – has invested \$1 billion in its Indian subsidiary, Chevrolet India.<sup>[7]</sup>
- Hyundai – has invested \$1 billion for new products, development of power train, and setting up of new offices.<sup>[8]</sup>
- Honda Motors – has invested \$1.24 billion for the setting up of a new factory for launching hybrid and electric vehicles in India.<sup>[7]</sup>
- Ola – Hyundai Motors Company and Kia Motors Corporation have invested \$300 million in Ola.<sup>[7]</sup>

### Analysis of Defence Manufacturing Sector

India's defence sector has been open to direct private participation since 2001, but due to poor and ineffective policies and promotion on behalf of the government, investment in this sector was always deemed unfeasible. The 'Make in India' initiative focuses on increasing domestic manufacturing of defence equipment so as to reduce the dependence on other countries with respect to its acquisition. Recently, in March 2020, SIPRI reported that India is the second largest importer of major weapons and that the imports have decreased by 32 per cent owing to the fact that India has long standing aims to produce its own major arms.<sup>[9]</sup>

In order to attract private companies to engage in the manufacturing of defence equipment, a plethora of policy reforms were introduced enabling wider private sector participation:

- In Defexpo 2018, the Innovations for Defence Excellence (iDEX) was launched. It aimed at the creation of an ecosystem in order to promote technology development in the areas of Defence and Aerospace by providing participants with grants and other additional support for carrying out research and development.
- The FDI cap has been increased to 74 per cent from 49 per cent under the automatic route, and beyond 74 per cent up to 100 per cent through the

government route. Further, the lock-in period of three years on equity transfer as well as the requirement of a single largest Indian ownership of 51 per cent of equity has been removed in the past five years. Foreign Direct Investment amounting to ₹ 18.12 billion has been reported in the defence and aerospace sector.<sup>[10]</sup>

- In Defexpo 2020, the Prime Minister unveiled the LTIPP, i.e., the Long-Term Integrated Perspective Plan for a continuous period of 15 years. This plan was developed in order to inform the industry of the future requirements of the Indian military with regards to numbers, certain specifications, and timelines.
- The government has further approved a 'Strategic Partnership (SP)' Model which aims at strengthening the defence industrial ecosystem and to build capabilities in the private sector to design, develop and manufacture weapons by establishing long-term partnerships with Indian entities by tying up with different Original Equipment Manufacturers (OEMs) around the world.

Some of the major investors in the defence manufacturing sector are:

- Airbus (France)
- Pilatus (Switzerland)
- Lockheed Martin (USA)
- Boeing India (USA)
- Raytheon (USA)
- Rafael Advanced Defense Systems Ltd. (Israel)
- Dassault Aviation SA (France)

### Analysis of Tourism and Hospitality Sector

The tourism and hospitality industry has always been considered an important sector in the Indian market, mainly due to the fact that it is among the top 15 sectors in India to draw FDI. It has created approximately 42 million jobs contributing to 8.1 per cent of the total employment in the country.<sup>[11]</sup> According to the DIPPI, till December 2019, this sector has attracted \$14.4 billion in terms of FDI.<sup>[12]</sup> Amongst the tourism and hospitality

sector, India's 'Wellness Tourism' is one of the most sought after due to the availability of effective and cheap medical treatments. Due to increasing awareness about personal being, improving income levels, easy and cheap availability of travel options, and favourable regulatory backing by the government, the tourism and hospitality sector is bubbling with high levels of demand in India. Further, India has moved up six places to the 34th rank from the 40th amongst the 140 countries in the Tourism and Travel Competitive Index.<sup>[13]</sup>

### FOREIGN EXCHANGE EARNINGS FROM TOURISM IN INDIA



(source – <https://www.statista.com/statistics/217689/monthly-foreign-exchange-earnings-from-tourism-in-india> and <https://www.statista.com/statistics/206872/number-of-foreign-tourist-arrivals-in-india-since-2000/>)

**Figure 3:** Figure 3 shows the continuous rise in the foreign exchange earnings from the tourism and hospitality sector, especially after the 'Make in India' initiative.

The steps taken under the 'Make in India' initiative for this sector are as follows:

- Foreign Direct Investment Policy:

100 per cent FDI allowed under the automatic route in tourism and hospitality, tourism construction projects and in the AYUSH sector which is a part of wellness and medical tourism.<sup>[14]</sup>

- In India's federal budget for 2018, the 'Incredible India 2.0' initiative was announced mentioning:

#### SWADESH DARSHAN

This scheme aims at developing tourist circuits on specific themes to attract theme interested tourists.

Tourist circuits must have a minimum of three major tourist destinations which are distinct and apart. Approximately 13 theme-based tourist circuits are being developed under this scheme.<sup>[15]</sup>

#### PILGRIMAGE REJUVENATION AND SPIRITUAL AUGMENTATION DRIVE (PRASAD)

The PRASAD initiative was introduced to develop and beautify the different pilgrimage sites in India and to provide improved facilities to tourists and pilgrims together with developing a religious etiquette which is to be followed in these sites.

- NextGen Airports for Bharat (NABH Nirman) Initiative

This initiative aims to increase the number of airports by constructing 100 new airports and to expand their capacity to handle air traffic so as to handle a billion trips a year.

- Introduction of Mobile App and Tourist Helpline

The Ministry of Tourism on 22nd February, 2016, launched a mobile app named Swachh Paryatan where tourists as well as citizens can report any hygiene issues of various tourist destinations. Furthermore, a 24x7 multilingual tourist helpline was launched for the tourists coming from abroad in 12 different languages.

- E-Tourist Visa (E-TV)

To ease entry in India, the Government of India introduced electronic visas for citizens of 113 countries. It removes the involvement of middle men and speeds up the process of applying for tourist visas of India.

The major investments made in the tourism and hospitality sector after the 'Make in India' initiative was announced are as follows:

- Airbnb – In April 2019, it was announced that Airbnb was investing an amount of \$75 million in Oyo giving it access to Airbnb's global customer and traveller base.<sup>[16]</sup>

- Embassy Group – In May 2018, it was announced that the Embassy Group will invest approximately \$197.1 million to build four hotels in Bangalore.<sup>[16]</sup>
- Leisure Hotels Group – In May 2018, it was announced that Leisure Hotels Group is going to invest a sum of \$14.6 million to add eight more hotels by 2021.<sup>[16]</sup>
- Speciality Restaurants – In April 2018, it was announced that Speciality Restaurants is going to invest a sum of \$5.9 million to open eight to twelve new outlets.<sup>[16]</sup>

August 2019, Reliance Industries Ltd. (RIL) announced one of the biggest FDI deals – Saudi Aramco's acquisition of 20 per cent of RIL's oil-to-chemicals business, whose worth was \$75 billion.<sup>[18]</sup> Also, Jio platforms have attracted a striking \$10.5 billion in FDI.<sup>[19]</sup> In June 2018, a 100 per cent FDI by Idea was approved, leading to a merger between Vodafone and Idea.<sup>[20]</sup> In May 2018, Walmart acquired 77 per cent of Flipkart for \$16 billion.<sup>[21]</sup> Due to the availability of cheap and skilled labour, low costs of raw materials, favourable market conditions, and strong government policies, India continues to grow as one of the most attractive developing market for foreign investors (as per a survey conducted by EMPEA).

### Trends of Foreign Direct Investment (FDI)

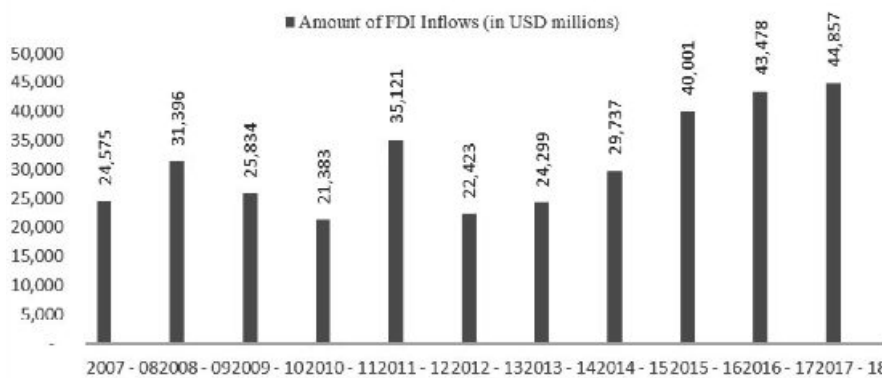
An investment is said to be an FDI when it is made by a firm, business or corporation of a country in another country's businesses. Such investments can be in the form of acquiring business assets in other companies or by establishing a whole new business operation in the other country. FDI is often considered as an important driver of economic growth and it helps in reducing the fiscal deficit and strengthening the rupee in the currency market.

The Foreign Direct Investment in India is allowed under two routes:

- Automatic Route – Under the Automatic Route, the foreign investor does not require any approval from the Government of India for the investment.
- Government Route – Under the Government Route, the foreign investor requires prior approval from the government for the investment.

Since the introduction of 'Make in India', the Foreign Direct Investment has shown a staggering growth. For digitizing small and medium businesses, Amazon India, in January 2020, announced an investment of \$1 billion and a plan to create one million new jobs.<sup>[17]</sup> Further in

### TREND OF FDI OVER THE YEARS



(source – <https://dipp.gov.in/publications/fdi-statistics>)

Figure 4: Figure 4 shows the emerging trend of Foreign Direct Investment over the years.

### CONCLUSION

The 'Make in India' scheme has become the largest and fastest-growing government scheme ever with over 2.1 billion global impressions on social media.<sup>[22]</sup> Further, Digital India and Skill India were also launched to line up with 'Make in India'. The three, coupled together, target all areas of a successful economy – skill, technology and production.

Almost all the sectors covered under the 'Make in India' initiative have benefitted from the initiative. India's tourism is increasing due to the various tourism initiatives such as Atithi Devo Bhava among others. Furthermore, the increase in the need to travel has



fueled the growth of the aviation sector as well. The rising income levels and availability of affordable car options have accelerated the growth of the automobile sector. Also, India is a step closer to becoming self-reliant in the defence manufacturing sector.

Prime Minister Narendra Modi, in one of his speeches about the 'Make in India' initiative, asked the Indian population to see FDI as the 'Future Development of India' instead of 'Foreign Direct Investment'. After successfully establishing the Indian market, the Government of India aims to promote domestic manufacturing using domestic factors of production without any dependence on foreign investment. The day India achieves the same, India's manufacturing industry shall be able to match the standards of a developed country. Therefore, it can be said that 'Make in India' can Make India, provided that the proposed government policies are implemented.

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“

Initially, the RBI had stricter rules with respect to its monetary policy, however, gradually, control over the economy was loosened with more liberal policies.

”

# Impact of Monetary Policy on the Real Sector of the Indian Economy

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## ABSTRACT

The paper attempts to gauge the contemporary state of perception of the impact of monetary policy on the real sector, both at the theoretical level and in light of the experience of India, a developing country. The study is over a period of two decades, beginning from 2000-01 when India had already embarked on a globalization journey with the unfurling of the economic reforms. Over these years, there has been a significant metamorphosis in the

legislative environment and in the regulation and execution of monetary policy which has substantially affected the real sector of the economy.

The paper seeks to concisely emphasize how the Reserve Bank of India (RBI), the central bank of India and the regulator of the banking sector, attempts to modulate the monetary policy to augment a more sustainable economic environment for the national welfare. It highlights how the Reserve Bank of India pursues either a lenient or a strict monetary policy in order to administer the overall money supply in the Indian economy.

This is followed by an analysis of how such measures affect the macroeconomic factors of the real sector using statistical analysis and determination of whether the theoretical framework is actually in practice or not in the Indian context.

**KEYWORDS:** Monetary policy, central bank, money supply, macroeconomic factors, real sector.

## INTRODUCTION

*"The biggest challenge facing the conduct of fiscal and monetary policy in India is to continue the accelerated growth process while maintaining price and financial stability", Rakesh Mohan (2008).*

Role of monetary policy in a developing country, especially in an emerging nation such as India, has immense importance. The Central Bank mainly aims at stabilizing prices while fostering economic growth and development through its monetary policy.

In simple terms, monetary policy is the macroeconomic strategy by the Central Bank of an economy to modulate and monitor the supply of money and associated interest rates for the purpose of borrowing and lending. It is considered as a demand-side approach to attain macroeconomic targets of income, growth, consumption and inflation. The RBI implements its monetary policy through various quantitative (bank rate, legal reserves, repo rate, reverse repo rate and open market operations) and qualitative (moral suasion, selective credit control, credit rationing and margin requirements) measures.

The real economy is defined as the movement of goods and services from one sector to another, while the monetary economy is the flow of money, hence, a reflection of the real economy. The real sector, referring to the real economic transactions taking place in an economy, is characterized by macroeconomic variables such as Employment, Consumption, Investment, Interest Rate, Exchange Rate and most importantly, the Gross Domestic Product (GDP).

## REVIEW OF LITERATURE

Jean-Claude Chouraqui, Michael Driscoll and Marc-Olivier Strauss-Kahn in their working paper 'The Effects of Monetary Policy on the Real Sector: An Overview of Empirical Evidence for Selected OECD Economies', 1988, analyze such impact with respect to ten countries since the early 1970s.

Irfan Hameed and Ume-Amen in 'Impact of Monetary Policy on Gross Domestic Product (GDP)', 2011, talk about the relationship of GDP with interest rates and money supply based on a study of 30 years in Pakistan.

Moid U. Ahmad and Shamima Nasrin in their research, 'An Analysis of the Effect of Monetary Policy Changes on Macroeconomic Factors', 2017, evaluate the consequences of alterations in various instruments of monetary policy on macroeconomic factors in India for 2011-2014.

Dr. Padmasani and K. Kasthuri in their study 'The Impact of Monetary Policy on Indian Economy during Post Reform Period', 2018, infer that the instruments of monetary policy are effectual in monitoring growth and inflation in the country for a term of research from 1991-92 to 2015-16.

## OBJECTIVES OF STUDY

- To assess the nature and strength of relation between the GDP and quantitative measures of monetary policy (bank rate, repo rate, reverse repo rate, CRR and SLR) over a period of twenty years.
- To determine the impact of money supply on the quantum of credit extended to the commercial

sector (representative of private investment) in the context of IS-LM Model.

## RESEARCH METHODOLOGY

The project is built on secondary data and involves use of certain statistical tools. The quarterly and monthly data assembled for this study covers a time period of twenty years beginning from 2000-01 to 2019-20. The requisite data (in raw form) has been gathered from Reserve Bank of India, Indiastat and India Macro Advisors. Microsoft Excel 2016 has been used for construction of graphs and for statistical analysis.

## LIMITATIONS OF STUDY

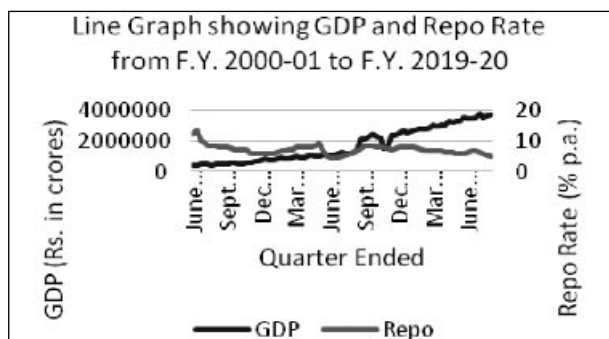
- Data prior to the period of study was not available for the variables under consideration.
- Due to constraint of time, all aspects of monetary policy and real sector could not be covered.
- Statistical analysis results in the inability to consider qualitative measures.

## ASSESSMENT OF THE IMPACT OF MONETARY POLICY ON REAL SECTOR

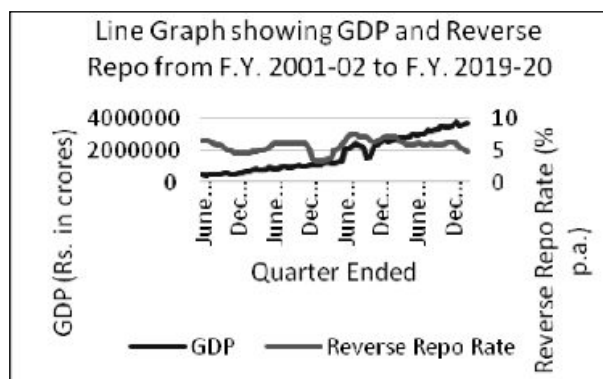
### Quantitative Measures of Monetary Policy and GDP

#### THEORETICAL AND DATA ANALYSIS

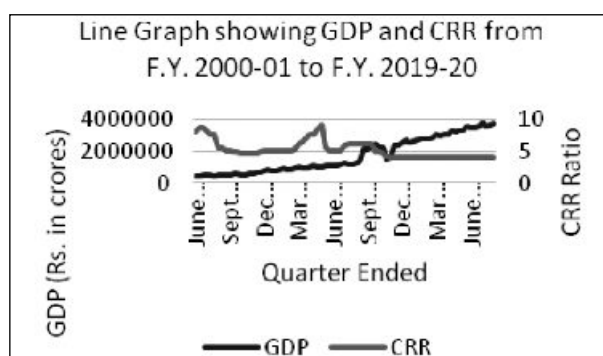
Graphs 1-5 show a graphical representation of the GDP against the five measures of monetary policy (repo rate, reverse repo rate, cash reserve ratio (CRR), statutory liquidity ratio (SLR) and bank rate respectively).



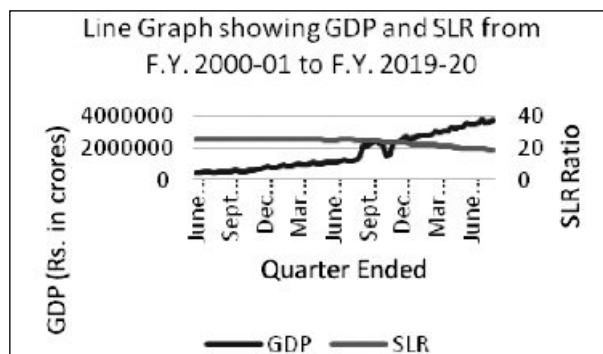
Graph 1



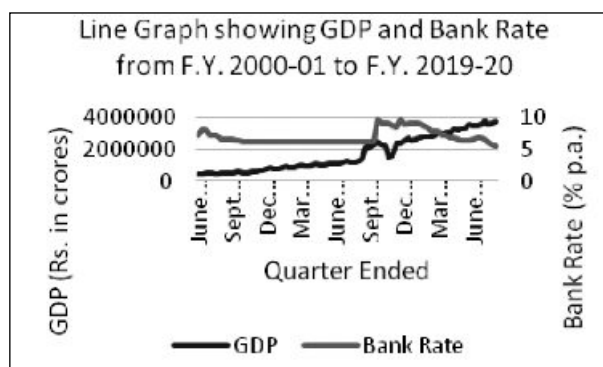
Graph 2



Graph 3



Graph 4



Graph 5

Source: Reserve Bank of India and Indiastat

Theoretically, any decrease in the bank rate or repo rate leads to decreased cost of borrowing funds. Hence, the commercial banks charge lower interest rates, leading to an expansion in the credit creation capacity and ultimately, increased consumer and investment expenditure and higher GDP.

For a decrease in reverse repo rate, banks would be willing to lend out more, leading to better liquidity, increased aggregate demand and growth.

The reserve ratios, CRR and SLR, also share an inverse relation with GDP. Any fall in the reserve requirements lead to leniency and expansion in credit with increased GDP and growth.

It can be summarized that all measures share an inverse relation with GDP. The graphs also show a similar trend of inverse relation between GDP and the measures,

which is in accordance with the theoretical framework.

An attempt has been made to assess the collective impact of the quantitative measures on GDP. The analysis is from F.Y. 2001-02 to F.Y. 2019-20 due to lack of data for reverse repo rate for the F.Y. 2000-01.

With the dependent variable as GDP and independent variables as the five measures, the required equation is in the form " $Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5$ "

$Y = \text{GDP}$

$X_1 = \text{Bank Rate}$

$X_2 = \text{CRR}$

$X_3 = \text{SLR}$

$X_4 = \text{Repo Rate}$

$X_5 = \text{Reverse Repo Rate}$

$\alpha = \text{Intercept}$

$\beta_1 = \text{Regression Coefficient of Bank Rate}$

$\beta_2 = \text{Regression Coefficient of CRR}$

$\beta_3 = \text{Regression Coefficient of SLR}$

$\beta_4 = \text{Regression Coefficient of Repo Rate}$

$\beta_5 = \text{Regression Coefficient of Reverse Repo Rate}$

The equation is  $Y = 9968014.63 + 179896.14X_1 + 119711.41X_2 - 417224.44X_3 - 371479.59X_4 + 395659.96X_5$ .

Using the regression statistics, the value of multiple R is found to be 0.970994 (square root of  $R^2$ ).  $R^2$ , the

### Statistical Analysis

Regression Statistics	
Multiple R	0.970994
R Square	0.942828
Adjusted R Square	0.938686
Standard Error	268101.16
Observations	75

ANOVA	df	SS	MS	F	Significance F
Regression	5	8,17,89,83,95,29,957.70	1,63,57,96,79,05,991.50	227.58	0.00*
Residual	69	49,59,59,78,59,379.97	71,87,82,29,846.09		
Total	74	8,67,49,43,73,89,337.70			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	99,68,014.63	5,77,240.81	17.27	0.000000*	88,16,450.73	1,11,19,578.53
Bank Rate	1,79,896.14	43,219.20	4.16	0.000089*	93,676.19	2,66,116.09
CRR	1,19,711.41	45,098.57	2.65	0.009855*	29,742.23	2,09,680.60
SLR	-4,17,224.44	25,634.44	-16.28	0.000000*	-4,68,363.75	-3,66,085.12
Repo	-3,71,479.59	86,607.68	-4.29	0.000057*	-5,44,257.18	-1,98,702.00
Reverse Repo	3,95,659.96	87,353.54	4.53	0.000024*	2,21,394.42	5,69,925.50

Table 1

*Note: All values succeeded with \* indicate that the corresponding variable(s) are significant to the model at 5 per cent level of significance*

*Source: Authors' Compilation*

coefficient of determination, is 0.942828 which means 94 per cent of the total variability in the output variable, GDP, can be signified by the five measures of monetary policy (regressors) under consideration, and the explanatory power of the model is good. The value of adjusted  $R^2$  is 0.938686 and its difference with  $R^2$  is low, indicating that there is an insignificant presence of multicollinearity. The standard error here refers to the standard error of regression based on an analysis of 75 observations.

From the ANOVA table, the result of the F-test can be observed.

The hypothesis for the F-test at  $F_{p-1, n-p, 0.05}$  (where n is the number of observations, p is the number of parameters estimated (including the intercept)) is:

$$H_0: \beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = 0$$

$H_1$ : At least one of  $\beta_1, \beta_2, \beta_3, \beta_4$  or  $\beta_5$  does not equal 0

The column showing significance F shows the p-value corresponding  $F_{5,69,0.05}$  at 95 per cent confidence interval. The p-value 1.96E-41 (approximated to 0) is less than 0.05, hence, there is sufficient evidence to reject the null hypothesis. Therefore, at least one of the  $\beta_j$  is not equal to 0.

From the last sub-table in Table 1, the intercept and slopes for each predictor can be observed with which we get the above stated regression equation. The coefficients column gives the intercept ( $\alpha$ ) and slope for

each of the five predictors ( $\beta_j$ ), while the column of standard error gives the standard error for the  $\beta_j$ .

A t-test has been carried out for each of the five predictors. The hypothesis for the t-test at  $t_{n-p, 0.025}$  (where n is the number of observations, p is the number of parameters estimated (including the intercept)) is:

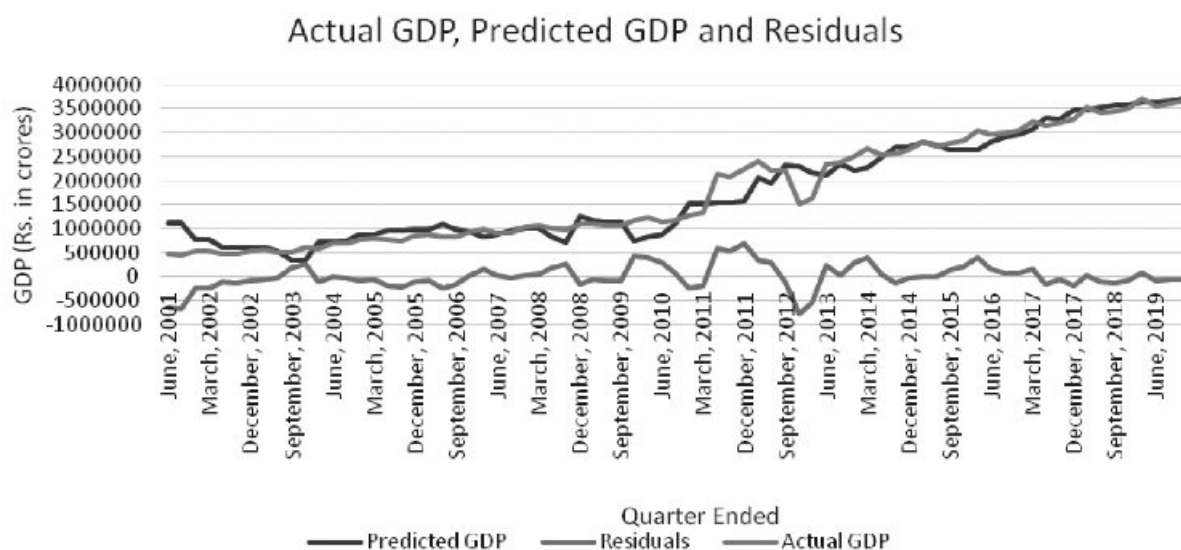
$$H_0: \beta_j = 0 \text{ where } j = 1, 2, 3, 4 \text{ and } 5$$

$$H_1: \beta_j \neq 0$$

The critical value is tested at  $t_{69, 0.025}$  at 95 per cent confidence interval for a two-tailed test. The critical value is (+/-)1.994945. The test statistic value for each of the five independent variables is outside the acceptable region of critical values. Hence, there is sufficient evidence to reject the null hypothesis and it can be concluded that  $\beta_j \neq 0$  for  $j = 1, 2, 3, 4$  and 5, that is, all the five predictors are significant for the model.

Based on the p-values, it can be observed that the p-values for all the predictors are less than 0.05 at 95 per cent confidence interval, and hence, yet again, it can be concluded that the predictors are significant and  $\beta_j \neq 0$  for  $j = 1, 2, 3, 4$  and 5.

The last two columns of the table give a 95 per cent confidence interval for the intercept and slopes of the regressors. Since the interval bounded by the upper and lower 95 per cent does not contain 0, it can be re-concluded that the regressors are significant to the model.



**Graph 6**

*Source: Indiatat and Regression Analysis*

From Graph 6, the actual and predicted GDP values from the multiple regression model can be observed along with the residuals. The proximity between the actual and predicted values suggests that the model almost accurately predicts the value of GDP based on the five measures of monetary policy.

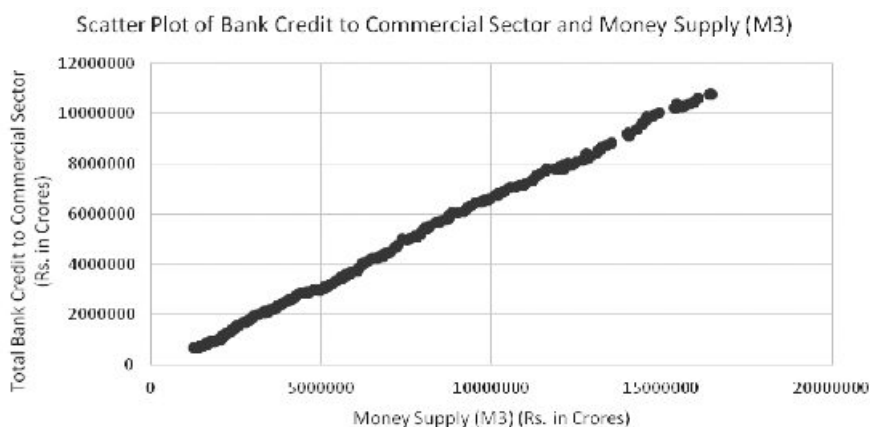
### Findings

From the multiple regression model, it can be concluded that when the five measures of monetary policy are taken together, they strongly impact the GDP and such impact is in line with the conceptual framework, that is, whenever there is leniency in the measures, there is more liquidity in the economy and hence, increased output and growth.

## BANK CREDIT TO COMMERCIAL SECTOR AND MONEY SUPPLY

### Theoretical and Data Analysis

In the IS-LM Model, an increase in money supply leads to an increased demand to purchase bonds which leads



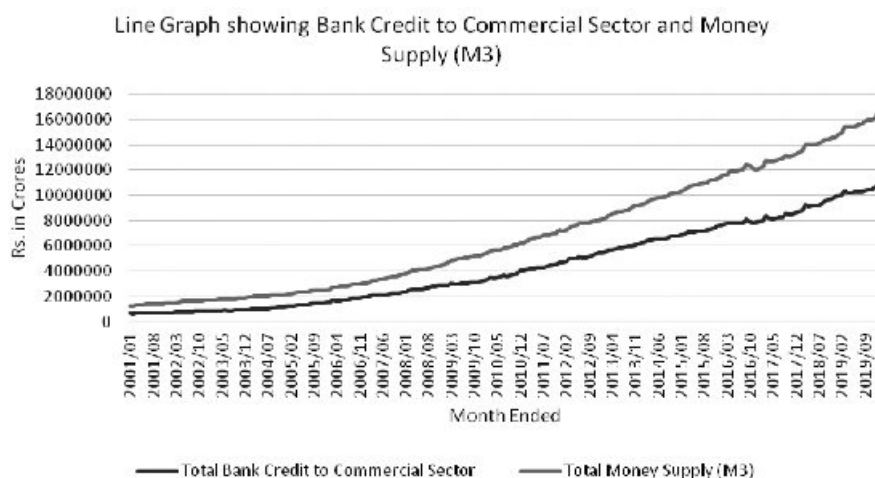
**Graph 8**

**Source: India Macro Advisors**

to increased bond prices and a fall in the interest rates owing to the inverse relation between bond prices and interest rates. Such a fall leads to increased private investment and an increase in expenditure, output and GDP in the economy.

The IS-LM framework will be studied with respect to Money Supply and Bank Credit to Commercial Sector (BCTCS) (representative of private investment).

Graph 7 shows BCTCS and Money Supply (M3 definition) over a period of 19 years. Both variables show a stable increasing trend, where money supply increases at a faster rate. It can be observed that the two variables may have some form of relation.



**Graph 7**

**Source: India Macro Advisors**

(Note: Data unavailable for March-December, 2000 and March, 2020)

A scatter diagram has been plotted to graphically determine any possible relation between the two variables.

Graph 8 shows the scatter plot of dependent variable BCTCS and independent variable Money Supply. It is evident that there is a strong positive correlation between the two, such that when one rises, the other rises.



**Statistical Analysis**

Regression Statistics	
Multiple R	0.999423
R Square	0.998847
Adjusted R Square	0.998842
Standard Error	1,05,851.60
Observations	230

ANOVA	df	SS	MS	F	Significance F
Regression	1	2,21,00,00,00,00,000.00	2,21,00,00,00,00,000.00	1,97,455.10	-
Residual	228	25,50,00,00,00,000.00	11,20,45,60,959.00		
Total	229	2,21,00,00,00,00,000.00			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-2,36,671.47	12,564.24	-18.84	0.000000*	-2,61,428.34	-2,11,914.61
Money Supply	0.68	0.00	444.36	0.000000*	0.675	0.681

**Table 2**

Note: All values succeeded with \* indicate that the corresponding variable(s) are significant to the model at 5 per cent level of significance

**Source: Authors' Compilation**

With the dependent variable as BCTCS and the independent variable as Money Supply, the required equation is in the form  $Y = \alpha + \beta X$

$Y = \text{BCTCS}$

$X = \text{Money Supply}$

$\alpha = \text{Intercept}$

$\beta = \text{Regression Coefficient of Money Supply}$

The equation is  $Y = -236671.47 + 0.678155X$

The value of  $\alpha$  is -236671.47 and the value of  $\beta$  is 0.678155. The value of  $\beta$  suggests that for a 10 million increase in money supply, BCTCS increases by ₹ 6.78155 million.

The value of multiple R is 0.999423 which indicates the (absolute) value of correlation coefficient between the dependent and independent variables. The correlation coefficient for BCTCS and Money Supply is 0.999423. The value is almost equal to +1, hence, there is an extremely strong positive correlation between the two variables, which is in accordance to the theoretical framework and the observation of the scatter plot.

$R^2$ , the coefficient of determination, is 0.998847 which means about 99.88 per cent of the total variability in the outcome variable, BCTCS, can be expressed by the regressor, Money Supply. In other words, the explanatory power of the model is good. The standard error here refers to the standard error of regression based on an analysis of 230 observations.

F-tests are more significant for multiple regression analysis rather than single regression models, and hence, they are not considered here.

From the last sub-table in Table 2, the intercept and slope for the predictor can be observed with which we get the above stated regression equation. The coefficients column gives the intercept ( $\alpha$ ) and slope ( $\beta$ ) for the predictor, while the column of standard error gives the standard error for the  $\beta$ .

A t-test has been carried out for the predictor. The hypothesis for the t-test at  $t_{n-p, 0.025}$  (where n is the number of observations, p is the number of parameters estimated (including the intercept)) is:

$H_0: \beta = 0$

$H_1: \beta \neq 0$

The critical value is tested at  $t_{228,0.025}$  at 95 per cent confidence interval for a two-tailed test which is (+/-) 1.651564. The test statistic value for the independent variable is 444.3592 which is outside the acceptable region of critical values. Hence, there is sufficient evidence to reject the null hypothesis and it can be concluded that  $\beta = 0$  for the independent variable or that the predictor is significant for the model.

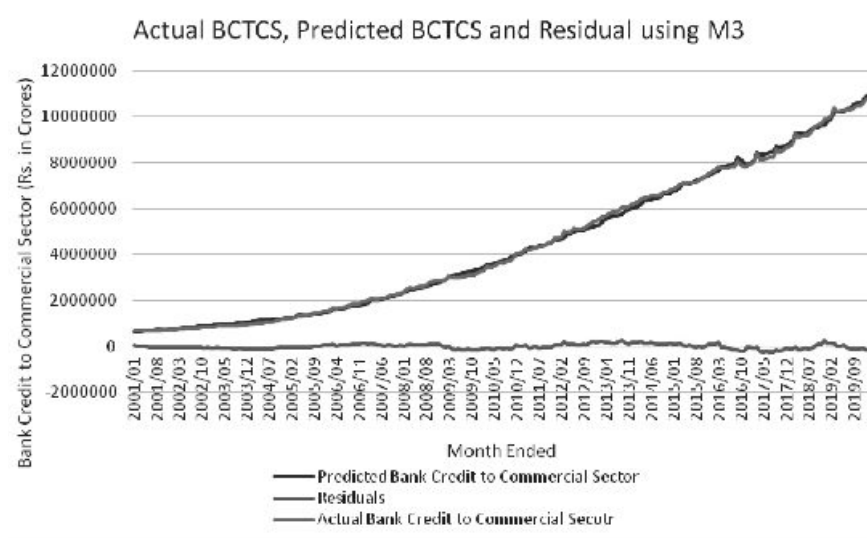
Based on the p-value, it can be observed that the p-value for the predictor is 0 which is less than 0.05 at 95 per cent confidence interval, and hence, it can again be concluded that the predictor is significant and  $\beta = 0$ .

The last two columns of the table give a 95 per cent confidence interval for the slope of the regressor. Since the interval (0.675148, 0.681162) does not contain 0, it can be concluded that the regressor is significant to the model.

## Findings

Money Supply and BCTCS share a strong positive relation. An increase in money supply is followed by a movement in the same direction for BCTCS. This is true as per the IS-LM theory.

Money Supply is increased through various measures of monetary policy. Such increase leads to increased credit creation by the commercial banks with which they can lend more for consumption and investment expenditure. This leads to a corresponding rise in aggregate demand and growth in the real sector. This can be seen in the Indian context for the past 19 years where increased money supply has led to an increased quantum of BCTCS. Hence, the IS-LM Model holds true in the Indian context based on this analysis.



**Graph 9**

*Source: India Macro Advisors and Regression Analysis*

Graph 9 plots the predicted values of BCTCS against its actual values. It is evident from the graph that the predicted values are mostly equal to the actual values. The residuals are almost around the X-Axis, implying minimal differences between predicted and actual values. This suggests that the regression equation can predict values of BCTCS accurately based on values of Money Supply with 95 per cent confidence.

## CONCLUSION

This paper is an attempt to statistically determine and assess the impact of monetary policy on the real sector to achieve thriving economic endeavours in the Indian context along with a brief study of the theoretical effect of the same.

The results observed are in accordance to the inference drawn in the study 'Impact of Monetary Policy on Gross Domestic Product (GDP)' for Pakistan. Both studies show that the interest rates and other instruments have minor relationships with GDP but the

growth in money supply greatly affects the investment, and hence, the growth of the economy.

In the multiple regression analysis, predicted values of the model were quite similar to actual values of GDP. It conforms to the theory of an inverse relation of GDP with each of the five measures of monetary policy.

The result of the single regression model showed a very strong positive correlation and paralleled the theory of

the IS-LM Model. This summarises that an increase in money supply via different monetary measures leads to increase in private investment and other macroeconomic variables of the real sector.

The Indian economy has experienced significant growth over the past two decades with the GDP increasing steadily. Initially, the RBI had stricter rules with respect to its monetary policy, however, gradually, control over the economy was loosened with more liberal policies. This led to a considerable improvement in the real sector, with increase in consumption and investment expenditure, and growth.

As mentioned in the paper 'The Effects of Monetary Policy on the Real Sector: An Overview of Empirical Evidence for Selected OECD Economies', to understand the impact of the monetary policy, it is material to understand the transmission mechanism of the instruments of the monetary policy in the Indian economy. Although it is beyond the scope of the present study to address this issue in detail, there are some relevant points discussed briefly.

The reason for the low impact of the instruments of the monetary policy can be determined through the speed and quantum at which the RBI's policy amendments pass on to the real sector. It has been noticed that it heavily relies upon the construct of the economy and the health status of its banking sector.

According to a study by the RBI, 'the transmission of the effects of the instruments took about seven months during 2001-11 which has now come down to four-six months. However, there are still instances of incomplete pass through and longer periods of transmission, particularly, during the tightening phase of monetary policy'.

The reasons for inflexibility can be rigidity in deposits' interest rates and the inability to change according to the changes in the monetary policy, competition from

other financial instruments such as well-performing stocks and other improved financial products, and deterioration of the banking sector with mounting non-performing assets and dwindling profit generating capacity.

In conclusion, referring to the paper 'An Analysis of the Effect of Monetary Policy Changes on Macroeconomic Factors', it can be said that no confident, conclusive evidence can be found for understanding all the reasons behind the growth of GDP and the economy due to the limited factors and constraints of the study, although, the results can be used to understand the direction and quantum of effect of monetary policy. Based on the limited study, it can be said that there is a considerable economic impact of monetary policy on the Indian economy in the post-reform period.

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The  
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privacy and  
compromise of  
democracy.

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# Surveillance Capitalism - Venomous or Venerable?

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## ABSTRACT

‘In disposing of a man's labour-power, the system would, incidentally, dispose of the physical, psychological, and moral entity of ‘man’ attached to the tag. Robbed of the protective covering of cultural institutions, human beings would perish from the effects of social exposure; they would die as the victims of acute social dislocation through vice, perversion, crime, and starvation.’ (Karl Polanyi, *The Great Transformation: The Political and Economic Origins of Our Time*, 1944)

While Polanyi might have put forth a petrified expression when it comes to comprehending how external attributes such as labour have been commodified to fulfil the needs of the market, the modern world has witnessed itself getting plagued by yet another phenomenon—surveillance capitalism.

There has been a marked shift in marketable paradigms when it comes to the intricate concoction of technology and business models. The antecedents of business models on human behaviour and how it can be marketed are mostly the ones concerning the core sense of 'labour' and how intangible attributes such as 'efficiency of labour' have been placed forth into mainstream marketing, and surveillance capitalism is yet another transition (yet focal) point.

Surveillance capitalism refers to capitalizing on the behavioural profiling accumulated on the online marketplace by those capitalists who heavily invest in the development of surveillance technologies. This phenomenon not only helps understand consumer preferences but also alter consumer behaviour in a manner most beneficial to an enterprise.

We celebrate the networked world in many ways in which it enriches our capabilities and prospects but it has birthed completely new territories of anxiety, danger and violence as the sense of certainty about the future slips away. The paper seeks to answer the question 'Is surveillance capitalism venerable or venomous?'

**KEYWORDS:** capitalists, profiling, behavioural, algorithms, privacy.

## INTRODUCTION

Surveillance Capitalism is a relatively new term. It implies the existence of a feedback loop between capitalists and the phenomenon of surveillance. The capitalists have huge resources at their disposal which they utilize to make investments in surveillance technologies. These surveillance technologies in turn generate a huge personal database. This database is used as behavioural surplus that acts as raw material for deep learning algorithms, which analyzes these data

points. The algorithms then develop the power to predict human behaviour. Capitalists for the purpose of target advertising, tracking and altering human behaviour use these predictions. Thus, by use of information on human behaviour for fulfilling the economic agendas, capitalists generate enormous amounts of economic wealth.

Surveillance Capitalism is referred as a form of capitalism because there prevails a massive information asymmetry with respect to the information the users have about the businesses vis-à-vis the information the businesses have about its users. Also, like any other form of capitalism, it widens the wealth gap between the information for rich and the information for poor masses.

Contemporary digital platforms collect ample amount of personal data of users without having to offer any financial consideration to them. The users too, at the risk of not being able to enjoy the free service of these digital platforms, consent to this parasitic experience. The behavioural data surplus accumulated by companies generates huge economic value and competitive advantage because it is sold in the rapidly expanding personal data marketplaces.

Surveillance Capitalism should be understood as a standalone concept and not be confused as a technology. Technology acts as a tool enabling surveillance. Target marketing is just one of the outcomes of Surveillance Capitalism and is not the concept itself. There are various other uses of this human behavioural data profiling.

Shoshana Zuboff, in her book 'The Age of Surveillance Capitalism,' has rather accurately assessed the modern-day assessment of markets and assets, and, as is evident, has proved that the most marketable asset that will shape the future of business models is confined within humans itself—their behaviour—and this forms the foundations of 'behavioural markets', which is an integral facet of surveillance capitalism.

The problem lies in the fact that most of the users are unaware that these big companies, to fuel their personal motives, are using their data shared in confidentiality. Legal lethargy and lack of proper laws to

control such activities enable these growing corporate powerhouses to continue exploiting its user's data.

Recent data laws enacted in the light of the upgraded digital privacy standards are EU's General Data Protection Regulation (GDPR) and California Consumer Privacy Act (AB 375).

**EU's General Data Protection Regulation (GDPR)** is one of the most stringent privacy and security law in the world. It was drafted and passed by the European Union and was effective from May 25, 2018. It poses obligations to any company targeting people in the European Union for data collection purposes. GDPR governs the collection, processing and erasing of personal data by organizations. GDPR compliance is mandatory and has drastically affected the way personal data is handled by businesses.

**California Consumer Privacy Act (AB 375)** was legislated in June 2018 (effective from January 1, 2020) in regards to consumer rights relating to access, deletion and sharing of personal information that the businesses collect. The Act permits the Californian consumers to requisition all information a company has saved related to the consumer and a list comprising of any third parties the data is shared with. The Act also empowers the consumers to sue any company not abiding by the privacy guidelines.

Each nation needs to re-evaluate its current data privacy standards and strive to improve them to be at par with technology, which is evolving at an exponential rate. Thus, with the rise of internet usage worldwide, it is necessary to spread awareness about this new form of capitalism.

## LITERATURE REVIEW

**Case study - Cambridge Analytica Dystopia** - It is impossible to use social media platforms like Facebook without being aware of the ominous name of Aleksandr Kogan, or Dr. Specter, for the uninitiated. The 2014 Cambridge Analytica scandal is yet another evidence of surveillance capitalism being used in malicious terms. When Aleksandr Kogan and a few other data scientists put forth the idea of 'ThisIsYourDigitalLife', an app that would serve as a personality test of sorts, very few could

actually fathom its malicious intent. It was believed that the said personality test was a medium that leveraged personal information to malign political results of the precedents of the Trump elections. It is believed that the aforementioned medium was used to access information of over 80 million American citizens, albeit the degree of extraction and subsequent 'utilization' is in a state of ambiguity.

There was an air of doubt regarding the collusion of Cambridge Analytica, the Canadian data analysis, Russian agents and of course, the Trump administration; and albeit this is still a matter of dispute or debate, it reflects upon the idea of surveillance capitalism as a debacle when it comes to marketing solutions or conveniences.

**Case study - Pokémon Go** - 2016 saw a surge in data collection—not through social media websites or vindictive AdSense technologies but by means of a rather intuitive introduction to the idea of augmented (or virtual) reality. What might seem as innocuous Pokémon figures ambling in the millennial's milieu actually turned out to be an inevitable idea of storing and commodifying one's behavioural patterns for the benefit of the corporation, essentially evincing the idea of surveillance capitalism. Pokémon Go served as yet another tool for big companies to extract, harvest, and quite obviously, market one's behaviour and movement patterns to assign them appropriate means of commodity, either in the form of extra in-game reward systems, or quite obviously, advertisements.

The aforementioned predictable capabilities of the individual are sold to bigger corporations, thereby making the individual's behaviour a selling point to generate humongous profits. One might argue that the idea of being able to commodify one's behaviour is but a resemblance of the idea of convenience—for convenience has been the selling point of innovation; and albeit the argument might be sound on certain grounds, but one would be considered naive if the ramifications of such data collection are blatantly ignored. Zuboff rightly states how this idea of surveillance capitalism makes it an arduous task for the individual to make sense of self and have space for tranquillity, thereby making one lose their sense of privacy and pushing the individual's idea of 'free will'

into a perilous future. (Shoshana Zuboff, *The Age of Surveillance Capitalism*, 2018)

**Wolfie Christl (2017)** in his paper '*A Corporate Surveillance in Everyday Life How Companies Collect, Combine, Analyze, Trade, and Use Personal Data on Billions*', analyzes the expansion of pervasive real-time surveillance initially developed for online advertising into other fields comprising of political communication, credit scoring and risk management. The findings of the paper suggest that networks of online platforms, advertising technology providers, data brokers, and businesses in many industries can now monitor, recognize and analyze individuals in many aspects of their lives.

**Shoshana Zuboff (2018)** in her book '*The Age of Surveillance Capitalism*', coined the term Surveillance Capitalism to name the prevalent phenomenon of data accumulation and processing by big businesses only to expand their wealth. She draws inferences from her daily experiences and rapid technological development. She also reveals big names like Google and Facebook as forerunners in collection of personal data of its users. It also explains the concepts of instrumentarian power a consequence of surveillance capitalist operations that threaten individual autonomy and democracy. The book states that surveillance capitalism is a product of 20 years of deregulation in the technology sector and not technology itself.

**Marjolein Lanzing (2018)** in her paper '*Strongly Recommended' Revisiting Decisional Privacy to Judge Hypernudging in Self-Tracking Technologies*', questions the importance attached to decisional privacy with respect to informational privacy, suggesting both share a mutually reinforcing dynamic. The author also talks about the phenomenon of hyper nudging, the real-time personalization of choice architecture requiring continuous surveillance, which leads to manipulation and violates decisional and informational privacy. The paper concludes that the collection of lifestyle and health data renders consumers of tracking technologies vulnerable to behavioural alteration for profit by the users of this data.

**Lina Dencik, Fieke Jansen and Philippa Metcalfe (2018)** in their paper '*Approaching social justice in an*

*age of datafication*', talk about datafication, the phenomenon of mapping human behaviour as data points for tracking and analyzing, in the contemporary society. The paper proposes considering data as a social justice concern to implement data justice. It insists on understanding technology related to practices that promote data injustice.

**Donell Holloway (2019)** in his paper '*Surveillance capitalism and children's data: The Internet of toys and things for children*', discusses how children transitioned from being a part of the labour force in the age of the Industrial Revolution to data subjects in times of Surveillance Capitalism. The paper studies connected children's toys, tracking children when they play and socialize online, thus, gathering vast amounts of user or child information. Concluding that this is the first time since children retreated from the paid labour force in the late 19th and early 20th centuries, that their activities are of any significant economic value.

**Adi Kuntsman, Esperanza Miyake and Sam Martin (2019)** in their paper '*Re-thinking Digital Health: Data, Appisiation and the (im)possibility of "Opting out"*', focus on the difficulty of opting out of data sharing and aggregation during the use of the application or post uninstallation. The authors view the option of opting out of data sharing as a right that each consumer must have.

## OBJECTIVES OF THE STUDY

- This study aids in better comprehension of the idea of surveillance capitalism and how it influences the daily life of beings.
- This project also helps to discern various flaws in the idea of surveillance capitalism, and how it is used as a means of reason to exploit the basic privacy of the average human in a technology-ridden sphere.
- The project makes one vigilant about the said idea, thereby providing one the means to free oneself from technology breaches, and bringing back the idea of autonomy of the being by keeping privacy breaches at bay.

## RESEARCH METHODOLOGY

- Primary data is used by conducting a survey with the help of an online questionnaire and analyzing the data collected to derive inferences about public awareness regarding the use of personal data by businesses in light of surveillance capitalism.
- Method of sampling used is Convenience Sampling, indicating use of data sources most convenient to the researcher.
- The data collected has been analyzed using Microsoft Excel Tools.

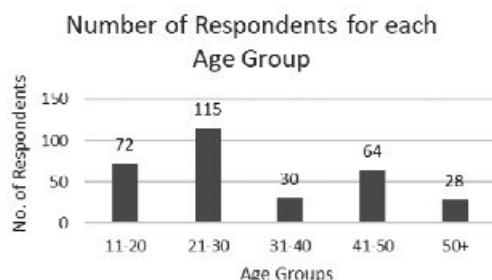
## LIMITATIONS OF THE STUDY

- Due to the use of primary data, the inferences may vary when the size and characteristics of the sample change, thus, scope of a sampling error exists.
- Sample size is restricted to 309 responses that have been analyzed.
- Sample majorly comprises of respondents falling in the age group of 21-30 years, which makes the data set biased.
- The sample used was a convenience sample and not a random one, hence hinting at a biased outcome.

## ANALYSIS OF DATA

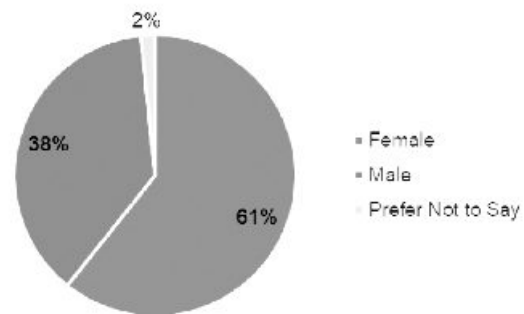
Given the limited constraints of the study, the research aims at understanding the level of awareness about the prevalence of surveillance capitalism and analyzing the various factors that enable surveillance capitalism.

A sample of 309 people filled in the questionnaire. The age group of the sample is as indicated in Figure 1 and the gender ratio of the sample is as indicated in Figure 2.



**Figure 1**  
Source: Primary Data

## Gender Of Respondents

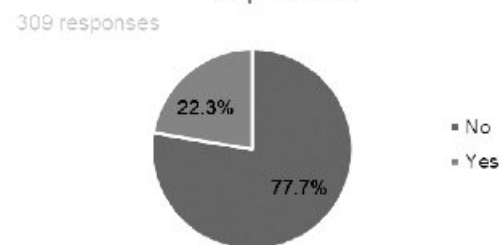


**Figure 2**  
Source: Primary Data

**An extensive analysis of the data collected reveals the following:**

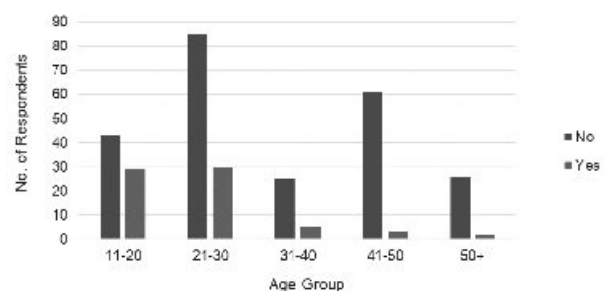
- Almost 80 per cent of the respondents are unaware of the term Surveillance Capitalism. People up to the age of 30 are relatively more familiar with the term. Spreading awareness about the term and its concept is vital. (Refer to Figure 3 and Figure 4)

## Are you aware of the term surveillance capitalism?



**Figure 3**  
Source: Primary Data

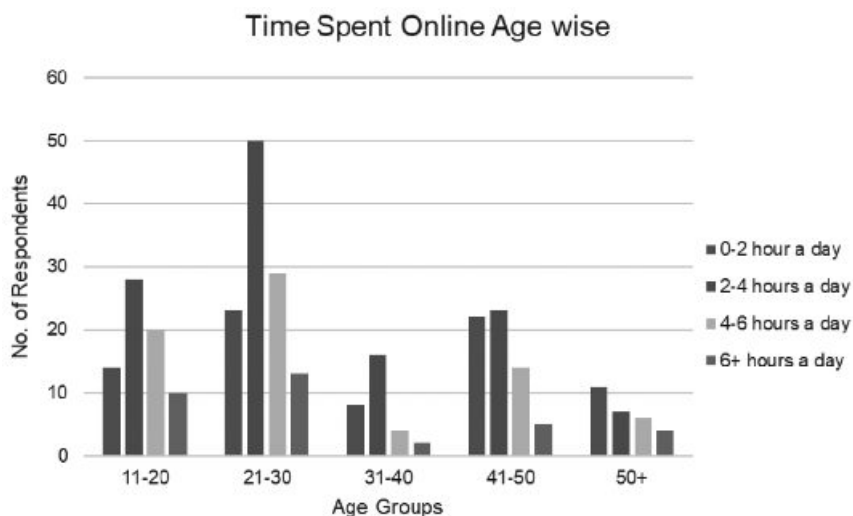
## Aware Of the term Surveillance Capitalism Age Wise



**Figure 4**  
Source: Primary Data

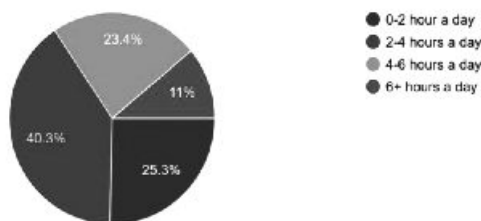


- Cumulatively, 75 per cent of the respondents spend more than two hours online. The time spent online varies greatly age wise and employment wise. The more time people spend online the more data is generated for digital platforms to analyze and predict human behaviour. The large number of hours spent online, outside of work, indicates a high level of addictiveness of online platforms. This may also signal that people are vulnerable to behavioural modification by these platforms. (Refer to Figure 5, Figure 6 and Figure 7)



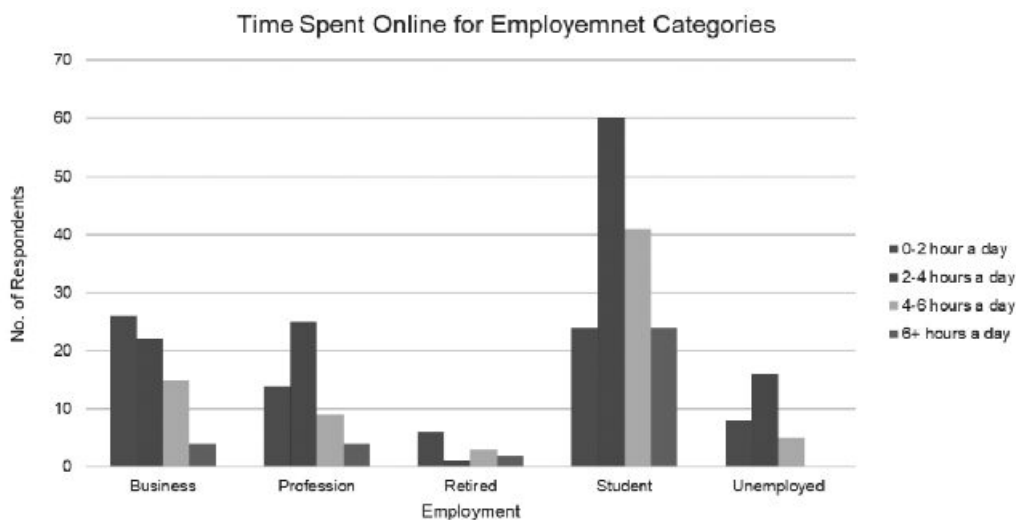
**Figure 6**  
*Source: Primary Data*

How much time do you spend online (other than work-related purposes)?  
308 responses



**Figure 5**  
*Source: Primary Data*

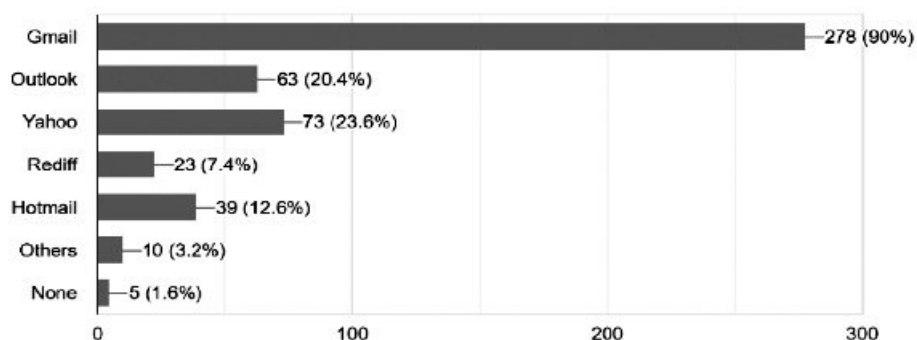
- Google (provides Gmail service) and Facebook (owner of WhatsApp and Instagram) are the two most dominant companies with almost all the respondents using at least one of their applications. (Refer to Figure 8, Figure 9, and Figure 10)



**Figure 7**  
*Source: Primary Data*

**Which E-mail service provider(s) do you use?**

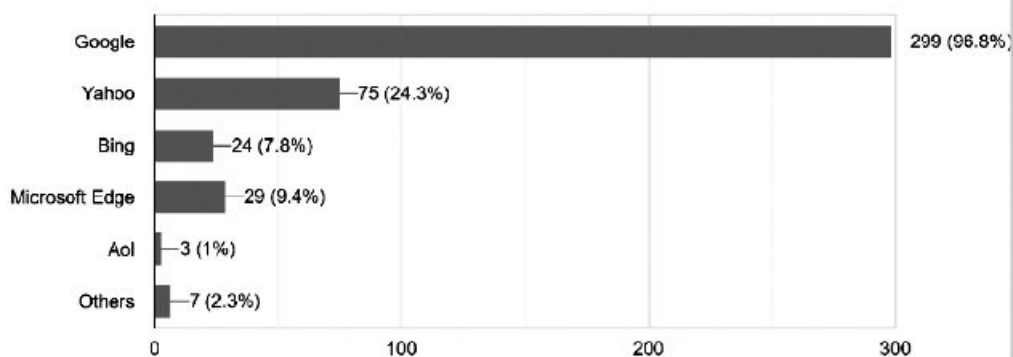
309 responses



**Figure 8**  
Source: Primary Data

**Which search engines do you use?**

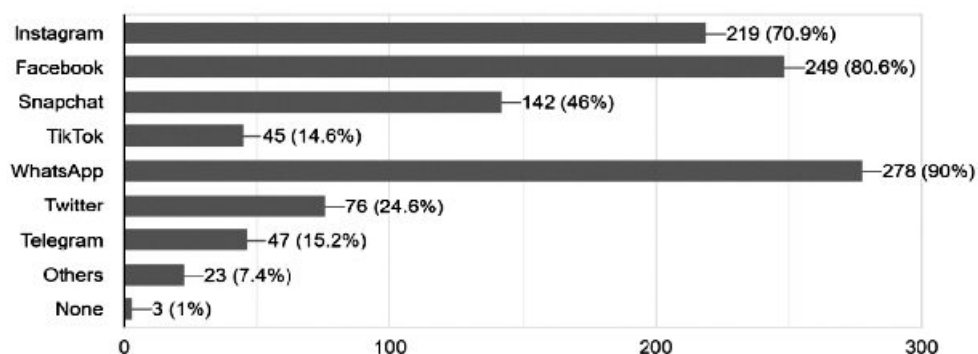
309 responses



**Figure 9**  
Source: Primary Data

**Which of the following social media application(s) do you use?**

309 responses

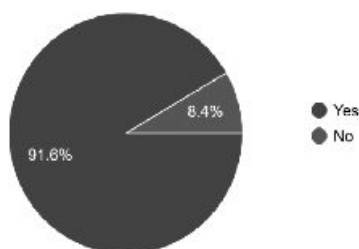


**Figure 10**  
Source: Primary Data

Most of the respondents are unaware of the utilities of cache memory, cookies and the incognito mode. Thus, they do not delete their search histories, cache and cookies or make use of the incognito mode.

Do you get advertisements related to information surfed?

309 responses

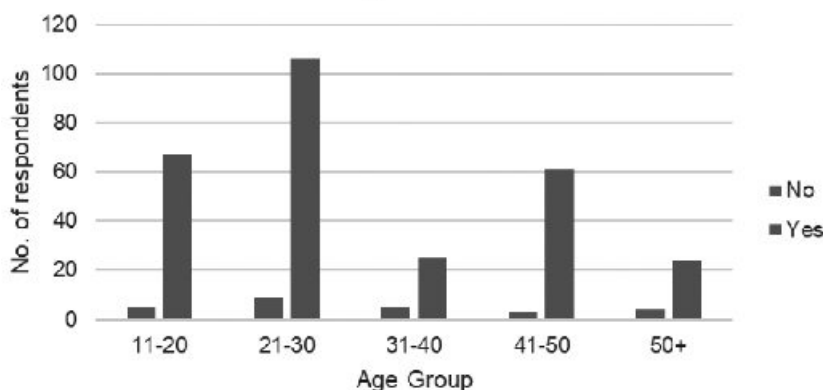


**Figure 11**

Source: Primary Data

Majority of the respondents agreed that they receive advertisements related to the things they surf online. When we surf the internet, our searches and personal data is stored by the platforms, which then analyze this data to predict our buying behaviour and thus, target us with similar advertisements. This often leads to forced buying behaviour, where even though there is no actual need for the product by the consumer, he is still baited into purchasing certain items by the use of target advertisement. It can also be observed that all age groups are targeted equally by these advertisers. (Refer to Figure 11 and Figure 12)

### Get Advertisements related to search Age Wise

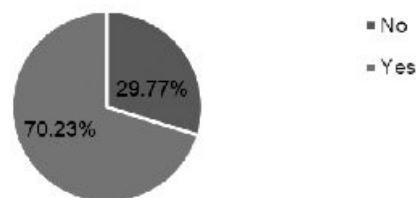


**Figure 12**

Source: Primary Data

### Are you aware that your data is being used by these platforms?

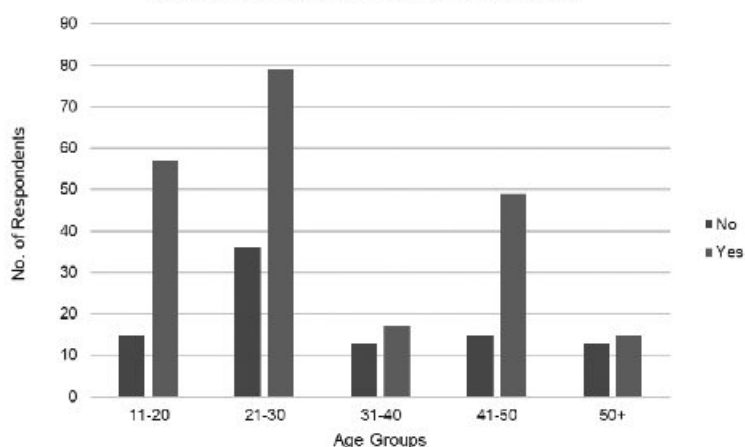
309 responses



**Figure 13**

Source: Primary Data

### Aware that data is being used Age wise



**Figure 14**

Source: Primary Data

People generally skip reading the privacy policies due to its complex nature and then face privacy concerns. Thus, these lengthy privacy policies aid the companies to get away with major security breaches if the user agrees to it.

People are aware that their data might be used when using online applications, yet, they still choose to share their data. This is because the companies provide the convenience free of cost and people are not fully aware of the value their data holds for such surveillance capitalists. (Refer to Figure 13 and Figure 14)

- Many respondents save their passwords on the browser putting their privacy at risk.
- Majority of the respondents do not alter the default privacy settings according to their personal convenience, which acts in favour of the surveillance technologies when their default options enable data sharing to a greater extent than desired.
- Respondents also make use of a number of convenience applications, which frequently collect consumer behaviour data while transacting online.

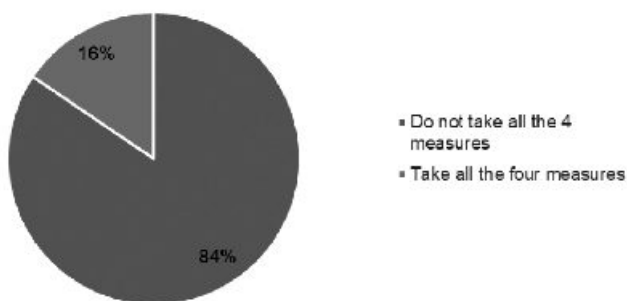
#### 4 Measure Test – Data Security Under Surveillance Capitalism

It is important to acknowledge the fact that all of us are under constant surveillance by some means or the other whenever operating on the internet. Thus, in the absence of any proper tool to defend ourselves from this threat, we must resort to certain precautionary measures. These measures might help us combat the problem at hand.

Questions from the questionnaire that act as precautionary measures for data sharing online include:

- Q1. Do you delete your search history, cache and cookies?
- Q2. Do you read the privacy policy before signing up on any platform?
- Q3. Do you use the incognito mode to avoid building cache and cookies?
- Q4. Do you alter your default privacy settings?

Respondents for the 4 Measure Test



**Figure 15**  
Source: Primary Data

#### Inference (Refer to Figure 15)

- Deleting or not accepting cookies can prove beneficial with respect to less data relay between server and nodes, while cache memory and search history clearance might help evade target advertisements.
- Reading the privacy policy before transacting on any online platform can help prevent a number of grievances and help increase the understanding of how vulnerable we are when sharing data on the particular site.
- Use of the incognito mode helps reduce cookies and cache memory, hence, making us less prone to behavioural profiling.
- The alteration of default privacy settings is extremely important because it gives us a chance to reduce unnecessary data sharing by turning off/on certain features.
- The graph indicates that the majority of the people do not take all the four measures, thus putting themselves at a greater risk of surveillance. Our complacent behaviour and ignorance helps capitalists introduce surveillance in our daily lives.

Similar to the findings of any research that has previously been conducted on 'Surveillance Capitalism', the current study attempts to conclude that the masses are yet unaware of the concept as a whole and thus fail to understand its real life repercussions. It is observed that we are all under an infinite tracking system where our attention is being sold to advertisers. Yet, people do not take the very basic measures that can help reduce the surveillance we face. Thus, there is a need to educate individuals about the pros and cons of such technologies and how we can make use of them without compromising on our data privacy.

#### Suggestions to Tackle Surveillance Capitalism

There is a great need for government interference to stop surveillance capitalists from expanding their empire. The government needs to revise its data laws in a manner to hold the surveillance capitalists responsible for the exploitation of user data.

The Indian Government had enacted the IT Act, 2000, but since then has been complacent to revise data protection law. There is an urgent need to enact revised data protection laws in order to help improve the technology experience of Indian citizens.

A shift of funding of these organizations may alter the data threat we face. The common man might fund the development of these organizations as an investment into his own future. This releases the pressure off capitalists to fund such ventures and gives greater control of data in the hands of the public.

Public awareness regarding the ongoing practices will enable one to take precautions and avoid breach of privacy. Knowledge is the key to remove asymmetry of information that exists between the online platforms and its users. We can demand to not be treated as an extractable resource.

A shift in the paradigm of power wherein customers decide to value their personal information monetarily by way of taxing data collection and processing may result in lesser organizations exploiting the personal since data will have to be bought and not merely collected.

Promote forums to share one's problematic experiences with surveillance technologies and help others facing similar issues.

Encourage technology companies to focus on the ethical design of their products. To make their products such as to minimise any unnecessary data relay without the consent of the user.

## CONCLUSION

Surveillance capitalists are not unknown to us; they are the leaders of organizations such as Google and Facebook. The business models of these organizations are built around the idea of baiting information sharing by offering free services on its online platforms. The information collected is analyzed and sold to further their economic goals. The information asymmetry and data accumulation has resulted in breach of privacy and compromise of democracy.

It is believed that the founding of Google laid the stepping stones for surveillance capitalists. Ever since, their free search engine has capitalized on the information surplus. Facebook followed its footsteps and raised their own surveillance capitalism empire by use of unexpected and illegal mechanisms of extraction and control. This has led to the compromise of secrecy in the personal data industry. It is justified for companies to think about making money, but what is not justified is the fact that there is no regulation and the companies act as a sort of de-facto governments. These companies can no longer be responsible to regulate themselves; they need external digital privacy regulations.

Technology has transformed into a way of life and it is very difficult to withdraw from the online world completely. The online platforms have become a necessity more than a luxury and thus, with mass reach of technology, it is imperative to understand the repercussions online data sharing has. We are under total surveillance by the big platforms and must acknowledge the fact that our personal data on the web is not personal anymore. Technology itself is not a threat but technology's ability to bring out the worst in society poses an existential threat to humanity.

On the contrary, such technologies might actually benefit the governments to better serve their population, help reunite friends and families, spread the word across in situations of emergency, better the quality of education and help the armed forces in tracking behavioural anomalies in real time. The developers of their technologies did not set out to be evil; they wanted to provide a better service and greater comfort. Like any drug that cures one major issue but has minor side effects, these technologies too helped solve major problems and resulted in a few side effects. If the side effects remain unchecked, they might end up becoming a bigger problem than the original one we set out to solve. Thus, the cons of surveillance technologies cannot be ignored.

In conclusion, the world is evolving at an exponential pace and it is now necessary for each individual to act responsibly, understand the data privacy rights they are entitled to, and hold these major technology giants

responsible for their actions in order to fight this new form of capitalism.

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Not only can automation in the RMG industry in a post COVID-19 world reduce human interface in the labour-intensive country, it can also deepen the prospects of e-commerce for the marketing of RMG products of Bangladesh.

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# Impact of Coronavirus lockdown on Bangladesh: A study of Bangladesh's readymade garment (RMG) industries

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## ABSTRACT

The emergence and outbreak of the menacing COVID-19 pandemic has brought the whole world to a standstill and blighted the growth trajectory of all the nations of the world. Major sectors like manufacturing, retail, hotels, restaurants, and tourism of most of the countries have been dismantled, thus, hurtling the global economy into recession. In this light, Bangladesh's readymade garment (RMG) industry, which is the world's second largest exporter of readymade garments has witnessed a dramatic downward spiral with the closure of industries due to lockdowns and the cancellation and suspension of orders. This research paper seeks to bring out the impact of the Coronavirus lockdown on Bangladesh's RMG industry.

**KEYWORDS:** Coronavirus lockdown; Bangladesh; Readymade garment (RMG) industry.

## INTRODUCTION TO THE STUDY

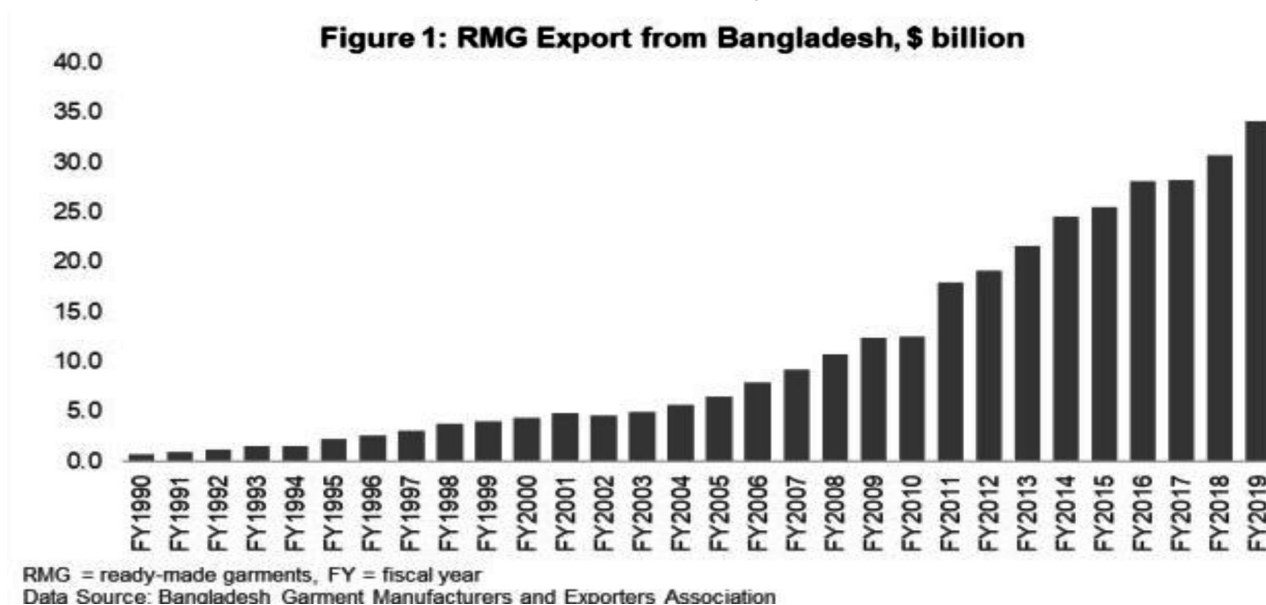
Bangladesh is recognized as one of the fastest growing economies of the world with a GDP growth rate of more than 7 per cent. It is not only renowned for its beautiful landscape and vast farmlands with gargantuan exports of jute to all corners of the world, but also for being the world's second largest exporter of readymade garments (RMGs). In fact, the RMG

industry of Bangladesh has been instrumental in the economic growth of the nation over the years, accounting for about 84 per cent of all the exports of Bangladesh. It is considered to be the backbone of the country's economic growth. The RMG is the largest private sector employer engaging more than 4 million people, with women comprising more than two-thirds of the workforce composition. It is interesting to note that the RMG sector is a product of the Bangladeshi government's industrialisation policy of 1974 focusing on export-oriented industrialisation, which was encouraged especially because of its low capital cost as well as faster returns.

China post-lockdown solved the issues of raw material availability but the suspension and large-scale cancellation of orders proved to be a terrible blow to the mighty RMG industry of Bangladesh whose survival seems to be at a great risk.

### IMPACT OF COVID-19 LOCKDOWN ON BANGLADESH AND ITS RMG SECTOR

Due to the lockdown imposed in all nations including Bangladesh to curtail the menacing virus, the economy of the developing South-Asian nation has been reeling under pressure. The closure of other sectors like



**Figure 1: Export from the RMG sector of Bangladesh in US\$ billion (Source of Image: Bangladesh's Garment Manufacturer and Exporters Association)**

However, the emergence of the global pandemic has dismantled the tempo of Bangladesh's RMG sector. The governments of most countries over the world have been resorting to lockdowns in order to contain the spread of the virus. China has been among the first few of those nations. This has contributed significantly in putting the growth trajectory of Bangladesh's RMG industry into jeopardy. The RMG industry of Bangladesh has been heavily reliant on China for raw materials. With lockdowns imposed in all countries including China, the cradle of the virus, the RMG sector experienced massive jolts. The bolstering of supply chains and the opening of new economic activities in

manufacturing, retailing, tourism, transportation, shopping malls, theatres, hotel, restaurants, et al. has already plummeted Bangladesh's economic growth. With close to 5,193 deaths in Bangladesh (as of 29th September, 2020), the lives of the people have also changed quite astoundingly.

In the context of Bangladesh's RMG sector, the industry seems to be staring at an ignominious barrel of a whopping loss of \$6 billion due to the cancellation and suspension of orders. The reason behind this was a lack of demand from the United States of America and other European markets because of the lockdown imposed. According to the Bangladesh Garment Manufacturers



and Exporters Association (BGMEA), 'orders for over 900 million pieces of garments worth \$2.9 billion had already been cancelled or were being held up. 'The Bangladesh Knitwear Manufacturers and Exporters Association (BKMEA), another prominent body of the country's clothing industry, has claimed that 'more than \$3 billion has already been lost as most of the orders until July have either been cancelled or suspended. 'According to a survey conducted by the BRAC University, '47 per cent RMG workers reported not receiving their wages and felt uncertain about their current job status with their respective employers.' According to the World Bank, 'the mammoth 4.1 million workers in the industry created a large demand

the RMG sector of Bangladesh over the past few years has been a significant reduction in poverty. Rural poverty has reduced from 31.6 per cent to 24.3 per cent in Bangladesh and has been touted as a success story for the nation. It is expected that more than 50 per cent of the poor households of Bangladesh will be living in urban areas by the year 2030, courtesy of the successful juggernaut of the RMG sector. However, the ongoing effects of the global pandemic and the looming crisis in the RMG industry are already showing a significant impact on the whole economy which can reverse the trend and spoil the travails and achievements of the RMG industry, especially in the socio-economic landscape of Bangladesh.

**Table 1: Urban Poverty Reduction Across Sectors**

Sectors	2010	2016
<b>Industry</b>	<b>26%</b>	<b>19%</b>
Garment Sector	25%	16%
Other Manufacturing	23%	20%
Construction	44%	33%
<b>Services</b>	<b>17%</b>	<b>17%</b>
<b>Agriculture</b>	<b>35%</b>	<b>33%</b>
<b>Not Employed or Sector Data Missing</b>	<b>10%</b>	<b>15%</b>

**Figure 2: Bangladesh Poverty Assessment: Facing old and new frontiers in poverty reduction (Source of Image: World Bank. 2019)**

for low-cost consumer goods like cosmetics, apparels, footwear, utensils and other durables.'

The President of BGMEA has in fact urged all international buyers to take up the delivery of the goods which have been produced and pay only the wages for those goods which are under production. The fall in demand has already triggered massive unemployment in the RMG sector. In March, 2020, the government of Bangladesh had announced an eye-twitching \$500 million stimulus package for the garment industry alone. Later on, the government also announced another bailout package worth \$8 billion for all the industries of Bangladesh. A large portion of the package was earmarked for the RMG and other related industries. The central bank of Bangladesh, Bangladesh Bank, adopted an industry-friendly policy and announced that none of the factories of Bangladesh will be considered a defaulter until June, 2020.

One of the most striking results of the performance of

Another massive achievement of Bangladesh's RMG sector has been an astounding change in the composition of the workforce. More than 70 per cent of the workforce in the RMG industry of Bangladesh are women, primarily of a very young age group with minimal or no education or any sort of vocational training. The majority of women workers over the years have witnessed an improvement in their socio-economic condition, whether be it a better lifestyle or a significant upsurge in their income and savings. Overall, the industry has been highly relevant and successful in empowering women socially and economically with significant changes in their livelihood patterns. However, the emergence of the Coronavirus has blighted this trajectory and is expected to rattle the momentum of the socio-economic lives of these working women in the country as is already evident by the massive unemployment which has rendered millions of women jobless.

## CONCLUSION

We are currently facing an unprecedented crisis that has ripped apart all the economies of the world. The future of Bangladesh's RMG industry depends to a large extent upon the resumption of economic activities in the United States of America and Europe. The United States of America and all major European countries have been struggling to fight the ongoing pandemic which has taken the lives of many in their own countries and distressed their economy. In this light, their own potential to revive the respective economies is still an inexorable challenge. Taking this into consideration, the chances of Bangladesh's RMG industry propelling once again is quite bleak. However, the potential of automation seems to be quite positive for the future. Not only can automation in the RMG industry in a post COVID-19 world reduce human interface in the labour-intensive country, it can also deepen the prospects of e-commerce for the marketing of RMG products of Bangladesh. But the question that still

remains is whether the international buyers would be willing to source RMG products from Bangladesh or would they resort to their respective nearby shores.

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The desire to strike a perfect balance between work and life has raised concerns and changed an individual's attitude towards the preferred working conditions.

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# Digital Nomads: the Global Transformation of Work Culture

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## ABSTRACT

With the advent of technology and the growing demands for freedom and flexibility, there has been a recent initiation towards a new kind of lifestyle, one in which individuals aren't confined to regional boundaries. By working remotely and telecommuting rather than being physically present in their assigned office or headquarters, they fulfil and complete their job. This kind of a lifestyle has further been assisted by a large number of developments such as digitalized content management, accessible and affordable internet and network connection, smartphone and other advanced devices, and voice over internet protocol (VoIP) which enables them to keep in touch with their respective clients and employers.

Digital nomadism provides individuals a new perspective towards life and makes work and leisure synonymous. Moreover, this particular lifestyle highlights the importance of the growing internet services and applications which act as collaborative tools, and thus, assist work performers in executing tasks in spite of not being physically present.

**KEYWORDS:** Telecommuting, Flexibility, Freedom, Remote, Collaborative tools, Internet Services.

## INTRODUCTION

The dynamic working environment has witnessed approximately 150 per cent increase in the number of digital nomads in the last few years. To keep up with the diverse cultures across the world and to provide insight into global scenarios, corporates no longer have to restrain themselves to the local area for employment. With the world becoming a connected platform, employees are rapidly working and being hired from different places.

The desire to strike a perfect balance between work and life has raised concerns and changed an individual's attitude towards the preferred working conditions. There is a greater need for flexibility and leisure in today's world.

Digital nomadism can commonly be referred to people who prefer to work in different cities and are connected digitally. They do not believe in material possessions and enjoy the flexibility that is offered to them. They yearn for freedom and hence, choose this particular lifestyle.

It makes them increasingly accommodative and the comfortable environment further contributes significantly in the generation of unique ideas. Travelling ignites their skills and thereby, ensures efficiency and effectiveness in their work. Digital nomadism is an upcoming concept being welcomed by the youth due to a change in their perspectives. Digital nomads are able to perform a range of jobs and hence, have a variety of clients.

## LITERATURE REVIEW

Annika Muller, (2016), analyzes the shift from the conventional nine to five jobs to the emergence of the

new generation lifestyle of independent, remote freelancers. Transportation facilities, cheap airfares and the development of excellent communication methods have further facilitated this lifestyle.

A Hart, (2015), in her paper, has given a brief overview of the refreshing aspects of the nomadic lifestyle which she has gathered from her own personal experience. The paper discusses how instead of conventional nomadic problems, the atmosphere actually aids one in completing their work and giving in longer hours.

C. Nash et al., (2018), in his paper, has elaborated how digital nomads revolve around the four concepts of travelling and adventure, prospects of gig work, scope of digital execution and the different types of nomadic work. He also attempts to bring focus to the dynamically changing relationships between the emerging workforce, upcoming online platforms and the scope of work in the next few years.

J. Haking et al., (2018), discusses how the upcoming digital times have led to the metamorphosis of work culture. The paper explores one of the popular hubs, Bali, and explains how different individuals from diversified backgrounds have practised this lifestyle.

## RESEARCH OBJECTIVES

- To study the factors complementing the lifestyle of digital nomads.
- To compare and analyze the difference between the digital nomad lifestyle and traditional job structure.
- To understand the effect of coronavirus pandemic on digital nomadism.
- To know the financial implications of this structure on the nomads and the respective countries.
- To assess the awareness and willingness amongst youth to adopt this lifestyle in the future by drawing careful analysis of their preferences and requirements.

## DATA COLLECTION SOURCES

The report methodology includes both primary and secondary sources of data.

An online survey was conducted using the convenience

sampling method with 100 respondents from diverse backgrounds and their response to the questionnaire was recorded. The questionnaire focused on awareness, workplace requirements, preferred locations, emerging nomad hubs and the increasing inclination towards remote working. A detailed analysis of the responses for each question has been shown in the following sections of the report. The questionnaire was shared by Google mail.

Secondary sources of data include abstracts collected from research papers presented by various authors, journals, newspaper articles and financial booklets. They also include recorded experiences of current digital nomads, shared on reliable sites and social media handles.

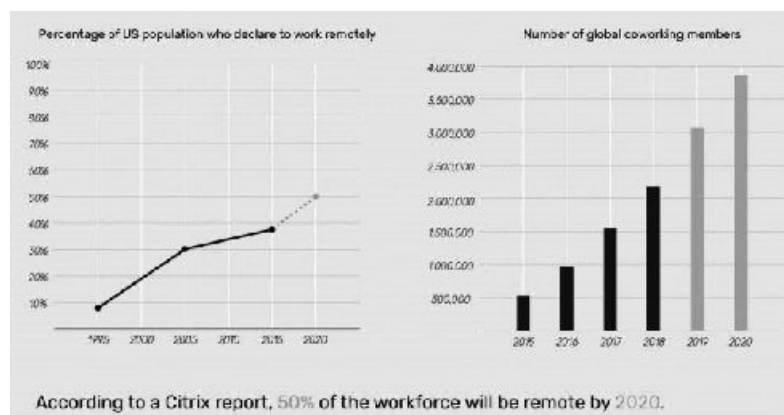
## BENEFITS

### Benefits to nomads include:

- Inspiration from the diverse surroundings helps the workers deal with stress and results in them putting in a greater number of hours.
- Digital nomads have proven to be 13 per cent more productive than conventional workers. There have been a smaller number of sick leaves taken.
- By working in their preferred time, they can work more flexibly. An increase has been seen in the workforce willing to work remotely, especially in the United States of America. An upsurge in the number of global co-working members has also been witnessed as shown in Fig. 1.

### Benefits to companies include:

- There is a major reduction in costs. Companies don't have to invest in fixed capital as workers work from different places across the world.
- Workers are mentally happy and there are less human resource problems which the companies have to deal with. Due to less stress, there is also reduction in health expenses which have to be borne by the company.



**Fig. 1: Graphical representation of the increase in the workforce**  
(Source: Citrix Report)

## LIMITATIONS

Digital nomadism has many benefits to offer. However, there are inarguably many limitations which made this lifestyle preferred by very few in the earlier years.

This lifestyle involves social freedom, but loneliness exists and prevents them from being able to form real emotional connections. Individuals have to often undergo deep emotional stress while being a part of this lifestyle.

Additionally, corporates find this concept disturbing their culture as online work limits the connection between co-workers and acts as a barrier in team building.

Internet disturbance and poor connectivity issues are extremely detrimental, and further, the risk of data loss increases.

Moving and relocating from recreational places to other happening places seems to distract the individuals from work, resulting in poor quality and loss of productivity.

## INFLUENCING FACTORS

The major factors influencing digital nomadism and its growth are:

- **Technological Development:** There has been a rise in the manufacturing and discovery of new electronic devices. These facilitate task executions. Accessories and other devices such as portable power banks complement travelling and help the individual perform their jobs from anywhere in the

world. Usage of these tools along with significant other digital tools can be seen in Fig. 2.

### Some digital tools are more important to online Office-Based workers

Percent of online workers who say each tool is "very important" to their job ...

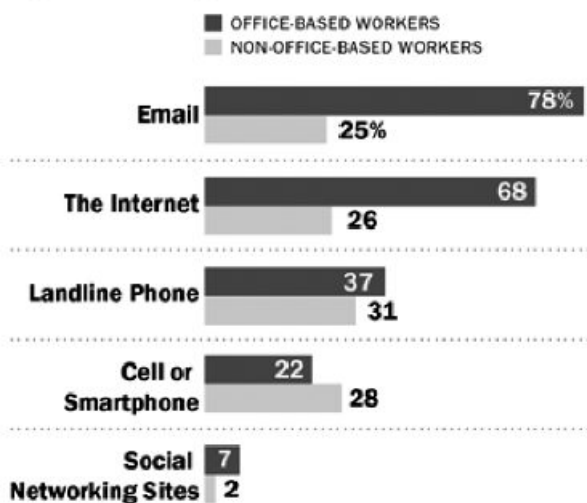


Fig. 2: Tools used by online workers  
(Source: Pew Research Center September Panel Survey)

- Growth of Online Applications: Emergence of online applications such as cloud services and collaborative tools not only help the individual stay in touch but also helps the team work together. Translation tools, VPN services and productivity planners are important and contribute towards the growing demand of nomadic lifestyle.
- Emergence of Co-Working Spaces: The past few years have seen a tremendous rise in the number of co-working spaces being inaugurated. There are many cafes, restaurants and open spaces especially designing for working to give space to nomads.

Few other reasons for the growth of digital nomadism across the years include cheap travel and accommodation facilities. Also, the growing information being provided on online sites makes it easy for nomads to acquire employment according to their skillset.

### DIGITAL NOMADISM V/S CONVENTIONAL JOB STRUCTURE

The growing desire to maintain the perfect balance between professional and personal work has encouraged and motivated many individuals to not restrain themselves in a nine to five job and instead explore different avenues and cities while working.

Digital nomadism ensures that the work seekers get to enjoy all the benefits of a traditional job along with additional leisure activities. Where a conventional structure follows a routine life with defined hours and assigned spaces, nomadism allows one the freedom to make these decisions by providing them liberty and flexibility.

A traditional job structure believes in authority and responsibility by keeping a certain hierarchy which is followed by all its members. Even though digital nomads are answerable to their clients, the authority and the hierarchy structure gets compromised.

Digital nomads put in more hours of work than traditional workers.

As per the responses received from the study conducted, a majority of the respondents i.e., 90 per cent prefer the digital nomadic lifestyle and only 10 per cent prefer the conventional job structure as shown in Fig. 3.

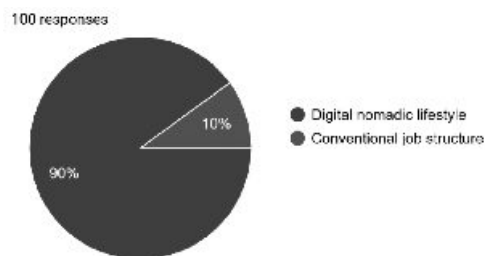


Fig. 3: Nomadic lifestyle v/s Conventional jobs  
(Source: Primary Data)

### FINANCIAL IMPLICATIONS

Being out of the country and wandering can save an individual a large amount of money. There are many legal ways to become entitled to deductions

and reduce the tax burden.

Due to not staying in the residing country for an extremely long period of time, digital nomads are eligible to tax exemptions which result in reducing the home country's revenue. Moreover, they travel across different places and thus, they are not eligible to pay tax in the other countries either.

One of the very basic but important techniques of

financial gain is covering all deductions. As a nomad, there are excess travel and accommodation expenses which get accumulated and can reduce the tax burden provided they have a tax home. Hence, the nomad should ensure the setting up of a tax home so that they are eligible for these deductions.

Digital nomads can be exempted from paying income tax on a certain amount of their income if they fulfil certain conditions. These conditions are as follows:

- The first condition requires the respective person to reside outside the country for a minimum of 330 days out of 365 days. The beginning and ending days can lay on any day in the year, however, the stay should be consecutive.
- The other condition requires an individual to stay outside the premises of the country for one entire year following the calendar year.

However, these exemptions are not applicable for all incomes and hence, might help one in reducing their tax burden but does not eliminate it entirely for them.

## THE GLOBAL LOCKDOWN

Due to the coronavirus outbreak, most of the countries have declared lockdowns and have enforced stringent rules to prevent any visitor from entering their territory. In such circumstances, digital nomads are severely impacted as they live in temporary places (do not have a permanent address) and have nowhere to go. Many nomads are on the road.

All travelling plans have been disrupted and with the world moving into a global recession, there is scarcity of well-paid work making them incapable of covering their basic expenses. Moreover, there has been a sudden upsurge in the number of freelancers looking for part time work which is posing a threat to these existing individuals who rely on this system for full time employment.

Having followed this lifestyle throughout the year, digital nomads do not have a problem in coping with online working mechanism. However, lack of shelter and proper work has made them vulnerable.

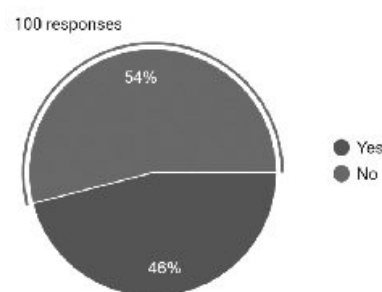
In spite of increase in demand on online freelancer's sites, increase in the number of work seekers and

freelancers have led to the drying up of all work available.

## ANALYSIS

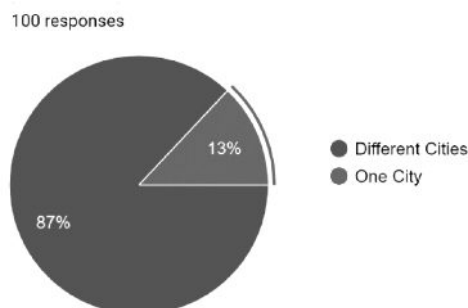
To understand the seeker perspective and estimate the future demand of this lifestyle, a survey was conducted and the following can be concluded:

- On questioning if the respondents were aware of the concept of digital nomadism, approximately 46 per cent of the respondents were aware whereas 54 per cent were not aware of the same as shown in Fig. 4. After conducting a deeper analysis, it can be seen that the 46 per cent who were aware consist of the younger population lying in the age bracket of 18-21.



**Fig. 4: Awareness about the nomadic lifestyle**  
(Source: Primary Data)

- 87 per cent of the respondents prefer to work across different cities, whereas only 13 per cent would prefer to stick to one city as shown in Fig. 5. This helps testify the growth in demand for nomadic lifestyle.



**Fig. 5: Work location preference**  
(Source: Primary Data)

- On questioning the respondents about their preferred working conditions (more than one condition could be selected per respondent), the following has been recorded:

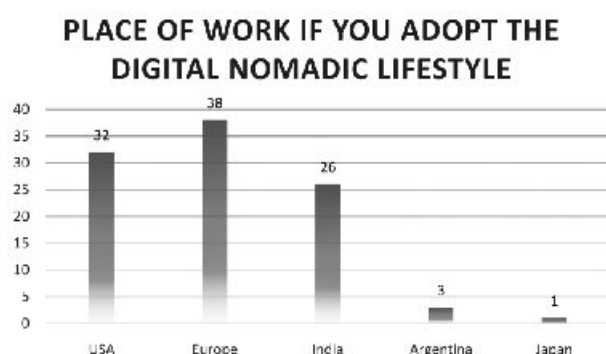
- # 88 per cent of the respondents prefer flexible hours.
- # 70 per cent of the respondents prefer a comfortable place (outside office).
- # 52 per cent of the respondents prefer to work in solitude.
- # 31 per cent of the respondents prefer to work in an assigned place in the office space.
- # 21 per cent of the respondents prefer to work as per defined hours.

After deeper analysis and research, it has been found that the combination occurring most frequently consists of flexible hours, comfortable place and solitude.

- As per the responses received, Europe emerges as the most popular nomad hub. Approximately 38 per cent of the respondents would choose to work there. It has also been found that people prefer to work in authentic cafes, parks and street shops.

Europe is closely followed by the USA, where 32 per cent of the respondents would choose to work.

India is also a hub preferred by 26 per cent of the respondents. This is followed by Argentina being preferred by 3 per cent and Japan being chosen by 1 per cent of the respondents as shown in Fig. 6.



**Fig. 6: Popular nomad hubs**  
(Source: Primary Data)

## CONCLUSION AND RECOMMENDATIONS

Digital nomadism has great scope in the upcoming years. With almost 80 per cent of the emerging workforce being inclined towards this lifestyle, this alternative seems to overshadow the conventional job structure. With the rise in supporting factors such as the development of technology and different applications, growing connectivity, and launch of diverse devices, the demand of nomadic lifestyle is increasing. Financial benefits further encourage this shift.

The changing perspectives of individuals and their emerging needs seem to coincide with the conditions of digital nomadism. Analysis of their working condition requirements, choices regarding place of work and factors that are crucial while choosing a career alternative have all seemed to strengthen digital nomad prospects in the global world.

A section of the society still prefers the conventional job structure due to it being risk averse or them not preferring to travel. Other challenges such as high cost of living, social isolation and other such reasons have been widely recognized by individuals leading them to rejecting this lifestyle.

A large segment of youth appears to be willing and eager to adopt this lifestyle. Clearer rules and regulations and defined taxation laws shall ensure that the home and foreign country do not face any unnecessary loss and at the same time, the interests of the work seeker are not hurt.

The current global scenario does not seem to very clear due to the coronavirus pandemic. Digital nomadism has always followed online working patterns which are now widely being adopted all across the world. In spite of being well acquainted, digital nomadism, like other career alternatives, seems to be greatly impacted by the pandemic.

Detailed analysis has also shown strong preference for Europe and United States as popular nomad hubs. Cafes and beaches emerge to be popular locations of choice.

Digital nomadism being a new and emerging concept, seems to be restricted to youth. Awareness about this concept has not been much in the past decade but a steep rise has been seen in the last five years and predicted in the next few years.



After conducting the research and analyzing different factors, the following ideas are recommended:

- Individuals need to carefully weigh the pros and cons of the digital nomadic lifestyle and then make a decision provided their needs coincide with the benefits provided by the lifestyle. Complete knowledge of this concept is integral.
- A proper law and financial plan shall prevent exploitation of any of the parties and provide clarity.
- Online applications and sites should be launched to promote team building. Online exercises should be conducted so that individuals working across different countries still remain attached to their team and their work. It shall also help overcome social isolation.
- Freelancer encouraging sites should ensure continuous modification of the fee charged by them so that the flow of work does not stop. At uncertain times, a lower fee shall give a boost to freelancers and provide them with funds to cover their expenses. The reverse of this strategy can be followed during good times.
- A proportional mix of digital nomads and traditional workers can help corporates reap the benefits of both lifestyles. Immediate projects which require close contact and collaboration can be worked upon by the traditional workers. On the other hand, work which can be completed in solitude or with little contact can be allocated to nomads. This shall lead to completion of work in a shorter period of time and with optimum efficiency.

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Today, blockchain has become much more than a technology that enables cryptocurrency transactions; it has become a new way of conducting and regulating business activities.

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# Blockchain and the Industrial Revolution 4.0

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## ABSTRACT

In 2008, Satoshi Nakamoto pioneered the concept of a virtual currency popularly known as the bitcoin, built on an electronic platform called a blockchain. However, over the last few years, the concept of blockchain has spread its wings across every sector of the global economy. Unlike Java or C++, blockchain is not a programming language; it is a combination of technologies that can help organizations and people in almost every field of their life.

The objective of the paper is to do a study on the various possible applications of blockchain technology in nations across the globe and assess its future impact on society at large.

**Keywords:** Blockchain Technology, Industrial Revolution 4.0, Business Applications, Intermediaries

## INTRODUCTION

The concept of blockchain can be understood in a much easier way using the classic children's fairy tale of 'The Three Billy Goats Gruff'. The first two billy goats represent the traditional or the older ways businesses and technologies would function. Though they were weak, they somehow managed to cater to people's need for data privacy, manage supply chains and protect the integrity of official and important records. However, they were not strong enough to face the troll (hacking/ plagiarism/ manipulation), yet, somehow worked their way out and passed him. The third billy goat can be compared to the blockchain technology that defeated the troll, and solved the other problems of traditional technology.

Although the existing technology solves the issues related to the authorized sharing of data to a great extent, the use of blockchain technology not only solves the existing problems of businesses and traditional technologies, but also ensures data security as well as provides all the required financial and non-financial services and information on the same platform. Since the information available is distributed among nodes and does not lie with one centralized authority, it can be easily trusted by people. One of the major problems in the modern economy is the lack of trust between stakeholders and businesses, citizens and government, candidates and documents, writers and their content, and bankers and the account holders. Blockchain helps to solve all these problems, as all the blocks (data) are linked chronologically using metaphorical chains. Each time someone tries to manipulate the sales figures or window dress the balance sheet, the change gets recorded as a new block and all the stakeholders are made aware. Thus, it protects the investor's rights, and saves financial institutions and people from falling into financial scams.

Today, the world has recognized the importance of blockchain and is exploring the different ways to implement blockchain technology. In this paper, the world categories that have been considered are - developed, developing, and less developed countries (LDC). Three to four countries from each category have been chosen to study the applications of blockchain technology in the current scenario.

## LITERATURE REVIEW

1. Study on the Economic Impact of Blockchain (Roman Beck M. K., 2019)

Upon researching the economic impact of Blockchain in Denmark, the researchers concluded that the organizations can be divided into blockchain startups, blockchain hubs and network organizations, and blockchain research centers.

2. From Bitcoins to Cyber Security (Fangfang Dai, 2017)

In 2017, a group of researchers studied the use and security issues of using blockchains. They concluded that blockchains have been given higher expectations in recent years, and that blockchains have spread into ICT and network security from finance. It also deals with some of the security threats faced by blockchains.

3. The development of blockchain technology in Russia (M.E. Karapetyan, 2019)

In 2019, a group of researchers conducted research to study the development of blockchain in the Russian Federation. Their research concluded that within a short period, blockchain technology had played an important role in problem-solving and is highly demanded by state authorities, businesses, and the society at large.

4. Crypto-currencies and the Gulf Countries (Mohamed Noureldin Sayed, 2018)

In 2018, Mohamed Noureldin Sayed and Nesrin Ahmed Abbas conducted research on the impact of crypto-currency in the Gulf countries. They concluded that crypto-currencies are performing better in developing countries rather than developed countries. Maintaining records in the blockchain is safer and much more reliable for business operations.

5. Blockchain and Public Healthcare system in South Africa (Shopee Dube, 2019)

In 2019, Shopee Dube and Patrick Ndayizigamiye conducted research on the use of blockchain technology in the healthcare systems in South Africa. They found that blockchain technology promises to improve healthcare systems by

providing a platform where transactions are immutable and traceable within a decentralized ledger.

#### 6. Blockchain in Audit Practices (Brender Nathalie, 2019)

In 2019, a group of researchers from Switzerland conducted research on the potential impact of using blockchain in auditing practices. They concluded that blockchain is a better ledger because ledger entries can be cross-checked multiple times. It provides third-party validation points that were not allowed earlier.

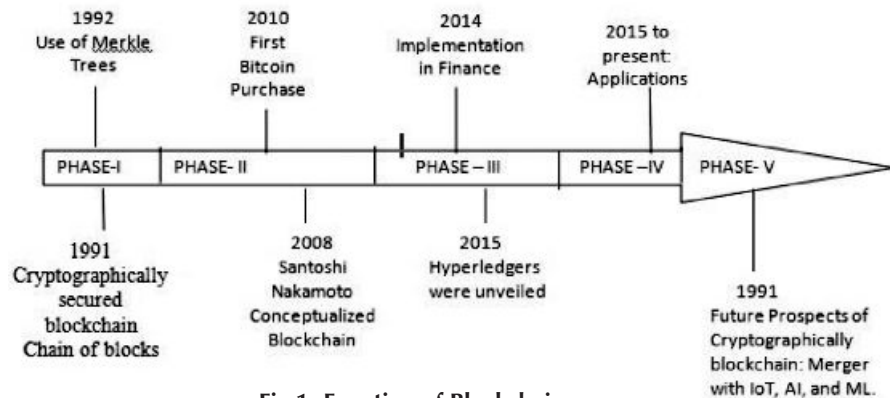
#### 7. Adopting the concept of blockchains in supply chains (Himanshu Arha, 2018)

In 2018, a group of researchers conducted research on the implementation of blockchains in the supply chains in India. They concluded that the adoption of the BT model holds significant explanatory power. Integrating TRI and TPB constructs with TAM is appealing empirically. TRI was found to be insignificant and did not influence the BT model.

### EVOLUTION OF BLOCKCHAIN TECHNOLOGY

Imagine an excel sheet or a ledger which is a record of the thousands of transactions made by a person in a particular year. Further imagine that this excel sheet or ledger is connected to other computers or nodes (banks, tax officials, and the government), forming a sort of a network, each of which also has the exact copy of the transactions made by that person, and each time the person makes a transaction, it gets auto-updated in that ledger or excel sheet. The question might arise - what was the harm with the traditional way or why invest in this technology when the traditional method does the same thing? Firstly, in the manual method, there might be some transactions that could have been missed by any of the middlemen which could lead to a large dispute among the parties. Secondly, it eliminates the

possibilities of all human errors since the transactions are automatically updated on a real-time basis. Thirdly, it also ensures the highest degree of accountability.



**Fig 1: Evoution of Blockchain**  
Source: Authors' Compilation

Phase 1 - In 1991, Dr. W. Scott Stornetta and Dr. Stuart Haber published a whitepaper introducing the concept of blockchain as a decentralized and encrypted database where transactions were considered to be secure. Later in 1992, the concept of Merkle Tree was merged with blockchain which summarized the data or transactions in a particular block by producing a digital fingerprint on the block, allowing users to verify if a transaction is included in a particular block or not. (geeksforgeeks.org, 2020)

Phase II - In 2008, a pseudonymous person or group of people called Satoshi Nakamoto published the whitepaper on bitcoin. The paper also solved the double spending problem of digital currency by using a peer to peer network. However, it took countries a few years to get adapted to this new form of currency and the first bitcoin transaction is said to have taken place in 2010, after which other crypto currencies also started to evolve and gain popularity. (GOYAL, 2018)

Phase III - The third phase in the evolution of blockchain was around 2014 and 2015 when certain financial institutions around the world started recognizing crypto-currencies as a legal form of exchange for monetary transactions, and legislatures in certain countries started passing laws to protect the rights of people and companies using crypto-currencies as modes of payment, especially after the concept of Hyperledgers evolved in 2015.

Phase IV - The fourth phase of blockchain began around 2015, after the concept of Hyperledgers was unveiled. Most countries started conducting research on blockchain and how it could benefit the people and organizations in particular, and the national economy at large.

Phase V - This is the final phase in the blockchain evolution where blockchain merges with other technologies such as the AI, Internet of Things, and Machine Learning, bringing about an entire revolution in the technological world.

The study suggests that there are some countries in the world that are currently between the fourth and fifth phases of blockchain evolution.

## **BLOCKCHAIN IMPLEMENTATIONS IN DEVELOPED COUNTRIES**

### **A) Switzerland**

1. E-Governance- Due to the country's decentralized political system, implementation of the blockchain was easier compared to other nations. Moreover, the country has passed a special 'Blockchain Law' to promote the technology and protect the citizen's rights. In Switzerland, blockchain technology is used in filing taxes. (Roman Beck M. K., 2019)

In 2020, Zug became the world's third city to accept taxes in the form of cryptocurrencies. Zug is also known as 'Crypto-Valley Zug'.

2. Railway- SBB has expanded its base and encourages the utilization of crypto-currency as a means of payment. The SBB has become one of the country's largest platforms that uses blockchain. The SBB sells and helps people top-up their bitcoin wallets. However, the tickets cannot be purchased using bitcoins (Bitcoin.com, 2020). Another way in which the SBB promotes blockchain is through the digital IDs for railway construction workers. The railway construction work involves a large number of workers on a regular basis, but earlier, there was no foolproof method of ensuring that the workers were authorized persons, hence, they decided to use the blockchain-based ID for workers. (Baydakova, 2018)

### **B) Australia**

1. Information and Telecommunication- The earlier methods of information and telecommunication suffered certain drawbacks such as receiving fraudulent, manipulated, and inappropriate data of things and events. Using Blockchain will help recognize the identity of people sending the messages, i.e., it solves the problem of anonymity as the receiver can easily identify the sender. It also protects the confidentiality and integrity of a message sent by a person and also protects people from cyber-attacks and cyber-threats. (Blockchain Australia Solution)
2. Tourism- Tourism is one of the biggest industries in Queensland with thousands of tourists every year. The Queensland government in Australia is backing the crypto-currency point of sale (MARINOFF, 2018), which not only pushes in the use of blockchain into this sector, but also promotes the use of crypto-currency to sustain the income through the tourism industry.

## **BLOCKCHAIN IMPLEMENTATIONS IN DEVELOPING COUNTRIES**

### **A) India**

1. Land Registry- The traditional land registration method in India is a cumbersome process. There exist problems such as the inefficient coordination between the agencies, and the delayed updates of records. Using blockchain technology will help maintain a proper record of the land registration details and create a verification record of the files. All verifications can be used as an individual block creating a chain of the records. It can be viewed by the general public without the fear of tampering the original records, and a private blockchain can be used by the government, financial institutions, and insurance companies. The automated process also helps financial institutions to grant credit to farmers and SMEs easily. (Ananth Padmanabhan, 2017)
2. Digital Certificates- Every student in the course of his/her education life receives a lot of certificates, mark sheets, and diplomas which are very essential for the future of that student, as he/she seeks admission in institutes of higher learning or even in



getting a job in a corporate. However, in the past few years, cases of fraudulent certificates and mark sheets have been increasing and using blockchain technology might solve this problem. Using blockchain would help in preventing the forgery of documents. Since the information is not centralized, it becomes easy to verify the originality of the certificate, mark sheet, or diploma. (Neethu Gopal, 2018)

#### B) UAE

1. ADDA - Abu Dhabi Digital Authority is a governmental blockchain platform that enables the proper and secure exchange of data between Abu Dhabi and other external organizations around the world (Smartcity Press, 2020). In the traditional methods of exchanging data, there always remained a privacy and security threat such as the leak of confidential information. Using blockchain not only ensures security but also ensures that the information would reach the appropriate recipient in its original form without being manipulated.
2. Ministry of Health and Prevention- A blockchain-based application called Hayat was launched in January 2019. This was started as an initiative to prevent the illegal trading of organs, and improving the accessibility of organ transplantations. It has helped ease the locating of donors without much hassle and has also proved to be highly efficient. (Smartcity Press, 2020)

### BLOCKCHAIN IMPLEMENTATION IN LESS DEVELOPED COUNTRIES

#### A) Madagascar

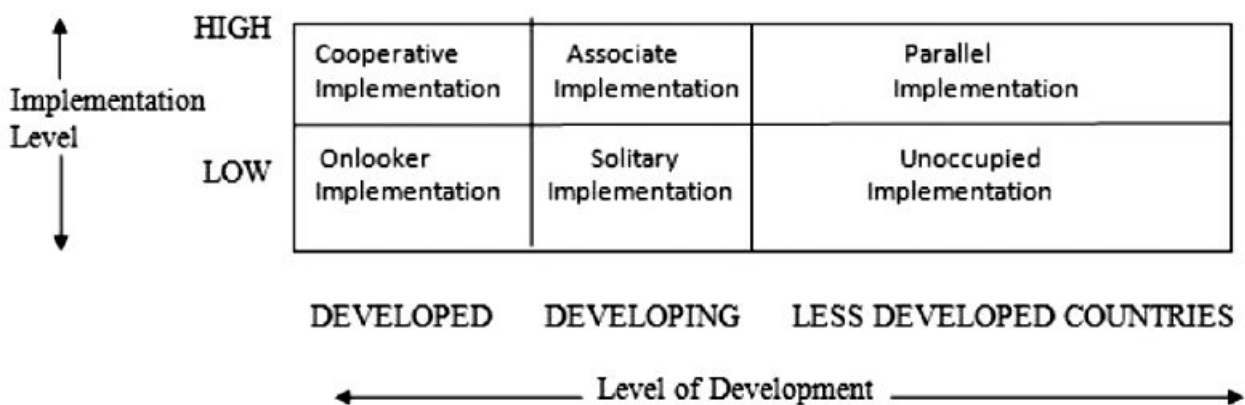
The Seneca Park Zoo in Madagascar uses the ixo blockchain technology. The role of an ixo blockchain is to secure the records of shreds of evidence of changes and impact claims. It will also enable the measurable changes to be transformed into crypto-economic proof of impact and reward participants with impact tokens. However, it is also used as a fundraising platform for the public education potential of zoos and aquariums (Moloi, 2018).

#### B) Bangladesh

Bangladesh is among the few countries that consider crypto-currency (bitcoin) illegal and do not recognize the importance of blockchain or the evolution this technology can bring about in the current scenario.

### ANALYSIS AND RECOMMENDATIONS

On analyzing the use of blockchain in the various countries, it can be said that there is no fixed thumb rule that developed countries invest more in blockchain compared to developing and less developed countries. To conclude, the developed, developing and less developed nations can be further divided into two categories based on their application of blockchain technology.



**Fig 2: Levels of Blockchain Implementation- World Scenario**

Source: Authors' Compilation

In 1929, Mildred Parten Newhall developed a theory called 'Parten's Stages of Play' wherein he explains the stages of how a toddler learns to play (Play Volution HQ, 2020). The six stages of blockchain adoption are similar to the six stages of Parten's Stages of Play.

of blockchain technology. In the sixth stage are the groups of developed nations, wherein the level of implementation of blockchain is the highest compared to the other five stages.

Stage of Implementation	Name	Details
Stage 1	Unoccupied Implementation	These nations lack development. The level of blockchain implementation is nil or almost negligible in these countries. E.g.: Bangladesh
Stage 2	Solitary Implementation	In these nations, the level of blockchain implementation is low. However, since their infrastructure is relatively developed, the scope of blockchain implementation is slightly wider compared to LDCs. E.g.: India
Stage 3	Onlooker Implementation	These nations are well developed, yet the level of blockchain implementation is much lower compared to what it should be. E.g.: Australia
Stage 4	Parallel Implementation	Though these nations are less developed, they try to be at par with other developed and developing nations in adopting blockchain technology. E.g.: Madagascar
Stage 5	Associate Implementation	These are developing nations but have made remarkable implementations of blockchain technology in their respective counties. E.g.: UAE
Stage 6	Cooperative Implementation	These are developed nations. The level of implementation of blockchain technology is also high in these places. E.g.: Switzerland

**Table 1: Recommended Stages of Blockchain Implementation-World Scenario**  
Source: Authors' Compilation

Table 1 depicts the Parten's Stages of Play compared to the uses of blockchain technology by the various nations across the globe. The first stage consists of nations with very less development. Hence, the level of blockchain implementation is nil or almost negligible in such countries. The second stage consists of developing nations where the level of blockchain implementation is low. The third stage comprises developed nations where the level of blockchain implementation is much lower than expected. The fourth stage comprises those nations that are less developed but have tried to be at par with other technologically advanced nations in adopting blockchain technology. The fifth stage consists of developing nations that have made remarkable use

## CONCLUSION

The emergence of advanced technologies such as the Internet of Things (IoT), Artificial Intelligence (AI), and Machine Learning (ML) that are built using blockchain at its core could be one of the biggest breakthroughs in the field of technology. Today, blockchain has become much more than a technology that enables cryptocurrency transactions; it has become a new way of conducting and regulating business activities. Thus, the fourth industrial revolution plays a key role in accelerating the growth of businesses by providing trusted transaction management through blockchain technology.

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Taking a sizeable chunk of the total number of transactions, UPI has emerged as disruptive.

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# Emergence of UPI as a Disruptor

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## ABSTRACT

Due to technological advancement, global transaction models have drastically changed. India has also witnessed this with the introduction of Unified Payments Interface (UPI). More focus must be given to UPI in order to ensure the concept of Digital India. Taking a sizeable chunk of the total number of transactions, UPI has emerged as disruptive. In the fiscal year 2018, it processed 913 million transactions worth ₹ 1.09 trillion. UPI processed 5.39 billion transactions worth around ₹ 8.76 trillion in the fiscal year 2019. All records have been broken as UPI recorded a billion transactions in a month in the fiscal year 2020. In this article, we have focused on - (i) the growth trend of UPI; (ii) how it has affected the layman; (iii) how it has superseded the other existing modes of transactions; (iv) how UPI has been evolved in terms of the digital infrastructure.

**KEYWORDS :** UPI; Disruptor; Digitization

## INTRODUCTION

India stands fifth in terms of Nominal Gross Domestic Product (GDP) and third in terms of purchasing power parity with a GDP of ₹ 236.28 trillion. In the year 2016, India mainly supported the cash-driven economy with a circulation of ₹ 16,415 billion, which is almost 12 per cent of the GDP. This in turn resulted in problems of handling cash, circulation of fake currency and unaccounted cash, which further added to tax evasion.

Demonetization was announced in 2016 which made 86 per cent of the currency notes scrap overnight, thereby triggering the growth of digital payments by 40 per cent in that quarter. National Payments Corporation of India (NPCI) launched UPI with a vision to make digital transactions as the primary payment option for both vendors and consumers in 2016.

To enable the digital payments service, the Government has launched the National Optical Fibre Network Initiative, which will affect approximately 2.5 million Gram Panchayats. Pradhan Mantri Jan Dhan Yojana, through 226 million accounts and 184 million cards (as of 2016) has provided a platform for universal banking. This infrastructure is already in place. The inclusion of UPI can provide an infrastructure to set up payment platforms replacing the existing Point of Sale (POS) platforms which were both difficult to operate and expensive.

In the context of the tax base of India, only 2.5 per cent of the population pays Income Tax (Budget 2020), whereas more than 2.5 per cent of the population earns more than ₹ 250,000. This is because of the tax evasion and tax avoidance techniques in practice. With the use of UPI, dependence on legal tender falls and everything is accounted for. Government has the expectation that the tax base will see a change since transactions will shift to being digital. UPI has a significant role in making it possible.

## OBJECTIVES OF THE STUDY

- To understand and learn about the UPI, its fundamentals and benefits

- To study about the ecosystem in which the UPI operates
- Security features of UPI
- Impact of UPI on other modes of payment
- Testing the significance of the growth of UPI using statistical tools
- Checking on the distribution of market share of UPIs and its significance

## RESEARCH METHODOLOGY

UPI is a relatively newer mode of transacting and it is still tapping into the Indian market. Therefore, the data used is secondary and has been collected from the government and its bodies. The study has focused on a descriptive, analytical and objective assessment of the parameters. Past data has been presented in the form of numbers and respective analysis has been done. Periodical journals, research papers and newspaper editorials have been referred. The information has been concocted to provide a comprehensive and holistic understanding of the UPI model. Comparative analysis has been done to delve deeper into the core functioning of the industry. Comparison has been done between different modes of payments and the number of transactions. Data has been collected from the inception of the UPI in 2016 till the first quarter of 2020. Thus, the study is conceptual and descriptive.

## THE ECOSYSTEM OF UPI

Payment Service Providers (PSP) including banking and other third party software use the UPI payment facility. PSPs provide a platform where the UPI transactions take place. It facilitates the creation of Virtual Payment Address (VPA), registrations, and linking of these to the bank accounts. Nowadays, most banks have their own UPI PSPs.

UPI PSPs generate a VPA like abc@xyz, which is a simple notation representing 'abc' as the unique name and 'xyz' as the bank. The VPA is stored with the PSP and the bank account details are stored at the NPCI.

Algorithms of the PSP are shared with the NPCI to decode the bank account through the VPA and thus, a corresponding debit and credit are done at the NPCI and no sensitive details are required.

The Central Mapper of the NPCI is the central database and maintains a web of association bound between the bank account, Aadhaar card, mobile number, IFSC Code. This enables us to transact with the help of a mobile number without knowing the account to which it is credited.

## UPI TRANSACTION

A maximum of four parties can be included in a single UPI transaction. Two are the Sender and Receiver PSPs and the remaining two are the remitter and beneficiary.

UPI payments use two-factor authentication. Firstly, the authorization is done by using the fingerprint scanner of the mobile phone, conducted by the PSP itself. Secondly, the mPIN which is stored in the NPCI Libraries is used for verification. NPCI Libraries enables authorization of secure credentials and verifies it with the issuer bank on whose verification and authorization, the transaction is completed.

- Users can download any UPI PSP.
- The next step is registering through the mobile number with which the bank account is linked. Then, the fingerprint is linked to the UPI application. After this, the mPIN is generated.
- A request for the OTP is created by the PSP's UPI application and sent to the NPCI. Then, the NPCI forwards the request to the issuing bank which in turn sends the OTP to the registered mobile number. The user enters the last six digits of their debit card, expiry date, CVV Number and the OTP. After this authentication, the mPIN is authorized. The issuing bank uses the private key to decrypt the encrypted mPIN and it is finalized.
- In case of a pay request, the user starts by verifying his fingerprint and logging into the application. The next step is entering the details of the beneficiary (either the VPA or the Account Number and IFSC Code). After this, the PIN verification is done by the

NPCI and if verified, the beneficiary's account is credited and the user's account is debited.

- In case of a collection request, the beneficiary sends it. The remitter enters his PIN after fingerprint verification. His account is debited and the beneficiary's account is credited after successful verification.

## SECURITY IN UPI

To enable UPI transactions, two-factor authentication is required. One factor helps in verifying the identity of the person and the second-factor deals with the credentials that are only known to the person. The mobile device's fingerprint helps in verifying the identity of the user. At the time of setting up the application in a device, the fingerprint credentials are linked and thus, the mobile phone and the PSP application are bound. With this, the Device IP Address, IMEI Numbers, and other details are shared with the PSP. The second factor to authenticate the transaction is the mPIN.

- Validation of identity and bank account is done during registration. After registering in the PSP UPI application, an encrypted message is sent by the PSP to the bank to verify if the bank account is linked to the mobile number with which the PSP Application is being registered. All bank accounts linked with the registered mobile number get bound with the PSP Application and can be used to transact.
- NPCI Utilities are activated in the PSP UPI. OTP and mPINs are validated at the NPCI Libraries and hence, the levels of security at the PSP UPI are maintained.
- Transactional security is maintained in the two institutions. One of them being with the PSP UPI and the other being with the bank of the user. Firstly, the PSP security is maintained by verifying the fingerprint of the user which is activated at the time of registration. Secondly, the mPIN has to be entered by the user to authenticate the transaction. Thus, a transaction can happen only when both steps are authorized.

- The mPIN is stored at the NPCI library. It is rooted in the PSP's UPI interface. The UPI uses a public key to encrypt the mPIN and the issuing bank uses a private key to decrypt the PIN. The PIN is transferred through secure channels to take care of safety.

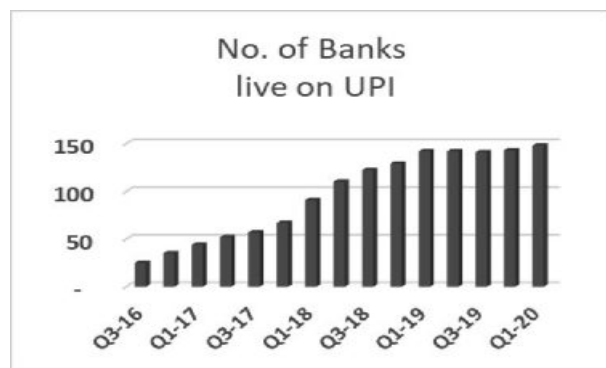


Figure 1. Growth of Number of Banks live on UPI (2016- Present)

Source: <https://www.npci.org.in/upi-live-members>

The number of banks who are UPI live members has grown to 148 as of March, 2020 as compared to 21 during its inception. UPI has shown double digit growth every quarter. As of now, GPay is the market leader of UPI.

### EFFECT ON PAYMENTS IN THE PHYSICAL WORLD

Modes of payment include legal tender or cards issued by the banks. UPI offers convenience over the existing modes and is a promising alternative. Increase in

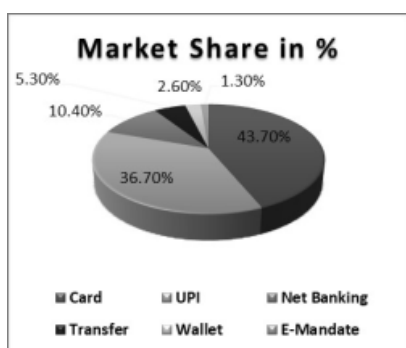


Figure 2. UPI vs Other Payment Methods in 2019

Source: <https://razorpay.com/blog/upi-2019-transactions-data>

internet connectivity is making the switch to UPI viable. Also, UPI does not require the installation of expensive Point of Sale machines. This is why UPI is cost-effective.

Cards were more preferred to UPI as of 2019. However, by the 2nd quarter, UPI was the more preferred method of transaction. Net Banking was the next most preferred method.

Type of Transactions and average ticket size	Amount in ₹
Card	₹ 1,946
UPI	₹ 854
Net banking	₹ 5,715
Wallet	₹ 1,116
Bank Transfer	₹ 6,403
eMandate	₹ 3,097
EMI	₹ 18,462
Cardless EMI	₹ 11,198
Paylater	₹ 1

### Type of transactions & Average Ticket Size

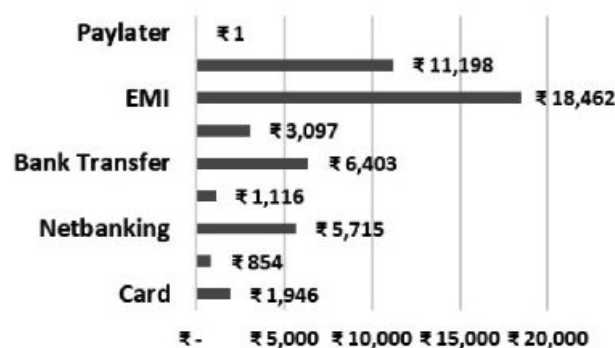


Figure 3. Type of Transactions and their Average Ticket Size in 2019

Source: <https://razorpay.com/blog/upi-2019-transactions-data>

The ticket size per transaction is the average amount incurred using various methods. We can see that EMI recorded the highest average ticket size as it is generally used for items of high value. Cardless EMI showed similar figures at ₹ 11,198.

The average size for the UPI was ₹ 854, which shows that it is used for items of low value and for everyday usage. Thus, the growth of UPI has seen a positive note and its user acceptability is rising.

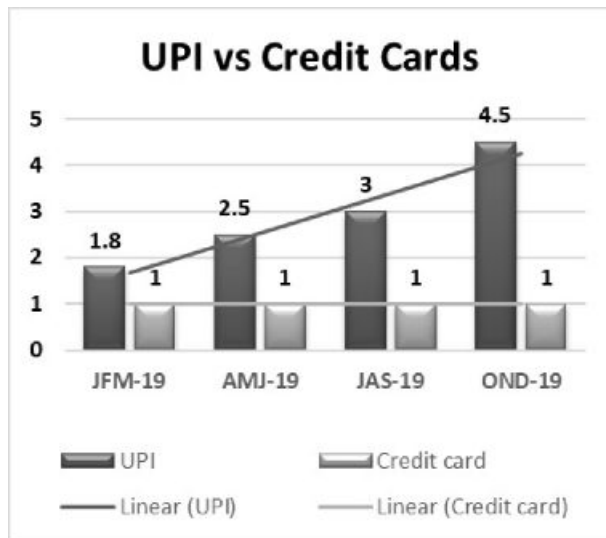


Figure 4. UPI vs Credit Cards in 2019

Source: <https://razorpay.com/blog/upi-2019-transactions-data>

We can see that the growth of UPI has been tremendous compared to a credit card, which has reported stagnant figures throughout. During 2019, UPI overtook credit cards as the most preferred form of digital payment.

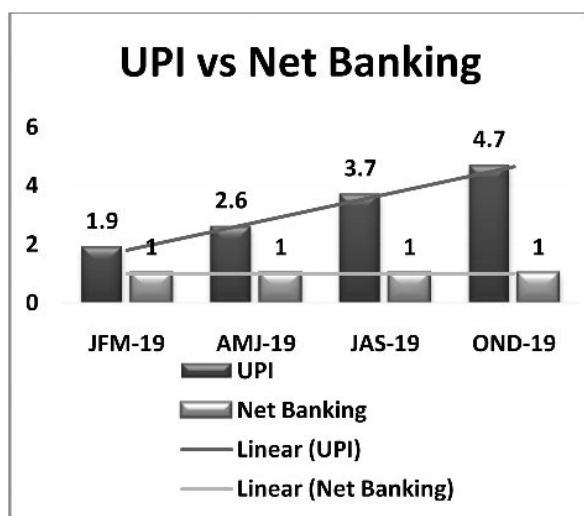


Figure 5. UPI vs Net banking in 2019

Source: <https://razorpay.com/blog/upi-2019-transactions-data>

The growth of UPI has also surpassed Net Banking in the year 2019. Although Net Banking was very convenient and easy to use, it has not been able to cope up with UPI. The reason may be because Net Banking requires an annual charge, which is not the case when a user opts for UPI.

In the 1st quarter of 2019, debit cards were more preferred to UPI payments by 0.65 per cent. This trend continued until the end of the next quarter, where debit cards were used more than UPI by 0.91 per cent. However, in the 3rd quarter, UPI took over Debit Cards by 1.44 per cent which went up to 1.59 per cent in the 4th quarter.

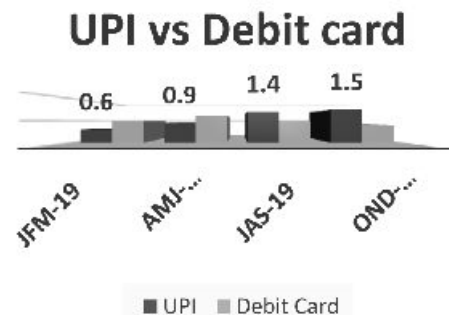


Figure 6. UPI vs Debit Cards in 2019

Source: <https://razorpay.com/blog/upi-2019-transactions-data>

## Market Share in %

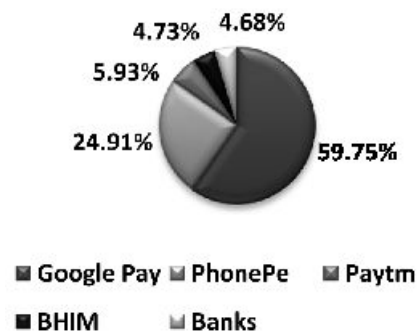


Figure 7. Market Share of the Indian UPI Market as per 2019

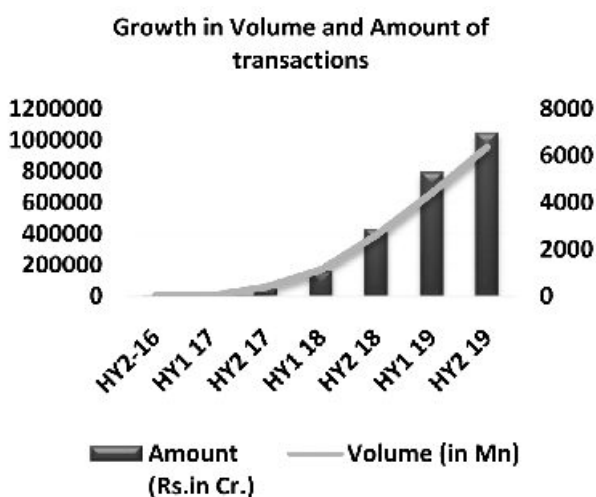
Source: <https://www.moneycontrol.com/news/technology/fintech-upi-gains-ground-razorpay-report-4937601.html>



As per 2019, the market leader for UPI was Google Pay at 59.75 per cent with more than 180 million downloads. It gained ₹8.117 billion worth of annual transactions. Google Pay has been accepted more than Flipkart owned PhonePe or Alibaba Group's backed Paytm.

Half Yearly	Volume (in Mn)	Amount ( ₹ in Cr.)
HY2-16	2.533	891.0
HY1 17	30.643	14025.6
HY2 17	385.906	42644.5
HY1 18	1127.213	160014.4
HY2 18	2619.11	425696.1
HY1 19	4416.35	791180.3
HY2 19	6371.19	1045457.9

**Table 1. Growth in Volume and Amount of transactions**  
Source: <https://www.npci.org.in/product-statistics/upi-product-statistics>



**Figure 8. Growth in Volume and Amount of transactions**  
Source: <https://www.npci.org.in/product-statistics/upi-product-statistics>

Increase in mobile users and interoperability have been the major reasons for such growth of UPI. The customer's dependence on the bank in which they have an account has reduced greatly. UPI has grown since its inception during the 3rd quarter of 2016,

including growth in volume and the number of transactions. The growth is so high that UPI has reached 148 banks in 2020, having 60 PSP operators from 21 banks at the time of initiation. The PSP application downloads have crossed 20 million. The value of transaction growth has been 82 per cent MoM and the total amount of transaction has reached ₹ 2,500 billion. The POS systems had not been able to penetrate the small businesses remotely and hence, UPI had an advantage over them. Generally, POS machines had to be configured with the infrastructure that supported the card. Now, with UPI, the vendors do not have to go through this as the mobile phone can be used for all the same services without much trouble. It has the potential to outweigh debit cards since it can be replaced by UPI.

## ANALYTICAL STUDY

The number of banks was considered as the independent variable 'x' and the volume of transactions in millions as the dependent variable 'y'.

The data used was the volume of transactions and the number of banks live on UPI from the NPCI website. The correlation coefficient between the two variables is 0.88, which is close to 1. So, the two variables are positively correlated, implying that an increase in the number of banks means an increase in the volume of transactions.

Regression Statistics	
Multiple R	0.8811156
R Square	0.7763646
Adjusted R Square	0.7709101
Standard Error	208.32453
Observations	43

**Table 2. Regression Statistics**  
Source: Authors' Compilation

As we already know, the correlation is close to 1 and thus, the two variables have a strong positive correlation. R Square helps in determining the proportion of variance of a dependent variable which is explained by the independent variable.

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	6177175.446	6177175.446	142.3341444	6.47E-15
Residual	41	1779363.584	43399.1118		
Total	42	7956539.03			

**Table 3. Anova Statistics**  
**Source: Authors' Compilation**

Here the total variance SS Total is divided into SS Regression and SS Residual.

$$SS \text{ Total} = SS \text{ Regression} + SS \text{ Residual}$$

SS Regression is the improvement in the predicted values which is found out using the differences between the predicted and the mean values.

**SS Residual** =  $(Y - Y_{\text{predicted}})^2$ , which is that portion of the variance that is difficult in predicting and hence, the variability above the predicted Y is being considered, as seen in the formula above.

**SS Total** =  $\sum (Y - \text{mean}Y)^2$ , which is the total variability around the mean.

MS is the mean square which is calculated as  $(SS/df)$ , where SS is the sum of squares and df is the degree of freedom. Now, the corresponding F value is calculated as  $(MS \text{ Reg} / MS \text{ Res})$  which is 142.334. The corresponding significance F value is 6.47E-15.

Null Hypothesis ( $H_0$ ): the independent variable does not predict the dependent variable with accuracy at 95 per cent confidence. The alternative hypothesis ( $H_1$ ) is that the independent variable predicts the dependent variable with accuracy at 95 per cent confidence.

	Intercept	X Variable 1
Coefficients	-404.8178657	8.663011937
Standard Error	75.25678416	0.726129975
t Stat	-5.379154453	11.93038744
P-value	3.29E-06	6.47E-15
Lower 95%	-556.8020246	7.196562702
Upper 95%	-252.8337068	10.12946117
Lower 95.0%	-556.8020246	7.196562702
Upper 95.0%	-252.8337068	10.12946117

**Table 4. Regression Output**  
**Source: Authors' Compilation**

Since significance value or P value is less than 0.05, it does not lie in the two-tailed curve and hence, we can reject the null hypothesis ( $H_0$ ) and conclude that the prediction is quite accurate. We can infer that the independent variable which is the number of banks can predict the dependent variable (no. of transactions) reliably.

## CONCLUSIONS

UPI has raised the scope for business in the nation, providing a platform for small businesses. The payment infrastructure in the nation was poor and the installation of POS machines at every shop was an expensive affair. However, with UPI, every bank account holder can use it to pay and every vendor can use it as a gateway where he can use the funds. It can also replace offline modes such as cash in some instances.

The use of the mobile phone as a payment device makes the process easy and user friendly. Using POS machines is another complication and the vendor needs to train himself or his staff, which leads to another issue. UPI can be called the most advanced model of transaction. It also removes the need to have an intermediary and thus, favours low cost. UPI has several benefits, which are as follows-

- Round the clock service
- One platform to access all accounts.
- Single click two - factor authentication
- An alternative to COD
- Push and pull payments

India is shifting towards digital modes with transactions reaching the peak during festive seasons. The quality of services that UPI provides is simply astonishing. It is a boon for everyone as it has made everything easy and created a new juncture for investments. In the future, the need for carrying cash would be negligible and everything would be taken care of by the device in our hands.

In the future, the open-ended UPI architecture must be worked upon to ensure zero tolerance towards fault. Cases for grievances will increase when the user base will increase. There should be a dispute resolution software (automated) to provide quick redressal.

This denotes a shift from the traditional methods to a digital presence. It has posed competition and pressure on the banks since they encompass a variety of financial transactions that happen. Customers are also getting more informed and are demanding more technology-driven methods. Therefore, banks will have to work harder than before in order to find a place in this new sector. In this study, inclusion has been made on the growth of UPI and how it has performed compared to other modes.

In the future, UPI should focus on including the conversion of currency and also allowing remittances

from outside the nation. This would increase the user base and make it a globally used platform. Here, we would like to conclude by saying that to sustain in this environment, banks will have to come up with more technology-driven and customer-centric options that favour the customer needs, as loyalty is going to be a huge question. All in all, UPI could be a great enabler for financial inclusion in the nation.

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Alchemising education with technology and forming a collaborative strategy to tread ahead while providing online lectures will also contribute to the creative learning of students.



# Impact of COVID-19 on Higher Education System in India

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## ABSTRACT

The emergence and outbreak of the COVID-19 novel Coronavirus has left the world reeling. The growth trajectory of major economic sectors has been blighted by the lockdowns imposed. In this context, the higher education system of India has also been severely affected, with institutions shut down, syllabi stranded and examinations withheld. India's higher education system is witnessing an astounding change in its system of operations since the past few months. With the adoption and implementation of online learning and organization of academic events via digital platforms, the higher education sector of India is steering forward with innovations and advancements in technology and thus, infusing a spirit of virtual study culture. The present article seeks to reflect on the impact of Coronavirus on the higher education system of India, and bring out the changes being adopted and implemented by India's higher education sector.

**KEYWORDS:** COVID-19 Novel Coronavirus; Higher Education; India; Digitalization of Education; Online Learning.

## INTRODUCTION

Education in India is continuously bolstering with each passing day. The student density in India, particularly in the landscape of higher education is quite stunning as witnessed by the ever expanding horizons of the higher education sector. The enrolment of a mammoth 37.4 million students in higher education on an annual basis bears a strong testimony to this fact. A report by the Ministry of Human Resource Development (MHRD) claims that

the Government of India conducted a survey on higher education and observed that there are 993 Universities, 39931 Colleges and 10725 Stand Alone Institutions listed on the portal of MHRD. The higher education sector in India was motoring until the emergence of novel Coronavirus kept its pace on check. The potential outbreak of the COVID-19 pandemic got the global economies reeling. With sectors like manufacturing, retailing, tourism, transportation, airlines, et al. uprooted, the education sector was also jolted severely. India's upsurge in COVID-19 cases of late and the ever increasing death tolls has been posing serious threats to the future of higher education in India and the life of students. The government decided to grant permission for adopting and implementing an online mode of teaching to colleges and universities to keep education afloat even during these challenging times. The educational reform in India during the COVID-19 era seems to be a live example of how need can serve as a driving force for inventions and innovations.

The online mode of learning has ensured that no student is deprived of their progress in studies, which is being traced with appropriate evaluation. It has served as a great experiment for India with its rich and diversified higher education system and brought a seismic shift to the virtual world, blending classrooms with online learning. Alchemising education with technology and forming a collaborative strategy to tread ahead while providing online lectures will also contribute to the creative learning of students. Furthermore, the AI-enabled learning provided by certain universities presently, while offering diverse courses associated with other collaborations is only making India envision a new and bright future based on educational reforms. A notable value addition in India's field of higher education has been the plethora of webinars being organized which is primarily focusing on the important sectors of the economy and the society of large to cope up with the challenges of the present scenario. A plethora of webinars have also been organized to create a general awareness about stress, something which has been percolating among most people at an alarming rate since the lockdowns have been imposed. Improving the emotional intelligence of students, coupled with the University Grant

Commission's guidelines of providing psychological support to students in these torrid times, they are bringing about a spectacular transformation in the higher education system of India.

## CHALLENGES OF DIGITALIZATION OF EDUCATION IN INDIA

According to a report by the United Nations Educational, Scientific and Cultural Organisation (UNESCO) in June, 2020, the progress of more than 320 million students in India has been impacted due to Covid-19. The pandemic has pushed the entire world and particularly a developing nation like India to devise ways of coping with the present uncanny scenarios. Drastic measures have been taken to keep the higher education sector in India upbeat as well as to keep the students mentally fresh and strong. But there are a few noticeable challenges that the Indian government currently faces while implementing education through digital platforms. Some of the challenges have been addressed below.

Albeit India has been adapting to new-age learning, there are still questions looming about the obstacles in the path of online education. The most gruelling challenge lies in the internet accessibility of Indian people, which is only 45 per cent out of the total population, presenting a major hindrance in e-learning. Most of the rural people are still deprived of the latest technological tools and advancements which blights the cause of online learning.

Another major challenge lies in the virtual classrooms which are not only dependent on e-lectures, but also need access to e-content, online study materials, practice sheets, et al. This is an important issue where we lag behind. Unfortunately, India is not fully equipped to make education reach all corners of the nation via digital platforms or online classrooms. It is a no-brainer that the underprivileged and unprivileged students will face a lot of pressure and might lag behind due to the current resort. Taking into consideration these shortcomings, the Indian government and the colleges and universities are relentlessly trying to come up with a solution.

## WHAT THE FUTURE BECKON IN THE CONTEXT OF HIGHER EDUCATION IN INDIA?

### • Online learning is surely here to stay

An immediate and effective response to cope up with the unprecedented crisis was to digitalize the system of education. Developing robust online platforms is imperative to ensure continuity in learning. Yet, with vast disparity in the socio-economic backgrounds of students and the quality of educational institutions in a developing country like India, the shift has not been easy. The digitalization of education has widened the gulf between people of high socio-economic background and people of low socio-economic background which requires immediate attention from both the players; public as well as the private sector. Good teachers, refreshed curricula and effective tools will ensure students stay involved and active in the learning process. Furthermore, the efficacy with which online learning and webinars have been conducted is a harbinger of the emergence of a new Indian education system which can make the most of it in times of exigencies. Digital learning is being seen as a mainstay of the higher education system and the post Covid-19 world could see a blend of e-learning and mainstream face-to-face teaching with a boost from traditional universities and the educational-technological sector.

### • Greater collaboration amongst students, academia and industry

Opportunities for the mobility of students and practical exposure through extracurricular activities like exchange programmes, internships, participation in conferences, and more could likely be off the shelf for some time. New innovative forms of collaboration and alternative paradigms are the need of the situation to drive learning, research and teaching. Dissemination of knowledge between institutions on a global basis through joint-teaching, virtual guest lectures, et al. could give students an enriched global perspective in these testing times.

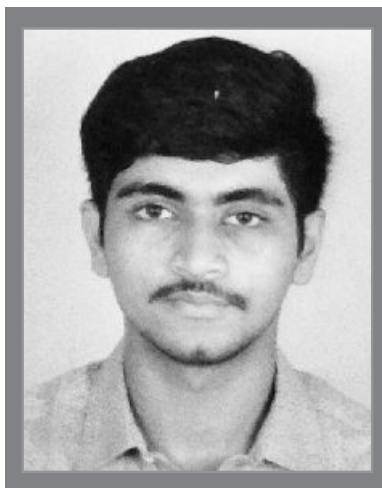
## CONCLUSION

The pandemic has not only claimed the lives of over 930,000 (as of September, 2020) people in the world

but also distorted economies of nations and India is no exception. Truth to be told, the world is heading towards a global recession and there are mercurial ramifications which have stemmed as a result of the emergence of the current pandemic. The domain of higher education in India has also been rattled, which has compelled the government of India to enforce the strategy of e-learning and communication through online or digital platforms. These unprecedented times call for stronger measures and the education industry has been stepping up to take necessary steps in this regard. The pandemic has been working as an antecedent for the higher education system of India to ameliorate itself and use online platforms and techniques. Though the current transition of the Indian higher education system from traditional modes of teaching to online teaching is still at a very nascent stage, yet, it cannot be denied that e-learning is proving its worth and stamping authority in the landscape of Indian education system. Surviving this boisterous crisis with a unique approach, and the digitalization of the education sector are the two key factors which will definitely get the Indian higher education sector through the storm and wash away the blues of the pandemic.

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“

It can be said that the electrification of vehicles in India will bring multifold benefits to the country, its economy, the ecosystem and the people.

”

# The Future of Electric Vehicles in India:

## A Study based in Kolkata

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### ABSTRACT

The Indian automotive industry is the fourth largest in the world with sales increasing at a rapid rate of 8.3 per cent year on year. With a population of more than 1.3 billion that comprises a large share of the middle class and young population, India has a huge potential of growth. But with the growing trend of moving towards cleaner transportation alternatives, the world auto sector has seen a rise of electric vehicles (EVs). With less operating costs, advancement in technology and an aim to reduce the carbon footprint, the production of electric vehicles has gained a significant pace all around the

world. In this study, we will ascertain the initiatives that the Indian government has taken so far to promote the electrification of vehicles. We will also try to find out the perception of the public in India regarding electric vehicles and the current Indian infrastructure.

**KEYWORDS:** Electric Vehicles (Evs), Internal Combustion Engine Vehicles (ICEVs), Hybrid Electric Vehicles (HEVs), Automotive Industry

## INTRODUCTION

Taking into consideration the fact that resources are scarce in nature and heavy reliance on the conventional sources of fuel has put the environment and the existence of humanity in danger, we need to move towards cleaner and renewable sources of energy. The transportation sector of the economy contributes more than 14 per cent of the emissions globally and this makes it necessary for mankind to reduce the carbon footprint while transporting men and material. As technology has advanced, cleaner modes of transportation in the form of EVs has emerged as a better alternative for ICEVs. The global trends have shown a rapid adoption of EVs all around the world. Following the trend, the Government of India has set a target of EVs making up 30 per cent of new sales of cars and two-wheelers by 2030, which is less than 1 per cent today. This makes it a tough challenge for the government as well as the manufacturers to meet the targets owing to the fact that the cost of EVs is still high as

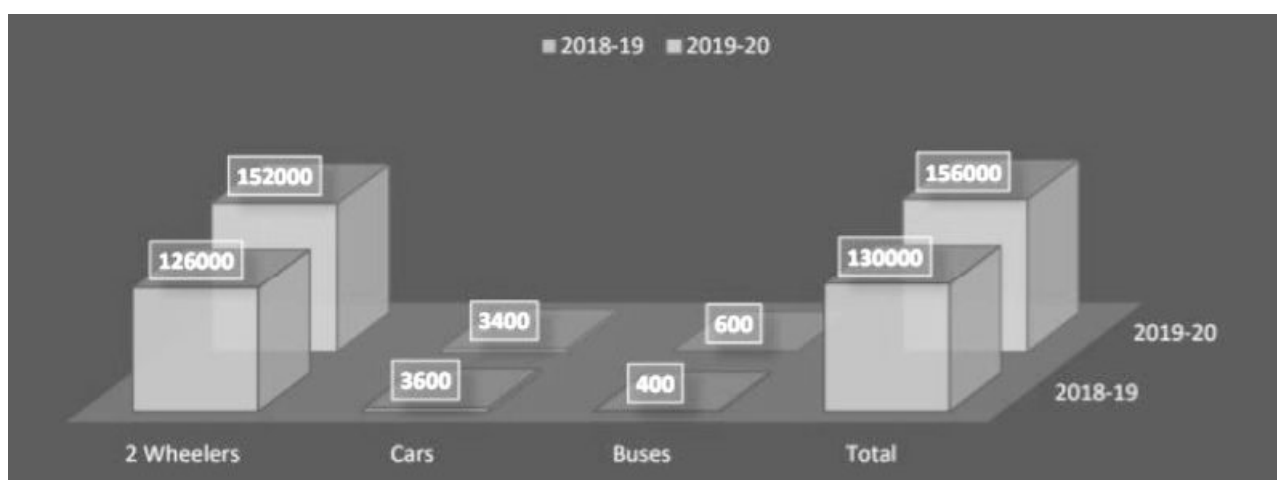
compared to the conventional vehicles and the charging infrastructure still acts as a huge barrier towards the accomplishment of this goal. This makes it necessary to find out the awareness among the people regarding EVs and government initiatives.

## OBJECTIVES OF THE STUDY

- To ascertain the initiatives taken by the Indian government to promote Electric Vehicles.
- To understand the perception and awareness of people regarding the Electric Vehicles in India.
- To know the viability of Electric Vehicles as compared to conventional vehicles in India.
- To find the reasons behind the stagnant growth of the Electric Vehicle market in India.

## LITERATURE REVIEW

- *Lee and Clark (2018)* highlighted that over the past six years, the battery costs have fallen significantly but the size of batteries have increased which has led to higher installation costs. Their economic analysis also suggested in terms of the charging infrastructure, that the Level 2 AC (Alternate Current) Residential Charging would be the best option for Electric Vehicles where vehicles can be left for charging overnight, but cautioned that DC



**FIGURE 1: Bar diagram showing the sales figure of EVs for the year 2018-19 and 2019-20:**  
Source of Data: Business Today



(Direct Current) Fast Charging (Levels 3-5) would need high monthly demand for break-even. This clearly raises uncertainty about whether the manufacturing companies, the government, or the third parties will install the DC fast charging infrastructure.

- *Notter D, Gauch M, Widmer R, Wager P, Stamp A, Zah R and Althaus H (2010)* analyzed whether the need for batteries is causing an overcompensation of the potential benefits of the higher efficiency of Battery Powered Electric Vehicles (BEVs) as compared to Internal Combustion Electric Cars (ICEVs). The study showed that the emissions caused by the e-mobility are far less as compared to that of the conventional mode. It was concluded that more than 85 per cent of the batteries were recycled in the European Union Legislation in the year 2006 and the figure was estimated to be 95 per cent for the year 2015. This led to 51 per cent savings in the natural resource that is used for making these batteries.
- *Saxena, Samveg, Gopal A. and Phadke A. (2013)* focused on the impact of Electric Vehicles on the already strained electricity grid of India. While the country is already suffering from the under productivity of electricity, the infusion of electric vehicles shall have an adverse impact on the electricity grid. For the city driving conditions, the average electrical consumption is 33Wh/km for a scooter, 84Wh/km for a low power four wheeler and 123Wh/km for a high power four wheeler. For the highway driving conditions, the average consumption was 133Wh/km for a low power four wheeler and 165 Wh/km for a high-power four wheeler.
- *Aasness and Odeck (2015)* found the reason for the tremendous rise in the purchase of electric vehicles in Norway in recent years. They focused on the incentives that boosted the purchase of Electric Vehicles and whether these incentives had an adverse impact on the economy. They came up with the conclusion that the spike in sales was because of multiple economic incentives that include the exemption of toll charges, exemptions in purchase duty and permission to use transit lanes. Ultimately, it was suggested not to use the Norwegian approach as it would incur a huge loss of toll revenues and will have a significant impact on the economy.
- *Shukla P, Pathak M., Dhar S. and Bhaskar K. (2014)* found that the electric two wheelers with low costs and limited driving range are suited for intra-city driving. The large-scale penetration of the Electric Vehicles will require both demand side incentives and better infrastructures. They also came up with the conclusion that in the Indian context, penetration of Electric Vehicles shall lead to increase in the demand of electricity but the demand will not require any capacity additions in the electric sector nor will it require any major reordering of the electricity supply. The research work also emphasizes on the role of the national government in setting up the investments, standards and regulations for the charging infrastructure required.
- *Tryti H. and Pareek G. (2018)* found that there is a huge scope for the international manufacturers to produce EVs and related components and sell them to the Indian market. The main reason being that the Indian EV market is potentially untapped and there hasn't been a huge initiative taken by the Indian manufacturers. As the targets set by the Indian government for the electrification of vehicles is very ambitious, moving in its direction requires big players to explore and penetrate the Indian automobile market, and thus, the scope is high for the international players. Owing to the fact that labour in India is considerably cheaper and the size of market is huge, setting up EV manufacturing units will be productive for companies.

## RESEARCH METHODOLOGY

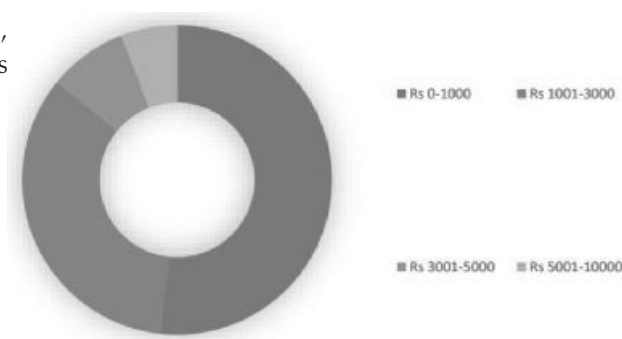
In order to find out the views of people about the future of EVs in India, a questionnaire consisting of 13 different questions was distributed at random to 85 people based in Kolkata. It included some questions to collect the demographics of the respondents, a few multiple-choice questions to check the awareness and preferences, and three questions consisting of a five-point Likert scale. The data collected from this research instrument was then computed for interpretation and to reach to a conclusion. Both analytical as well as descriptive methods of research are used for the

purpose. For collecting the secondary data, articles, journals, newspapers and government publications were referred.

## THE STUDY

### THE PROGRESS THROUGH THE YEARS OF PUSHING DEMAND AND SUPPLY OF EVs IN INDIA

(Based on Objective 1)



**FIGURE 2: Pie chart showing the monthly fuel expenditure of respondents on vehicle fuel.**

Source: Authors' Compilation

YEAR	INITIATIVES
2010	The government announced a package amounting to ₹ 950 million to promote the production of two-wheeled electric vehicles in India. It was announced that up to 20 per cent financial incentives will be given to the manufacturers of the vehicles for every unit sold by them.
2013	The government unveiled the 'National Electric Mobility Mission Plan 2020', to promote the EVs and HEVs in India. The target was set to achieve the sales figure of 6-7 million by the year 2020. The main aim of this plan was to achieve national fuel security. It was estimated that crude oil worth ₹ 620 billion would be saved by implementing this. The government also launched the FAME India Scheme (Faster Adoption and Manufacturing of (Hybrid) and Electric Vehicles). FAME focused on four major areas- technology development, demand creation, pilot projects and charging infrastructure.
2015	In order to boost up the production and sales of EVs in India, the government announced a sanction of ₹ 10 billion to be utilized in the following two financial years. Keeping in line with the targets set earlier, this investment was also to promote the technology development, increasing the demand for EVs, pilot projects and improving the charging infrastructure. It was estimated to reduce carbon emissions by 1.5 per cent by the year 2020.
2019	The government approved the second phase of the FAME (Faster Adoption of (Hybrid) and Electric Vehicles). A total outlay of ₹ 100 billion was given for this, which is to be utilized over a period of three years. A huge chunk, equivalent to 86 per cent of the funds has been allocated for increasing the demand for EVs. This time the focus was not only on the two-wheelers or the passenger cars but also on the buses. The phase aimed to create a demand of 7,000 e-buses, half a million e-rickshaws, 55,000 e-cars and a million e-two-wheelers. In the budget for the year 2019, it was proposed to give an income tax deduction of up to ₹ 1,50,000 on the interest paid on the loan taken to purchase the EVs. On July 25, 2019, in a GST Council meeting, it was proposed to reduce the Goods and Service Tax rate on EVs from the earlier 12 per cent to 5 per cent. It was also proposed to reduce the GST rate on chargers of Electric Vehicles from 18 per cent to 12 per cent.

**TABLE 1: Chart showing the government initiatives in promoting electric vehicles in India**

## DATA ANALYSIS

The responses from 85 respondents who constituted the sample population were recorded. A majority of the sample population comprised of people aged between 18 to 24. Out of all respondents, 49 per cent of them owned a private vehicle.

**Interpretation:** Figure 2 shows the monthly expenditure of the respondents on vehicle fuel. The pie chart clearly shows that 51 per cent of the respondents spend up to ₹ 1,000 monthly on vehicle fuel. A huge portion of 34 per cent of the people spend ₹ 1,001 to 3,000. 8 per cent of the respondents spend ₹ 3,001-

5,000 and 6 per cent spend ₹ 5001 to 10,000. These figures state that people spend a huge portion of their money on vehicle fuel. Shifting to EVs will not only reduce their average expenditure in fuel consumption but will also be eco-friendly.

D - Disagree

N - Neutral

A - Agree

SA - Strongly Agree

QUESTION	SD	D	N	A	SA	INTERPRETATION
In your opinion, will EVs replace the ICEVs in near future?	2	4	16	32	31	31 respondents Strongly Agree while 32 Agree with the statement. This shows that a majority of the sample population is optimistic about the future of EVs in the Indian markets.
Do you consider EVs to be more economical than the ICEVs?	3	3	20	22	37	A large portion of the sample population believes that the EVs are more economical than the ICEVs.
Is the current Indian infrastructure ready to shift from ICEVs to EVs?	11	30	32	10	2	While respondents are optimistic about the EVs, they are sceptical about the current infrastructure of the country and believe that India needs to develop its infrastructure before going for the big change.

TABLE 2

**Interpretation:** As Figure 3 suggests, more than 58 per cent of the people agree to shift to Electric Vehicles if given an option. 35 per cent of them may shift if other external factors are conducive for them and only 7 per cent of the respondents are pessimistic about the future of EVs and disagree to shift. This states that a majority of the respondents are optimistic about the EVs in India.

TABLE 2: Chart showing the responses on a five-point Likert scale on the respective questions.

KEY:

SD - Strongly Disagree

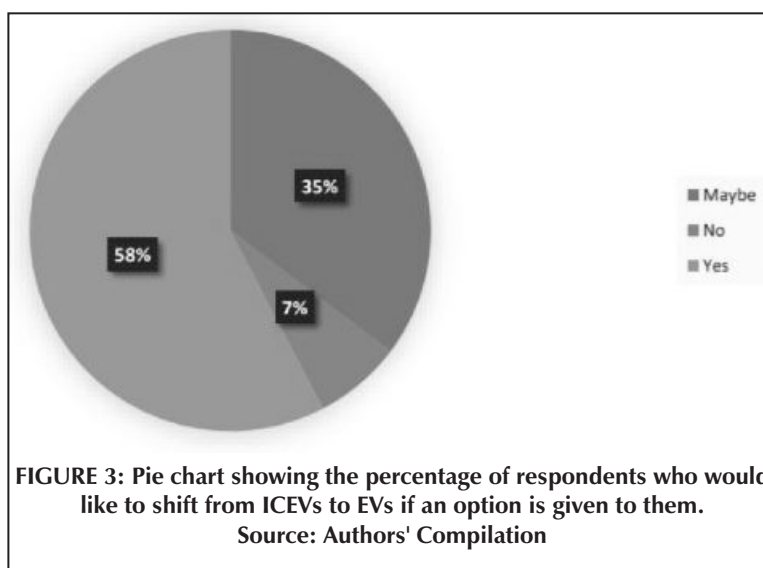




TABLE 3: Chart showing the responses on whether respondents have travelled in an e-rickshaw and whether they have travelled in an EV in India:

QUESTION	YES	NO	TOTAL
Have you ever travelled in an e-rickshaw?	73	12	85
Have you ever travelled in an Electric Vehicle in India?	57	28	85

TABLE 3

Source: Author's Compilation

**Interpretation:** The data shows that 73 respondents out of 85 have travelled in an e-rickshaw in India but only 57 agree that they have travelled in an EV in India. However, an e-rickshaw is also an Electric Vehicle, and thus, this shows a lack of awareness among the people in India.

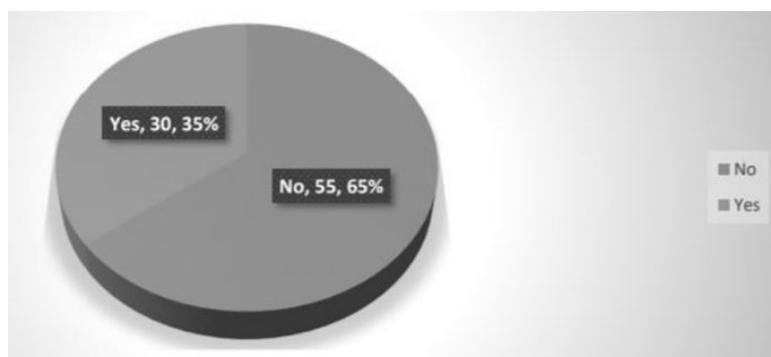


FIGURE 4: Pie chart showing data about whether the respondents were aware of the fact that India's fleet of e-rickshaws is the second largest in the world.

Source: Authors' Compilation

**Interpretation:** The responses state that 64.71 per cent of the respondents were not aware of the fact that India's fleet of e-rickshaws is the second largest in the world. While e-rickshaws have gained huge popularity in recent years in urban and semi-urban areas of the country, they also provide for a source of employment in India.

## MAJOR FINDINGS OF THE STUDY

The study showed that a majority of the respondents were of the opinion that EVs are more economical than conventional vehicles. It may be because of the per kilometre efficiency of EVs which is higher than that of conventional vehicles. A huge part of the sample population was ready to shift from their conventional vehicles to EVs if they were given an option. Continuous rise in fuel prices and the various subsidies given by the government on the purchase of EVs can be the major reasons influencing their choices. It was also evident from the study that many of the respondents were not aware of the fact that e-rickshaws are also EVs and that the Indian fleet of e-rickshaws is the second largest in the world after China. But the data from studies also shows that although e-rickshaws are found in huge numbers in India, the batteries used in majority of them are old Acid batteries which are less efficient than the Li-Ion batteries.

It is also found that despite various initiatives taken by the government, the results haven't been lucrative and the sales figures of electric commercial vehicles haven't taken a big leap. There are many more steps to be taken by the government in order to achieve its targets of electrification of vehicles.

## CONCLUSION AND RECOMMENDATIONS

The market of EVs in India is huge and carries in itself a huge potential. Owing to the factors such as cheap labour and easy availability of raw materials, the Indian automotive industry is yet to be penetrated. Unlike the global markets, Indians prefer budget vehicles at-large and the significant costs of EVs at this range are comparatively higher and as a result, this section is primarily untapped. The targets are very ambitious and require a lot of effort to be accomplished. Electrification would not only help to control the emissions, but it shall

also lead to a huge decrease in the dependency on other countries for crude oil. It can be said that the electrification of vehicles in India will bring multifold benefits to the country, its economy, the ecosystem and the people. However, we need to increase our speed in order to achieve this goal and ensure the sustainability of mankind.

In the end, the following are certain recommendations that can help India as a nation, to increase its velocity towards the electrification of its Automotive Industry:

**Public Awareness regarding EVs should be increased:**

Other than tax incentives and reduction of GST rates, the government should also focus on creating mass awareness among the people to purchase EVs, HEVs and PHEVs. The public in general should be made conscious of the increasing negative impacts of emissions from the ICEVs on the environment and ecosystem at large.

**More investments for the charging infrastructure should be made:**

Charging infrastructure plays a key role in the smooth movement of electric vehicles across an economy. More investments should be made on the installation of rapid charging stations at every corner of the country. It may be through a government and auto partnership model, through complete ownership by the government, or it might even be installed by third parties. It is also important to invest in rapid charging infrastructure because when compared to conventional vehicles, EVs take more time to recharge even with the fastest chargers.

**More emphasis should be put on promoting Hybrid Electric Vehicles and Plug-In Hybrid Electric Vehicles in the beginning:**

It is not easy for the people and the economy to adapt to EVs at once. The change should be progressive. Since HEVs and PHEVs work on both electricity and rechargeable batteries, it will be more convenient for the owners of such vehicles to commute to even remote areas that do not have proper charging infrastructure. It is not easy to create a sound charging infrastructure in a

country like India where one section of the society is suffering from poverty and unemployment. Hence, the transition from ICEVs to HEVs and PHEVs and then to BEVs will be more sustainable for India.

**Electrification of government vehicles should be done to set up an example:**

People in general have a perception of following what they see. Electrification of vehicles used by the administrators, ministers, prominent leaders, state bodies and bureaucrats will serve as a great example for people to follow. Electrification of government vehicles would lead to the establishment of charging infrastructure at large, production of EVs at large and ultimately, this will influence the automotive industry as a whole. This will not only promote a good cause but will also influence the people at a very large scale.

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The divergence between the public perception towards unicorn IPOs and the perception of VCs and underwriters is one of the main issues affecting the unicorn IPO market.



# The Unicorn Myth: A Trend Analysis of the Unicorn IPOs

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## ABSTRACT

Recent trends of the huge initial public offerings of companies, which were once unicorns, show us that the public market is getting cautious of these non-profitable start-ups. This study analyzes the unicorn IPO trend while discussing the negative signs surrounding its upward trajectory. The private equity firms which fund and value these firms very high, coupled with the overvaluation by underwriters, has led to numerous IPO failures, fallouts and post IPO stock plunge. The availability of huge private funding but no clear route to profitability has led to the unicorns having high valuations without the essential financial competence. The real challenge for these unicorns is when they go public, since recent trends point out that the public perception is unfavourable towards these cash-burning unicorns. This recent pessimism of the public investors can be seen clearly by the disastrous stock

performance of unicorns that went public in 2019. Thus, even though the trend rises, the unsuccessful IPOs of ex-unicorns may affect the plans of the unicorns looking to go public in the future.

**KEYWORDS:** Unicorns, Initial Public Offerings, Private Equity firms, Stock Performance, Trend Analysis.

## INTRODUCTION

Unicorns do not just represent mythical creatures anymore; they also represent privately held companies that are valued at over \$1 billion. These were named so to represent the scarcity of such companies; but they aren't quite as rare as the mythical creatures anymore with 465 unicorn companies existing as of 2020. Mobile applications from many technological unicorns have garnered great utility in today's world. These companies often operate in traditional markets, but their products have led to the market reshaping itself. Combining disruption in nature and innovation in business models, these unicorns sound like attractive investment opportunities. However, recent Initial Public Offerings (IPOs) of some of these unicorns would indicate otherwise. After companies like Uber and Lyft suffered a big jolt during their IPOs, and Pinterest also underperformed in comparison to the hype, it is becoming clear that public investors do not hold the same opinion as the private equity (PE) investors who are valuing these disrupters really high.

IPOs stand as a test for these unicorns as they get a clear picture of the public perception towards them. It's important to study the unicorn IPO activity to judge whether there really is a divergence between the opinion of public and private investors.

## LITERATURE REVIEW

A start-up can be defined as a venture to launch new products under uncertain market conditions (Eisenmann, Ries, and Dillard, 2010). The focus of a start-up should be on finding a repeatable and scalable business model (Blank, 2006).

The Silicon Valley has given birth to many start-ups that have changed the sector economically and

technologically. These are generally disruptive technologies which create an impact by aiming for cost reduction and changing the consumer behaviour (Bryzek, 2005). There is great importance of entrepreneurship, start-ups and venture capital in creating disruptive innovations, and Silicon Valley is regarded as the place where innovation and change begin to engage with the ecosystem (Srinivasan, 2014).

Ease of market entry post the dot com crash of 2000 and availability of digital platforms brought about a stream of start-ups in a wide range of sectors. This also led to an increase in the number of private funding sources that includes crowd-funding websites, angels, accelerators, micro-venture capitalists, traditional venture capitalists, and private equity (Kenney and Zysman, 2019). This has resulted in an increase in private firms called 'Unicorns'. The term unicorn was coined by venture capitalist Aileen Lee in 2013, and refers to a venture backed start-up that is valued more than \$1 billion (Massis, Frattini, and Quillico, 2016).

A start-up goes through various funding rounds by a venture capital (VC) before its IPO, and after each round, the start-up gets a valuation accordingly (Lowry, Michaely, and Volkova, Initial Public Offerings: A Synthesis of the Literature and Directions for Future Research, 2017). Proper valuation of a start-up is helpful for both the parties involved – the entrepreneur, as it sets a value to their efforts, and for the VC who can base their investment decision on it and thus, it aligns the outlook of both. Discounted cash flow method, earning multiple method and net asset method, et al. are some of the most commonly used methods to value a company; but they work under strict assumptions and require extensive financial data for forecasting, which is not possible for a new venture. This lack of information leads to variable valuations under the different methods and thus, the valuation of a start-up by a venture capital remains a 'guess' (Miloud, Aspelund, and Cabrol, 2012).

When a firm wants to carry out an Initial Public Offering (IPO), underwriters are chosen in the form of one or more investment banks who manage this issue by handling the due diligence process, pricing and distribution of the stock (Lowry, Michaely, and Volkova,

Initial Public Offerings: A Synthesis of the Literature and Directions for Future Research, 2017). Pricing and pre-IPO valuation can be done through the traditional methods with some tweaking in the assumptions.

The investment banks regard Discounted Cash Flow (DCF) models as inaccurate when valuing a firm for an IPO as the cash flows cannot be accurately forecasted. While using the comparable firms multiple with the help of accounting numbers is recommended, it also exhibits low usage in valuation if historical figures are used instead of forecasts. Investment banks incorporate various adjustments to growth, earning forecasts and assessment of market demand, which results in a more accurate pre-IPO valuation (Kim and Ritter, 1998).

A study on a dataset comprising of 228 reports of IPO firms on NYSE Euronext Paris points out that various underwriters use, not just one, but all the common valuation methods – comparable firms multiple, dividend discount models and DCF. It shows that the company's fair value is estimated using the various methods mentioned earlier and then a deliberate discount is applied before arriving to the final offer price of an IPO (also known as the IPO price) – which is the per-share value at which the underwriters offer the security to sale. The deliberate discounting showcases evidence of IPO underpricing (Roosenboom, 2012).

Underpricing of IPOs is a highly documented phenomenon where IPO stocks receive a pop on the first day of trading due to underwriters deliberately offering it at a lower value. Undervaluation or overvaluation alludes to evaluating IPOs underneath or above the fair value. In contrast, results from a study on more than 2000 large-capitalization IPOs from 1980 to 1997 point out that IPOs are generally overvalued and hence, shows the cause of the long run under performance of IPOs. Underwriters also incorporate aggressive marketing strategies which result in excess demand and thereby, raise the offer price (Purnanandam and Swaminathan, 2002).

A clear relation is noticed between the initial IPO return and the information known by underwriters during the IPO, as the underwriters do not fully incorporate all the data available to them when setting an offer price. This results in the IPO not being valued efficiently and often

causes companies with unclear values to have higher initial returns in the IPO (Lowry and Schwert, Is the IPO pricing process efficient?, 2004).

The underwriters evaluate the offer price by first setting an initial price range using the aforementioned models like DCF or comparable multiples and then incorporating the market demand by assessing the interest of institutional investors before coming to a final offer price. A study on post-IPO performance of stocks listed in Nuovo Mercato showcases that underwriters are overly positive when forecasting growth in the pre-IPO valuation. This attitude of over-optimism by underwriters may also contribute to overvaluation of offer prices during an IPO (Paleari and Vismara, 2007).

Underwriters often exaggerate the IPO valuation if they spot a 'positive momentum in investor sentiment'. Underwriters take advantage of the obvious informational asymmetry between the investors and themselves by overvaluing selective IPOs, thereby maximizing their own interest and also the clients' (Campbell, Du, Rhee, and Tang, 2008).

Start-up valuation by VCs, and IPO pricing of these start-ups by the underwriters have always been a problematic issue, and the evidence of the problems arising due to it is clearly visible as more unicorns are issuing IPOs where they face the final challenge of dealing with the public perception.

## RESEARCH GAP

The topic for the study has been chosen because start-ups have now become one of the most important game-changers in the entire business environment. With the current cut-throat competition in the business world for claiming the shred of space left for new business ideas, research needs to be carried out into which businesses are perceived well by the investors. It also throws light upon the trend of the unicorn companies and studying the facts affecting it.

## OBJECTIVES

Start-ups have a long and difficult route to reach the status of a unicorn. However, resting on the laurels of



being highly valued by the financial experts is not enough. The real litmus test of the assessed sustainability of a start-up is the public response to its attempts to raise public funding. To this end, the paper attempts to use trend analysis of the selected start-ups which have taken the route of public funding, and theorize about the probable reasons behind their success or failure depending on specific criteria. This will give the future start-ups looking to raise funds via IPOs, an insight about the challenges that face them and spread awareness about the actions they need to take to rise to the challenge of raising public financing.

number of IPOs and the total offering size over the years. Despite having almost the same number of IPOs in 2019, the combined offering has almost tripled from 2018, owing to the IPOs of Uber, Lyft and Pinterest, which are the three largest IPOs in the past five years.



**Figure 1: A YoY Comparison of IPOs issued by Unicorns**

*Source: CBInsights and Crunchbase*

## RESEARCH METHODOLOGY

Secondary data has widely been used in this study, which has been compiled from various websites. A trend analysis has been incorporated to analyze the growth and other features of unicorn IPOs over the years.

## ANALYSIS AND FINDINGS

### Unicorn IPOs Trend Analysis

The data was compiled to include all the unicorn companies that went public in the last five years to spot the trend. This compiled data excludes direct listing IPOs. Table 1 and Figure 1 showcase an increase in the

With 21 unicorn IPOs and a total offer size of approximately \$18.9 billion, 2019 has just reflected the upward trend of unicorn companies that are daring to go public. Almost one in all three unicorns have already gone public (Steinbach, Kelley, Choi, and Suzuki, 2019). This increasing trend can simply be a result of companies wanting more capital to fulfil its high growth prospects, but the public markets have not been as rewarding as the private market, and it is uncertain whether this trend would continue in the future. The following points justify the dark clouds surrounding the unicorn IPOs which might shake the rising trend:

### Massive Private Capital

Unicorns have been staying private for too long as PE firms continues to provide excessive capital. This overflow of capital with no emphasis on having a viable model to reach profitability has reduced their operational efficiency. IPO failures may continue to happen as these cash-burning companies

Year	Number of Unicorn IPOs	Total Offering Size (\$ million)
2015	7	2212.00
2016	5	694.00
2017	13	6011.30
2018	20	5735.30
2019	21	18937.00

**Table 1: Unicorn IPO records through five years**

*Source: Authors' Compilation*

try go public with hefty valuations but no real value to back them up.

### Divergence between public and private investors

For unicorns, a path to profitability is the path to a successful IPO, as public investors yearn for fundamental competence. Meanwhile, the valuation and decision making of a VC is based more on the entrepreneur, the business idea and the growth potential; for them, financial metrics and projections do not play an important role (Silva, 2004). The public market on the other hand, is not ready to provide non-profitable unicorns the space that it needs to reach sustainable growth while the VCs are still providing them with huge capital owing to their high growth. The IPO pops are fading away as public investors are scrutinizing the financial metrics more.

### Public Perception of existing and new unicorns

As discussed earlier, the public investors are growing wary of these unicorns and have started rebelling. A big example can be the failed IPO of WeWork. From being privately valued by SoftBank at \$47 billion in January 2019, to the IPO fall-out in September and ultimately being valued below \$5 billion in October, WeWork's fall was steep (Mohamed, 2019). The \$47 billion valuation was ridiculed and it shows how much the PE firms are overvaluing unicorns. WeWork's SEC filings put into light hefty losses and compromising corporate governance structures, which made the public investors suspicious and led to the fall out.

Figure 2 has been made by compiling data from the stock performance of 8 biggest IPOs of unicorn companies that went public before August 2019.

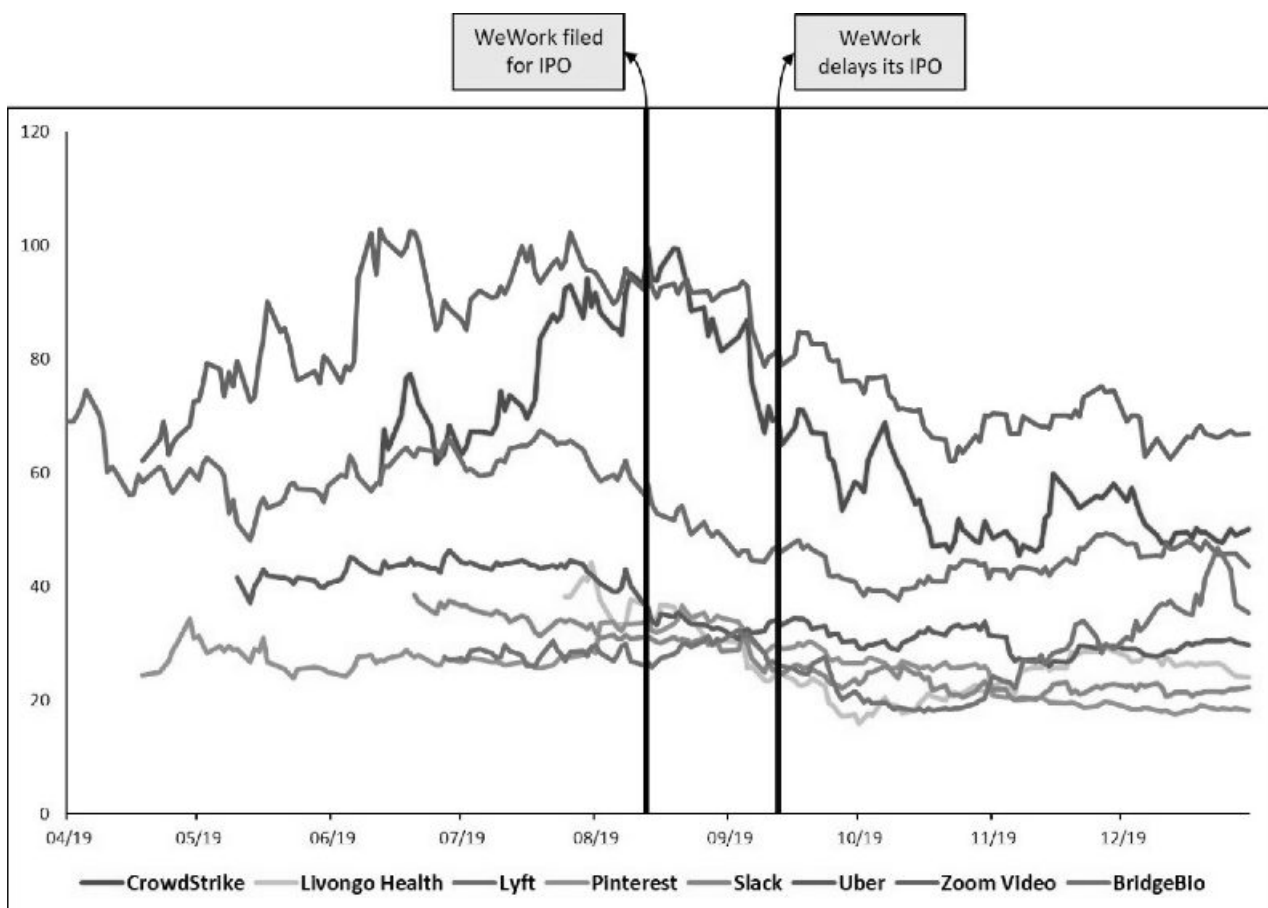


Figure 2: Performance of selected ex-unicorn stocks related with WeWork's failed IPO  
Data Collected from Yahoo Finance

As stated before, WeWork's IPO filing in August brought forward glaring red signals about the company, which made the whole market cautious against the pre-existing ex-unicorn stocks and also the future unicorn IPOs. In September, WeWork officially delayed its IPO. It is evident from Figure 2 that almost all the 2019 unicorn stocks suffered a blow due to WeWork's fall as it acted as a trigger point for the market to send all the non-profitable unicorns for a great fall.

Looking at the WeWork hiatus, many companies like Poshmark Inc., Palantir and Postmates also delayed their IPOs. Peloton Interactive Inc. suffered from double digits losses when it went public in September

2019 (Hytha, 2019). These IPO fall-outs and existing failures show that the trend may not continue.

### Performance of ex-unicorn stocks

The above stated public perception has led to hefty losses as unicorns have been consistently losing their market capitalization.

This paper identifies 21 unicorns that went public in 2019 and 22 including Slack Technologies Inc. which had a direct listing. Table 2 showcases the gain or loss in the market capitalization, and returns from their opening prices till 31st December, 2019.

**Change in Market Capitalization and Return of Unicorn IPOs of 2019**

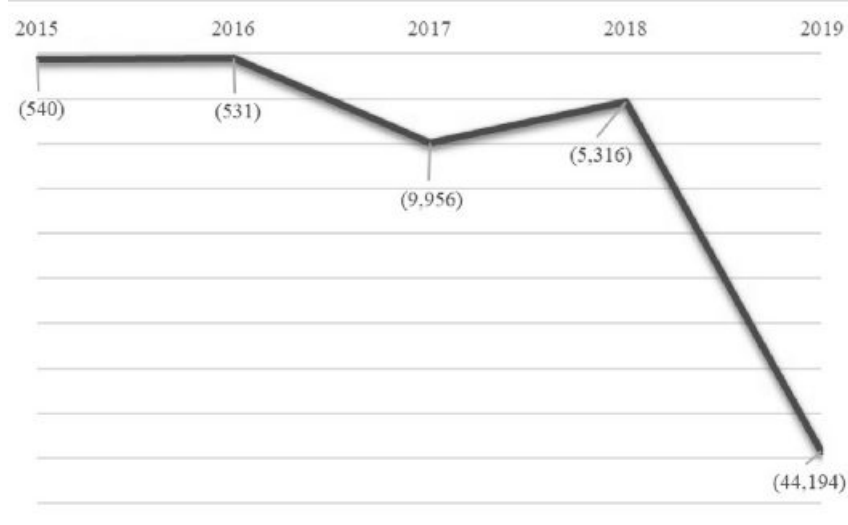
Company	Opening Price	Price as on 31.12.19	Return	Change in Market Capitalization (in \$ million)
Uber Technologies	42	29.74	-29%	(21,209.80)
Lyft	87.33	43.02	-51%	(13,017.83)
Pinterest	23.75	18.64	-22%	(2,038.53)
Peloton Interactive	27.17	28.4	5%	53.94
Zoom Video	65	68.04	5%	339.87
Datadog	40.35	37.78	-6%	(70.93)
CrowdStrike	63.5	49.87	-21%	(557.06)
Cloudflare	18	17.06	-5%	(82.55)
10x Genomics	54	76.25	41%	465.03
Livongo Health	40.51	25.06	-38%	(1,500.97)
BridgeBio	30.75	35.05	14%	531.39
Medallia	34	31.11	-9%	(370.87)
Adaptive Biotech	39.49	29.92	-24%	(1,198.55)
The RealReal	28	18.85	-33%	(785.71)
Beyond Meat	46	75.6	64%	1,830.76
PagerDuty	36.75	23.39	-36%	(1,031.79)
Bill.com	37.25	38.05	2%	57.86
Health Catalyst	37.37	34.7	-7%	(97.62)
Fastly	24.74	20.07	-19%	(333.44)
Alector	18.7	17.23	-8%	(116.12)
Slack	38.5	22.48	-42%	(4,667.59)
Vir Biotech	16.15	12.57	-22%	(393.08)
<b>Total</b>				<b>(44,193.59)</b>

**Table 2**  
Data collected from Yahoo Finance



Table 2 shows that \$44.19 billion was lost in market capitalization due to unicorn stocks. The majority of stocks, barring six, showcase negative returns. These losses and negative returns may result in a decline in companies wanting to go public with enough capital being provided by the PE firms.

The heavy loss of market capitalization is not a one-off event, as unicorns have been creating losses consistently for the last 5 years as seen in Figure 3. These losses are calculated the same way as stated earlier and includes the identified unicorns discussed in the beginning.



**Figure 3: Losses in Market Capitalization (in \$ million)**  
**Source: Yahoo Finance**

These points show a trend of new cynicism by the public investors towards the valuations presented by the venture capital firms. Even though the trend rises, the performance of these IPOs are going down which might affect the plans of future IPOs of unicorns.

## CONCLUSION AND RECOMMENDATIONS

After the IPO trend, it is evident that unicorns are on shaky ground and the upward rising trend is unstable. The unicorn IPO dynamics are changing as the public investors become wary.

Taking a look into the three biggest IPOs of 2019 can give us an idea about the current scenario. Lyft went public with a value higher than it had ever gotten

before. Its stock price rose for a while, riding on the hype, before plummeting to very low levels. Pinterest, learning from the mistakes of Lyft, priced its IPO below its private valuation, hoping for a positive start in the markets, and it succeeded in doing so as it did not seem overvalued compared to its fellow unicorns. Uber faced the worst of the market as by the time it went public, the investors had spotted the pattern of cash-burning unicorns going public with high private valuations but no real value to back them up. Uber came crashing down as it began trading below its IPO price.

These IPO failures can be attributed to two parties –

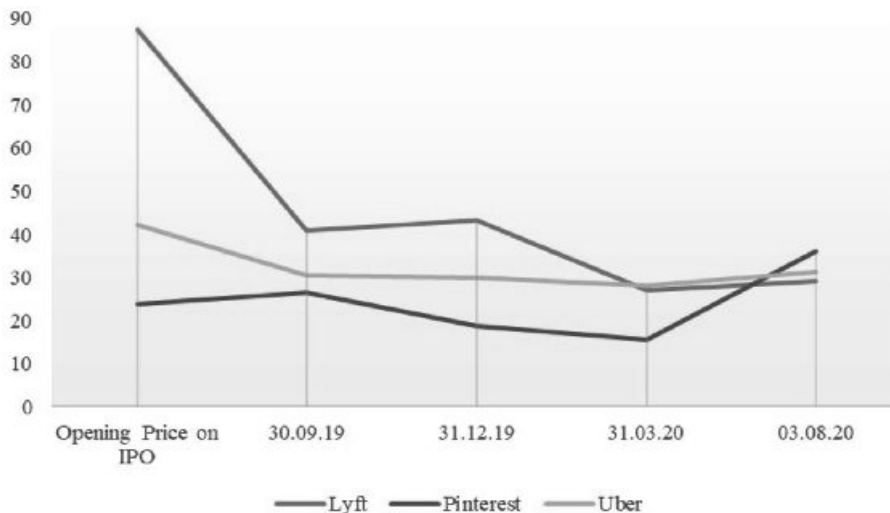
Private Equity firms and the IPO underwriters. It was clearly noticed in the study how PE firms are in a pattern of giving high valuations to unicorns in the form of repeated funding stages. Underwriters base their valuation of an offering price on the private valuation, without realizing that the value may not be mirrored in the public market. As discussed before, there is a clear divergence between the public and private market wherein the public investors are still looking for fundamental competence while the private market goes on rewarding robust business models and high growth.

This divergence causes a vicious cycle where a high privately valued company gets a huge IPO price, which the public investors are not ready to buy because they see no clear path to profitability. This results an IPO to be termed as a failure or even result in fall-outs like WeWork. The only way to solve this problem is to link the private funding rounds to the ability to earn profits. In other words, PE firms should reward those private companies who have a clear path to profitability and not firms aiming for unachievable growth.

## Future Scope

With the increasing external pressures like the political scenario and the global pandemic of 2020 where the whole global economy is suffering, these ex-unicorns

continually face increased pressure due to their internal profitability struggles and the negative impacts of their failed IPOs. Figure 4 showcases the stock performance of the three highest valued unicorn IPOs of 2019 – Uber, Lyft and Pinterest.



**Figure 4: Stock performance of Lyft, Pinterest and Uber at particular dates**

Source: Yahoo Finance

The divergence between the public perception towards unicorn IPOs and the perception of VCs and underwriters is one of the main issues affecting the unicorn IPO market. These points will keep affecting the future unicorns who will dare to enter the IPO market. The theoretical points discussed in this paper can be used to develop a mathematical model or be used in an empirical study to further enhance the knowledge in this area.

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The banking industry of the nation needs an upliftment. Opening a bank account and other necessary procedures should be made effortless and uncomplicated.



# UPI Payments in India – A Study on Public Awareness and Level of Adoption of UPI Mode of Payment with Special Reference to Kolkata City

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## ABSTRACT

The shift from a cash economy to a cashless economy started during 2016-2017 as a result of severe policy changes and encouragement by the Government of India. National Payments Corporation of India (NPCI) set out to create a new payment system called the Unified Payment Interface (UPI). It has shown great popularity and acceptance among the people.

Hence, this project studies the public awareness and the level of adoption of UPI in Kolkata. Random respondents from Kolkata have been selected to collect responses. The results from this report can be beneficial for the UPI service providers to know their customers and overcome their flaws.

**KEYWORDS:** Unified Payment Interface, UPI Merchants, Customer Preferences, Virtual Payment Address, UPI Availability and Adoptability.

## INTRODUCTION

Unified Payments Interface (UPI) is a digital payment system through which a user can both send and receive money through a Virtual Payment Address (VPA) and the money will be debited and credited respectively from the user's bank account. Virtual Payment Address (VPA) is a unique ID like an e-mail address provided to the user using the UPI service. With UPI, funds can be transferred without the requirement of a bank account number or an IFSC (Indian Financial System Code) code. Transfers are initiated with the VPA of the receiver. If one is having the VPA of the person to whom funds are to be transferred, then the transfer can be made.

UPI Merchant means a merchant established under the law who has an agreement with the Master Merchant to accept payment through UPI Services for the sale of products or services to its users. 'Merchant Account' means the bank account of the merchant for collecting fees, charges, and other levies.

## RESEARCH GAP

No research has been done regarding public awareness and the level of adoption of the UPI mode of payment in Central Kolkata. Moreover, this research is based on the perception of both the customer and the seller.

## OBJECTIVES

- To study the awareness and the adoption of the UPI system in customers by determining the percentage of youth section using UPI payment services (in Kolkata).
- To determine the percentage of shops with UPI payment availability (in Central Kolkata-Park Street area).
- To ascertain the most preferred UPI interface along with reasons.
- To ascertain the most available UPI payment option available at shops.
- To understand the significance of UPI in the purchasing decisions of the customers.

## RESEARCH METHODOLOGY

### Area of the Study

This research has been made in the City of Joy- Kolkata. The customers are residing in Kolkata. The study also reflects the shops under different categories, particularly of Central Kolkata, which have opted for providing the UPI payment facility. The exact locations are – Elliot Road, Park Street, Rafi Ahmed Kidwai Road, Ripon Street, Royd Street and Theatre Road. This paper is concentrating on the use of UPI payment services by the youth section (18-25 years) for making payments at various merchants while purchasing a product or a service. The youth has been focused upon in the paper because of the following reasons:

- They are the future of society.
- They adapt to changing technology more easily than any other section of society.

### Period of the Study

- The online survey was conducted on March 8th, 2020.
- The offline survey was conducted on March 18th, 2020.

### Research Design

In this research project, both analytical and descriptive research has been used.

### I. PRIMARY DATA:

- a) Questionnaires comprised of 15 questions for the customers and five for the shopkeepers.
- b) Sample Size: The total number of respondents are –

- 50 for customers
- 70 for shopkeepers

## II. SECONDARY DATA:

Internet and e-journals.

### Scale and Tools for Analysis

The Nominal Scale was used in the study to import the collected responses in Microsoft Excel. Cronbach's Alpha test was used to find the reliability of the data. The data is appropriate and is found to be reliable for testing the hypothesis. Independent t-test and frequency analysis was found to be the most appropriate statistical tool to find the answer for the research objectives. The following research hypothesis were framed as alternate hypothesis.

Hypothesis:

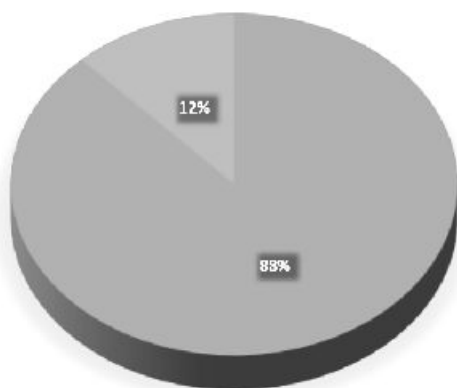
H1: There is a significant difference in the adoption of the UPI system among male and female customers.

H2: There is a significant difference in the adoption of the UPI system between the two age groups.

## ANALYSIS AND FINDINGS

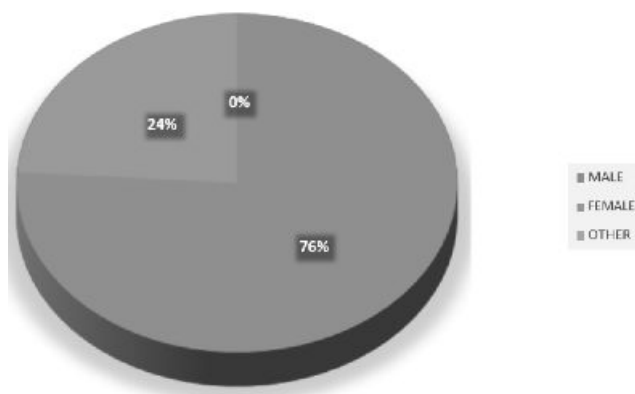
### Analysis

\*Chart 1 to Chart 13 contain responses from the customers



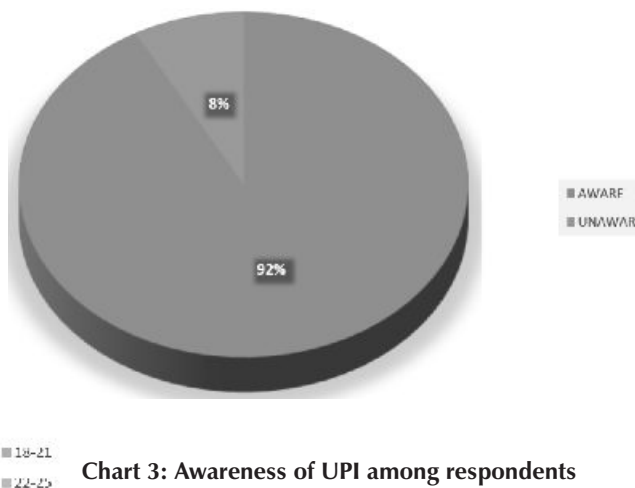
**Chart 1: Age group of the respondents**  
Source: Primary Data

INTERPRETATION – The above chart shows that there are 44 respondents of the age group 18-21 and six respondents belonging to the age group of 22-25.



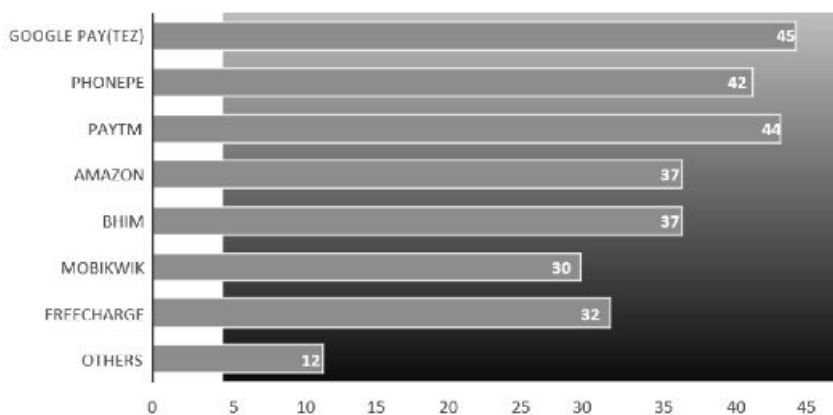
**Chart 2: Gender of the respondents**  
Source: Primary Data

INTERPRETATION – Chart 2 depicts that 76 per cent of the respondents are male, 24 per cent are female and 0 per cent are other. This data will help us further in the study.



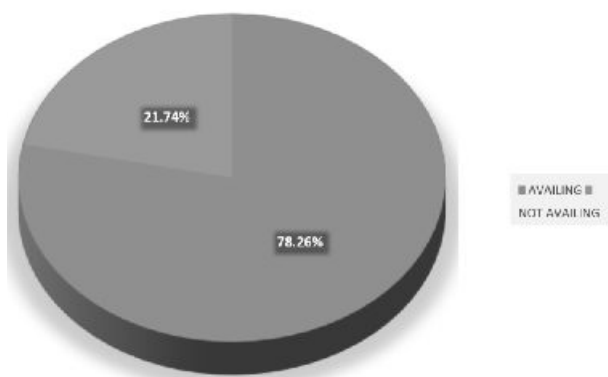
**Chart 3: Awareness of UPI among respondents**  
Source: Primary Data

INTERPRETATION – From chart 3 we can clearly understand that 92 per cent of the respondents are aware of the Unified Payments Interface. The fact about whether these 46 respondents are using or not using UPI services is a different scenario.



**Chart 4: Awareness of UPI Payment Apps**  
Source: Primary Data

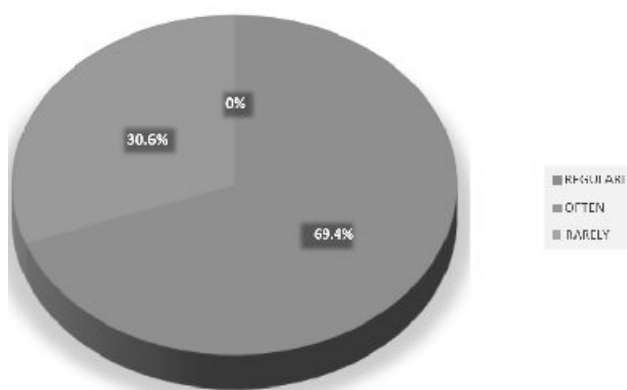
INTERPRETATION – Chart 4 shows the awareness of different apps providing UPI payment services in the respondents. Out of 46 respondents who are aware of UPI, 45 know about Google Pay, 42 about PhonePe, 44 about Paytm, 37 about Amazon, 37 about BHIM, 30 about Mobikwik, 32 about Freecharge and 12 respondents are even aware of other lesser known UPI payment apps. Out of the seven major apps, Google Pay is the most popular and Mobikwik is the least popular. Although BHIM was the first of its kind, it is only known to 80.4 per cent, i.e., 37 respondents out of the 46 respondents.



**Chart 5: Adoption of UPI Payments services**  
Source: Primary Data

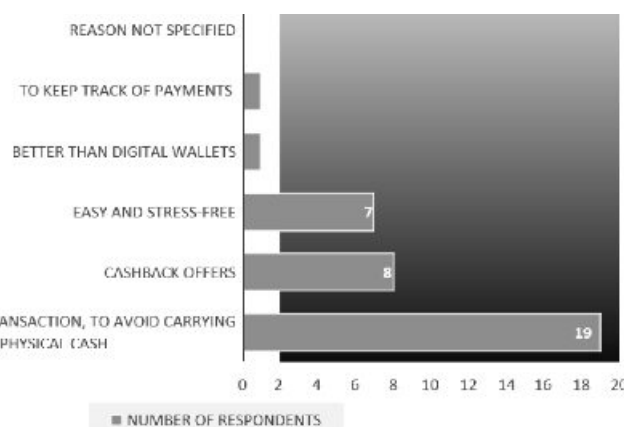
INTERPRETATION – Out of the 46 respondents who are aware of UPI, only 36 respondents are using it and the rest 10 respondents are not availing the UPI services. From this, we can calculate that out of the 50

respondents, 36 are using the UPI payment services i.e.  $[(36/50) * 100]$  equal to 72 per cent. Thus, 72 per cent of the youth population are using the UPI payment service.



**Chart 6: Frequency of availing UPI services**  
Source: Primary Data

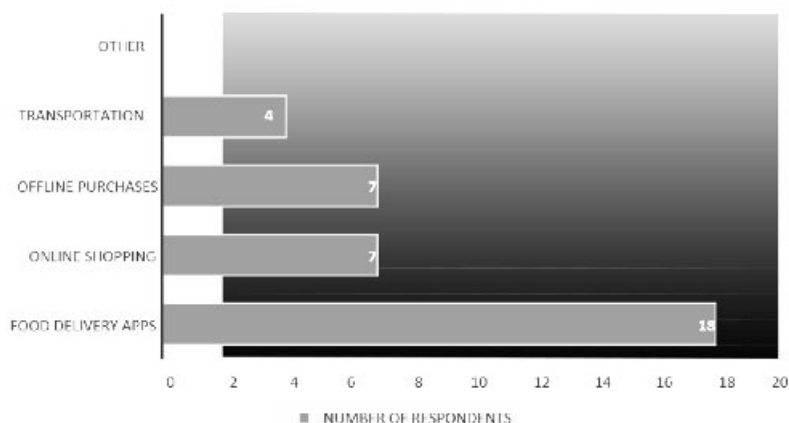
INTERPRETATION – It can be seen that out of the 36 respondents who are using the UPI services, 69.4 per cent are using it regularly and 30.6 per cent of the people use it quite often. None uses it rarely, i.e., very few times. So, the UPI service has a good frequency of usage.



**Chart 7: Main reason for availing UPI Payment service**  
Source: Primary Data



INTERPRETATION – Chart 7 shows the most important reasons as to why the 36 respondents are availing the UPI services. Majority of the respondents, constituting 52.8 per cent, use it to avoid cash transactions which is the main motto of our Prime Minister – to make India a cashless economy. 22.2 per cent use it because of the exciting cashback offers being offered by different platforms which will not last in the long run. Easy accessibility and stress-free reasons attract 19.4 per cent of those who use UPI services. 2.8 per cent use it mainly because it is better than digital wallets, and the other 2.8 per cent use it to keep track of their payments.



**Chart 9: UPI payment services availed in different platform**  
Source: Primary Data



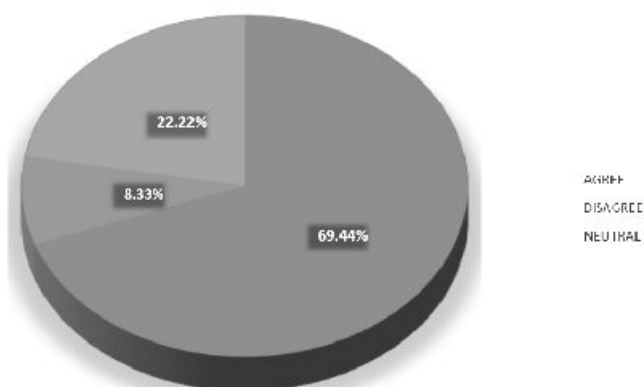
**Chart 8: Main reason for not availing UPI Payment services**  
Source: Primary Data

INTERPRETATION – The main reasons for not availing UPI payment services were collected from the 10 respondents who are aware of the UPI and are not availing the UPI services or using it. The data presented in chart 8 shows that 50 per cent of the respondents who fall under this category do not use UPI because they prefer doing payments with cash and card. This contradicts the idea of turning India into a cashless economy.

20 per cent do not use it because of security issues and the other 20 per cent because of other reasons which were not mentioned in the survey. Although it is good to ascertain that no one finds it complex and hard to understand UPI accessibility, credit goes to the developers for developing such an easy and convenient payment system.

INTERPRETATION – Chart 9 comprises the data of the various payment platforms where the 36 respondents availing UPI services use it the most. 50 per cent of respondents using UPI services use it on the food delivery apps like Zomato, Swiggy, Behrouz, et al. The users availing it mostly while making payments during online shopping and offline purchases constitute 19.44 per cent (Approx.) in each case. The rest 11.12 per cent (Approx.) use UPI mostly on transportation applications while booking a vehicle.

The 36 respondents using UPI services were asked for their opinion on the statement that the availability of the UPI payment option determines a customer's buying preferences. The idea of asking this question is to understand the significance of the availability of UPI in their buying decisions. The result of the study is provided in Chart 10 –

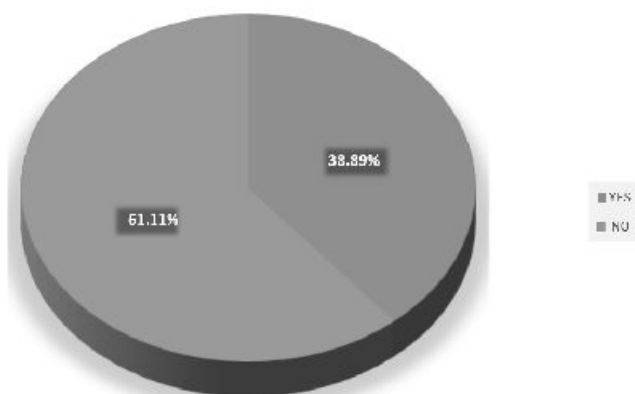


**Chart 10: Opinion on the statement - The availability of the UPI payment option determines a customer's buying preferences**

*Source: Primary Data*

INTERPRETATION – Out of the 36 respondents, 25 agree to the statement. Approx. 69.45 per cent of respondents agree that UPI availability affects their buying preferences. For further simplification, they would like to buy from a store having a UPI Payment option rather than a store that lacks in providing this service. The other 8.33 per cent disagree with the statement, meaning the availability or unavailability of the UPI option doesn't affect their buying decision. 22.22 per cent of the respondents lie neutrally on the statement as they couldn't narrow down to the point whether to support or undermine the statement.

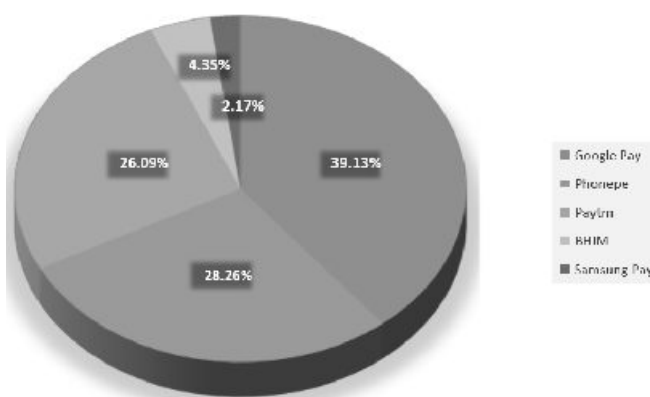
Would you continue using UPI services if you have to pay a minimal charge (in paisa) for each transaction you make? This is another question that was asked to the 36 respondents who use UPI. Their replies are provided below-



**Chart 11: Would respondents continue using UPI services if they have to pay a minimal charge (in paisa) for each transaction they make?**

*Source: Primary Data*

INTERPRETATION – The majority, i.e., 61.11 per cent of the respondents say that they will stop using UPI services if they have to pay charges for the transactions they make. However, many of them must not be knowing that some banks have started charging for UPI payments from a year before. Only 38.89 per cent agree to continue using UPI services even if they have to pay a charge for the same. These are the real contributors to the 'Digital India' campaign who would continue to use UPI services in the long run and add to the cashless economy.



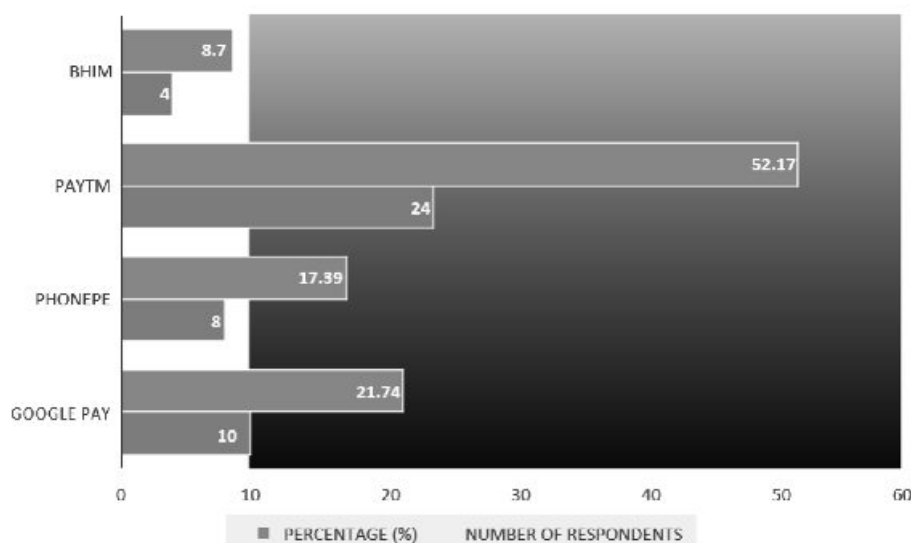
**Chart 12: Most suitable/preferred UPI interface**

*Source: Primary Data*

INTERPRETATION – From Chart 12 we can acknowledge that Google Pay has the most suitable UPI Interface. 39.13 per cent of the 46 respondents who are aware of UPI find Google Pay most suitable. The reasons for the suitability are provided below:

- Better security measures
- Safest
- Direct bank transactions, do not have an e-wallet
- Simple and easy interface
- User-friendly interface
- Easy to access, convenient
- Used everywhere





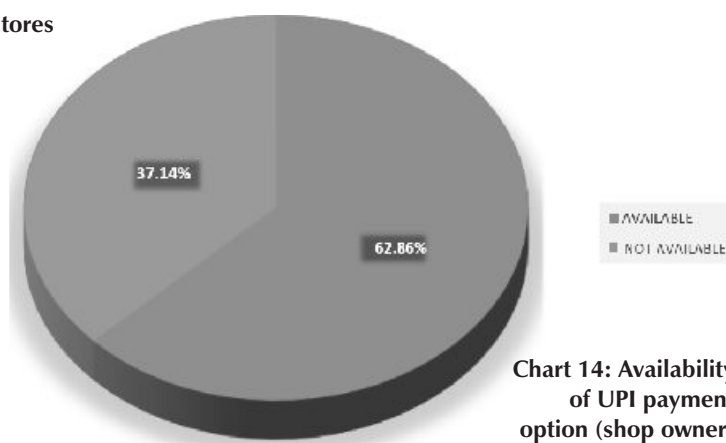
**INTERPRETATION** – The data presented in Chart 13 has been collected from the 46 customer respondents who are aware of UPI. Paytm, with 52.17 per cent votes, is the UPI payment interface which they have noticed the most at the stores followed by Google Pay with 21.74 per cent votes.

\*Chart 14 and 15 contain responses from the shop owners

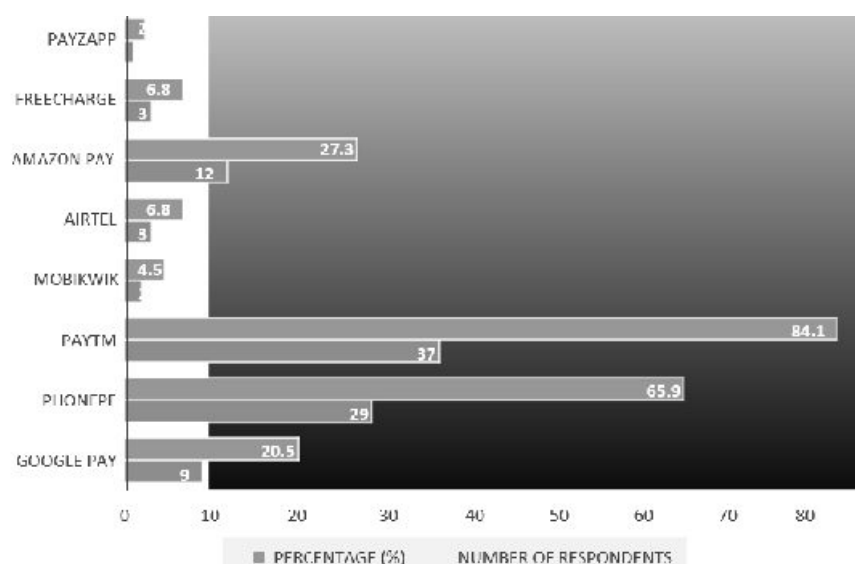
**Chart 13: The most available UPI interface at the stores (from the customer's perspective)**

*Source: Primary Data*

**INTERPRETATION** – Out of the 70 shop owners, 44 have the UPI payment option available at their stores. 62.86 per cent of shopkeepers are UPI Merchants. The rest 37.14 per cent of the shopkeepers do not have the UPI option available for their customers.



**Chart 14: Availability of UPI payment option (shop owner)**  
*Source: Primary Data*



**Chart 15: Available UPI interface at the stores (from the seller's perspective)**  
*Source: Primary Data*

**INTERPRETATION** – The responses have been collected from 44 UPI Merchants. It is easily noticed that 37 out of 44 shopkeepers have the payment option of Paytm available. Thus, 84.1 per cent of the UPI Merchants are Paytm Merchants.

### Hypothesis Testing – I

This hypothesis has been conducted based on the responses of 50 respondents (consumer) for two questions-

- Gender – Male, Female, Other

- Do you use UPI payments in day to day transactions? – Yes, No

Moreover, as yes or no is non-numeric data and hypothesis cannot be conducted without numeric data, it is converted to numeric data by replacing 'Yes' with 1 and 'No' with 0. As there was no respondent from the 'Other' category, only Male and Female categories were considered.

H0: There is no significant difference in the adoption of the UPI system among male and female customers.

H1: There is a significant difference in the adoption of the UPI system among male and female customers.

**If the t Stat value is larger than the t Critical two - tail value, we reject H1.**

	<i>Male</i>	<i>Female</i>
Mean	0.710526	0.75
Variance	0.211238	0.204545
Observations	38	12
Hypothesized Mean Difference	0	
Df	19	
t Stat	-0.26255	
P(T<=t) one-tail	0.397862	
t Critical one-tail	1.729133	
P(T<=t) two-tail	0.795723	
t Critical two-tail	2.093024	

**Table 1: t-Test: Two-Sample Assuming Unequal Variances**  
*Source: Primary Data*

INTERPRETATION – As  $-0.26255 < 2.093024$ , we fail to reject the null hypothesis H0. Thus, the adoption of the UPI system among male and female customers is the same.

## Hypothesis Testing – II

This hypothesis has been conducted based on the responses of the 50 respondents (consumer) for two questions-

- Age – 18-21, 22-25
- Do you use UPI payments in day to day transactions? – Yes, No

'Yes' is replaced with 1 and 'No' with 0.

H0: There is no significant difference in the adoption of the UPI system between the two age groups.

H2: There is a significant difference in the adoption of the UPI system between the two age groups.

**If the t Stat value is larger than the t Critical two - tail value, we reject H0.**

	<i>18-21</i>	<i>22-25</i>
Mean	0.727273	0.666667
Variance	0.20296	0.266667
Observations	44	6
Hypothesized Mean Difference	0	
Df	6	
t Stat	0.273631	
P(T<=t) one-tail	0.396772	
t Critical one-tail	1.94318	
P(T<=t) two-tail	0.793544	
t Critical two-tail	2.446912	

**Table 2: t-Test: Two-Sample Assuming Unequal Variances**  
*Source: Primary Data*

INTERPRETATION – As  $0.273631 < 2.446912$ , we accept the null hypothesis H0. Thus, there is no significant difference in the adoption of the UPI system between the two age groups.

## FINDINGS

The discussion for analyzing awareness and adoption of UPI services among respondents is as under-

The data is based on the responses of 50 respondents (customers):

- 92 per cent of the respondents are aware of the Unified Payments Interface.
- 90 per cent of the respondents are aware of the Google Pay Application. It is the most popular UPI Application.
- 72 per cent of the youth population are availing UPI payment services.

- d) 38 per cent of the respondents use UPI to avoid cash transactions.
- e) 10 per cent of the respondents prefer cash and card payments over UPI.
- f) UPI payments are mostly made in food delivery applications.
- g) 50 per cent of the respondents believe that the availability of UPI determines their buying preferences.
- h) Only 28 per cent of the respondents will continue using UPI services in exchange for a fee or charge.
- i) Google Pay has the most preferred UPI Interface.
- j) Paytm is the most available UPI payment option at stores.

The data is based on the responses of 70 respondents (shop owners):

- k) 62.86 per cent of shops have UPI payment options available.

The results of Hypothesis testing are as under:

- l) The adoption of the UPI system among male and female customers is the same.
- m) There is no significant difference in the adoption of the UPI system between the two age groups.

## RECOMMENDATIONS

Even though everything is on the favourable side and UPI users are increasing every few minutes, some measures need to be taken for rapid growth towards the cashless economy. These are some recommendations based on the research:

- Marketing and promotional techniques need to be improvised and awareness about UPI should be spread on a large scale.
- The banking industry of the nation needs an upliftment. Opening a bank account and other necessary procedures should be made effortless and uncomplicated.
- Better authentication and security measures to be implemented for e-payments.
- Charges on UPI transactions to be made as low as possible as it bothers a lot of users.

- Make customer service a priority, providing quick solutions and easy access to the customer support team.

## CONCLUSION

UPI has developed mobile-payment technology by enabling the use of smart phones as the main device for payments. UPI is the most advanced payment system in the world. The people of Kolkata have adapted to the changing technology and are using UPI in their daily transactions. Both males and females have the same level of adoption. Shop owners understand the need for upgrading with the technological environment and trying to cope up with the situation. Google Pay has gained popularity because of its rewarding strategy and has become the most preferred UPI interface. However, it has not been able to compete with Paytm when it comes to grabbing a merchant's attention. Most UPI Merchants are Paytm Merchants. Some buyers prefer buying from the shops having the UPI payment option available. It influences their purchasing decisions. A lot of the users would not like to continue using UPI services in exchange for a charge. The youth is in the path of making India a cashless economy by supporting the narrative of our Prime Minister. UPI is the best payment option available to date, but it needs continuous improvement for better performance.

## REFERENCES

The referred links are provided below:

Literature Review articles

[https://www.researchgate.net/publication/320661583\\_Unified\\_Payment\\_Interface-An\\_Advancement\\_in\\_Payment\\_Systems](https://www.researchgate.net/publication/320661583_Unified_Payment_Interface-An_Advancement_in_Payment_Systems)

<https://www.ijsr.net/archive/v8i4/ART20197212.pdf>

<http://ijream.org/papers/IJREAMV04I0743161.pdf>

[https://www.researchgate.net/publication/324664085\\_Digital\\_Payment\\_and\\_Its\\_Discontents\\_Street\\_Shops\\_and\\_the\\_Indian\\_Government's\\_Push\\_for\\_Cashless\\_Transactions](https://www.researchgate.net/publication/324664085_Digital_Payment_and_Its_Discontents_Street_Shops_and_the_Indian_Government's_Push_for_Cashless_Transactions)

Websites

<https://www.kotak.com/en/digital-banking/ways-to-bank/bhim-upi/charges.html>

[https://www.wyzant.com/resources/answers/421425/what\\_hypothesis\\_test\\_to\\_use\\_with\\_non\\_numeric\\_data](https://www.wyzant.com/resources/answers/421425/what_hypothesis_test_to_use_with_non_numeric_data)



“

The findings contribute to the nascent research on dark sides of gamification in that they show that experiences in social comparison during gamified service usage can trigger information disclosure through the loss of personal-consciousness.

”

# Gamification: Dark Side and AIDA Model Analysis

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## ABSTRACT

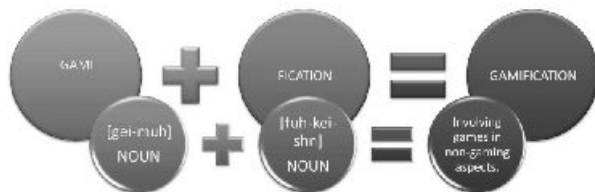
In today's competitive world, no business can sustain without upgradation in terms of technology and gamification is the need of the hour. This paper explores how a business can push gamification into the mainstream. Also, this paper will deal with the dark side of gamification which needs to be drilled into the mind of the gamified service providers for sustainable gamification (and not a disastrous one). Most of the research has established the bright side effects of gamified service use but neglected the potential dark side consequences. As users engage with gamified apps, they might get so involved that they more likely share private information with firms,

threatening their own personal information privacy. Against this background, the present paper links motivational experiences of gamified services to information disclosure and shows that if a gamified service conveys experiences of social comparison, it can indeed lead to increased information disclosure.

**KEYWORDS:** Gamification, AIDA model, Information Disclosure, Loss of Personal Consciousness, Dark Side of Gamification.

## INTRODUCTION

Gamification is a technology-driven process of enhancing the quality of services with motivational affordances in order to invoke graceful psychological experiences as games that further behavioural outcomes (Hamari, Koivisto and Sarsa, 2014). Gamification involves the use of gaming components to the non-gamified aspects. Until 2008, barely anyone knew about gamification. However, the term itself suggests its meaning as depicted in Figure 1.



**Figure 1: Gamification Etymology**  
Source: Author's Compilation, 2020

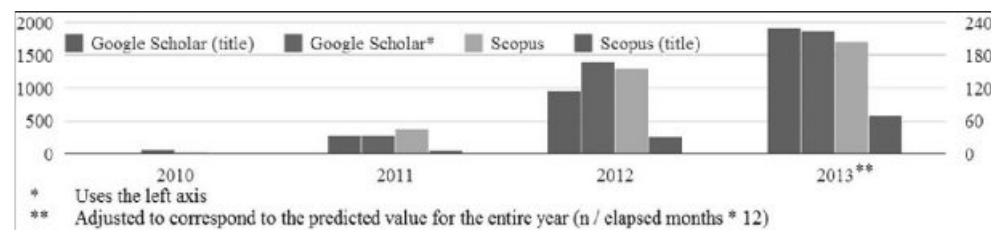
Gamification is a buzz term in businesses these days. Much hype has been given to this topic as an apparatus to help and support user engagement and for sustained growth of a business (as shown in Figure 2). The question arises whether this is just the modern ballyhoo, or a significant orientation worth our attention, or a little

of both. Significantly, one should focus on the obstacles or hindrances that gamification holds for a business.

Notwithstanding the astronomical volume of strikes on the term 'Gamification', there is an insufficiency of articulate apprehension on what type of studies have been performed, the methods employed, the types of results and outcomes, and under which circumstances were they performed. Volpp and Patel (2019) highlighted case studies of the companies that gamified their portals which led to remarkable improvements on health due to two properties of a gamified platform – the engagement and motivation that it provides to its user. A study by Dicheva, Dichev, Agre and Angelova (2013), presents the emerging trend of gamified platforms in the educational field which includes the gaming aspects such as game mechanics, design principles and the context of applying gamification, the application and the evaluation. Kevin and Dan (2012) show the six-step framework for using marketing, enhancement, innovation, productivity, customer engagement, employee motivation, et al. Hughes, Michael, Lacy and Jeff (2016) distinguish gamification from games; gamification just incorporates game elements from games to improve engagement in the non-game areas and activities. Sezgin and Sezan (2020) personalized games for educational processes. Palmer and Lunceford (2012) emphasize on the four tools of gamification – interface and user experience, feedback and reward, social connection and progress paths.

Visualizing whether gamification is efficacious is also a pragmatic problem. Mc. Farlane (2016) states that games are engaging but not necessarily in a righteous way. The paper suggests that the module should not be strictly gamified but rather it can be made as an alternative, i.e., it should be left at the option of the user. Stephenson (2011) suggests that games connect the

user with threats, blackmail and other kinds of manipulation that impacts the behaviour of the user that can be really dangerous as it controls the human brain.



**Figure 2: Search hits for "gamification"**  
Source: 47th Hawaii International Conference on System Science

To the mark, there is a lack of studies establishing gamification in the AIDA model specifically. However, the topic is indeed relevant and important for discussion. Organizations need to understand the user drawbacks in the gamified world in order to successfully retract the barriers to the gamified platforms. Hence, the objective of the paper is to show the effectiveness of gamification in the AIDA model of marketing, aiming to prove the increased application of gamification in marketing models for driving people into being customers and validating its growth. Also, it is important for the organizations to know the resistance faced by its customers from using the gamified platforms which makes the use of gamification unsuccessful. So, this paper also focuses on the organization's awareness of the dark side of gamification faced by the users.

which develops interest in the mind of the target customers and the product appears to be useful. It can influence the buying decisions by assigning different game elements. Now the question over here is – why use games?

Gaming elements have a connection power and the game mechanics are very captivating. Games keep the users intact and engaged. It gives them a feeling of achievement as if they have earned something and were not merely given something for free for marketing purpose (Figure 3).



Figure: 3. Why use games? Source: Author's compilation

## RESEARCH METHODOLOGY AND CONCEPTUAL FRAMEWORK

A volunteer based sample was obtained using Google Forms circulated via social media to analyze the AIDA Model of marketing with gamification. Another survey using an Instagram poll and Ask me anything feature was performed and responses were recorded in the SPSS (Statistics 21). SEM was used for analysis. A flow theory was built to understand whether the engrossment with a gamified service impacts information disclosure. This paper covers two avenues:

- I. Gamification in the AIDA Model
- II. Dark Side of Gamification

### I. GAMIFICATION IN AIDA MODEL

AIDA model is a marketing model which depicts the buying process of a consumer. Gamification devises marketing techniques using games

With the intention to escalate user-engagement and apprentice, various organizations are adopting gamification techniques and methods which hand over to the users, stimulus to react in the manner desired by the organization. Gamification is the application of game modules to involve, retain users, unravel complex business obstacles and setbacks, and inject newness and creativeness into the boring and mundane chores. There are various instruments through which the organizations create impact such as points, achievement badges, level up, boosters, missions, virtual currency and achiever-boards. It can aid organizations to enhance sales, hike customer loyalty, appreciate user engagement, escalate employee empowerment, to build collaboration, cooperation and modify business performance in a positive manner (Figure 4).



Figure 4. AIDA-Gamification Alliance Source: Author's compilation

## II. DARK SIDE OF GAMIFICATION

Findings on negative behavioural outcomes of gamification are scarce. Koivisto and Hamari (2014) suggest that this imbalance might be a biased result of researchers focusing on behavioural outcomes that are directly related to the task that users engage in. In particular, while being highly concentrated and experiencing enjoyment, users might drop their guard

and engage in risky behaviours that are unrelated to the focal activity. In this research, investigation has been done on whether gamification can lead to behaviour that threatens a user's personal information privacy (Figure 5).

This study broaches the dark sides of gamification as it investigates whether engaging with gamified services lead to escalated information disclosure.



Figure 5. Dark-Side of Gamification, Source: Author's compilation

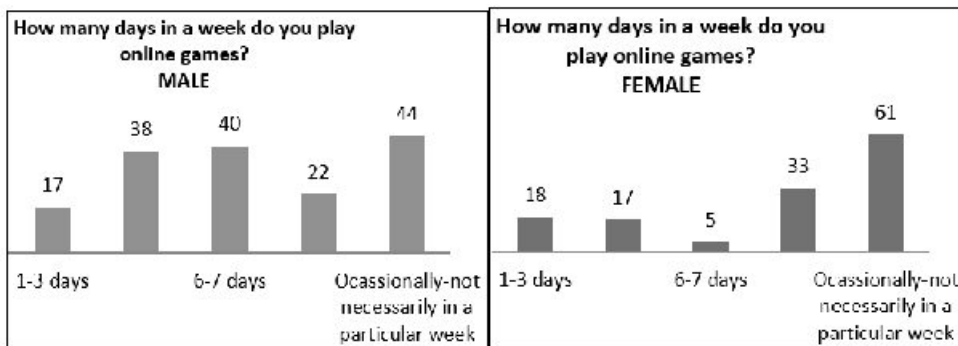


Figure 6a and 6b: Gender-wise graphical representation of responses; Source: Primary Survey, 2020

Engagement of people in gamified service apps (apps like step set go, et al.) is more than that of non-gamified ones. One can observe that people want some game experiences in their daily tasks (here, while reading news). Young generations are engaged in the use of gamified applications in their academics also. Games are more popular among males than females (refer Figure 6a and Figure 6b).

## DATA ANALYSIS AND FINDINGS

Effectiveness of gamification is revealed from Table 1

Sl. No.	Question asked		Values
1	Would you like to	just read news	51.50 per cent
		read news followed by quizzes (for revision purpose)	48.50 per cent
2	Will you use an app	to just count your walking steps	64.40 per cent
		which rewards you for walking targets along with counting your steps	35.60 per cent
3	Will you	opt for a video class with lectures only	54.80 per cent
		want educational games to follow your video classes	45.20 per cent

Table 1: Survey responses  
Source: Primary Survey, 2020

To what extent are you driven by these factors for playing online games?(5 being the highest & 1 being the lowest)

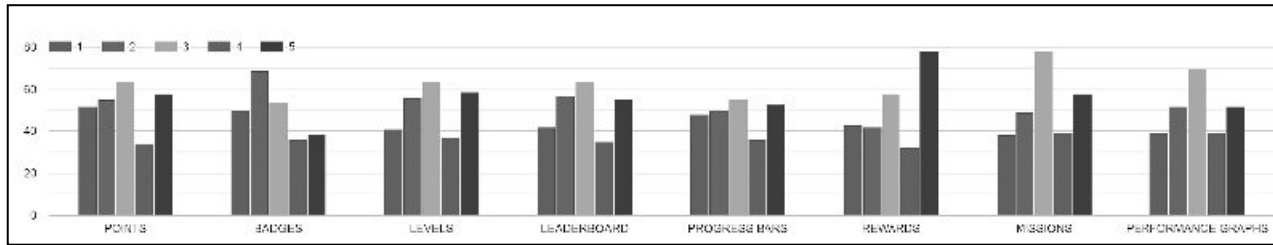


Figure 7: Graphical representation of responses; Source: Primary Survey, 2020

Rewards are the most popular among all other extrinsic motivational factors, followed by points, levels, missions, leaderboard, progress bars, performance graphs and badges (Figure 7, 8a and 8b).

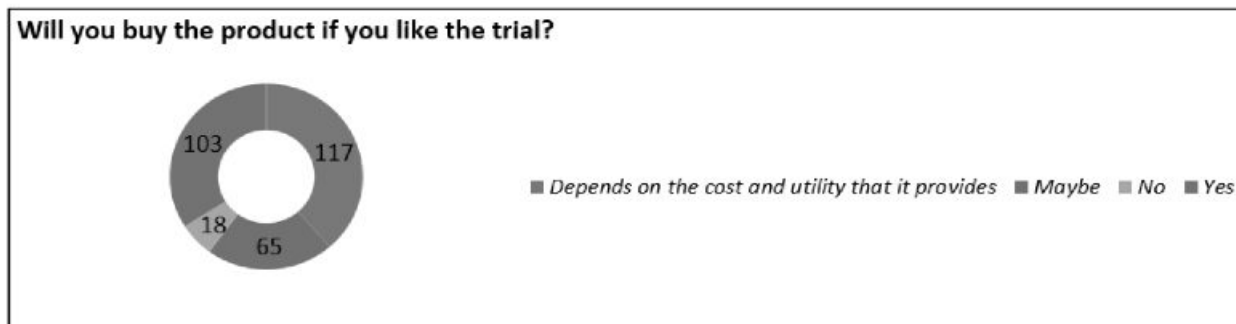
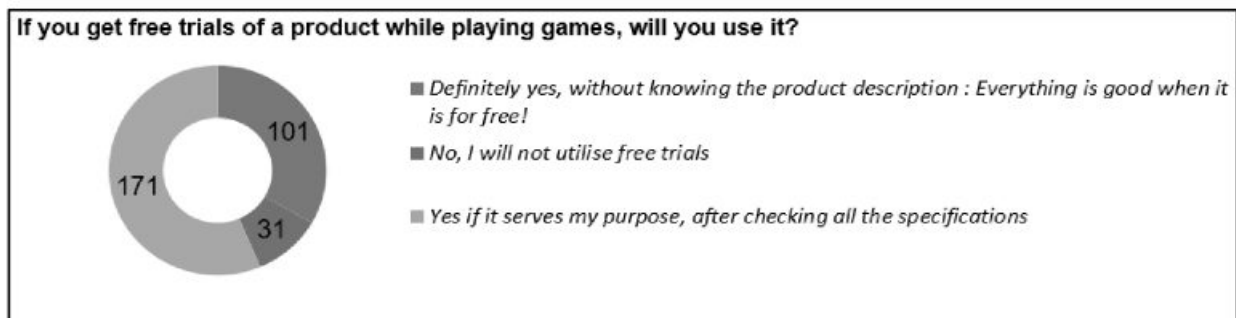


Figure 8(a) and 8(b):Representation of responses in pie-charts  
Source: Primary Survey, 2020

The businesses can gamify their platforms in order to create awareness. Interest can also be developed using gamified modules that explain the utility of goods and services that the businesses deal with. The extrinsic motivation such as leaderboard, points, levels, et.al. also create desire for the target customers. The gamified models possess a strong magnetic feature which controls the minds of the consumers and places a strong emphasis for the user to become a customer of the business. It drives the user into buying the product. This can be a sustainable format for the businesses to grow and survive among its competitors.

For the dark side of gamification, Instagram responses were recorded. To test the conjectural model and propositions, Structural Equation Modeling (SEM) was used. Structural Equation Modeling is a method of multivariate statistical analysis used to analyze structural relations. This approach is the synthesis of factor analysis and analysis of multiple regression, which is used to evaluate the systemic interaction between observable variables with latent constructs.

H1: Loss of personal consciousness leads to the revelation of information.



CONSTRUCT	QUESTIONS ASKED	REPRESENTATION
Information disclosure	Will you provide your social media friend list while using gaming apps?	ID01
	Will you give access to the location while using gaming apps?	ID02
	Will you give access to your gallery while using gaming apps?	ID03
	Will you give access to your storage while using gaming apps?	ID04
Personal/Self development	Do the gamified apps help you reach your objectives?	SD01
	Do the gamified apps help you to develop yourself?	SD02
Social Comparison	Do the gamified apps help you compete with others?	SC01
	Do the gamified apps help you rival others?	SC02
Action/Venture Awareness Merging	You behave correctly even while playing games?	FAA01
	Things just seem to be happening automatically?	FAA02
	Performed without thinking much?	FAA03
Loss of Personal Consciousness	Are you concerned about what others do in these apps?	FLS01
	Were you concerned about your other environment except the virtual one?	FLS02
	With how you were presenting yourself?	FLS03
Privacy Risks for Information Disclosure	Providing information will lead to many unexpected problems?	PR01
	It would be risky for me to disclose information?	PR02
	Would there be a high potential for loss in disclosing personal information?	PR03
Privacy Benefits for Information Disclosure	Providing personal information can help make the apps suit to our needs?	PB01
	The content is better tailored to preferences and interests when we provide personal information?	PB02
	With the help of personal information, the gamified apps will provide services relevant to your needs?	PB03

**Table2:** Displaying the questions included in the survey and the variables used in further tables. **Source:** Primary Survey, 2020

H2: Venture-awareness merging leads to the disclosure of information.

H3: Personal development leads to the loss of personal-consciousness.

H4: Personal development results in the venture-awareness merging.

H5: Social comparison leads to the loss of personal-consciousness.

H6: Social comparison leads to the venture-awareness merging

For SEM, the fit of the model is checked and then the data-model is analyzed. To assess the quality of the model and collected dataset, the constructs were verified for three things.

a. Content – The content of the questionnaire (refer to Table 2) of the survey was reviewed.

b. Convergent – First the individual item reliability was checked. One item of the action awareness scale revealed to have a factor loading below 0.7 and was thus, excluded from the model. Other items revealed a factor loading at 0.7 or higher. This indicates that it is an acceptable item. The composite construct reliability was checked which was found to be between 0.734 and 0.970 which was acceptable.

c. Discriminant – This is to check if the concepts are empirically distinct from each other. Since the AVE for each construct is greater than the variance with other constructs in Table 3 (see blue cells), the discriminant validity is checked.

Hence, it can be said that the quality of the measurement model is reliable and acceptable from Table 4.

CONSTRUCT	COMPOSITE RELIABILITY	AVERAGE VARIANCE	1	2	3	4	5	6	7
1. INFORMATION RIVTATION / DISCLOSURE	0.734	0.581	0.762						
2.LOSS OF PERSONAL CONCIOUSNESS	0.907	0.765	0.139	0.875					
3.ACTION-AWARENESS	0.906	0.828	0.070	0.147	0.901				
4.PERSONAL DEVELOPMENT	0.910	0.835	0.052	0.041	0.202	0.914			
5.SOCIAL COMPARISON	0.970	0.942	0.198	0.185	0.028	0.117	0.970		
6.PRIVACY RISK	0.889	0.730	0.357	0.074	0.091	0.053	0.001	0.854	
7.PRIVACY BENEFITS	0.951	0.867	0.257	0.081	0.204	0.006	0.128	0.188	0.931

**Table 3:** Composite reliability, Average variance and Inter- Construct correlation **Source:** Primary Survey, 2020

	Likert Scale	Mean	Std. Dev.	ID	FLS	FAA	SD	SC	PR	PBP
FAA02	1-7	4.98	1.27	0.101	0.115	<b>0.956</b>	0.208	0.021	-0.092	0.206
FAA03	1-7	4.944	1.367	0	0.171	<b>0.862</b>	0.149	0.032	-0.069	0.155
FLS01	1-7	2.883	1.546	0.105	<b>0.921</b>	0.13	-0.051	0.201	0.077	0.016
FLS02	1-7	3.26	1.625	0.112	<b>0.877</b>	0.204	-0.094	0.093	0.099	0.046
FLS03	1-7	2.954	1.582	0.155	<b>0.823</b>	0.061	0.035	0.172	0.018	0.167
ID01	1-7	1.74	1.392	<b>0.815</b>	0.182	-0.016	-0.067	0.229	-0.273	0.168
ID02	1-7	4.184	1.968	<b>0.706</b>	0.015	0.138	0.17	0.057	-0.273	0.233
SC01	1-7	3.423	1.708	0.195	0.174	0.041	0.106	<b>0.969</b>	0.041	0.145
SC02	1-7	3.321	1.757	0.188	0.185	0.013	0.121	<b>0.971</b>	-0.042	0.104
SD01	1-7	5.367	1.417	0.037	-0.053	0.224	<b>0.966</b>	0.113	-0.087	0.005
SD02	1-7	5.301	1.427	0.071	-0.008	0.117	<b>0.858</b>	0.101	-0.024	0.005
PB01	1-7	4.153	1.674	0.156	0.033	0.148	0.021	0.16	-0.173	<b>0.896</b>
PB02	1-7	4.112	1.734	0.285	0.076	0.253	0.005	0.092	-0.165	<b>0.957</b>
PB03	1-7	4.082	1.718	0.245	0.103	0.145	-0.004	0.127	-0.19	<b>0.94</b>
PR01	1-7	4.332	1.622	-0.319	0.039	-0.103	-0.113	-0.011	<b>0.881</b>	-0.052
PR02	1-7	4.704	1.608	-0.369	0.046	-0.064	-0.006	-0.039	<b>0.926</b>	-0.26
PR03	1-7	3.781	1.837	-0.175	0.149	-0.068	-0.012	0.096	<b>0.745</b>	-0.165

Note. Information Disclosure (ID), Loss of personal-consciousness (FLS), Action-awareness (FAA), Personal-development (SD), Social comparison (SC), Privacy Risks (PR), Privacy Benefits (PB).

**Table 4: Cross Loadings** Source: Primary Data, 2020

Partial least squares method was used for estimating the model-structural. Bootstrapping re-sampling method was used for evaluating the significance levels of the model-structural and 1,000 samples were created. The results of the estimation are presented in Figure 9.

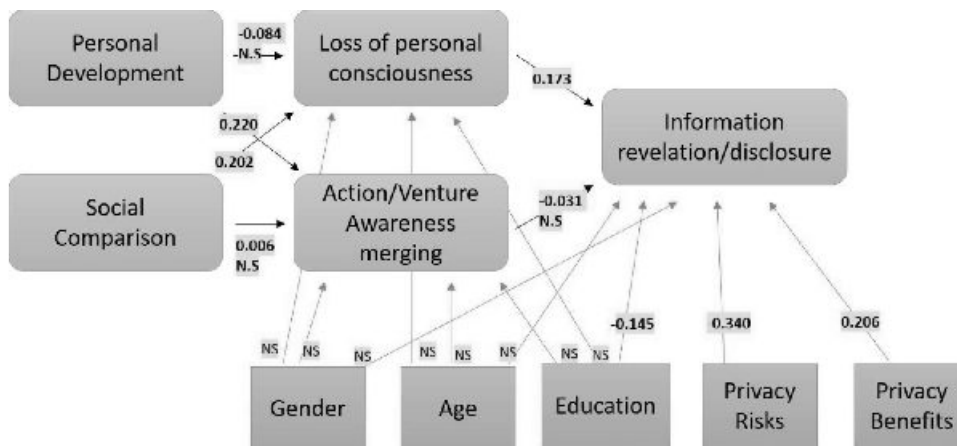


Figure 9: Estimation of the Model-Structural. (NS stands for Not Significant)

Source: Author's compilation

The results indicate positive significant influences of loss of personal-consciousness on information disclosure in favour of H1. The reports give a negative and insignificant effect of action- awareness merging on information disclosure. Thus, no support is found for H2. Our estimation also yields favourable influences for the influence of personal-development on action-awareness merging and the influence of social comparison on loss of personal- consciousness and thus, provides support for hypothesis H4 and H5. None of the findings support H3 and H6, that is, personal-development as an antecedent of loss of personal-consciousness and social comparison as antecedent of action-awareness merging.

The findings reflect a significant effect of privacy risk and privacy benefits on information disclosure which is in line with the argumentation of the privacy calculus. Our estimation finds a significant negative effect for the education variable. This suggests that a person with high levels of education in our sample is less likely to disclose their personal information.

## CONCLUSION

Gamification can be successfully synced to the AIDA model of marketing with the positive results that it gives with a multiplier effect. The gaming trend is still on and will continue to ascend. However, a business must not neglect the dark side of it with the users which can cause a flop in its marketing objectives.

The findings contribute to the nascent research on dark sides of gamification in that they show that experiences in social comparison during gamified service usage can trigger information disclosure through the loss of personal-consciousness. Thus, when engaging in a gamified service, disturbing thoughts

regarding private information sharing drift away from the user's attention. Contrary to our expectations, however, it is found that action-awareness merging has no effect on information disclosure. Because action-awareness merging refers to the reduced effort during service usage, it can be argued that the released additional cognitive resources may help users correctly account for the information sensitivity of, for instance, disclosing one's own location data to a service provider and thus, not increase information disclosure. Based on above findings, it can be recommended that service providers who enhance their services with affordances to support social comparison (e.g., leaderboards and ranks) make an effort to actively communicate their data privacy policy to prevent users to disclose private information while their whole concentration is focused on the task at hand. Alternatively, firms should not ask users to disclose private information during service usage (e.g., using a pop-up window) and choose asynchronous communication channels instead (e.g., email) to ensure that the user is not distracted.

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“

The world today is beholding transformation by the minute and emerging trends leave their indelible footprints on the sands (of tourism) across the globe.

”

# Tourism: Cruising Beyond the Realm of Visible!

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## ABSTRACT

Travel and Tourism (hereafter T&T) is one of the most enigmatic sectors of the global economy. Accounting for 1.4 billion international tourists in 2019, T&T contributes a tenth of the global GDP annually. However, the sector is not without its problems. The global risk scenario is extremely complex and capricious. To ensure longevity, T&T should be crisis ready. Resilience in the face of calamity and post-crisis recovery is quintessential today.

In today's era of dynamism and transience, forces converge and trends emerge every second, altering lifestyles, work relations and expectations of individuals and societies, having an undeniable impact on the travel industry.

Nevertheless, in the face of ever-changing dynamics, the T&T sector tirelessly endeavours to bring people together, support communities and celebrate the wonders the world has to offer.

This research paper seeks to delve deeper into the various facets of the travel and tourism sectors, analyzing the nuances and implications of the same through the ages on business, economy and the world.

**KEYWORDS:** Travel and Tourism, Experience, Megatrends, Crisis Preparedness, Indicators

## INTRODUCTION

*‘So much of who we are is where we've been’*

The T&T industry is one of the fastest-growing sectors of the economy across the world. It contributes significantly to international trade relations, is the greatest foreign exchange earner, creates one in ten jobs on the planet, and is the cynosure of all economic sectors, driving growth and prosperity across the globe. Travel constitutes one of the heartiest and most memorable pages of a person's life story. The global tourism flows, cross boundaries have a rising trend. There are a certain number of factors that have been accepted as global determinants for tourism flow.

Today, within the dynamic world of business, the experience economy is a relatively new phenomenon that capitalizes on the intangible concepts of human desires, preferences, dreams, and experiences. It is a subtle art of aligning human desires and perceptions with business feasibility to form a bundle of goods and services that creates want satisfying utilities to go beyond the temporal and spatial realm.

The global economies today are facing inconceivable risk. The complex and intertwined nature of these economies cause crisis factors in one region of the world to have a domino effect upon the entire world. The new potential risk factors and the high stakes impart a colossal significance on the crisis factors, predictions and simultaneous preparedness for the T&T industry.

In the era of accelerating change, dynamic forces converge to alter the lives and mentality of work, leisure and other aspects of human life, businesses and nations

as a whole. To fare well in the thoroughfares of cut-throat competition, an in-depth analysis of the industry alone is not enough, but the dynamics of the underlying drivers - demographics, cultural, ecological, and political as well as the corporate - need to be envisaged. The five trends to be analyzed are inextricably linked with every sphere of human existence. With that in mind, we look into each of the trends in detail, to gain cognizance of what they are and how they are relevant to T&T.

## LITERATURE REVIEW

Speaking of Experience Economies, Joseph Pine II and Gilmore (1998) talked about the economic aspects and marketing principles of such economies. The World Travel and Tourism Council (2019) highlighted various economic parameters constituting the tourism sector of the world. Further analyzing 'Crisis readiness', Misrahi, Hume, Mroszaczek and Turner (2019) delved into the crisis preparedness of the tourism sector. Discussing the impacts of major transformational trends witnessed by the world, Misrahi, Wynne, Kawalerski, Rosen, Robinson and Mommers (2019) analyzed how these phenomena impact people, society, businesses and technology.

## OBJECTIVES

1. To study the new phenomenon of the experience economy and the dynamism of the world, taking into account five major trends witnessed by the world and their implications on the travel industry in particular.
2. To analyze the consumer's perspective and shift in consumer preferences with respect to their travel decisions.
3. To assess the key indicators that play a colossal role in cross-country tourism flows and determining factors that play a major role in travel decisions of people.
4. To assess the crisis preparedness and T&T competitiveness of world nations and the major deterrents to traveller's decisions.

## RESEARCH METHODOLOGY

**Research Design:** Research approach or inquiry method- qualitative and quantitative designs. It also engages correlational and descriptive research methodologies. The research is conducted in a cross-sectional manner as well as longitudinal fashion.

**Data source and collection:** The research has been conducted using primary as well as secondary sources of data.

**Size and population profile:** The survey sample includes 120 responses. The population includes primarily Indian participants falling in the age group of 13-65, the majority having international travel exposure or experience.

**Sampling Method:** Convenience sampling was employed. To enhance the credibility, the Snowball Sampling Method was also used.

**Tools:** Secondary sources- Search Engines. To circulate and attain data via the questionnaire, online cloud application Google Forms were used.

**Technique:** The Questionnaire comprises most questions measuring the response on a five-point Likert scale with 5 as the highest and 1 as the lowest value.

## CONCEPTUAL FRAMEWORK

*As they say, 'Have stories to tell, not stuff to show.'*

Every year the world witnesses ever-increasing tourism flows comprising business and leisure, domestic and international travellers. T&T entails a zillion activities engaging various sub-industries and allowing a treatise to the traveller within us. It is inextricably linked with the social fabric.

There are a certain number of factors that have been accepted as global determinants for tourism flow. These factors can be aggregately grouped under few heads namely: private sector, governmental factors, intangible factors, economic factors, external political and health factors and bilateral or international relations.

Risk factors involve geopolitical factors, state and governance unrest, civil aggressions and rebellions,

natural and man-made disasters, terrorism, epidemics, and other issues concerning mankind today. The perceived level of safety and security being the key indicator of travel decision making, the T&T sector needs to be exceedingly resilient and align its objectives to cope with crisis and recover in minimal time to assure viability and longevity of businesses.

The risks that cause the most apprehensions among travellers are the low probability high impact type. The causes are apparent as well as obvious, considering the loss of lives, damage to the destination image, cross-industry losses, and long recovery durations.

When planning a trip for our family, what would be our basic thoughts? The nation should be safe, should fit in our budget, it should be aesthetic, et al. But there are a host of other considerations that play in your mind, subconsciously. For example, is the climate viable? Hoping the nation is not under some civil or political unrest, there are no mass epidemics, and that the trip is a peaceful and memorable experience.

Experience has increasingly been called as the fourth economic offering and it has become imperative for businesses to tune in to this offering. As often said by economists and marketers, 'extract commodities, make goods, deliver services and stage experiences'. What is extremely important for the experience economy is to stage their experiences in a way that they leave indelible impressions in the mind of the recipient.

Travelling is all about experiences. Be it lying under the starlit sky at the Brecon Beacons, or travelling uphill under the snowfall at Mount Matterhorn. Be it a ride on the London Eye, or the ride up the Glacier Express in Switzerland, travel offers a plethora of experiences that human life can only endeavour to contain. Be it the opera at Sydney, or the Moonlight festival in China, the Tet festival of Vietnam, or the Spanish Tomatina, travelling is a culturally enriching experience. Trekking up the Alps, or paragliding at the Phuket beach, stargazing at the Pic Du Midi, to walking by the Graceful Seine, experiences are all that man has. T&T is the pioneer, heart and soul of the experience economy.

Personalization and access to information and interconnectedness have led to the enhancement and



transformation in reality. With increased personal independence and enrichment, the economy is driven by experiences and technology. Unplugged experiences are being integrated with online experiences to enhance the feel. In today's world, the youth seek differentiation and recognition. Self-image and its actualization are a prime concern. These choices reflect in their consumption patterns, work routines and every other aspect of life. So, that is our first trend- 'Prioritizing Novelty'.

A second dynamic that is gaining pace is the gig and sharing economy. Today's youth is experience-driven. It prioritizes convenience and flexibility. As people become more community-driven and need for flexibility takes the front seat, models like gig and sharing economy are sure to prosper. As these tech-powered economies take over, new expectations for life and work emerge, redefining earlier work-life relationships and blurring traditional boundaries between them. This brings us to the second trend- 'Blurring Lines'.

As technology is becoming extremely sophisticated, humans have unbound possibilities at their fingertips. Technological paraphernalia has become sophisticated, user friendly and all-pervasive. Personalized services are curated; advertisements that are likely to impact the customer are designed and all activities are undertaken to get maximum converts from these advertisements by using a complex algorithm to predict outcomes, thereby enhancing effectiveness. This brings us to the third major shift in business and society today- 'Technology Revamped'.

As the world witnessed an epoch-making shift from the west to the east, there were suits of areas that might be worth dwelling upon. These shifts, accompanied by

urbanization and accelerated migration from rural to urban areas, created a new class of dwellers, with a hybrid culture and enhanced wealth and priority shifts. With an emerging Asian middle class and geographical shifts opening up immense possibilities, avenues to harvest and commercialize are abounding. As Figure 1

Number of people living in urban and rural areas, World

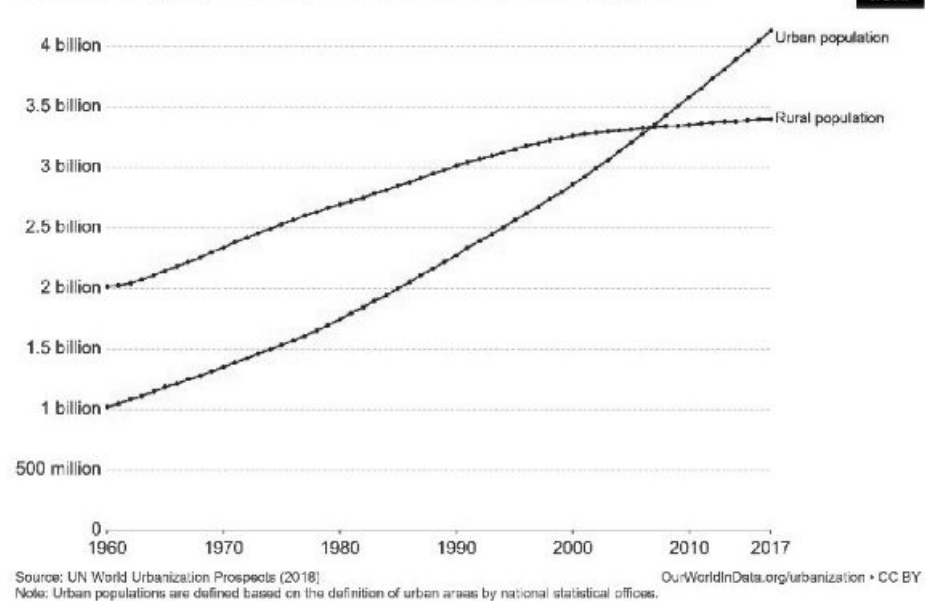


Figure 1

shows, urban migration has always been on the rise and T&T needs to identify the most sought-after destinations and harness the first-mover advantage. This brings us to the fourth trend- 'Demographics Realigned'.

As consumption levels soar and environmental impacts reach a crescendo, environmental concerns are alarming. The rate of resource depletion, environmental degradation, and harm to the planet is unimaginable. That brings us to the fifth phenomena or the concept of sustainable consumption- 'Embracing Sustainability'. As man is held against the wall with ill-effects of reckless inflictions meted out by him to the planet, it is imperative for man to respond to the planet's plea. People are knowingly or unknowingly integrating resource-efficient lifestyles, expressing and contributing their share to mitigate the concerns. A priority needs to be chosen and short-term implications or long-term viability needs to be traded off.

## ANALYSIS AND INTERPRETATION

### Survey Demographics

The survey consists of 120 respondents. It was in the form of a questionnaire circulated via Google Forms. The survey consists of 30 questions apart from the

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.826	.829	33

**Figure 2**

Source: Author's Compilation

demographic details. The questions offered Likert scales for respondents to indicate their preferences on most likely to least likely scale, and frequency scale always to never. With the help of the business research tool, SPSS, the reliability of the questionnaire has been assessed.

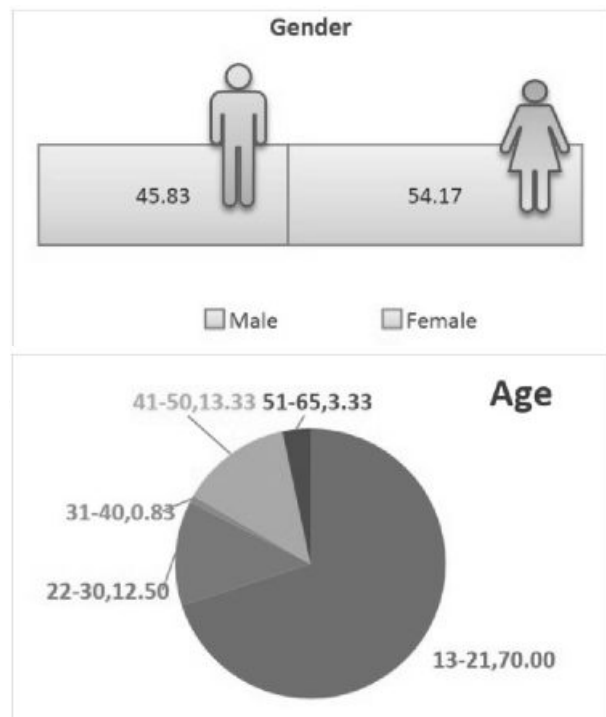
A questionnaire having Cronbach's Alpha of above 0.7 is believed to be reliable.

As we can see, Cronbach's Alpha of the questionnaire is 0.826. Therefore, it can be concluded to be sufficiently reliable.

### Respondents' Profile

We see that 82 per cent are willing to pay more for experience rather than products. 89 per cent people prefer theme parks to shopping malls, signifying preference of experience over products. 54 per cent people say that their travelling experiences are a reflection of their self-image.

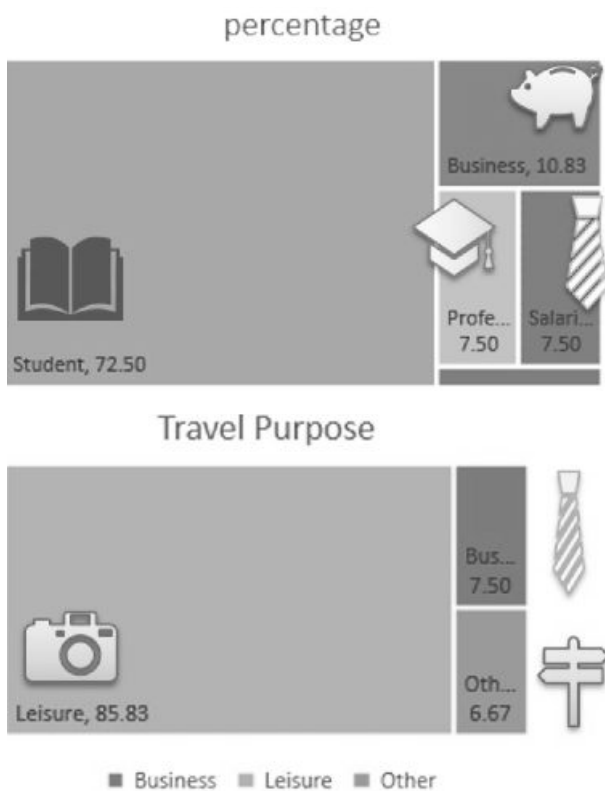
People have different preferences regarding different aspects of travel. 81 per cent people prefer to travel with family, friends and groups, reflecting community and connectivity. 35 per cent people say they prefer knowing the lives and culture of people of the destination, whereas 65 per cent are interested in the destination and its scenic beauty, monuments, et al. When asked for their preference regarding tour plans, 90 per cent said that they would prefer customized self-made tours over standardized tour packages. 76.67 per



**Figure 3 and Figure 4**  
Source: Author's Compilation



**Figure 5 and Figure 6**  
Source: Author's Compilation



**Figure 7 and Figure 8**

**Source: Author's Compilation**

cent indicated a preference for resorts and 23.33 per cent people chose a luxury hotel experience. 61.67 per cent prefer long vacations whereas 23 per cent people take weekend getaways in order to not disrupt their work routines. 54 per cent people prefer to visit one destination in and out, in contrast to the 46 per cent who prefer to cover a larger number of spots in a smaller period of time.

When asked about digital experience habits, 61 per cent would prefer a digital detox while travelling, whereas 39 per cent people prefer a high-tech travel experience.

#### **Consumer perspective and shift in preferences. The five trends and their responses reveal:**

- **Prioritizing Novelty:** People today prefer creativity, connectivity and self-direction. 60 per cent of people prefer meaningful unplugged experiences; 54 per cent say that their travel destinations reflect their ideal self-image; 81 per cent prefer going on

trips with people rather than solo (prioritizing personal connections); and 90 per cent chose customized travel experiences.

- **Blurring Lines:** 61 per cent people respond favourably to the sharing economy and 64 per cent towards the gig economy in T&T. 74 per cent people would like to integrate work with travelling. 61.67 per cent prefer long vacations.
- **Technology Revamped:** As technology is revolutionized and large amounts of data are collected and assimilated, digital security is a major concern for 73 per cent and only 35 per cent people are willing to share personal data to get their tours customized. 48 per cent people find that AR/VR technologies enhance their travel experiences.
- **Demographics Realigned:** 59 per cent of respondents find eastern nations culturally rich, and 35.83 per cent tell us that they're indifferent towards the western nations. 48 per cent people prefer the west as T&T destination.
- **Embracing Sustainability:** 71 per cent are willing to buy sustainable products even at a higher price and 57 per cent people show an inclination for endangered places.

#### **Key indicators that play a colossal role in cross-country tourism follow:**

- T&T contributes 10.4 per cent to the global GDP with a growth rate of 3.9 per cent.
- In terms of employment, 1 in 10 jobs accounts for global T&T.
- Globally, domestic spending accounts for 71.2 per cent and international spending accounts for 28.8 per cent of the total.
- In terms of leisure spending and business spending, 21.5 per cent globally is credited to business travel, whereas 78.5 per cent is credited to leisure travel.

The factors that play a major role in the travelling decisions of people are:

	Economic	Aesthetics	Safety	Climate	Culture	Distance	Uniqueness	Socio-economic	Currency
N	120	120	120	120	120	120	120	120	120
Mean	4.03	4.33	4.36	3.91	3.39	3.10	3.98	3.07	3.02

Table 1

Source: Author's Compilation

Safety (4.36) is the most important determining factor, followed by Aesthetics (4.33) of the destination, Economic considerations (4.03) and Uniqueness (3.98) [Mean responses ()].

#### Assessing the Crisis preparedness of world nations.

Crisis preparedness of 195 nations.

- Impact Depth: Disease has the maximum whereas political instability has the minimum.
- Recovery period: Environmental hazards or disasters have the maximum.
- Lost arrivals: Political instability has the maximum.
- Lost Spending: Maximum in case of political instability and lowest for disease.

#### The major deterrents to traveller's decisions.

- Terrorism or Civil unrest and Epidemic is among the major deterrents with the highest average of 4.68 each.
- Natural Disaster and Environmental concerns (4.63), political instability (4.25) and Digital Safety (4.03) follow.

Financial (3.51) and economic crisis (3.76) are the other major deterrents.

#### IMPACT OF COVID-19

In the wake of recent events, and the all-enveloping COVID-19, it is only justified to make a brief study of its impact on tourism and what potential implications might turn up.

As reported by the World Economic Forum and WTTC, the following are a few major impacts of COVID-19.

Being the epicentre of the outbreak, and with large percentages of the affected population, Asia is expected to be affected worst.

It has been forecasted, that once the outbreak is over, the crisis recovery period could range up to 10 months. With 50 million jobs currently engaged in T&T, the sector is likely to be affected to the extent of 3 months' worth of T&T activity. Travel and tourism is one of the worst affected economic sectors in global crises such as a pandemic, as restrictions are promptly placed on travel and it becomes a necessity to contain the outbreak.

A few measures recommended by WTTC, post-outbreak, to smoothen and accelerate recovery, especially for the governments of nations are: relaxation of barriers and restriction, providing incentives for travel and businesses engaged in the same, easing fiscal and

Statistics								
		Economic	Terrorism or civil unrest	Political instability	Financial Crisis	Epidemic	Natural disaster and environmental	Digital
N	Valid	120	120	120	120	120	120	120
	Mean	3.76	4.68	4.25	3.51	4.68	4.63	4.03

Table 2

Source: Author's Compilation

monetary policies and supporting destinations. These suggestions invoke measures in times of distress. To reinstate the T&T, not only should destinations be prepared for post-crisis management, transparent communication to potential visitors and facilitation and incentives can bring about economic recovery. Easing out stringent visa norms, airport and port facilities, traveller's tax reduction, and increasing budgets and resource allocation to T&T can help it emerge from the crisis unabated.

Only in times of crisis, can resilience be tested. Also, only time can tell how things turn up post-crisis, what is the recovery path, and where does it lead the economies. Meanwhile, what individuals, businesses and nations can do is make a joint effort and cooperate to ease the economic process by doing their bit for the economic engine.

## CONCLUSION

*'Imprint deeper footprints down the memory lane'*

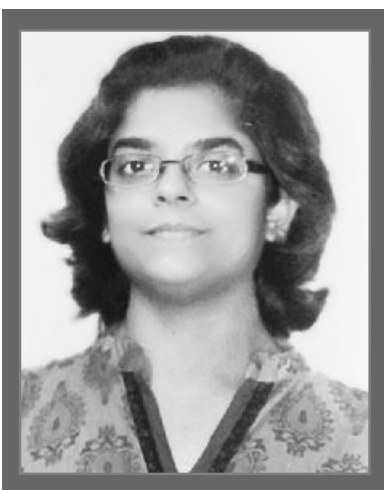
T&T has a ubiquitous presence in the lives of people, societies and nations. There are a multitude of factors that play a role in shaping international tourism flows annually. Over the past decade, the risk landscape has considerably altered and advanced in size. Their economic impact on various national economies and the travel industry, in particular, has dramatically escalated as well. Therefore, T&T needs to put on its armour, now more than ever to ensure the future generations get a piece as well.

In the ever-changing dramatic landscape of the world, T&T excels in creating 'Experience'. Experience economies capitalize on the intangible concepts of human desires, preferences, dreams, and experiences. For longevity and viability, T&T should embrace emerging trends and capitalize on the experience. There are three key features for success; perspective- which widens your horizon and aligns your vision, knowledge- that empowers you and keeps you informed; and a skill set or talented workforce.

The world today is beholding transformation by the minute and emerging trends leave their indelible footprints on the sands (of tourism) across the globe. The T&T sector endeavours to bring us closer to family, friends, and life. It makes us appreciate the wonders of the world, of human life and weaves memories into our story for a lifetime!

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The prime role of today's restaurateur is to expressly provide customers with such rich and engaging servicescape experiences.

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# Making Subtlety Obvious

## - A study on the impact of servicescape of restaurants on consumer perceptions

### A study based in Kolkata

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#### ABSTRACT

The current study examines the relationship between the service scape of a restaurant and its influence on customers across different restaurant settings. It seeks to study the service scape cues that impact consumer perception and behavioural intention, i.e., consumer responses. A questionnaire survey was performed for the same among different age groups in Kolkata to gain insights

about consumer perception. Results indicate that there is an inextricable link between a restaurant service scape and consumer satisfaction. Dimensions of a service scape that consumers perceive important came to the fore and also the sensory and emotional responses.

**KEYWORDS:** Service scape, Restaurants, Customer satisfaction, Customer loyalty, Intention.

## INTRODUCTION

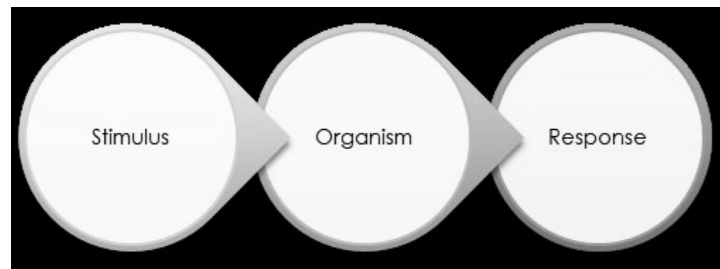
*'It pays to be obvious, especially if you have a reputation for subtlety.'* - Isaac Asimov

The restaurant industry today is very lucrative; however, the competition has increased manifold. Consumer satisfaction has always been the key. With the changing consumption patterns, lifestyle, income, and availability of options, this equation has to be rebalanced. The restaurateurs have worked on various aspects to win this satisfaction; however, the star flag bearer remains the service scape. The service scape is the physical environment of a service organization wherein the service is provided. Even with increasing technology and digitalization in the industry, the NRAI report finds that the scale of customer's preferences still tips towards dine-out 75 per cent times, while the takeaway and online delivery of food market gets only 25 per cent. The service scape influences not just the first impression of the customer for the place, but also several implicit perceptions about the service quality standards, quality of food and the prices. Service scape can be seen as having two aspects- the physical aspect- the ambience and its elements; and the intangible aspect- sensory triggers that appeal to the consumer's senses. It is essential to find a perfect synergy between the two aspects for the consumer to value these subtle stimuli, and hence, restaurateurs need to make these subtleties obvious so that they do not go unnoticed. This will eventually enable restaurants to position themselves for long term success of business, armoured with a loyal customer base.

Service scape as a concept has evolved over time through various studies. One of the newer concepts in

the service industry is the emergence of the experience economy, the importance of which for service industry can hardly be overstated. As coined by Bitner, 'service scape' is to service as packaging is to a product. In other words, it is instrumental in tangibilizing the intangible elements, enhancing the experience and its cognition.

One of the first researches, the Mehrabian and Russell model (1974), analyzes how the service scape significantly impacts human behavioural responses. According to this, the perception of various service scape cues, either conscious or subconscious, influences feelings and responses in the consumers. The Stimuli-Organism-Response (S-O-R) Model (Figure 1) helps conceptualize the association between the restaurant's ambience, consumer's emotions, and



**Figure 1: S-O-R Model**  
**Source: Authors' Compilation**

hence, satisfaction. The stimuli being the service scape elements induces the consumer (the(O)rganism) to respond in a way that can be channelized in the restaurant's favour. These responses are broadly categorized into 'approach and avoidance' responses. Approach behaviours include choosing the restaurant, recommending it favourably to others, having the intention to explore, having a sense of restaurant loyalty, and staying longer. On the contrary, the negative cues induce avoidance behaviours.

Tangible dimensions of the service scape are the stimuli (S) that elicit a response in the receiver of the service. The list of these elements can never be exhaustive because with innovation and novelty, the list keeps getting longer. Further, there are no solid lines of categorization of these elements. For instance, furniture forms a part of the spatial layout as well as the décor. Lighting and colour of the ambience are one of the first noticeable characteristics of any place. Most eateries are preferred well-lit to enable a better view of the food and for a clearer sight. Notwithstanding that, dim lights

or candle lit aura too have their own distinct appeal for certain moods conveying a feeling of coziness. The background music is a powerful and cost-effective tool to enhance the experience and influence the customer's mood. Music can also serve to be very engaging and uplifting, as well as extremely soothing and comforting. While at clubs and disco places consumers prefer loud music, they prefer slow soothing music in fine dining. Fragrance or smell of the service scape is also a cue, stirring emotions that enable attachment to a place and have a recall value and hence, enable brand loyalty. Smells also induce appetite. The layout and design of the place is very significant. It includes furniture, alignment, navigable walkways, space in the aisles, and seating, offering varying degrees of comfort and levels of scope of privacy or socializing. Ambient conditions like temperature and air quality, and neatness and hygiene give an edge to the ambience. One of the most differentiating and novel elements of a restaurant's service scape is its décor and design aspect. The social element, that is, the density or privacy are other facets that are impactful atmospheric variables.

Food is the most important product offered in a restaurant service scape and is also seen as an element of the ambience. While the taste of the food is not a part of the ambience, the presentation is, and so is its aroma. The aesthetic appeal of the food served is the most riveting aspect of the service scape.

Sensory stimuli or 'Atmospherics' as defined by Kotler (1973) has four broad sensory classifications: visual, aural, olfactory and tactile factors. The visual sense is the most obvious being the first stimuli and hence, most dominant. Auditory stimuli relate to sound. Olfactory stimuli relating to smells is considered one of the most emotional and sensitive. Finally, the tactile stimuli are elements that convey the feeling of coziness or space. There are no clear distinctions between each sensory stimulus. For example, while food primarily delivers to the gustatory sense (taste), it alludes to the sense of smell and visual appeal too. Further, all these senses work together to enable an integrated perception and experience.

Consumers respond emotionally, subjectively, psychologically, and cognitively in the presence of a

particular service scape, its cues, and the various stimuli received. They show varied behavioural responses (R) that can be studied to get insights. These emotions serve as a guide to a person's level of satisfaction derived from the service scape.

Finally, restaurants fall into different classifications based on the standard and pricing, type of food or cuisines offered, way of preparation, menu style, origin and culture of a place, the layout of the service scape, et al. Restaurants can be of various types like fine dining, casual dining, cafes, bars and clubs, on-the-move shops, ethnic, fast-casual, fast food, buffet and further subclassifications like café, cafeteria or coffee house, bistro and brasserie, creperie, pizzerias, and the like. For this paper, however, we will consider five categories attempting to cover all these minor variations.

## NATURE OF PROBLEM

With increasing technology, not only do the restaurants have to be more equipped with the changing trends, but also compete with cloud-based food aggregators. Hence, their forte is physical evidence and it's essential to realize that working on it will singly help them stay in the competition.

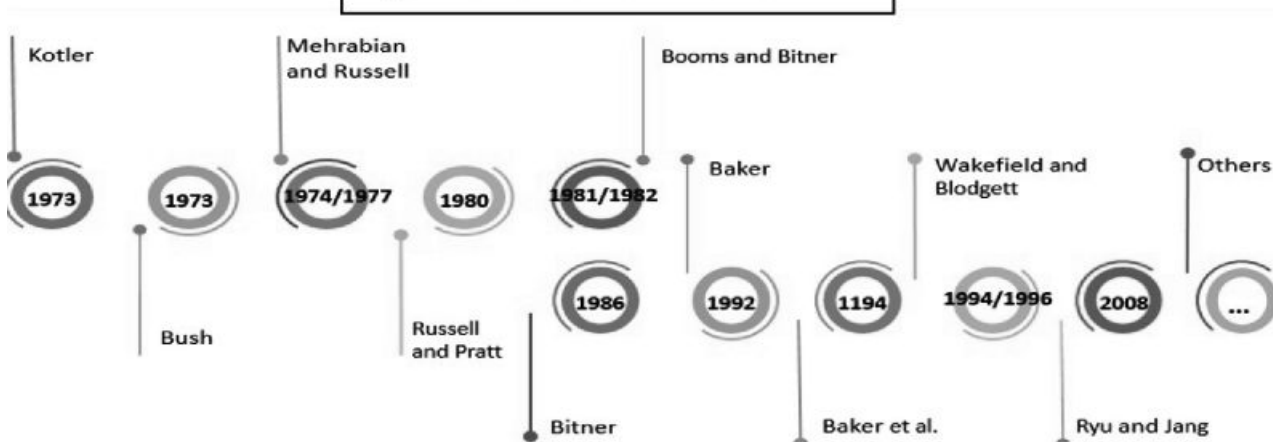
A lot of work on the importance of service scape has been done, however, not as much has been done on restaurant-scapes. Also, the few articles that have done so were primarily focussed on a particular restaurant setting. This dissertation intends to study the same for five different restaurant settings, and hence, receive varying perception linked to different settings. Also, this paper emphasizes on the sensory stimuli as well as the responses in congruity.

## LITERATURE REVIEW

There is vast literature on service scape and its ever-growing influence on human psyche, brand loyalty, customer retention and satisfaction. Starting from 1973, the time frame (Figure 2) is substantial and hence, considerable models and discerning work has been created.



Figure 2: Timeline of literature review



Source : Author's Compilation

Philip Kotler (1973) in his article 'Atmospherics as a Marketing Tool' (Journal of Retailing), first acknowledged the service scape to be important, coining it as 'atmospherics'. He also stated the various sensory stimuli that the atmospherics may create and classified them.

Later, Mary Jo Bitner (1992), in 'Service scapes: The impact of physical surroundings on customers and employees', coined the term 'service scape' as an integrated whole of ambient conditions and physical setting. It highlighted the three dimensions of service scape - ambient conditions, spatial layout and signage, which were a breakthrough.

Mehrabian and Russell (1974), in 'An approach to environmental psychology', advanced considerable research in this field. The major contribution is that of the bifurcation of emotions into pleasure, arousal, and dominance. This model was based on Bush's (1973) three dimensions of emotion and a few other studies.

Among leisure service scape studies, restaurants came to the fore a little while later. While studies began back in 2001 (Mattila), Ryu's 'Dinescape' (2005) brought restaurant service scape to the mainstream. Thus, an increasingly significant literature exists and is being developed.

scape and the consumer's selection of restaurants.

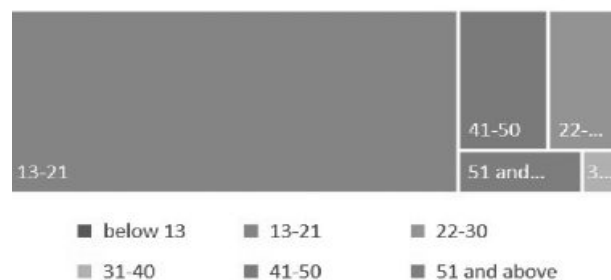
2. To identify the characteristics of a restaurant's ambience that consumers perceive important for overall satisfaction.
3. To identify the dimensions of a restaurant's ambience that consumers perceive important concerning different types of restaurant models:

Fine dining, Casual dining, Fast-casual, Café/bakery, and Enterprise

## ANALYSIS AND FINDINGS

The article is based on a research and hence, analyses conducted on the research data reveal notable insights. The sample comprised of 150 consumers based in Kolkata, collected using opportunity and snowball sampling. The trends show that there were twice as many females as there were males, of which students

Fig. 3: % distribution of sample according to age



Source : Author's Compilation

## OBJECTIVES OF THE STUDY

1. To determine if there is a link between the service

comprise 75 per cent and consequently, maximum respondents were of the age group 13-21 (Figure 3).

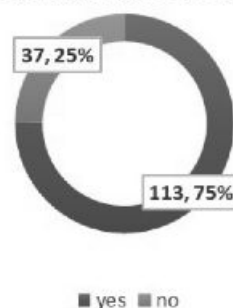
For making them more intelligible, the findings are elucidated according to the objectives of the paper.

## OBJECTIVE 1

We observe an undeniable link between service scape and restaurant selection decisions. Based on the survey, it can be said that it is only the third consideration after primary product and price (figure 4) which speaks volumes about its importance.

willing to sacrifice the comforts of home-delivered food in exchange for a good ambience, which shows that most people are willing to incur the opportunity cost of home-delivered food.

Figure 5: Are you willing to pay a higher price for a good ambience restaurant?

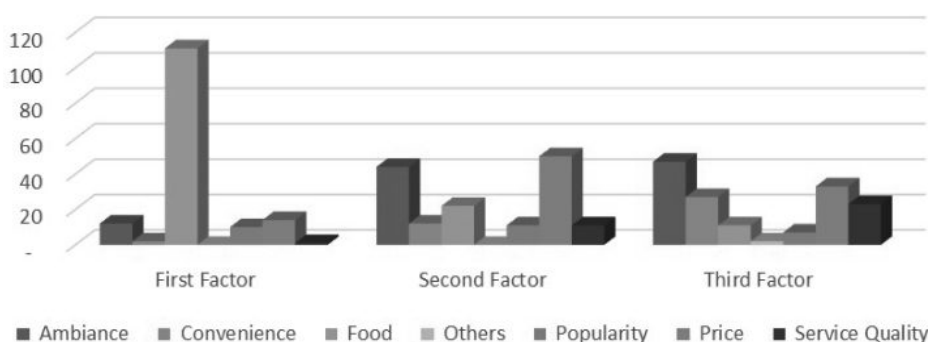


Source: Author's Compilation

Figure 4.1: Frequency Distribution table - On what basis do you decide which restaurant to go to?

Row Labels	First Factor (%)	Second Factor (%)	Third Factor (%)
Ambiance	8	29	31
Convenience	1	8	18
Food	74	15	7
Others	-	-	1
Popularity	7	7	5
Price	9	33	22
Service Quality	1	7	15

Figure 4.2 Preference of restaurant selection factors.



Source: Author's Compilation

Further, about 37 per cent of the respondents believe that ambience matters extremely. Also, 75 per cent of the people are willing to pay a higher price for a restaurant with a good ambience (Figure 5), thus indicating the value of service scape in their perception being considerable. Furthermore, 63 per cent are

Lastly, when asked directly if they consider ambience as a basis for selection of restaurants, 63 per cent agreed. Therefore, it pays for restaurateurs to use it as their most important tactic to win the competition.

## Objective 2

As seen in a lot of previous literature on service scapes, there are certain dimensions of ambience that are universally accepted as significantly impactful (Figure 6). We find that aesthetics and décor occupy the top spot with 56 per cent people choosing it as their first or second preference. This is followed by neatness and spatial layout which also adds to the aesthetic appeal of the place. It is also indicative of

the fact that people are increasingly becoming more hygiene conscious with an increase in the standard of living, more so in the aftermath of the coronavirus pandemic.

Figure 6: Table showing preference of dimensions of restaurant ambience

Factor	Preference 1 (%)	Preference 2 (%)
Aesthetics/decor	41.33	15.33
Aroma	4.67	9.33
Lighting and warmth	12.67	18.67
Music	10.00	18.00
Neat and organised	22.00	18.67
Uniqueness/ novelty	9.33	20.00
Total	100.00	100.00

Source: Author's Compilation

We observe an inclination of consumers towards the visual stimuli like in certain settings; facets like sound and aroma are mere background elements; aesthetics often steals the show. Thereby, we can deduce the fact (as the title of the paper hints) that it is the obvious elements of the service scape that are dominating and impactful while the subtler ones might get overlooked. However, it is not to say that the subtle elements are useless since they are always the supporting pillars without which the entire balance and feel of the service scape can get disturbed.

### OBJECTIVE 3

We observe that our contention of the relative importance of different dimensions changing with

different restaurants settings is true. For example, the aroma is a major aspect in café and bakery whereas the music is an important aspect in fast-casual. (Figure 7)

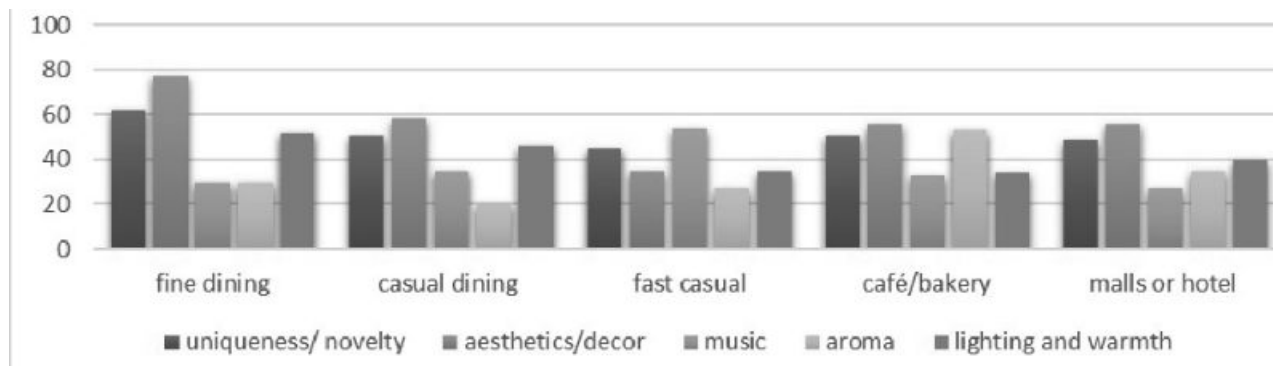
Fine dining restaurants are distinguished because of their superior service scape elements and sophisticated ambience. Accordingly, in the survey, aesthetics and décor are the most preferred dimensions. Also, uniqueness and novelty is chosen by quite a few

respondents because restaurant-goers look for new experiences and their money's worth. Lighting and warmth is another criterion chosen by respondents, indicating that people intend to spend more time in fine dining and hence prefer soothing and cozy environments which are more aesthetically satisfying.

Casual dining restaurants are somewhere between fine dining and the fast-food kiosks with features too placed in the mean of the two settings. Aesthetics and décor is yet again the most preferred dimension followed by novelty. However, music has gained more importance as different people prefer different aspects of casual dining.

Fast-casual restaurants are smaller service scapes and usually sell fast food. Millennials usually dining in such restaurants prefer fast music that gives a certain energy

Figure 7: Summary of the dimensions that matter according to different settings.



Source: Author's Compilation

and vibe to the atmosphere. Hence, music has been the first preference. What is notable here is that aesthetics takes a back seat because people do not tend to spend long hours here.

Cafés and bakeries are small service scapes majorly selling desserts. Hence, people consider aroma as a significant service scape element here.

Enterprise settings, that are restaurants in malls or hotels are not a distinct type and exist in one of the above forms. Aesthetics and décor occupy the first spot because it's imperative that their service scape is attractive to engage customers.

Therefore, the above observations find us in congruency with the previous researches. For instance, it resonates with Bitner's contention that the main service scape cues influencing customers are ambient conditions, spatial layout and signage which subtly hints at the predominance of visual cues while also highlighting the importance of overall sensory impact. This research also verifies the contention that service scape can influence customer responses.

However, the last objective is a new addition to these studies and hence, has not been validated by previous researches. The sample being biased towards young student population is a limitation to this research and thus, the analysis is biased.

## RECOMMENDATIONS

The insights from this paper could have the following applications influencing the restaurant industry:

- Working on the customer experience is a key to winning a lasting allegiance from customers. Starbucks is known for its 'third place policy' for customers and not as the place serving the best coffee in the world.
- While fine dining capitalizes on the ambient conditions, casual dining restaurants are exceedingly working on unique theme-based ambiances. Cozy book cafes are popular too. Free Wi-Fi is another important offering that attracts young student population.

- The hygiene and sanitation considerations are equally cardinal to the operations, more so in the aftermath of pandemics like COVID-19 which has impacted consumer psychology irrevocably. This industry is in particular immensely impacted. Trends too will be altered. However, there will always be a way to overcome this. For example, with work from home being the order of the day, trends like work from café may become popular and provide new opportunities.
- Furthermore, to enhance the experience, it is indispensable to adopt new technology that will impart a novelty and prevent it from being obsolete. It is a relatively uncharted territory in this industry.

## CONCLUSION

Tech-savvy and career-driven millennials, increased working women, higher internet penetration, and increased disposable income present promising prospects for most restaurateurs' dreams to emanate from. Despite this seemingly idealistic appearance of the restaurant industry, it is fraught with difficulties. Hence, location is no longer the key to success. Every place is saturated with multifarious restaurants. The strategic issue lies in establishing and retaining a loyal customer base. This is because firstly, consumers are spoilt for choice; and secondly, because consumers are becoming more adventure-loving and inclining towards experiencing and exploring new places every time they go out.

Therefore, the key is customer experience which is perceived differently and influences each customer's psychology uniquely. Thus, the prime role of today's restaurateur is to expressly provide customers with such rich and engaging service scape experiences.

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The products produced by this sector, being intangible, are value creators or catalysts of change when they serve versatile industries.

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# Assessing the Relevance of the Indian IT Sector in the COVID and Post-COVID Paradigm: Secondary Insights

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## ABSTRACT

The novel coronavirus pandemic of 2020 has transformed the business sphere, thereby redefining business models altogether. The need to keep on

with operations has triggered a surge in work-from-home. The revenues of several organizations have dropped significantly and they are fighting their way out using the modern technology known as – Information Technology (IT). This bears serious ramifications on the IT sector given that homes have altered into offices as enabled by technological innovations. In this situation, the IT sector is known to have a soothing effect on the disruptive business environment and the profitability, the stock prices, and the credit ratings of the major players in the industry. The finance, audit, and allied services, as well as the educational and several other industries are now dependant on IT and IT-enabled services so that they can provide effective services to target clients. This undertaking is an attempt to throw light on the current situation, in light of the industry that happens to be the pivot of multiple business operations.

**KEYWORDS:** Work From Home, IT, Economic Growth, Operations, Revenues, Profitability, Stock Prices.

## INTRODUCTORY REFLECTIONS

Organizations across the world face a dilemma as they must continue their business operations while ensuring a stringent hygiene policy for their employees that requires them to maintain appropriate social distancing norms in the wake of the coronavirus pandemic in 2020. In an era where most companies follow a policy of ‘No Work, No Pay’, employees have to agree to the norms in another manner. Since the risk of infection is known to be minimized only by staying at home, client-centric operational services can be provided from employees homes itself. The significance of the service sector cannot be downplayed in the Indian context, especially since it contributes to around 55 percent of India’s GDP (Government of India), and employs around 32 percent of the workforce (Plecher, 2020). Given its undeniable prominence, India can barely afford to put this sector to a standstill barring passenger transportation, which can be relaxed during periods of stringent lockdown. The fact that employees are enabled to work remotely from their homes has been facilitated by the Information Technology (IT) revolution, the subsector of the tertiary sector which has been one of the key forces fuelling the surge in India’s

GDP. In this academic endeavour, the goal is to first analyze the major erstwhile contributions of the IT sector that have driven its brisk transformation, and then deliberate upon the implications of the current and the expected pandemic situation.

The usage of computers for this industry in India started when in 1964, at IIT Kanpur, IBM started training faculty members, engineers, and scientists on the handling of hardware and software (Rajaraman, 2012). The growth that was to come later on from this sector relied on the ability of services in terms of hardware capabilities and software systems which could be achieved only with the presence of IT concerns on Indian soil. Tata Consultancy Services (TCS), which presently has a market capitalization of ₹ 8.6 trillion (Money control, 2020), was founded on April 1, 1968. Infosys was established in 1981 and Wipro, meanwhile, diversified its business into the IT domain. Microsoft India Pvt. Ltd., a subsidiary of Microsoft Corporation was established in 1988. In the liberalization, globalization, and privatization era, the importance of computers gained pace (Gopala krishnan, 2016). The Bombay Stock Exchange (BSE) introduced computerized trading systems and interface in 1995, which enabled traders and investors to interact with the market without physical presence. The National Stock Exchange (NSE) introduced electronic dematerialized trading since its inception in 1992. The lines of cyber security, information systems, technology consulting, cloud, and other enterprise services that are provided by these corporations play a pivotal role in the processes of other service sectors as they look forward to having data and applications in their servers and systems (Lohchab, 2020).

The current undertaking, thus, endeavours to explain the present pandemic situation, with specific reference to how the IT and IT-enabled services have performed during the lockdown period in India, as well as in its aftermath. In short, the current undertaking intends:

1. To proffer a historical snapshot into the IT industry in India.
2. To probe into the relevance of product offerings of the IT sector in the work-from-home (WFH) situation during the COVID-19 pandemic.

3. To ascertain the profitability and investment perspective of the IT sector in the COVID and post-COVID paradigm.

#### Influence of Work from Home on consumer lifestyles and product purchase

Nicholas Bloom (2017) observed that working from home is a futuristic technology. In their experiment which spanned nine months, he and his team observed that workers' efficiency levels soared by 13 percent (Bloom, Liang, Roberts, and Ying, 2013). Even though the scenario is not equally promising in the Indian milieu, it is expected that the process of work-from-home shall be normalized over time (2020). The impact of the novel COVID-19 pandemic is disruptive to the extent that it has positioned business managers in a quandary, where employees need safeguarding against the likelihood of being infected while maintaining operational efficiency. The other devastating alternative was laying off employees, which did take place on a large scale for jobs like factory and construction workers, where work-from-home was not a feasible option (Business Standard and Agencies, 2020). Unfortunately, the archetypal labour laws in India fail to recognize work-from-home as a valid employment avenue, despite the existence of the concept for years (Singh, 2020). The Directorate of Telecommunication made a relaxation to permit the materialization of the practice in March 2020 (ET Government, 2020). The IT companies want such relaxations to be made permanent (Economic Times Correspondent Team, 2020). Their demands have been granted to a certain extent as there has been an extension in the relaxation of rules until December 31, 2020, for IT and BPO companies. Notwithstanding, an array of sub-sectors such as finance, consulting, and media in the tertiary sector have adopted this policy as well, thereby resulting in a large chunk of Indian employees working from home.

The very requirement of work-from-home has triggered several demand-centric implications for technologies that enable it. Given that 24 percent of Indians own a smartphone (Taylor and Silver, 2019), there exists a mammoth potential for smartphone manufacturers to efficaciously harness the market. Further, even the 'Boycott China' movement in India has not tampered

with the sale of smartphones in the Indian market too adversely (Counterpoint Research, 2020), and the underlying reasons for this phenomenon may be attributed to the sky rocketing need for smartphones. Interestingly, the loss in market share of Chinese brands have been captured by Samsung, which boasts the second-highest market share at 26 per cent for Quarter 1 of FY 2020-21, up from 16 percent in Quarter 4 of FY2019-20 (Counterpoint Research, 2020). This occurs specially after Xiaomi had started to retain its standing and market share through its innovative policy of labelling its offerings with the 'Make in India' symbol, helping build brand loyalty (Vishwanath, 2020). At the same time, Oppo and Realme faced supply constraints while Vivo maintained its market share with the launch of new products (Vishwanath, 2020). A pause in productions in March 2020 had ensued a plunge in the productions for the month and yet, the growth in the number of shipments happened to be 4 percent in January-March 2020, as calculated on a YoY basis (Counterpoint Research, 2020).

The personal computer segment registered a robust escalation in sales with an aggregate sales volume of 11 million units in 2019. Since most schools and higher educational institutions have already adopted, or are starting to adopt the online mode of teaching, the market for personal computers has gained a new customer base in the form of students (Mukul, 2020). In the preliminary stages, with complete lockdown, the sales for the quarter ended March 2020 dropped overall. However, Asus gained a 40 percent rise in sales over the same period (INDO ASIAN NEWS SERVICE, 2020), thereby resulting in a recovery in sales in Quarter 2 and Quarter 3 of 2020, with a majority of the sales being conducted on online e-commerce platforms such as Amazon and Flipkart (Mukherjee, 2020).

Conversely, the threats to the hardware and mobile phone sector are reflected in the IT sector. There exist two major weaknesses that happen to adversely impinge on the opportunities which the IT companies continually endeavour to materialize. First, it must be noted that in the backdrop of the service sector, certain jobs such as cleaning and nursing, among others, cannot be performed from within the confines of one's home. The same is also applicable to agricultural as well



as industrial workers. The only consumer segment that would essentially call for tech-backed devices to aid in working from home is the service personnel in certain professions like accounting, consulting, legal advisory, et al. and students resorting to online learning. This segment interestingly forms a minority in the market, which cripples its sales numbers. Sadly, the alarming poverty levels in India have always sustained a low scope for market expansion, with individuals selling their land, livestock as well as other assets to purchase mobile phones for their children to attend online classes (Sood, 2020).

The demand seems to be contradicted by the ability as well as a proclivity to make purchase decisions. There are bearish predictions of sales in the post-COVID paradigm. India Cellular and Electronics Association (ICEA) maintains that the demand for smartphones will remain impervious. Nevertheless, the Tech Art survey reveals that there will be a decline in the market, particularly in the ₹ 5,000 to ₹ 25,000 segments. (IANS, 2020)

E-commerce services from a part of the retail sector as their high inter-dependency on IT products cannot be discounted. Such e-commerce portals have taken requisite safety measures to ensure that their operations are not completely halted. Even during the period of a nation-wide lockdown, these services have warranted a healthy revenue growth (Laskar, 2020). This may be attributed to their robust supply chain mechanisms on the supply side, and customers trusting their hygiene practices and non-contact deliveries on the demand side.

Further, one of the major influences of the induction of online classes by educational institutions and webinars for meetings by corporates and public sector enterprises, has sparked a surge in demand for video conferencing applications such as Zoom, Google Meet, et al., which have gained significantly in terms of market share and profits in the current scenario. Reliance Jio launched Jio Meet in a bid to take on Zoom in the Indian market and with its strikingly similar features coupled with an ongoing anti-Chinese sentiment among consumers, experts claim that Jio might become a dominant player in the Indian market (Sathe, 2020). Concurrently, many loyal subscribers of Zoom may be

unlikely to shift. Furthermore, collaboration platforms such as Microsoft Teams and WebEx are prevailing competitors with a good market share which shall pose immense challenges for Reliance Jio. The market for video conferencing applications has soared amidst the current lockdown scenario. The primary user base happens to be students and faculty members of various educational institutions. Here, Zoom appears to be a clear winner in terms of harnessing the said market (Novet, 2020).

### **IMPACT OF FINANCIAL FALLOUTS ON THE STOCK MARKET**

The financial statements of an organization, business or otherwise, proffers a transparent picture of the influence of the vicissitudes of the external environment, to the effect that firms can efficaciously harness it to their benefit. To this end, it is relevant to access and concurrently analyze the quarterly results of specific companies. For example, the strategic investments into Jio's platform and its newly launched products with a good expectation of profitability have led to a bull run in RIL stock prices, making it the highest valued company in India. In this undertaking, the quarter-wise P/L statements of some companies have been considered. First, the analysis of the financial data of Tata Consultancy Services has been conducted (refer Table1), wherein it has been observed that in the quarter ended June 30, 2020, there has been a 4 per cent decline in revenues, coupled with the expenses to some extent when compared to the quarter ended March 31. The consequence was that the operating profits have dropped but not abruptly. The decrease in net profits may be ascribed to triggers such as a fall in other incomes and an upsurge in taxes. But these reasons do not justify the company's market performance and hence, we take into consideration the operating profits. With the ongoing lockdown, offices had to be shut and the transformation from office to work-from-home was not a smooth one. The office as well as staff costs got affected on one side, while the office required no maintenance for a temporary period, thereby reducing the costs. On the contrary, accommodations had to be arranged for setting up a seamless work-from-home experience. On top of this

Narration	Jun 2019	Sept 2019	Dec 2019	Mar 2020	Jun 2020
Sales	38,172.00	38,977.00	39,854.00	39,946.00	38,322.00
Expenses	28,135.00	28,752.00	28,983.00	28,971.00	28,298.00
Operating Profit	10,037.00	10,225.00	10,871.00	10,975.00	10,024.00
Other Income	1,675.00	1,361.00	818.00	738.00	598.00
Depreciation	817.00	864.00	897.00	950.00	976.00
Interest	257.00	193.00	223.00	251.00	142.00
Profit before tax	10,638.00	10,529.00	10,569.00	10,512.00	9,504.00
Tax	2,485.00	2,471.00	2,426.00	2,419.00	2,453.00
Net profit	8,151.00	8,042.00	8,118.00	8,049.00	7,008.00
OPM	26%	26%	27%	27%	26%

Source: Data for quarterly results of TCS retrieved from [www.screener.in/company/TCS/consolidated/](http://www.screener.in/company/TCS/consolidated/)

**Table 1: Consolidated Quarterly Results of TCS (2019-20)**

Source: Authors' Compilation

Narration	Jun 2019	Sept 2019	Dec 2019	Mar 2020	Jun 2020
Sales	21,803.00	22,629.00	23,092.00	23,267.00	23,665.00
Expenses	16,651.00	16,990.00	17,291.00	17,391.00	17,344.00
Operating Profit	5,152.00	5,639.00	5,801.00	5,676.00	6,121.00
Other Income	736.00	676.00	827.00	614.00	475.00
Depreciation	661.00	727.00	737.00	749.00	756.00
Interest	40.00	42.00	42.00	45.00	48.00
Profit before tax	5,167.00	5,496.00	5,849.00	5,496.00	5,792.00
Tax	1,365.00	1,459.00	1,383.00	1,161.00	1,520.00
Net profit	3,798.00	4,019.00	4,457.00	4,321.00	4,233.00
OPM	24%	25%	25%	24%	26%

Source: Data for quarterly results of Infosys from [www.screener.in/company/INFY/consolidated/](http://www.screener.in/company/INFY/consolidated/)

**Table 2: Consolidated Quarterly Results of Infosys (2019-20)**

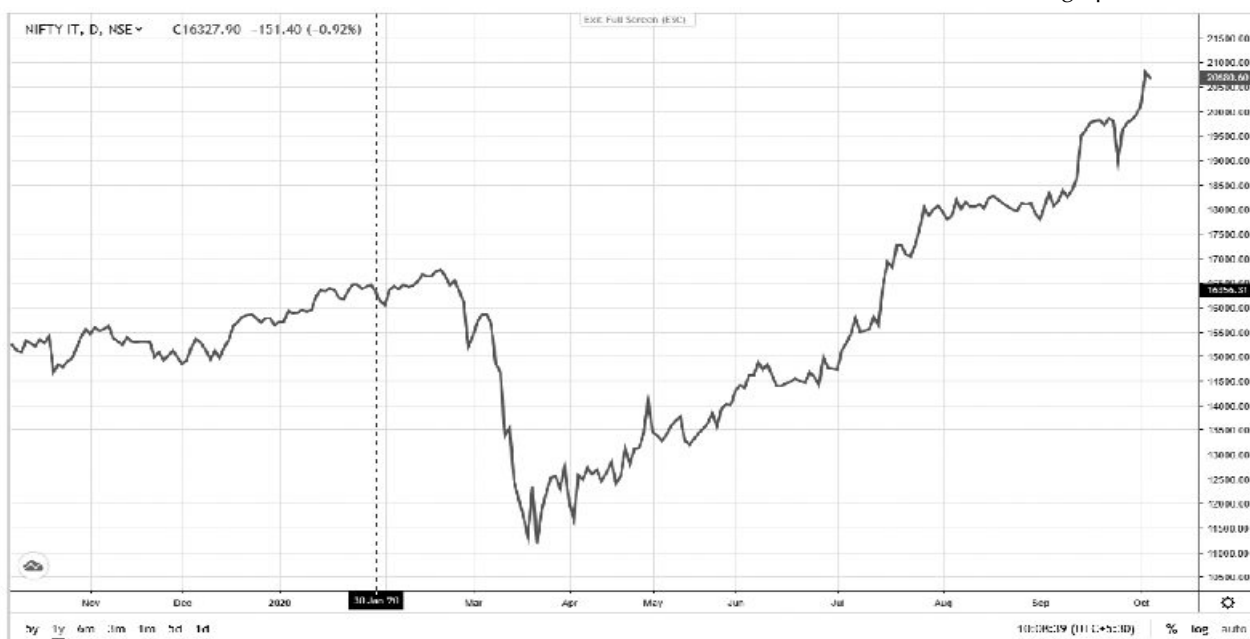
Source: Authors' Compilation

was the issue of clients not operating in the lockdown period, thereby leading to a loss in revenues. A similar pattern has been observed in the case of Infosys as well (refer to Table 2), which had, however, made the

best of work-from-home for its employees to save costs. The operating profit margin has gone up, outdoing the previous estimates of market analysts and equity researchers. Interestingly, an analysis of the majority of the large-cap and mid-cap companies that dominate the Indian market yield similar results (Money control, 2020).

The IT stocks had also plummeted on March 23, 2020, which happened to be the sharpest dip in the stock market in recent times, especially in the pandemic scenario. Notwithstanding, the IT stocks have recovered to previous levels, and with the expected profitability to rise due to the new normal, they happen to be a good choice for investors in the present

and forth coming setups. The index of IT companies, Nifty IT showed a very bullish trend in the aftermath of the plunge, rising to 11000+ levels in July from 7610.25 as of March 23, 2020 (refer graph 1). Mindtree

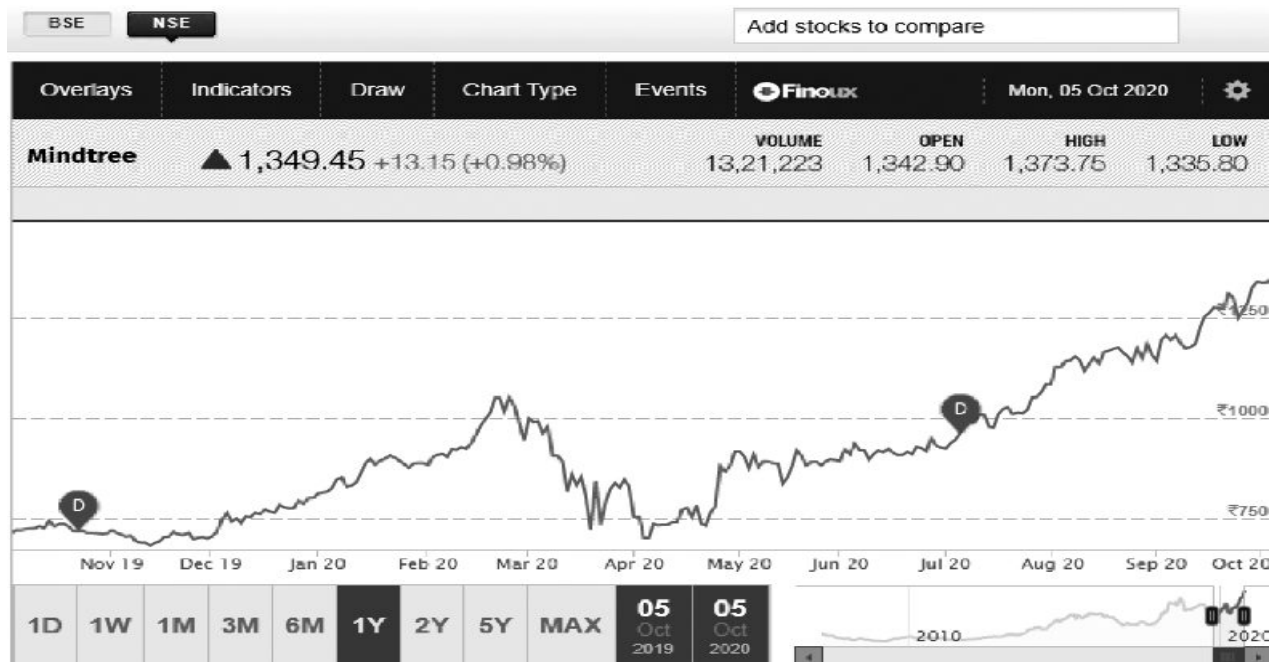


**Graph 1: Nifty IT index from October 6, 2019, to October 6, 2020.**

Source: [www.moneycontrol.com/indian-indices/nifty-it-19.html](http://www.moneycontrol.com/indian-indices/nifty-it-19.html)

and Birlasoft are two prominent companies whose stocks have been in the bull run, making the mid-cap and small-cap companies respectively into large-cap and mid-cap companies (refer graph 2 and 3 respectively).

**Note:** The 1st coronavirus case in India was detected on 30th January 2020, so the period after 30th January 2020 is taken as the COVID-19 era and the period up to 30th January as pre-COVID era throughout the article.



Graph 2: Mindtree stock prices from 5th October 2019 to 5th October 2020

Source: [www.moneycontrol.com/stock-charts/mindtree/charts/MT13#MT13](http://www.moneycontrol.com/stock-charts/mindtree/charts/MT13#MT13)



Graph 3: Price of Birlasoft stock from 5th October 2019 to 5th October 2020

Source: [www.moneycontrol.com/stock-charts/birlasoft/charts/kpi02](http://www.moneycontrol.com/stock-charts/birlasoft/charts/kpi02)

## THE ROAD AHEAD

The IT sector is poised to mature further and offers an apt choice for retail investors in the stock market. It has historically provided high stock price CAGR in the boom phases. This is on account of its heavy influence on work and life, which gives it such a strong market base. The situation, however, is different in the COVID-19 paradigm. It has been observed that several Indian hardware companies are incurring losses due to inadequate skills and limited product bases in the present situation (Screener, n.d.). Conversely, software companies, often mistakenly considered to be synonymous with the IT sector, have been flourishing (Moneycontrol, 2020). Therefore, it must be made clear that the consistently emerging market of software industries presents a good opportunity for investors. The IT sector is pegged amongst the five sectors generating 75 percent of the overall profits and is one of the sectors least affected by the pandemic (Vijayraghavan, Malviya, Philip, and ET Bureau, 2016). The stock prices CAGR of multiple IT companies have shown an excess of 30 percent growth over the previous year in the recovery stage (Moneycontrol, 2020). A noteworthy example is Mindtree Ltd. which delivered a year stock price CAGR of 56.63 percent as of July 31, 2020 (Screener, 2020). Infosys share prices rose by 11 percent on the day after publishing its quarterly results (Moneycontrol, 2020).

The very nature of the IT sector is that it is innovation-centric. This offers the IT companies an economic moat indirectly in the long-term. The products produced by this sector, being intangible, are value creators or catalysts of change when they serve versatile industries. With the work-from-home arrangement, the sector gains a foothold on new products for the new normal and eliminates many of its expenses while the revenue, profit, and stock prices will ascend. The innovative sector is poised to generate employment for the new generation of innovators who would be capable of handling the changing scenario. In conclusion, we say that the sector is on the route to becoming a pivotal force in steering the economy and generating opportunities for growth and employment on one hand, and value for its investors on the other.

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“

Not all fallen  
stocks are angels  
and not all dark  
companies have  
a bright future.

One has to be  
extremely careful  
while placing a  
contrarian bet  
because the view  
is not a publicly  
acclaimed one.

”

# Contrarian Investing: An Odd Bet!

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## ABSTRACT

There are over a million transactions executed between traders in a stock market every day; but, how many of them actually end up on the winning side in the long run? Apparently, the answer is 50 per cent, keeping in mind that a transaction is always two-sided. If one wins, the other is bound to lose. However, with uncertainty looming over the stock prices as always, people tend to follow the market instead of going against it. While most traders ride the joy wave at boom and panic during a downturn, there are some who manage to believe what the others don't. They are known as contrarian investors. This paper delves into the classic contrarian traits and focuses on two fallen stocks, namely YES Bank and DHFL. Although the world is in need

of more contrarians, it is imperative to acknowledge that contrarians wouldn't have existed without the herd.

**KEYWORDS:** Contrarian Bet, Contrarian Investor, Investment Psychology, Stock Recovery, Controversial Stocks – YES Bank and DHFL, Fallen Angels

The world economy might be staring at an inevitable recession but the stock markets are at a new high almost every day, with the market VIX fluctuating daily. VIX, also known as the volatility index, is just another fancy word for 'fear index.' More than the 'two invisible hands' of economics, namely demand and supply, the markets are driven by fear and greed. On paper, investors are rational who concentrate on maximising their utility with perfect knowledge of their surroundings, but in reality, they are in constant fear that the market is smarter than them which provokes them to tread on the heels of the herd. Moreover, isn't it easier to follow the view of masses than to have an opinion of your own? In a stock market, the answer is an easy yes. This is where contrarian investors play the role of a negative feedback trader and do exactly what others would not. The market has two sides – the buy-side and the sell-side. Negative feedback traders are those who provide liquidity to the market, especially during stressed periods, by buying stocks at a fallen price and selling them when the market has reached its height. They are essentially the balancers in the market. On the other hand, those who follow the crowd and are high on the fear index are the positive feedback traders. They are the ones who give momentum to further crises in already distressed times. In a nutshell, contrarians believe in what the others don't. That is their only strategy!

In this context, some of the books and articles reviewed are as follows -

- 'Contrarian Investment Strategies: The Next Generation' by David N. Dreman.
- Motilal Oswal's thematic book on 'Contrarian Investing- It pays to be different', published in June 2017.
- A research article titled 'The Psychology of

Contrarian Investing' by Philip Lawton.

- An article called '7 key things you should know on Contrarian Investing Strategy' by Ravichand.

The main objective of this paper is to study two stocks in particular, namely YES Bank and DHFL (Dewan Housing Finance Ltd.), and whether they are possible contrarian bets. Speculations have been at a maximum to say the least on these two stocks as there is a visible trade-off between the high potential of these stocks and the issues pertaining corporate governance which might have ruined these companies forever. Lastly, a public consensus has been taken to gauge the investment psychology based on various factors and a public view on these two controversial stocks in terms of whether they are worth the contra-investing.

Dividing the group of 151 respondents through a survey on contrarian investing and investment psychology, there were three distinct age groups – Below 21, 21-35 and above 35. With nearly 43 per cent of respondents in the age group of 'above 35', 67 per cent of respondents described themselves as defensive investors. Two plausible reasons behind the defensive nature can be – lack of knowledge that leads to fear in the mind, or maturity in the age that leads to less risky behaviour. Although defensive in nature, almost 64 per cent of people believed in the idea of 'contrarian investing' instead of disregarding the concept as a whole, and 53 per cent would even invest in an unpopular, degraded stock that had an upside potential when given a choice between the aforementioned and a popular stock in which everyone was putting their money in.

### YES Bank Ltd.

Known to everyone, YES Bank Ltd. is a public bank primarily focussed on retail banking and asset management business, founded by Rana Kapoor and Ashok Kapur in 2004. In 2018, the image of the bank came under the radar for a series of allegations of money laundering. The conspiracy involved both Rana Kapoor and Kapil Wadhawan of DHFL. With both the cases being entwined, it resulted in the downfall of the banking sector and more importantly, YES Bank.

Yes Bank Limited (YESBANK) Stock 10 Year History

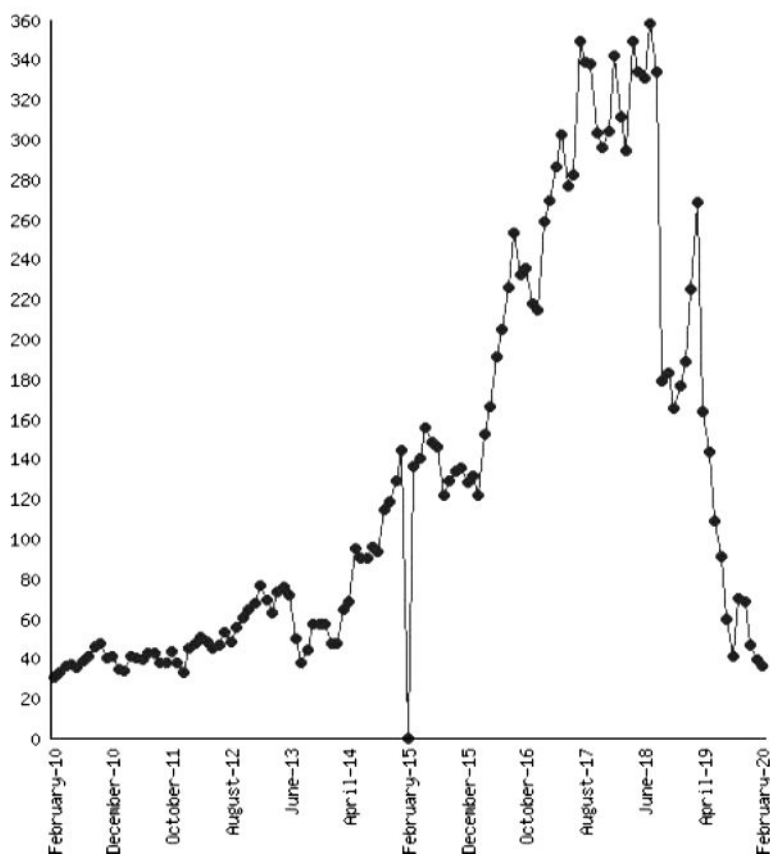


Figure 1

Source: Wallet-investor.com

The share price had reached a maximum of ₹ 393.20 on 17th August, 2018 right before the massive downfall. It fell to ₹ 183.65 on 28th September, 2018 after which it did reach ₹ 266 on 28th March, 2019, but since then, there has been a continuous downtrend for the company share prices. As of March, 2020, it is trading at ₹ 21.35.

With the prices recovering after the first downfall, contrarians had a fair reason to believe that YES Bank still had the potential to make up for its losses and rise from the grave in which it was dwelling. After SBI had announced the takeover plan and the government showed its backing, many investors were inclined to believe that YES Bank would soon be back on track. The bank had been swiftly bailed out and the RBI had provided SBI as a major stakeholder which was a positive sign for contrarians. Many prominent investors like Rakesh Jhunjhunwala, Axis Bank, HDFC Bank,

Kotak Securities, and so on were among the ones who had taken a prominent stake in YES Bank in March, 2020.

Nearly 62 per cent of the respondents tend to believe that YES Bank is a contrarian bet while a staggering 75 per cent have a strong reason to back this bank on grounds of the government bailing it out in due course of time. Later on, RBI even took sharp measures to restructure the bank while imposing a limit on the sale of stocks which could not exceed 100 units per investor. Such measures did bring in a positive wave of hope towards the bank's future.

Contrary to popular belief, there were few people who saw the stock as a failure as it had issues pertaining to corporate governance which made it impossible to revive from such levels even with the SBI backing the bank. The CEO and founder of the bank being arrested and questioned for hours by the police on charges of unscrupulous activities had led the investors to believe that there is no chance of a miracle in the future of this bank.

### DHFL Ltd.

DHFL is a deposit-taking housing finance company which provides access to the lower and middle-income group of the society in terms of housing finance. In the year 2018, DHFL was hit by a massive scam that resulted in the collapse of the NBFC sector and the credit rating of DHFL dropped significantly.

The price was at a height of ₹ 658 on 24th August, 2018, which then dropped to ₹ 184.10 by 26th October in the same year. Since then, the company has seen a massive downtrend which is continuing and as of 10th March, 2020, DHFL is parked at ₹ 15.50.

Many contrarians believe that now is the right time to buy such a degraded stock as it fulfils the criterion of being a contrarian stock which are – low P/E ratio, low P/B ratio, low P/S ratio and being a moderately popular stock because of its past reputation. Also, the RBI taking



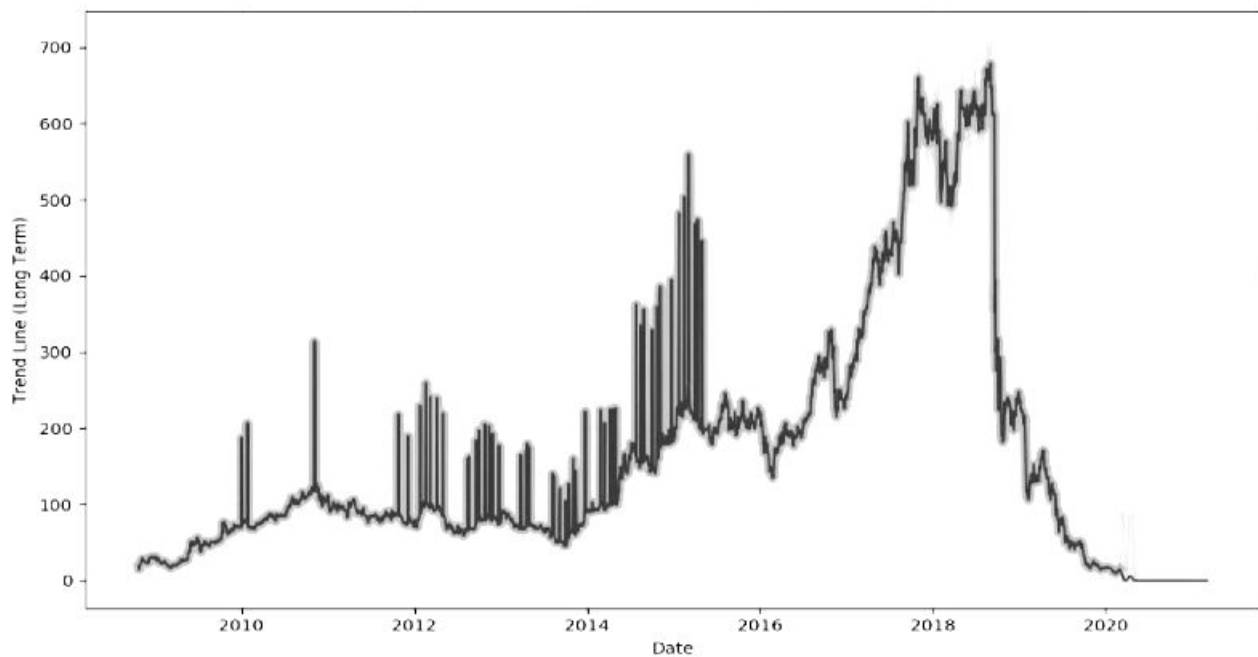


Figure 2

Source: Netcials.com

over the company by citing governance issues had raised the hopes of many who thought that there is still something valuable left in the company which could raise the stock prices of DHFL. Apart from the RBI testing the bankruptcy rules, a dozen big companies like Adani Group, KKR, Bain Capital, Piramal Enterprise, et al had shown interest in DHFL, which further raised the expectations of the public about the future of the company.

In comparison to YES Bank, DHFL does not seem to have much high regard among the respondents as people believing in its contrarian nature is only by a short margin of 53 to 47, whereas 55 per cent of the people believe that DHFL has been wiped off completely with no chances of recovery.

Well, the million-dollar question remains – How reliable is contrarian investing and is it worth the risk?

The answer is a simple yes. However, here comes the catch – it is worth the risk only if the risk is calculated. Not all fallen stocks are angels and not all dark companies have a bright future. One has to be extremely careful while placing a contrarian bet because the view is not a publicly acclaimed one. It is a

unique bet that only you hope will have a positive outcome.

Personally, I feel that DHFL might have had a stellar reputation but the scam associated with it is too huge to recover from. Therefore, I would not treat it as a contrarian stock. On the other hand, YES Bank has enough potential to rise from its ashes and revert to its mean level. It is just a matter of time, support and improved governance after which the bank will uphold its lost integrity.

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It is not only  
about  
organization or  
cleanliness but  
rather about  
optimizing  
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benefit

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# The 5S Methodology – A Japanese Lean System Innovation Model

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## ABSTRACT

This article deals with the 5S Methodology, which is one of the most important and critical methods for implementing lean production. It is a method for controlling the workflow by systematizing the geographical level, thereby promoting a culture of continuous improvement. 5S was initially implemented in Japan, especially in the manufacturing and service industries. 5S is the semantic for 5 Japanese terms – Seiri, Seiton, Seiso, Seiketsu and Shitsuke. 5S delivers benefits like reduced costs, higher employee morale, higher productivity, et al. It is, in some places, also known

to have been integrated into the Toyota production system. In recent times, a 6th 'S', i.e., 'Safety' has also been introduced to the model.

The lean production system has been discussed in brief in order to provide a general overview of the same. After a detailed study on the methodology, a small case study of The Boeing Company, one of the biggest companies to have adapted this methodology after a decline in workplace efficiency, has been undertaken. The company benefitted from the implementation and adopted various other lean innovation models.

A discussion on the industries which majorly use this methodology along with recommendations about the companies which can adopt this model has also been undertaken. The major participants in this model are the employees. It is very important to keep them motivated throughout the process.

The information has been gathered from various sources online.

**KEYWORDS:** Lean System, 5S, Japanese Model, Workplace Organization.

## INTRODUCTION

### Lean System

For any organization, the lean system is an integrated method of reducing waste, without compromising efficiency, within a production system. Lean implementation stresses the importance of optimizing the workflow through strategic operating procedures while reducing duplication and there by, adapting it.

Waste is any step or event in a process that is not necessary to successfully complete a task. It is a 'non-value-adding' operation. When waste is eliminated, only the measures that are needed to provide a satisfactory product or service to the consumer, i.e., the 'value-adding' operations remain in function. The waste is usually divided into seven types:

- a) Transportation – the movement of products which are irrelevant for the process
- b) Inventory – excess stocking of inventory

- c) Waiting – products waiting for the next step of production
- d) Motion – man and machine working more than required to perform the process
- e) Over-Processing – carrying out non-value-added activities
- f) Over-Production – producing more than required
- g) Defects – not getting it right the first time

The lean production system is characterized by a transition in conventional thought, from batch and queue to the production of product-aligned pulls. In other words, instead of generating several pieces, the emphasis is on the various types of operations performed in a continuous flow, adjacent to each other.

Some major principles of the lean manufacturing system are:

- a) Waste minimization
- b) Flexibility
- c) Continuous improvement
- d) Perfect first-time quality
- e) Zero waiting time
- f) Continuous flow of production

There are various techniques which can be employed to achieve the benefits of the lean system:

- a) Just-in-Time (JIT)
- b) Kaizen Costing
- c) Six Sigma
- d) Total Productive Maintenance
- e) 5S

5S is the name of a system used for a set of five Japanese words: Seiri, Seiton, Seiso, Seiketsu and Shitsuke. It demonstrates how to organize a workplace for flexibility and effectiveness by recognizing and storing used objects, retaining the area and products, and maintaining the new order. These 5 Japanese phrases can be translated into English as Sort, Set in Order, Shine, Standardize and Sustain.

## OBJECTIVES

The main objectives of the proposed study are to study the relevance of the 5S system in the current scenario. The objectives are:

- To understand the lean system model, study the 5S technique under its roof, and understand the introduction of the 6th S
- To appreciate the application of the 5S system by Boeing
- To find out the application of the 5S system by Indian companies
- To recommend the implementation of this model in various industries

## RESEARCH METHODOLOGY

Research methodology is an approach to systematically solve research issues. It is essential for us to not just

understand the research strategies, but also the procedure. It must be noted that the centrality of research lies in its quality and not quantity. The project is based on secondary data. The secondary sources include collection from certain books and different websites.

In a research paper, the methodology section allows the reader to critically evaluate a study's overall validity and reliability.

## BACKGROUND STUDY

### Lean System:

A lean company understands the value of the consumer and targets its core processes in order to keep increasing it. The ultimate aim is to provide optimal value to the consumer through a cycle of perfect value creation with zero waste.

Simply, lean implies generating more value for customers with fewer resources.

To achieve this, lean thinking shifts the management's focus from improving separate technology, assets, and vertical divisions to maximizing the flow of goods and services across the entire value streams that flow horizontally to consumers through technology, assets, and division.

### Characteristics:

Organizations that implement the lean system become a lean enterprise. The key characteristics are:

- CustomerFocus– A lean business tries to consider not just the needs of consumers but also their expecta-

Name of Book/ Report/ Article	Author	Year	Review
Five Stepped Processes Involved in 5S	Mr. Adam Lynch and Ravi Patel (Guide of the Research Paper)	2018	The research paper examines the evolution of 5S under the Japanese influence, the significance of the implementation of 5S in the industry, the factors to be considered for the implementation of 5S, the scope of 5S, future prospects, need and necessity of 5S and its limitations.
5S System	The Creative Safety Supply	2018	Analyzes the origination of 5S in the Toyota Production System and also the purpose of 5S. It also discusses about the new S, i.e., 'Safety'. Clarifications and recommendations with respect to the implementation of 5S have also been discussed in this article.
Review of Implementation of 5S in Various Organizations	Vipulkumar C. Patel and Dr. Homant Thakker	2014	This paper explains the methods and techniques that 5S uses to increase the efficiency of all the processes in a company. Special emphasis is given to the implementation of the 5S system and the elimination of losses in the company.

Table 1

tions with respect to quality, delivery and price preferences.

- **Purpose** – A lean enterprise focuses on the purpose of an organization, i.e., the vision (where it wants to go), mission (what it wants to do), and strategies (how it wants to do).
- **Empowered employees** – The enterprise believes that all the employees should share the responsibility for success and failure.
- **Process** – Organizations foster horizontal thought, not vertical thought. The focus is on how the product moves and not how the machines, people or customers move.
- **Improvement** – Continuous progress will be the priority of everyone in the organization. Improvement should go beyond the gradual elimination of waste in order to involve breakthrough innovation.
- **Partnership** – A critical feature is the use of teams and not people, internally between departments and externally with suppliers. The employees are partners too.
- **Simplicity** – Lean is not simple, but it pervades simplicity. Simplicity is better accomplished by minimizing ambiguity rather than by methods in 'rationalization'.
- **Trust** – A lean enterprise is at the core of building faith by delivering on promises and commitments.

## THE 5S

5S is the methodology which results in a clean, tidy, secure and well-organized workplace. Such a workplace helps with waste management and efficiency optimisation. This builds a professional work environment both physically and mentally. A work

area's 5S status is important to the workers and is the basis of the first impression on customers.

### The 5 S's

At this point, the 5S idea may sound a little theoretical, but in fact it's a practical hands-resource that anyone in the workplace should be a part of.

5S involves the study of all the elements present in a space, removal of unnecessary things, rational arrangement of items, housekeeping and maintenance.

### 5S in Detail:

#### SORT (SEIRI)

The initial stage of 5S, Sort, includes the inspection in the work area of a machinery, furniture, materials, appliances, et al, in order to determine what must be present and what can be omitted. Some questions to ask in this phase include:

- What is the intention of this item?
- When was it last used?
- How frequently is it used?
- Who would use it?
- Does it really need to be here?

Such queries help assess each item's worth as without needless objects or things used infrequently, a workspace would be better off. This stuff could be getting in the way or taking up area. The people who work in the room are the best ones to evaluate the objects in that room, and therefore, they should answer the questions mentioned above.

When it's decided that such products are not required, consider the following decisions:

- Send the products to another department
- Recycle / throw away / sell the items
- Place items in storage

#### SET IN ORDER (SEITON)

It is easier to identify when the extra uncertainty is gone. Now, methods can be created to arrange the remainder of the products by working groups. Then things to be taken into account are:

- Which individuals (or workstations) use which products?

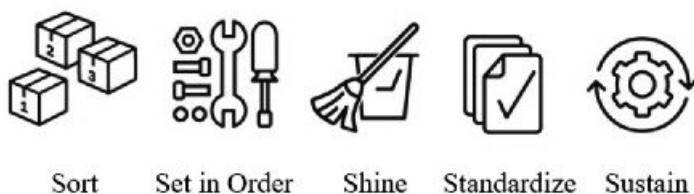


Figure 1

- When will the products be used?
- What are the most widely used items?
- Do the objects need to be grouped by type?
- Where will the most appropriate location of objects be?
- Can those placements cut down on excessive movement?
- Would more bins be required to keep items organized?

The most rational arrangements will be decided in this phase. This would include going about errands, the nature of certain chores, the ways employees and workers function in the environment, and so on.

#### SHINE (SEISO)

Everybody presumes that they know what housekeeping is, but that's one of the easiest things to forget, particularly when the work is going on. Shine focuses on the cleaning of the working area, e.g. vacuum, dusting, washing of floors, regular maintenance on equipment and machinery, et al. Ahead of time maintenance, planning ensures that companies can keep up with the issues and avoid breakdowns, meaning that less time is lost and no loss of income is associated with job stoppages.

In 5S, everyone is responsible for cleaning up their office, preferably every day. By doing so, they own the place, which means that people are interested in their jobs and in the business in the long run.

#### STANDARDIZE (SEIKETSU)

After the first three steps, things look relatively fine. All the additional things are gone, everything is ordered, work spaces are clean, and the equipment works well.

The problem is that if 5S is new to an organization, it is easy to clean up and eventually it gets back to as it was. Standardize systematically turns all that has just happened into patterns and assigns routine roles, sets deadlines and provides guidance about turning them into protocols. It allows regular 5S operating procedures to avoid orderliness from slipping by the wayside.

#### SUSTAIN (SHITSUKE)

When 5S procedures are in effect, organizations must conduct the ongoing work of sustaining and upgrading



**Figure 2**

such procedures. Sustain denotes the method of keeping 5S running effortlessly, and also the way of keeping everybody involved in the company, including workers on the factory floor, in the warehouse, the administrators, et al. The goal is to make 5S a long-term initiative. Ideally, 5S is part of a company's ethos and when 5S is maintained over a period, companies can begin to see positive results continuously.

#### Safety – The 6th S

Many corporations prefer to have a sixth S – Safety, along with the 5S functions. The Safety stage includes concentrating on what can be achieved by organizing things in other ways to minimize the risks in the work processes.

It can include the design of workstations that are more ergonomic to mark intersections – such as forklifts and pedestrian cross-country paths with signage, and the labelling of the chemical cleaning storage to make people aware of potential risks. When individuals are unsafe in their workplace or hobbies, these threats should be reduced to the maximum degree possible. That is the goal of 6th S.

Safety plays a role in 5S anyway; the efficient layout of the room, the arrangement and routine cleaning of equipment and materials promote work by people without tripping, falling, ergonomic injury, et al.

#### Case Study

Owing to the success of Toyota, one of the first implementers of 5S, The Boeing Company, an American multinational that designs, manufactures and sells aircrafts, rockets, satellites, et al., also adopted this methodology in order to rectify its workplace disorder. In the USA, Boeing recognizes 5S as a world-class method for quality improvement.

Western groups use it to increase jobs while the Japanese see 5S as a way of changing people's thought and changing the workplace. 5S has been introduced

by the company to improve the health of its workers and reduce the risk of accidents during the manufacturing process. Boeing has introduced the approach in both its production and administration processes. With the aid of 5S, they have been able to simplify and increase their production.

## ANALYSIS

### General

The 5S principle was applied in the industry as well as other arenas but there is still room for development. Forthcoming research will explore the concept of using dominant systems in different cases, as well as the modification of the 5S protocol for protection as the current 6S.

Environmental, health and safety (EHS) should be included in 5S, making accidents more impossible, preventing the squandering of resources, and helping maintain a strategic distance from injury-related efficiency and word-related well-being risks by providing clean and mishap-free work regions. It comes down to combining lean assembly activities with workplace health and aptitude in order to yield safety, which is closely linked to what is left of the party.

### 6th S

The 6th S in 5S, Safety, has been introduced newly and focuses on the security of the workforce in implementing and achieving the goals of 5S. Many businesses accept that safety should be part of all 5S initiatives and that therefore, it does not need to be its own category. Safety plays a role in 5S anyway; the efficient layout of the room, and the arrangement and routine cleaning of equipment and materials promote work by people without tripping, falling, ergonomic injury, et al.

When individuals are unsafe in their workplace, these threats should be curtailed to the maximum degree conceivable.

### Industries Having Scope of Implementation of 5S

Other entities in further industries such as textile, hospitality, education, governmental organizations, communal kitchens, et al. can undertake the 5S implementation in order to increase workplace effectiveness.

It is a general workplace culture which can be adopted by any entity and organization in order to improve its effectiveness and efficiency. This culture can be initiated in the general office environment too. Irrespective of industry, virtually all companies have an operations centre that takes care of the backend business activity. 5S lean offices or similar approaches have frequently cluttered desks and storage spaces, as well as given rise to untidy work areas, supplies and equipment. This kind of work atmosphere decreases productivity and inadvertently promotes inefficient resource use. The removal of unwanted products and 5S workplace tidying will improve productivity and even reduce operating expenses.

### Indian Industry

In the Indian scenario, over the past decade, continuous enhancements have become momentous due to low financial availability and the importance of meeting global quality standards within the resources available.

Many manufacturing facilities ranging from SMEs to large-scale enterprises have decided to adopt the road towards a '5S' corporate workplace and housekeeping approach as a part of performance improvement or lean manufacturing processes in order to achieve higher quality standards by waste minimization. This idea is particularly appealing to older manufacturing facilities that are seeking to increase their performance to the bottom-line without capital investment.

Sphoorti Machine Tools is one such industry that has tried to boost efficiency and has seen improvements in efficiency and thus, high profit rates due to the successful application of the 5S methodology.

The 5S model was not popular in the Indian industries until quite recently. The automobile was the only industry to have adopted this strategy with Maruti being among the first to do so.

Its execution, however, depends on the scale of the organization, its vision and mission. While in companies with Japanese and Korean ties, a mature degree of understanding can be seen, it is mostly absent in SMEs. However, the spectrum is broad for companies to extrapolate this definition to the workplace, canteen, and scrapyard from outside the shop floor. Gradually, it is gaining popularity and becoming a relevant methodology in India too.

## FINDINGS

Originally gaining attention through its use in improving production processes, businesses outside the manufacturing sector noticed that the 5S approach was sufficiently flexible to be used in many forms of business operations. Below are some of the major industries that take advantage of the 5S methodology:

- **Manufacturing** – Since the success of Toyota with 5S, it has become a norm for manufacturing companies looking to optimize their efficiency.
- **Medical** - 5S lean is used to encourage orderliness in hospitals and medical facilities, ensure proper drug and paraphernalia marking, and increase overall patient health. The 5S approach also improves the operating efficiency of medical facilities as it promotes employee's productivity in an efficient and clutter-free setting.
- **Retail** - 5S lean is a perfect match for the retail sector because it promotes sorting and organization, two elements which support both the retailers and the prospective customers.
- **Technology** - The Computer Systems Division of Hewlett-Packard utilizes 5S to make system building more effective. Software parts are sorted, correctly labelled and stored in places that are easily accessible, making manufacturing quicker and easier.
- **General Office Settings** - Irrespective of industry, virtually all companies have an operations centre that takes care of the backend business activity. 5S lean offices or similar approaches have frequently cluttered desks and storage spaces, as well as given rise to untidy work areas, supplies and equipment.

## CONCLUSION

5S, a comprehensive visual management approach, makes use of everything from floor tape to manual operations. It is not only about organization or cleanliness but rather about optimizing productivity and benefit. 5S is a framework where the use of a particular mindset, and resources to promote efficiency and value are emphasized. It focuses on putting everything where it belongs and keeping the office

clean, making it easier for individuals to do their jobs without wasting time or causing injury.

All the organizations that adopted this strategy have witnessed increased productivity, efficiency, reduced costs and greater employee satisfaction. However, it is more prevalent in large organizations than in SMEs. It is a basic workplace culture which can be adopted by any industry, at any level and at any point in time. However, other lean system models such as Six Sigma, Kaizen, Kanban, et al. are more popular and are used more in the industries.

5S is a perfect way to reduce the 7 lean wastes (Muda).

Therefore, it is an efficient way to minimize waste from:

- Motion – decreasing the distance covered to obtain a device
- Waiting – minimizing the time spent waiting for a device to be acquired
- Inventory – eliminating any unnecessary equipment from the workplace.

Moreover, 5S is a perfect way to preserve formidable discipline within the team and improve the built-in efficiency of their work.

## RECOMMENDATIONS

- 5S is a company wide program and hence, all the employees ranging from the top tier to the factory workers should be an important part of its implementation. Employees at all levels of an organisation must undergo appropriate 5S training for the program to be successful. It includes in-floor senior managers, supervisors, support workers, and other employees.
- The training of employees could be achieved with a training DVD in a classroom environment, and/or by practical activities. For the workers to appreciate why the organization should start using 5S and why it is necessary, a brief history of 5S, its components, and its paybacks should be given to them. It is also likely that the way 5S is done at one company or even at one division may be different from others, and therefore, groups of people doing 5S will need to figure out the finest way to achieve the 5S steps in their spaces for the first time.



5S Title	Improvement Title	The 6th S Impact
Sort	Using foam inserts to keep the tool benches clean	Tools should be kept in better shape as they will be safer. It reduces the possibility of accidental cuts while looking for tools as well.
Set in Order	Organize shelving warehouses using labels	Using the opportunity to quickly locate items in the warehouse would reduce the risk of dropping objects or harming someone when looking through several areas.
Shine	Practice preventive machine maintenance	Holding devices running properly should help ensure that they do not fail and cause injuries.
Standardize	Ensure that workers carry out duties in the same way through shifts	Prevents injuries while workers work in different shifts because everyone is used to doing things the same way.
Sustain	Review 5S Improvements from the previous quarter to ensure successful implementation	Ensuring that changes have been adequately incorporated would help to preserve all the safety benefits in place in the future.

Table 2

- The 5th S, i.e., Sustain, is the most important S of this method. Hence, after all the previous steps have been implemented successfully, great emphasis should be given on its implementation.
- The 6th S, i.e., Safety, should be legitimately incorporated into this model as safety is an essential aspect for all the other 5S's. The table below justifies this point.
- Certain tools such as labelling, shadow boards, signboards, yellow floor markings, red tags, toolbox foam, safety tapes, et al. should be used for the first two steps of 5S.
- Companies in further industries such as textile, hospitality, education, governmental organizations, communal kitchens, et al. should undertake the 5S implementation in order to increase workplace effectiveness.
- The method's prevalence can be seen majorly in large MNCs and not SMEs. However, the spectrum is broad for companies to extrapolate this definition to the workplace, canteen, and scrapyard from outside the shop floor.

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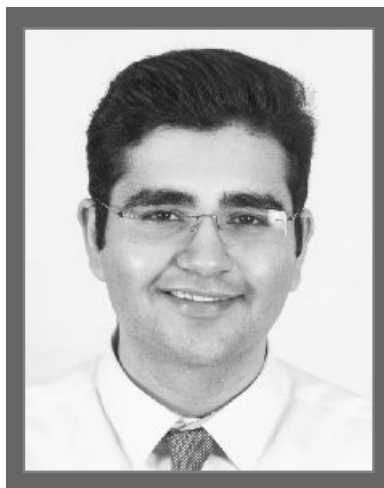
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The science of online marketing is the research and analysis that goes into choosing the online marketing strategies which should be used and measuring the success of those strategies.

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# **A study on the Impact of Visual Merchandising and Online Marketing on Consumer Behaviour: A Case Study of Giani's Atwork**

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## **ABSTRACT**

This study was conducted to understand the impact that various visual merchandising and online marketing strategies have on the consumer's

decision making and ultimately the firm. The firm in question here is Giani's atwork. This study was also conducted to understand the various strengths, weaknesses, opportunities and threats to the organization in question.

**KEYWORDS:** Visual Merchandising, Furniture Industry, Online Marketing, SWOT Analysis, Consumer Behaviour

## INTRODUCTION

The furniture industry of India is mostly unorganized. According to the Indo-Italian Chamber of Commerce Report of 2007, the industry is roughly worth about ₹ 650 billion and the demand for furniture is increasing by 12 per cent each year.

One strategy that marketers have used extensively to sell their products since time immemorial has been the practice of visual merchandising at their respective retail outlets. Visual merchandising is the presentation of a store and the merchandise that is being sold in such a manner that it attracts the customers towards making the job of the sales staff much simpler.

Another strategy is online marketing, which means marketing the product to the prospective end-consumer through purely electronic means. A firm advertising its products online can start selling nationwide or even internationally due to the immense market reach.

This study is being conducted to gain an insight into the way consumers make their purchase decisions while buying furniture through various different sources such as the traditional retail outlets and the more recent online stores. It also gives an insight into the market competition that a firm like Giani's atwork faces and how the firm is able to beat the competition through strategies like online selling and visual merchandising.

## LITERATURE REVIEW

Neha P. Mehta and Pawan K. Chuganin their research study 'Impact of Visual Merchandising on Consumer Behaviour' have studied the impact of product display

in a store through a furniture store present in a mall of Mumbai. This study has formed the basis of understanding the impact of product display in the case of Giani's atwork as well.

Prof. Mary Lou Roberts and Prof. Debra Zahayin their book 'Internet Marketing: Integrating online and offline strategies' have described the global penetration of the internet into various sectors of our lives and how it has become a necessity for businesses to stay competent in the market.

Claus Ebster and Marion Garausin their book 'Store Design and Visual Merchandising: Creating store space that encourages buying' have described in detail the various strategies that can be used to improve the way that a retail space looks and feels in order to attract consumers toward it.

Matt Bailey, the author of 'Internet Marketing: An hour a day', lays down the various elements to internet marketing and describes how, by spending an hour a day for a couple of months, a person can organize his entire online marketing strategy and how beneficial it turns out to be for a business organization in this day and age.

In his book 'Visual Merchandising: The Image of Selling', Professor Louisa Iarocci has delved into great depths on the study of visual merchandising and its importance to firms engaged in retail trade. She has gone into great depths regarding the history of visual merchandising and the different effects that it has had on the minds of consumers over various time periods. She has also explained the applicability of visual merchandising while explaining 3 P's of marketing, i.e., Promotion, Product and Place.

Another similar study was conducted by Dr. Khuman L. Rathod and Prof. Sandip G. Prajapati in their paper 'A Study of Factors Affecting Consumer Preference and Satisfaction for shopping from the Organized Retail Stores over Unorganized Retail Stores in Selected Cities of Gujarat Region'. They analyzed the various behaviours that consumers show towards a retail outlet in the organized sector to that of one in the unorganized sector in different cities of Gujarat, i.e., Ahmedabad, Baroda, Rajkot and Surat. They concluded that consumers prefer organized retail stores due to the

various additional facilities provided such as free parking space, all types of goods under one roof, branded products and, last but not the least, the visual display of products.

## RESEARCH OBJECTIVES

The primary objectives of this study are listed below:

- Understanding the influence that different strategies of online marketing have on the behaviour of consumers.
- Study the effects of visual merchandising while presenting a product to a consumer in a store, i.e., Giani's atwork or when they are displayed directly to consumers in the process of personal selling.
- Another objective of the study was to determine the market opportunities and threats that Giani's atwork would face when entering the online market.

## RESEARCH METHODOLOGY

The primary data collected for this study is in the form of a questionnaire and each response is recorded and analyzed in order to give an insight into the various questions that are asked. This ultimately gives us information regarding consumer perceptions about online marketing and visual merchandising of furniture by Giani's atwork.

The various sources of secondary data used in the current study are internet articles about various online marketing platforms, reference books with information regarding the consumer behaviour and the effects of various marketing strategies, and journals and research papers regarding studies in similar fields.

The sampling method used for the study is convenient sampling which is basically done at the convenience of the researcher.

## LIMITATIONS OF THE STUDY

Every research has some limiting factors which do not permit a thorough analysis of the topic in question. The key limiting factors are listed below:

- Inadequate time to conduct the research about the organization as the internship was of just one and a half months.
- Had a larger sample been approached, a better analysis of the consumer behaviour and perceptions may have been possible.
- Since the research was conducted through the method of convenient sampling, it was not possible to gather relevant information of all the actual consumers of the firm. Therefore, this would not give an absolutely clear picture with regards to consumer behaviour when it comes to online marketing of furniture.

## COMPANY PROFILE

The firm is a third-generation company, which started pre-partition as Calcutta Carpets in 1945 and engaged primarily in rugs and garments. Then, in 1991, under the leadership of Mr. Prem Giani, the firm withdrew from garments and focused completely on carpets. It was also turned into a Pvt. Ltd company which led to the growth of the firm in the furniture industry as well. With the extreme growth of the business, the firm expanded and it led to the outcome of two stores: Giani's atwork (mainly engaged in office furniture and interiors) and Giani's En Vogue (engaged in home furniture and interiors). Now, the company has established stores across the country in Mumbai, Delhi and Kolkata giving it a nation-wide reach and presence.

## SWOT ANALYSIS OF GIANI'S ATWORK

A complete SWOT analysis of the firm is given as follows:

1. STRENGTHS:
  - a. The firm enjoys a long-standing goodwill inherited from its parent company Calcutta Carpets Pvt. Ltd.
  - b. A large product mix as stated earlier.
  - c. Competitive pricing strategy which caters to different consumers' needs.
  - d. Great customer relationship management where customer issues are sorted almost instantly.

- e. Long warranty periods due to superior product quality.
- f. Very aesthetic showroom and product display.
2. WEAKNESSES:
  - a. Relatively low online market penetration.
  - b. Much greater advertising budget of competitors.
  - c. Logistics problems due to labour disputes.
3. OPPORTUNITIES:
  - a. Growing organized segment of the furniture sector.
  - b. Growing demand for online purchase of furniture.
  - c. Population growth leading to a larger number of households and offices to cater to.
  - d. Rising standard of living of the population of India.
  - e. Larger market coverage due to presence in four major cities, i.e., Kolkata, New Delhi, Lucknow and Mumbai.
  - f. A plan to expand further into five more cities in the next five years.
4. THREATS:
  - a. The online market is already captured by market leaders such as Pepperfry, Urban Ladder, Stitchwood, et al.
  - b. Competition creating copies of products being sold and selling at a cheaper rate.
  - c. Economic strategies like demonetization affecting the purchasing power of the people of India.
  - d. Foreign companies from the likes of China entering the market.

## DATA COLLECTION AND ANALYSIS

### 1. What is your age?

AGE GAP	NO. OF RESPONDENTS	PERCENTAGE
18-24	50	45.5 per cent
25-30	6	5.5 per cent
31-40	17	15.5 per cent
41-50	27	24.5 per cent
51 and above	10	9.1 per cent

**Table 1**  
Source: Primary Data

On analyzing, we see that as the majority of people who make the decision for the buying of furniture are above the age of 25, the firm Giani'satwork should direct its traditional promotional strategies toward that age group.

### 2. What is your occupation?

OCCUPATION	NO. OF RESPONDENTS	PERCENTAGE
Student	49	44.5 per cent
Professional	13	11.8 per cent
Business	45	40.9 per cent
Others	3	2.7 per cent

**Table 2**  
Source: Primary Data

On analyzing, we can see that the highest number of respondents are students, most of whom are currently unemployed. So, the firm should try to sell its lower end products to this segment and focus primarily on business owners, as even professionals will mostly buy home furniture.

### 3. Where do you live?

RESIDENCE TYPE	NO. OF RESPONDENTS	PERCENTAGE
Rented Apartment	9	8.2 per cent
Ownership Apartment	88	80 per cent
Others (such as Paying guest houses, bungalows etc.)	13	11.8 per cent

**Table 3**  
Source: Primary Data

We can see that 80 per cent of the respondents live in ownership homes. It is only these people who look to invest in good quality furniture and thus, the firm should focus on them. Those living in rented apartments like to spend the bare minimum.

### 4. Have you made online purchases before?

RESPONSE	NO. OF RESPONDENTS	PERCENTAGE
Yes	101	91.8 per cent
No	9	8.2 per cent

**Table 4**  
Source: Primary Data

On analyzing, we see that the only persons who have not made online purchases yet are those who are of 50 years of age and above.

5. How often do you buy furniture?

TIME PERIOD	NO. OF RESPONDENTS	PERCENTAGE
Once every 4-5 Years	37	33.6 per cent
Once every 1-3 Years	31	28.2 per cent
Rarely	42	38.2 per cent

**Table 5**  
Source: Primary Data

This implies that most respondents in this study (about 62 per cent) change their furniture within the first five years of their purchase. This means that about 62 per cent of people want to keep up with the trends of the industry.

6. What kind of furniture or furnishings do you buy the most?

FURNITURE TYPES	NO. OF RESPONDENTS	PERCENTAGE
Chairs	25	22.7 per cent
Sofas	19	17.3 per cent
Blinds	8	7.3 per cent
Flooring (carpets, wooden flooring, etc.)	17	15.5 per cent
Others	41	37.3 per cent

**Table 6**  
Source: Primary Data

According to this data, other types of furniture such as desks, work-stations, beds, cupboards et al. are the most demanded products by the average population. The highest category after a culmination of others is chairs. Chairs are a piece of furniture people require for all sorts of environments - offices, homes, schools, theatres, et al.

## CHI-SQUARE TEST

1. Occupation vs Where one buys the furniture for:

The Null Hypothesis (H<sub>0</sub>) here is that 'where the furniture is bought for' is not affected by the occupation of the person.

The Alternative Hypothesis (H<sub>1</sub>) is that 'where the furniture is bought for' is affected by the occupation of the person.

The observed Frequency table is as follows:

Occupation	Office	Home	Others	Total
Student	7	38	4	49
Professional	2	11	0	13
Business	22	22	1	45
Others	0	3	0	3
Total	31	74	5	110

**Table 7**  
Source: Primary Data

The expected Frequency table is as follows:

Occupation	Office	Home	Others	Total
Student	13.80909091	32.96363636	2.227273	49
Professional	3.663636364	8.745454545	0.590909	13
Business	12.68181818	30.27272727	2.045455	45
Others	0.845454545	2.018181818	0.136364	3
Total	31	74	5	110

**Table 8**  
Source: Primary Data

The Contingency Table is as follows:

Occupation	Office	Home	Others	Total
Student	3.357478006	0.769483027	1.410946	5.537907
Professional	0.755447778	0.581213381	0.590909	1.92757
Business	6.846692734	2.260715261	0.534343	9.641751
Others	0.845454545	0.477641278	0.136364	1.459459
Total	11.80507306	4.089052946	2.672562	18.56669

**Table 9**  
Source: Primary Data

The Degree of Freedom is six, and the critical value at 95 per cent confidence interval is 12.59159. Since the test statistic is 18.56669, which is greater than 12.59159, we reject the Null Hypothesis (H0) and accept the Alternative Hypothesis (H1).

Therefore, we can say that 'where the furniture is bought for' is affected by the occupation of the person at a confidence interval of 95 per cent.

## CONCLUSION

This study has helped us gain an insight into the various elements of the topic, i.e., visual merchandising, online marketing, the furniture industry, consumer behaviour, and so forth. It has analyzed every aspect possible in the given time frame and given us some keen observations already discussed in the previous segments.

## Impact of Online Marketing on Consumer Behaviour

The science of online marketing is the research and analysis that goes into choosing the online marketing strategies which should be used and measuring the success of those strategies. Therefore, in order for a business to stay relevant in today's day and age, online marketing is a must. It helps to widen the reach of a firm's product offer and also builds the brand image and awareness in a way that was not possible in the past.

## Impact of Online Marketing on Consumer Behaviour in the Furniture Industry

The conclusion that was derived from this study was that consumers behave in an odd way to internet marketing or online marketing. They do not find it as appealing in the case of furniture as most respondents were either unsure or downright against making internet purchases of furniture even if there are large amounts of discounts offered. This leads us to believe that the target audience of the firms are more concerned with manual inspection and quality rather than price when it comes to the purchase of the product. There is a great deal to do with the physical aspect of buying when it comes to the visibility of the product. Therefore, consumers are more careful when making purchases that they know will last for a fairly long time.

It is conclusive to say that although Giani's atwork has many strengths, there are also quite a number of challenges and some opportunities to its online existence. Some of them are given below:

- The first-mover advantage has been lost to companies such as Pepperfry, Urban Ladder, Featherlite, et al. who have become the market leaders in terms of online sales.
- The online presence of Giani's at the moment is fairly limited and has not yet been fully implemented.
- Much of the target audience, i.e., 45 per cent are either unwilling or confused as to whether they would be willing to make a purchase online from Giani's.
- Even after consumers have purchased products through traditional means from the firm, they are still sceptical of buying online even after knowing that the firm provides one of the best after-sales services available.
- This leads us to believe that the target audience of the firm is more concerned with manual inspection and quality rather than price when it comes to purchasing of the product.
- Another inference which was made from this case study was that the consumers need a plethora of different marketing activities in order to be convinced of making online purchases for consumer durables like furniture. Out of all the different strategies assessed, unsolicited emails were the least preferred strategy of marketing that a firm can take up. All the other elements which are mentioned above are almost equally important, with the website design of a firm being a little more preferred than the rest, followed by social media marketing, SEM (Search Engine Management) and online advertisements.
- Consumers are normally on the look-out for the best deals when shopping online. However, in the case of furniture, the responses of the group said otherwise. Around 26 per cent of the respondents agreed to the fact that discounts are the main reason for their

online purchases while another 26 per cent responded the opposite. Around 48 per cent were unsure of their answer as they had not purchased furniture online as of yet. This shows us the scepticism in the minds of consumers to make purchases online even if they may get huge discounts on various products.

Therefore, in summary, we can say that visual merchandising and online marketing have huge potential to influence consumer buying behaviour. The firm which is the focus of this study is proficient in the display of its products but has not been able to establish a sufficient online market presence yet. For this reason, consumers have not shown interest in purchasing from the firm through an online platform.

### **Impact of Visual Merchandising on Consumer Behaviour at Giani's Atwork**

Giani's Atwork, although recently established, has been in the market for decades in the form of Calcutta Carpets and had, in that time, earned itself a brand image and goodwill which has been unparalleled in the city of Kolkata, as well as the entire state of West Bengal. Consumers of the brand have been particularly happy with their previous purchases and generally tend to be loyal recurring customers. This is because of the rich heritage and the aggressive traditional marketing techniques exercised by the firm.

It was also found out that 102 out of 110 respondents preferred to buy their furniture from retail outlets or physical showrooms. This meant that consumers, although comfortable in making purchases of normal goods online, were not yet comfortable in buying furniture from online portals of websites. This meant that the consumers preferred to have a look and feel of the furniture and inspect its quality themselves without any electronic intervention.

It was found that most consumers, i.e., 69 per cent were willing to purchase the products being sold by the firm directly from retail outlets while the rest were still unsure of whether they would do the same. This gives the marketers an adequate opportunity to exercise their skills to expand the customer base.

An experiment was undertaken in relation to one of the



products - office chairs. For the first week, all the models of office chairs were kept at random (high back, medium back and low back chairs all together). Since there is a large variety and range of products, this confused the customers highly in making their decision. In the second week, the products were neatly arranged, with three separate lines of high back, medium back and low back chairs. After this, customers easily made their choices with respect to their particular needs. For example, one customer bought high back chairs for the executives and managers at his firm, medium back chairs for the regular employees and low back chairs for visitors and the conference room.

This factor proved to be very insightful for Giani's Atwork, as it prompted them to ensure that the visual merchandising of the showroom was in accordance with the expectations of the target consumers. We know that visual merchandising is the way that the product and showroom are displayed to the target market in order to increase the probability of making a sale. These techniques are used to influence the five senses of a person when he or she enters the showroom. Giani's Atwork has always provided an environment which is capable of influencing the potential consumers who enter it and has efficiently used this strength to its advantage. They have used these visual merchandising techniques and it has led to an increase in their sales by roughly 15 per cent.

## RECOMMENDATIONS

- On completion of this study, the following recommendations can be shared with the marketers at Giani's Atwork:
- The marketers of Giani's Atwork should focus on their online marketing strategies. The strategies to be considered for this are the website design (better if there is an ease of use), search engine management (people generally click on the first result displayed when searching for something online), online advertisements (banner

advertisements, social media advertisements et al.). Unsolicited emails should be avoided as far as possible since consumers are largely unaffected by them.

- Social media has become a very powerful tool to market a specific product or brand in recent years. The marketers should utilize this tool to the best of their potential since most people access social media on a daily basis. Facebook alone has over one billion users which gives any firm a marketing tool with huge potential for growth.

The firm has already customized the showroom ambience in accordance to the needs of the target audience. It can go a step ahead if it is able to implement visual merchandising in the process of personal selling by creating a physical 3D model of its products while going to sell them to the target consumers.

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Such counterfeit products not only create a negative impact on the business of the FMCG brands but also hamper their brand image. They piggy back on the huge-budgeted marketing campaigns of the original FMCG brands.

”

# **Fake Fast-Moving Consumer Goods and the Consumption Psychology of Rural People**

## **– A study on the inhabitants of Islampur, West Bengal**

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### **ABSTRACT**

Consumer decisions to purchase fakes instead of originals has developed into a major concern for brand manufacturers worldwide. This research looks at

the customers' understanding of the key concepts of 'original brand' and 'counterfeit brand'. Using primary research helped gain rich insight into the consumers' perception of counterfeit brands in light of their counterpart original brands, to determine the main differences and similarities, and to identify core aspects, reasons and psychologies behind the purchase behaviour of rural people. It seems that they have a clear picture of what they get with the purchase of original brands versus counterfeits. Although similar attributes were used (quality and price) to evaluate the 'original brand' and the 'counterfeit brand', they contribute differently to the nature of the concepts. The benefits of both the categories are strongly related to the consumer norms prevalent in their social environment.

**KEYWORDS:** Purchase Behaviour and Psychology, Fake FMCG products, Counterfeit Products and Pass-Off Brands

## INTRODUCTION

Daily Milk, Colgate, Kurkare and Fair & Lovely are some of the most 'popular brands' in the hinterlands of India. Don't they sound too familiar to some daily well-known brands like – Dairy Milk, Colgate, Kurkure and Fair & Lovely? Well, these brands are created by manufacturers who produce cheap and fake versions of the original branded product. This is the problem that this paper aims to address and analyze.

Over the years, the rural markets of India have emerged as one of the most crucial markets for the companies belonging to the Fast-Moving Consumer Goods (FMCG) sector. The two main possible reasons behind this are – saturation in the urban markets and the amount of potential that lies in the rural markets. There are a few facts that elucidate the importance and the growing potential that is present within the rural markets. The rural population according to Census 2011 is 83,30,87,662 which actually accounts for 68.84 per cent of the total population of India. Increase in the sales volume, specifically in the rural markets, increase in the disposable incomes of the rural people, better infrastructure, roads and distribution systems are the few reasons that are attracting FMCG companies to the

rural markets. Further, as per Census data 2011, the rural literacy rate increased from 58.74 per cent in 2001 to 68.91 per cent in 2011.

However, the rural landscape of India is scattered in small villages and gaining access to all of them is a really tedious job. Most of the FMCG brands have still not been able to set up efficient distribution networks in such locations. The local entrepreneurs or the fake product manufacturers are well aware of such challenges and they take advantage of this by manufacturing cheap substitutes of the original products. They use look-alike packaging schemes, spell like their names or even use the exact same names, packaging and addresses of the original FMCG brands which eventually becomes a matter of concern for the FMCG brands. Such counterfeit products not only create a negative impact on the business of the FMCG brands but also hamper their brand image. They piggy back on the huge-budgeted marketing campaigns of the original FMCG brands.

## LITERATURE REVIEW

According to Sathyanarayana (2014), low price, availability of credit from suppliers and higher margins are the main reasons behind rural marketers stocking up spurious products at their outlets. The menace of counterfeiting can be handled only if the law enforcement agencies as well as the private agencies work in harmony towards this.

According to Triandewi and Tjiptono (2013), one of the most critical problems faced while combating the issue of counterfeit products is the extremely easy availability of such products. The study shows that once any individual tries any counterfeit product and gets comfortable using it, it becomes difficult to convince him about the possible ill-effects of the same.

According to Ramakrishnan (2005), the consumers of the remote rural locations are influenced both by print media and electronic media. There are some factors that influence the buying decisions of the rural consumers which include local language, affordability, value pricing and simplicity.

According to Ansari (2014), there has been a significant convergence in the tastes and preferences of the rural consumers of India. The disposable incomes of rural people have been shooting up significantly and about 70 per cent of the disposable incomes of the affluent rural families go in purchasing FMCG products alone.

According to Prakash and Pathak (2017), the young rural consumers think about the affordability of the goods and purchase such counterfeit products if they are affordable and are of acceptable quality.

According to Joshi and Singh (2012), one of the greatest challenges of genuine FMCG brands in India is to penetrate the rural market and protect their brands from spurious and fake products.

According to Verma, Kumar and Yadav (2018), income and age are the key demographic determinants that play a significant role in the buying intentions of consumers for purchasing counterfeit products.

## RESEARCH OBJECTIVES

- To analyze the rural consumers' consumption patterns with regard to selected FMCGs in the sample area.
- To identify the popular fake brands in the rural market and analyze the general perception of consumers about fake FMCG products.
- To study about the process of operation of the industry of counterfeit products in India and its impact on the economy.
- To study the reasons for buying the fake brands with respect to the demographics of the respondents.

## RESEARCH METHODOLOGY

### Primary Data

A structured questionnaire was prepared and distributed amongst the desired respondent group in a rural area named 'Islampur', West Bengal. The group comprised potential young consumers and older consumers who currently run their families. The questionnaire comprised 10 questions which were

designed to study the frequency of purchase of counterfeit products in the rural areas and also the level of awareness among the consumers. There were 150 respondents in total and the data so collected was analyzed using descriptive and frequency analysis.

### Secondary Data

For the purpose of forming the conceptual framework of the study, reliance was placed on secondary data which was collected through newspapers, magazines, various articles and research papers available on the internet.

## TYPES OF FAKE PRODUCTS

**Counterfeit Products:** They are fake products that bear the exact name of the original product. Also, the packaging, graphics and the colour scheme of the products are identical. They also bear the exact name and address of the genuine manufacturer.

Examples: Lux, Head & Shoulders.

**Pass-off Products:** Some fake products have similar sounding names or similar spellings like the genuine brands. These can also have somewhat similar looking packaging and colour schemes as the original ones. The main motive behind such products is to mislead the consumers who are in a hurry to purchase goods or are unaware of the genuine branded product.

Examples: 'Day Milk' in place of 'Dairy Milk'; 'Cilmic Plus' instead of 'Clinic Plus', et al.

### Psychology Behind Purchasing Fake Products

The consumers belonging to rural locations are not properly equipped with the knowledge related to branded products. They tend to identify a brand or a product by its packaging, colour scheme and logo. Therefore, any product that resembles the branded product that they have seen in advertisements on televisions, newspapers, magazines or billboards could end up landing in their homes.

The actual problem is that one cannot expect the consumers to catch hold of fake products easily. Sometimes, the packaging as well as information written on the product packets are eerily similar to the

original ones, making it almost impossible for a layman to differentiate between a genuine and a fake product. The dummy product packets are so precisely printed and manufactured that the line of difference between an original and a fake product blurs out. It does not take much time or effort for such counterfeits to come out of the dark and join the other products on the well-lit shelves of the supermarkets or the small stores of retailers and consequently, land up on the racks in the homes of the consumers, putting their health and safety at risk.

### The Industry of Counterfeit FMCG Products

The wholesalers and distributors of FMCG products purchase the packets of original products and stuff them with sub-standard goods that look, taste or feel the same as the original product would have. Also, the other scenario could be that they produce the exact same replicas of original product packets, fill them up with product that is cheap in quality and send such dubious goods off to the supermarkets or retail stores. Such dummy products are generally mixed with the original ones to escape any chances of detection by the brands or the government.

### How Impactful is this Menace of Counterfeiting?

CASCADE (Committee Against Smuggling and Counterfeiting Activities Destroying the Economy) was formed by FICCI in the year 2011, and it estimated the size of the market of counterfeit goods. The report released on 26th September, 2019 by CASCADE, mentioned that there has been a loss of about 1.17 trillion to the economy of India in the year 2017-18.

Both the government as well as the brands lose out on account of counterfeiting, but consumers are also considered as one of the major victims. The report also stated that counterfeiting of products has become the second largest source of income for criminal activities globally, including terrorism. Further, the total employment loss was about 2.6 million jobs globally in the year 2013. This figure is expected to increase to around 5.6 million jobs in the year 2022, which is a whopping increase of about 110 per cent and presents an alarming situation as well.

It clearly indicates that there is an urgent need for the

increase of awareness not only among the consumers but also among lawmakers and the enforcement agencies who need to ensure strict enforcement of all laws.

## ANALYSIS AND INTERPRETATION

### Demographic Profile of the Respondents

#### AGE

Table 1: Classification of respondents on the basis of age:

Age Group	Number of Respondents
16-25	29
26-35	34
36-45	53
Above 45	34
<b>Grand Total</b>	<b>150</b>

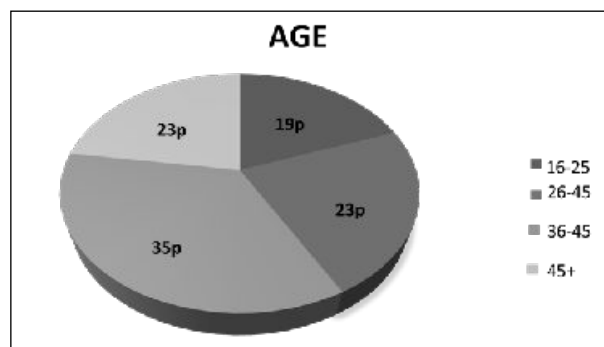


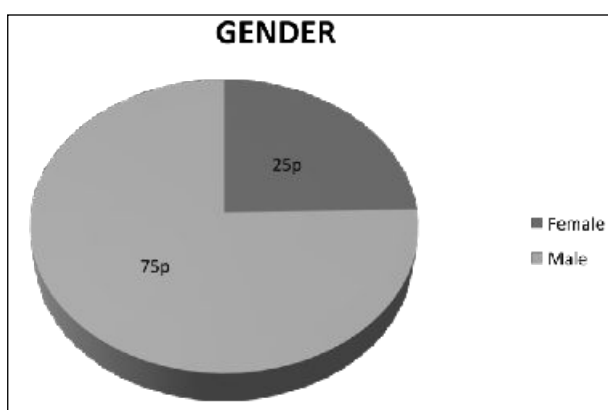
Figure 1  
Source: Primary Data

Out of the total of 150 respondents, the maximum (35 per cent) belong to the age group 36-45 which represents the current consumers. The other age groups were created keeping in mind the likelihood of them being the current purchasers of products in the family. 19 per cent of the respondents belong to the age group 16-25, 23 per cent of the respondents belong to the age group 26-35, and 23 per cent of the respondents belong to the age group above 45.

## GENDER

Table 2: Classification of respondents on the basis of gender:

GENDER	NUMBER OF RESPONDENTS
Female	37
Male	113
<b>GRAND TOTAL</b>	<b>150</b>



**Figure 2**  
Source: Primary Data

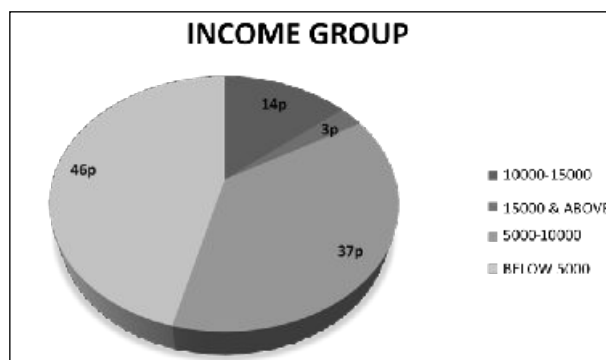
Out of the total of 150 respondents, 113 (75 per cent) were male and 37 (25 per cent) were female.

## MONTHLY INCOME

Table 3: Classification of respondents on the basis of monthly income:

INCOME RANGE (₹)	NUMBER OF RESPONDENTS
BELOW 5000	69
5000-10000	56
10000-15000	21
15000 & ABOVE	4
<b>GRAND TOTAL</b>	<b>150</b>

Source: Primary Data



**Figure 3**  
Source: Primary Data

Out of the total of 150 respondents, maximum (37 per cent) belong to the income group below ₹ 5,000. Collecting data about the monthly income of the respondents was important for this study in order to understand the role of income in the purchase and consumption of pass-off products. 14 per cent of the respondents belong to the monthly income group of ₹ 10,000-15,000, 37 per cent of the respondents belong to the monthly income group of ₹ 5,000-10,000 and only 3 per cent of the respondents belong to the monthly income group of above ₹ 15,000.

## SOURCE OF INFORMATION

Table 4: Table representing the different source of information and classification of respondents accordingly:

SOURCE OF INFORMATION	NUMBER OF RESPONDENTS
TELEVISION	45
NEWSPAPER	36
RETAILERS	79
FRIENDS	68
RADIO	22
WALL PAINTINGS	103
FESTIVALS	82
PAMPHLETS	59

Source: Primary Data

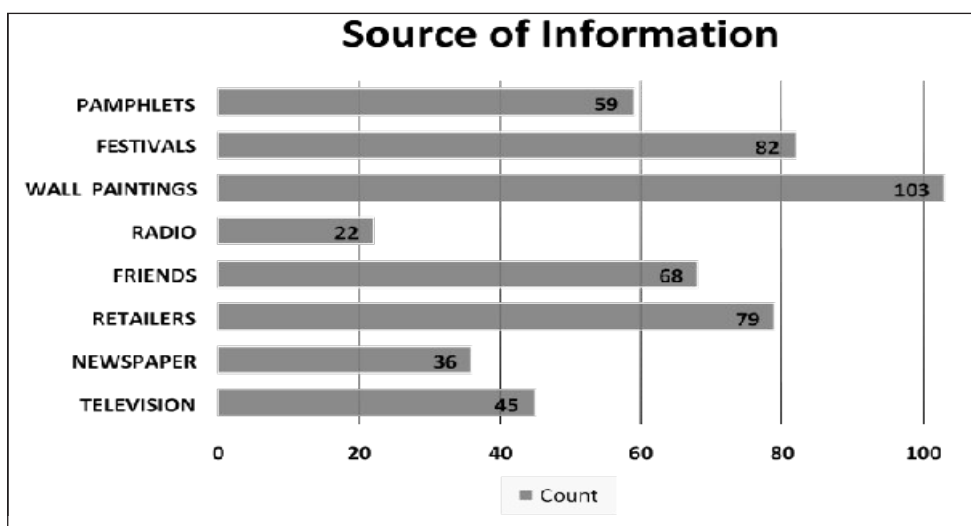


Figure 4  
Source: Primary Data

Out of the total 150 respondents, 117 (78 per cent) respondents said that they are aware of pass-off brands. On the other hand, 33 (22 per cent) respondents are not aware of the pass-off brands that prevail in the market. Thus, it clearly shows that more than half of the sample is quite acquainted with the pass-off consumer products and using them in their daily life.

More than 50 per cent of the respondents are attracted towards alike brands by wall paintings, use in festivals and nearby retail shops. It was an important question to form the conclusion of the project.

#### SURVEY RELATED TO THE DIFFERENT ASPECTS OF PASS-OFF BRANDS:

##### AWARENESS OF PASS-OFF PRODUCTS

Table 5: Classification of respondents on the basis of awareness of pass-off brand:

Awareness of the pass-Off products	Number of respondents
No	33
Yes	117
<b>GRAND TOTAL</b>	<b>150</b>

Source: Primary Data



Figure 5  
Source: Primary Data

##### FREQUENCY OF PURCHASE

Table 6: Classification of respondents on the basis of frequency of purchase:

Frequency of purchase	Number of respondents
Daily	11
Monthly	34
Weekly	90
When needed	15
<b>GRAND TOTAL</b>	<b>150</b>

Source: Primary Data

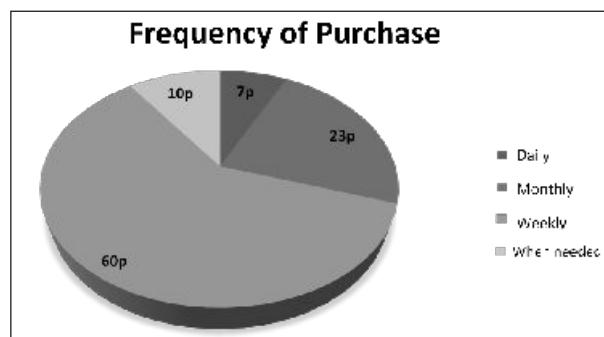


Figure 6  
Source: Primary Data

60 per cent of the consumer's purchase products on a weekly basis, 23 per cent of them purchase products on a monthly basis, 7 per cent on a daily basis and 10 per cent purchase products when they need them.

### AWARENESS ABOUT LOOK-ALIKE PRODUCTS

Table 7: Classification of respondents on the basis of awareness about look-alike products in the market:

Seen look-alike products	Number of respondents
No	33
Yes	117
<b>GRAND TOTAL</b>	<b>150</b>

Source: Primary Data

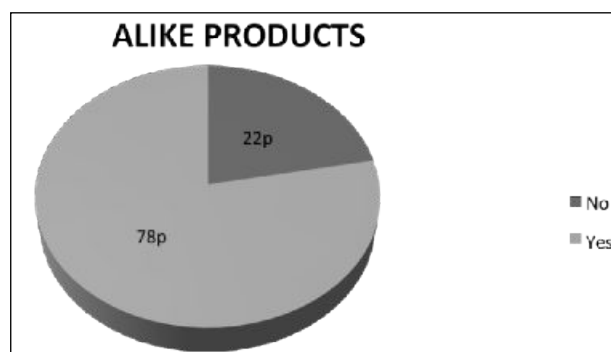


Figure 7  
Source: Primary Data

Out of the total of 150 respondents, 117 (78 per cent) respondents have purchased or seen alike products while the remaining 33 (22 per cent) respondents have not seen or purchased alike products.

After this question, the respondents were guided to a different set of questions which tells us about how many respondents have seen a particular product and which is the most popular pass-off product in the rural market.

Table 8: Classification of the different products which are available in the market:

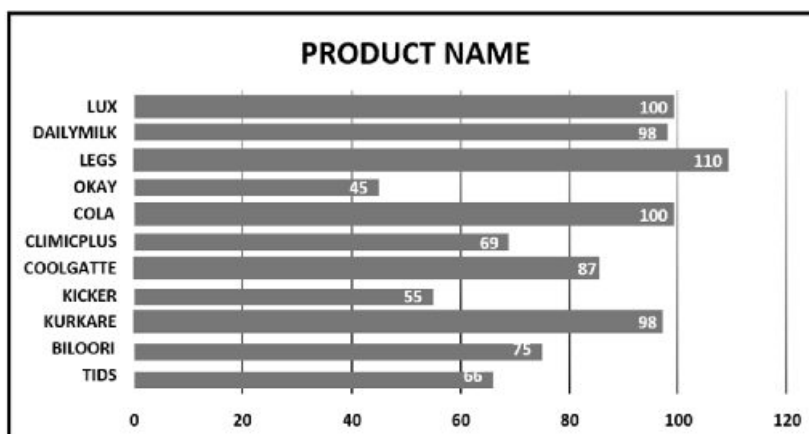


Figure 8  
Source: Primary Data

It is observed from Figure 8 that the products used as daily essentials are frequently purchased by the consumers, and the fairness cream 'Okay' (originally 'Olay') is the product with least number of purchases. The most famous product prevailing in the market is 'Legs'.

### REASONS BEHIND CHOOSING THE PASS-OFF PRODUCTS

Table 9: Table representing the reasons behind choosing the pass-off product and the classification of respondents accordingly:

REASON BEHIND CHOOSING THE PRODUCT	COUNT OF RESPONDENTS
LOW PRICE	107
AVAILABILITY	44
BRANDS DOES NOT MATTER	96
RETAILER'S INFLUENCE	71
BUYER'S INFLUENCE	67

Source : Primary Data

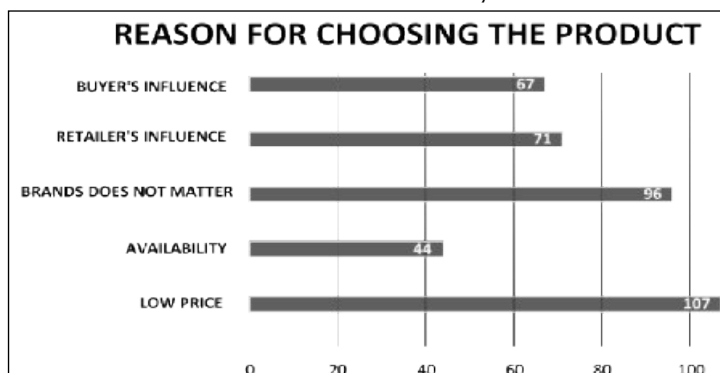


Figure 9  
Source: Primary Data



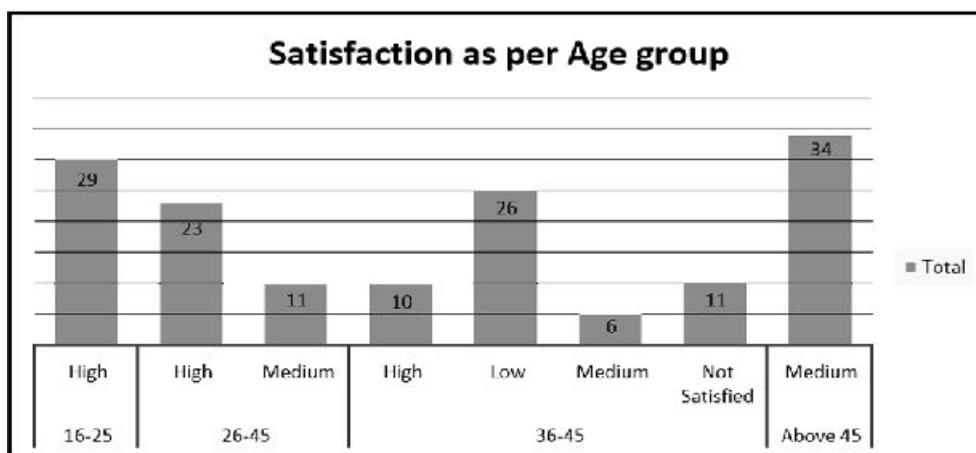
Table 9 and Figure 9 clearly state that the major reason for choosing the pass-off product is the lower price of the product for the population. People are only analyzing the usefulness of the products instead of their price. A total of 107 responses were received in favour of the reason 'low price'. Surprisingly, it is also observed that there are only 44 responses received in favour of 'availability'.

### LEVEL OF SATISFACTION WITH THE PRODUCT

Table 10 – Table representing different levels of satisfaction and the classification of respondents accordingly:

Level of Satisfaction	Number of Respondents
High	62
Low	26
Medium	51
Not Satisfied	11

Source: Primary Data



**Figure 10**  
Source: Primary Data

In Figure 10, we have analyzed the level of satisfaction with the age group, and it is clearly visible that people with the age group 16-25 are the most satisfied with the pass-off products. It is also seen that people with the age group 36-45 have mixed opinions regarding the pass-off product and most of the people within that age group are not satisfied with the alike brands.

### CONCLUSION

Identification of counterfeit products is a herculean job for consumers in general. Rural consumers are at greater risk because of the lack of awareness and ignorance that prevails in such remote locations. The study that was conducted clearly suggested the same.

22 per cent of the respondents were not aware that the products they had been using forever were not actually the branded products that they had seen in advertisements but were pass-off products. They admitted that they had been purchasing such products based on their appearance and packaging and had never paid enough attention to the names, spellings or other minute details mentioned on the packet or other details that should have been there but were missing. Moreover, on questioning a few local retailers, it was found that some of the retailers were also oblivious to the fact that the products that they had been selling were not the original branded ones.

Furthermore, 78 per cent of the respondents said that they were aware of 'pass-off' brands and admitted to purchasing products either because of their easy availability and affordability or due to the influence of

the retailers. This indicates how ignorant these consumers are since they are completely unaware of the fact that such products pose a danger to their health and safety because of all the possible harmful ingredients that go in their production.

Another important finding is the main source through which

the consumers of rural locations in India learn about any particular brand or product – routes through which brands can communicate with the consumers. Paintings on walls received 21 per cent response indicating that brands could resort to such primitive techniques to educate rural people about genuine products and the dark side of fake ones. Also, retailers were also found to be a major source of influence. Therefore, brands could

try to get in direct contact with retailers to ensure that they do not end up selling fake products unknowingly.

## RECOMMENDATIONS

- Brands can try to incorporate local languages on the packets of their products so that the consumers residing in rural areas can understand what is written and can identify original products. This might prove helpful since maximum consumers are not affluent in English, which happens to be the most widely used language on product packaging.
- FMCG companies can also organize awareness programs through NGOs and other bodies in order to educate the consumers about the features of genuine products, the existence of fake products and the potential hazards of using fake products. The awareness programs can make use of live demos to show consumers the differences between the two.
- The brands should spruce up their promotional campaigns in rural areas through primitive methods that can prove to be more efficient in communicating with rural consumers. Some of the ways are:
  - # Paintings on walls
  - # Nukkad Natak (street plays in the rural areas)
  - # Promotion in local languages through moving vehicles like vans
  - # Playing promotional and informative CDs and DVDs in public transport systems like buses.
- Brands should also try to create some direct contact with the retailers in such rural areas which are highly infiltrated with fake products. Retailers are one of the key influencers and sometimes, they are the people who are in the dark and do not know about the product that they have been selling. Hence, they should be educated about fake products and supplied with genuine ones.

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By adopting this latest technology, the banking leaders will take decisions with due diligence and derive the maximum benefit out of it.

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# Intelligent and Smart Future Banks and Banking Operations –

**A Study to Find the Problems Faced by Indian Customers and Implementation of Artificial Intelligence for Future Banking Operations**

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## ABSTRACT

The objective of this study is to find out the use of Artificial Intelligence (AI) in the Indian banking sector and its relevance in the present competitive scenario. Data of the study has been collected from primary sources through

a questionnaire which was given to diverse people from different age groups and occupations, and from secondary sources. The project tends to analyze the banking experience of various customers through a general questionnaire and to take a review from them about how AI can enhance their experience if implemented. The research is also supported by AI implementation in top four Indian banks and how they are performing. The study reveals that AI will help the banks to leverage the human resources with Artificial Intelligence, so that the best can be made out in the operational and decision making part of the banking function. By adopting this latest technology, the banking leaders will take decisions with due diligence and derive the maximum benefit out of it. However, the problems related to cyber-crimes and phishing activities remain major hindrances to AI in the Indian banking sector.

**KEYWORDS:** Artificial Intelligence, Smart Banks, Digitalization in banks

## INTRODUCTION

Digital disruption has changed the way industries and businesses perform. They are assessing and adopting ways to create value and comply with the changes in a technology-driven world. The banking sector is no different and it is witnessing ground breaking changes, mostly being the increase in customer centricity.

Customers being tech-savvy expect banks to render fast and advanced ways to solve problems, and to meet the standards of such demanding customers, banks have taken initiative to extend their services in collaboration with the IT, retail and telecom sectors to render services of ATM, mobile banking, real-time money transferring, and many more.

Technology has also increased the cost of banks along with the risk of cybercrime and fraud. This hampers the banks' profitability and breaks the trust of the customers on the banking sector and its services. Also, the government's regulation to maintain a capital adequacy ratio is preventing the banks to invest more in technology which could help avoid the threats. Thus, banks fall prey to the emerging Fin-Tech players and other NBFCs. According to the 2016 report of World Retail Banking, half of the customers are of the opinion to shift from banking sector to Fin-Tech and NBFCs.

## RATIONALE BEHIND THE STUDY

It is evident that over the years, Fin-Tech companies have emerged by using AI and have posed a threat to sectors such as banking. Fin-Tech companies are able to analyze the market and its trends and have gained the faith of a major section of the customers.

Not only do banks need this intelligence to compete with the giant Fin-Tech companies, but also it has to improve its profit margins, efficiency, effectiveness, the faith of customers, and many more which is only possible by going with the flow and introduce itself to the implementation of AI.

## REVIEW OF LITERATURE

- The study by Parsons, Gotlieb and Denny [1993], showed that computerization would reduce the human intervention and increase the efficiency of the banks as there is an inverse relationship between higher performance levels and the number of employees.
- The study by Healy and Palepu [2001], suggested that technology can improve administrative control, which if disclosed in the annual reports can lead to better transparency and reduction in costs.
- The results of the study by Rawani A. M. and M. P. Gupta [2002] indicate that while at present, only private and foreign banks have obtained strategic advantages by using IT, public sector banks have also realized its importance. This suggests that IT efforts put in by the public sector banks are in the right direction and will give them a strategic advantage in future.
- The study by Mittal and Dhingra [2007], showed that credit card, debit card and especially ATMs are few examples that show that Information Technology has made remarkable developments.
- The study by Shorouq Fathi Eletter, Saad Ghaleb Yaseen and Ghaleb Awad Elrefae [2010], showed that AI technologies such as neural networks can improve a bank's credit analysis methods. The use of ANN has proposed new techniques to evaluate loan application as a decision support system. The neural network model represents the most influential factors, mainly decided on the basis of the guidelines that loan officers use in the banks. Besides, the banks

can customize the strategy system according to their strategies.

- In the report of Matthew Sainsbury, FST Media [2012], AI is the bank's future and can fulfil the role of virtual personal assistant considering the huge success of Siri (iOS).
- Rajanish Das (IIM, Ahmedabad) [2012] states that Data Mining can help banks solve their problems by analyzing patterns, identifying customers' need and studying the market forces.
- Shivkumar Goel and Nihaal Mehta [2017], discuss how the financial sector uses AI, the benefits gained by Fin-Tech and ways to improve a financial institute. The key use of AI in Fin-Tech is augmented decision making. It allows analysts to make complex decisions which offer both pre and post decision-making by analyzing historical data and emerging trends.
- A paper by Dr. Simran Jewandah [2018] focuses on how AI is changing the banking sector and studies the areas where AI is being used by the banks. It also studies the application of AI in the banking sector and its use in the leading commercial banks in India like SBI, HDFC, ICICI and AXIS.

## OBJECTIVES

Following are the objectives of the research paper:

- i. Finding out whether the customers are satisfied with their banks and what are the main problems faced by them.
- ii. In which sector do bank customers face more problems, and whether Artificial Intelligence can solve their problems?
- iii. How can Artificial Intelligence in the banking sector solve the customers' problems?
- iv. The problems that the Indian banking sector would face in implementing these changes.

## RESEARCH METHODOLOGY

- I. Primary Research: Data was collected by a structured questionnaire which was filled by respondents with a size of over 200 samples. The respondents mainly consisted of residents of

Kolkata, and a majority of them are undergraduate students, professionals, self-employed people, and service providers. The research covers banks of only three sectors - Public Sector, Private Sector and Foreign Banks. The study period was from the month of February to the middle of April 2020.

- ii. Secondary Research: Data source consists of work done by various other researchers and authors, books, blogs and websites.

## ARTIFICIAL INTELLIGENCE

Artificial Intelligence (AI) represents the simulation of human intelligence in machines that are developed to think like kinsmen and duplicate their actions. AI may be applicable to a machine that shows traits relating to an individual's mind, like learning and solving problems.

The capability to rationalize and take action that has the simplest chance of achieving a selected goal is considered the ideal feature of AI. It relies on the concept that human intelligence may be defined in a way that a machine can easily imitate, and thus, execute activities ranging from simple to complex. The aim of AI includes reasoning, learning, and perception.

## BANKING ON ARTIFICIAL INTELLIGENCE

When cognitive technology is combined with Artificial Intelligence (AI), banks render the advantage of digitalization to their customers and face the challenges posed by the Fin-Tech players. Research done by National Business Research Institute and Narrative Science shows that out of the providers of financial services, 32 per centare already using AI in their systems such as voice recognition and others.

AI is the future of banking as it renders the facility of advanced data analysis to encounter frauds. Anti-money laundering activities are executed within seconds with the use of AI algorithms which would have otherwise taken days. It also processes a large volume of data within seconds and derives valuable insights from it. Various mechanisms of AI help improve the revenue of banks, reduce costs and strengthen the customer relationship.

## CHALLENGES FACED BY THE INDIAN BANKING SECTOR

In this competitive world where businesses are struggling to survive, banks are no different. They too have their own set of competitors where the market is gaining popularity in terms of other non-banking sectors such as Fin-Tech companies and other NBFCs. However, if banks need to survive, they need to overcome their challenges. Some of the basic challenges faced by the banking sector in India are as follows:

technologies are becoming a lot more accessible and inexpensive. A research done by Accenture shows that the adoption of AI can add nearly \$1 trillion to the economy in 2035. AI is still in a nascent stage and a lot needs to be done to identify its potential.

According to the report of Accenture,

- i. 83 per cent of Indian bankers believe that AI can work alongside humans.
- ii. 93 per cent of bankers use data to derive critical and automated information.

SL. NO.	CHALLENGES	COMMENT
1	Risk of Fraud	Lack of oversight by line managers, business pressure to meet the target, lack of fraud risk framework, and lack of modern technology results in risk of fraud.
2	Non-Performing Assets (NPA)	Scams in the State Bank of India and Punjab National Bank shook the entire banking system and has resulted in a rapid increase in NPA.
3	Slow Processing	The more humans involved in transaction processing, the more is the delay and more of time, cost and efficiency are consumed.
4	High Cost to Banks	Technology saves cost through fast processing of data with less human intervention.
5	Lack of Availability of Real-time Data	Results in delays in decision-making and also fosters the emergence of competitors.

## NEED OF ARTIFICIAL INTELLIGENCE

Artificial Intelligence (AI) will empower the Indian banking sector by redefining how they operate, establishing new products and services, and most importantly, enhancing customer experiences. In this second machine age, in order to avoid competition and gain competitive advantage, banks must leverage advanced technologies that provide sophisticated algorithms and replace human intervention.

AI is not new to Indians. Research institutions and universities have already been working with various AI technologies for decades, especially in the area of social transformation. The reason why AI is becoming mainstream with large enterprises and start-ups looking for different opportunities is that the enabling

- iii. 77 per cent of Indian bankers agree that most firms are not prepared to confront impending waves of corrupted insights from falsified data.

## BENEFITS OF USING ARTIFICIAL INTELLIGENCE

Before anyone can suggest whether AI is beneficial to a system or not, there must be a clear idea about the benefits and the effectiveness of AI. The benefits that AI provides, if integrated with the Indian banking sector, will have the following outcomes:

SL. NO.	BENEFITS	DESCRIPTION
1.	Fraud Detection and Risk Management	AI can be used to study the pattern of any suspicious transaction in real-time, assessing credit worthiness of the customer and providing data to the management to take the required decisions.
2.	Customer Support and Help Desks	AI Chatbot can easily solve the grievances of customers and hence, save their time and cost of visiting a bank.
3.	Wealth Management for Masses	Based on past records, trend analysis, transaction patterns, appetite for risk, expected rate of returns, etc., bots can easily manage a portfolio.
4.	Enriched Customer Experience	With a large data processing capacity which saves time and money, customers experience an enriched banking service.
5.	Predicting Trends and Outcomes	With large amounts of data storage, AI can easily analyse trends and market patterns which would help in predicting future outcomes.
6.	Effective Decision Making	Management finds it easy to take effective decisions as complex issues are solved within moments, which could not have been possible if human intervention was there.
7.	Robotic Automation of Processes	Repetitive processes are automated and hence, the time saved can be devoted to value-added operations which require high level of human intervention.
8.	Realistic Interactive Interface	Through chats done with AI bots, problems and emotions of customers can be easily identified and solved in the most prominent way.

#### AI APPLICATION IN TOP FOUR INDIAN BANKS

The Indian banking sector has started adopting AI while other global banks have already implemented it in a full-fledged manner. In India, widespread adoption of this technology is yet to come.

This report shows the implementation of AI by the top 4 banks in India, namely- State Bank of India, HDFC Bank, ICICI Bank and Axis Bank.

The above banks are a few examples showing AI implementation. However, on a larger perspective, the private sector banks have shown a great improvement in terms of AI implementation as compared to public sector banks. In our report, the customers who have accounts in public sector banks face major problems as compared to private sector banks.

SL. NO.	NAME OF BANK	AI USED	FEATURES
1.	State Bank of India	i. AI solution developed by Chapdex. ii. SIA Chatbot developed by Payjo.	AI solution by Chapdex scans the camera and analyzes the facial expression of the customer. SIA handles 10,000 enquiries per second or 864 million a day.
2.	HDFC Bank	AI solutions named 'Eva' developed by Senseforth.	Assimilates data from thousands of sources and analyzes it within 0.4 seconds. Eva becomes smarter by interacting with more and more customers and soon it will handle real banking transactions.
3.	ICICI Bank	Chatbot named iPal	Response time to customers reduced by 60 per cent and accuracy increased by 100 per cent. 1 million banking transactions are performed in a day. Recognizing patterns, data entry and validation, reconciliation, text mining, currency exchange rate processing are its major activities. Features also include face and voice recognition, natural language processing and machine learning.
4.	Axis Bank	AI & NLP (Natural Language Processing) enabled app	Reduces data entry and scrutiny time by 80 per cent. Human prone errors have reduced, and turnaround time and customer experience has improved. Recognises suspicious transactions easily. Turn around time for opening savings bank has reduced by 90 per cent, current account by 92 per cent and other processes by 50 per cent to 80 per cent.

### CHALLENGES TO BE FACED IN IMPLEMENTING AI

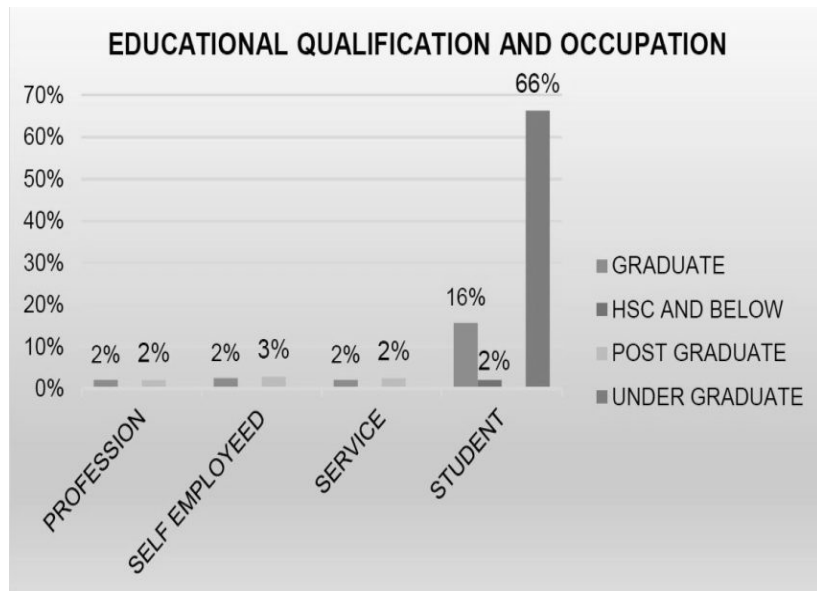
It is said that every innovation comes with certain limitations attached to it along with a number of beneficial points. It is the same case in regards to the implementation of Artificial Intelligence in the Indian banking sector.

- i. Availability of data at the right place in the right time is the lifeline of AI without which AI is a complete failure. But in a country like India where there are a huge number of customers, data availability is a really difficult and challenging task.
- ii. Technology or applications which utilize text to speech or speech to text require Natural Language Processing (NLP) techniques. In India, there are over 150 languages with a sizable spoken population which again makes it a challenging task for AI implementation.
- iii. There is a workforce which is not familiar to the latest tools and equipment. Also, implementation of full-fledged AI in the banking sector would result in mass unemployment which is also a grave problem for a developing economy like India.
- iv. AI requires skilled data scientists and with only a small number of scientists available, the process of AI implementation in Indian banking is not possible.

### ANALYSES AND FINDINGS

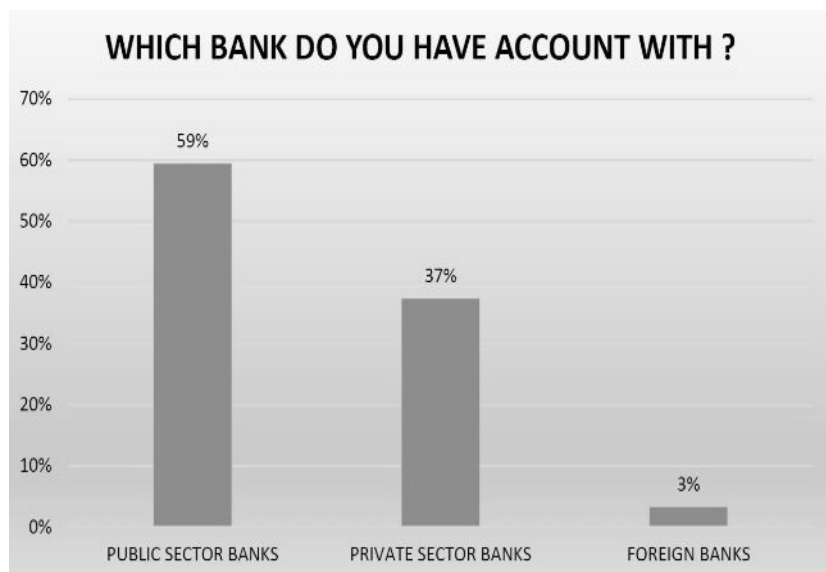
The following are the analyses and findings as per the study made from the responses by the customers in the questionnaire provided.

- I. The respondents were asked about their educational qualification and occupation which is shown in Figure 1.



**FIGURE 1: EDUCATIONAL QUALIFICATION AND OCCUPATION OF THE RESPONDENTS**  
Source: Primary Data

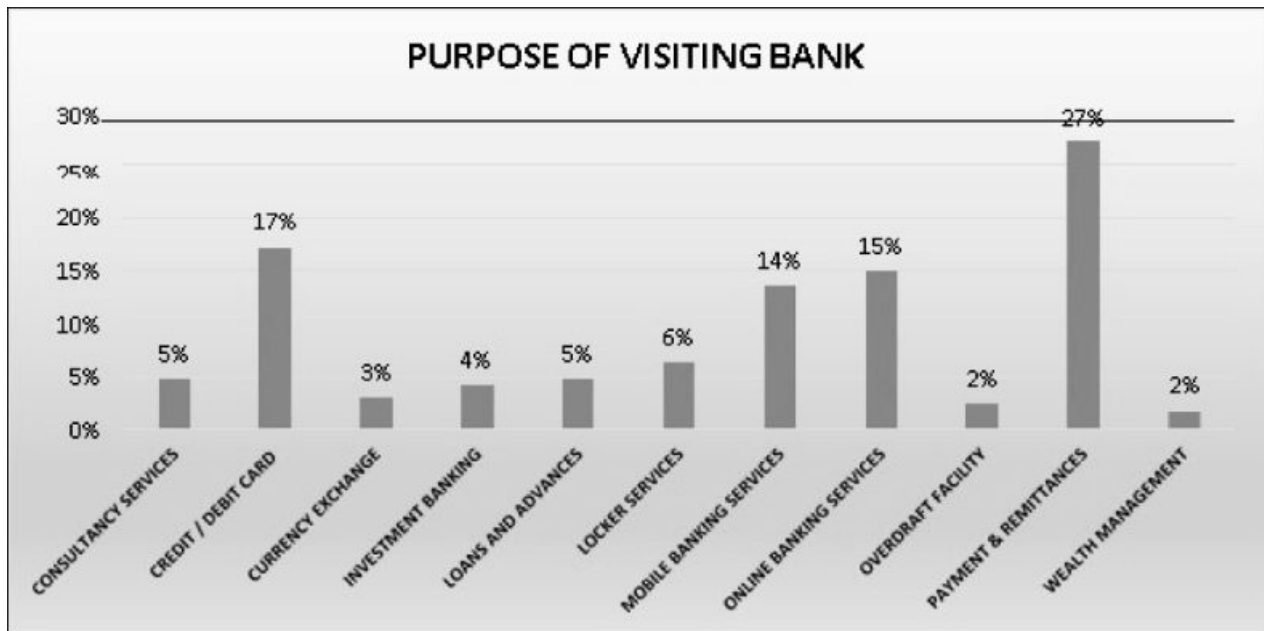
- ii. People find it safe to keep their money in public sector banks. So, there is more number of accounts in public sector banks as compared to private and foreign banks.



**FIGURE 2: BANKS IN WHICH RESPONDANTS HAVE THEIR BANK ACCOUNT**  
Source: Primary Data



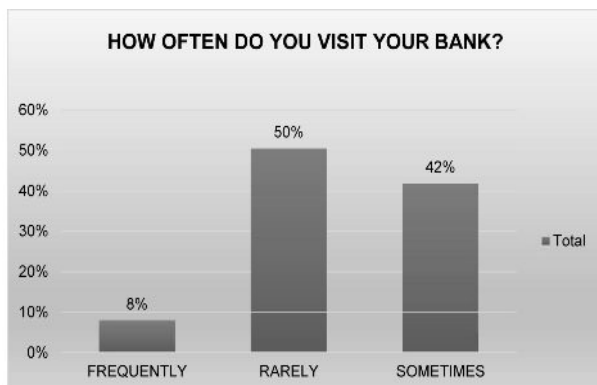
- iii. Figure 3 shows the purpose for which respondents visit banks.



**FIGURE 3: PURPOSE FOR WHICH RESPONDENTS VISIT BANK**

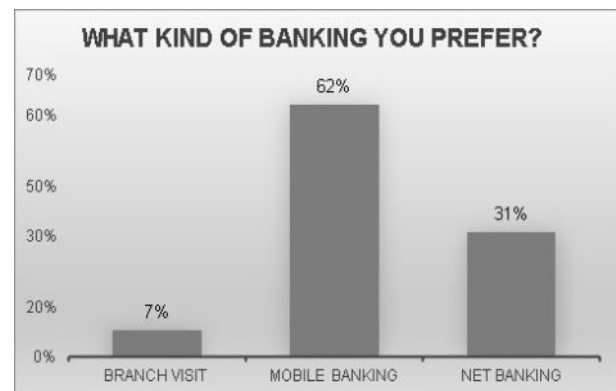
Source: Primary Data

- iv. The respondents were further asked about how often they visit their banks and the responses were summarized in Figure 4. The response was taken before the pandemic. However, during the pandemic, the cases of visiting a bank would rarely increase.



**FIGURE 4: HOW OFTEN A RESPONDENT VISITS BANK**

Source: Primary Data



**FIGURE 5: THE KIND OF BANKING RESPONDENTS PREFER**

Source: Primary Data

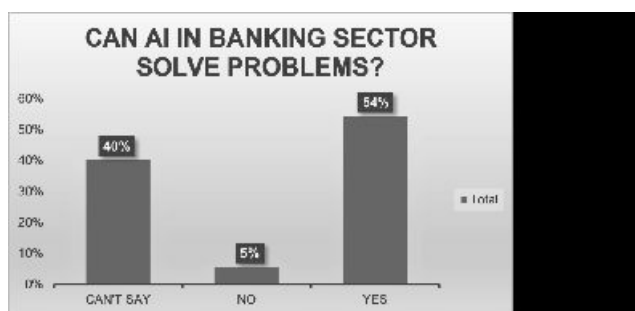
- v. It is important to know the taste of the respondents in regards to the mode they like to do their banking activities in. Figure 5 shows the kind of banking preferred by the respondents.
- vi. In order to know the problems faced by the respondents, they were asked about the same. Figure 6 shows the analysis of the responses.



**FIGURE 6: PROBLEMS FACED BY THE RESPONDENTS IN BANKING**

Source: Primary Data

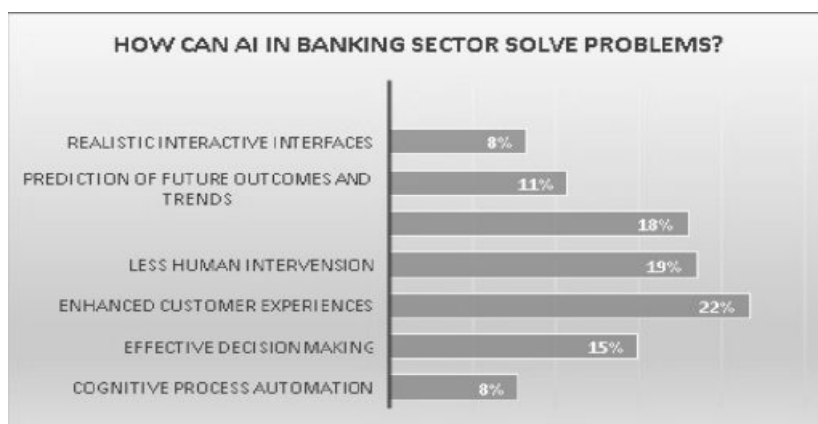
vii. Figure 7 shows the opinion of the respondents on whether AI can solve their problems or not.



**FIGURE 7: OPINION OF RESPONDENTS ON WHETHER AI CAN SOLVE THEIR PROBLEMS**

Source: Primary Data

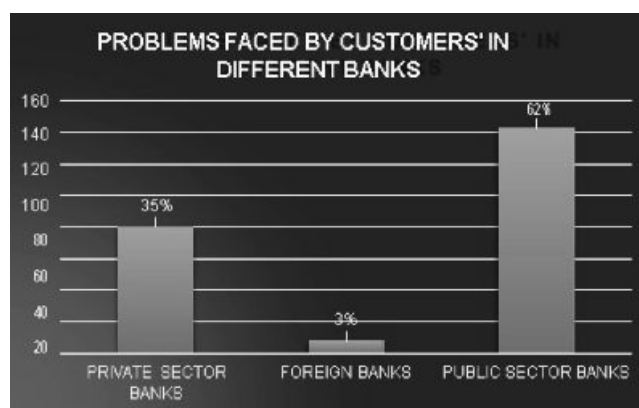
viii. Figure 8 shows the ways respondents think that AI can solve their problems.



**FIGURE 8: WAYS RESPONDENTS THINK AI CAN SOLVE THEIR PROBLEMS**

Source: Authors' Compilation

ix. Figure 9 shows the sectors in which the bank customers face more problems.



**FIGURE 9: WHICH BANK'S CUSTOMERS FACE MAXIMUM PROBLEMS**

Source: Primary Data

## AI-DRIVEN FUTURE OF BANKS

Artificial Intelligence has become a necessity for the banking sector and it is no longer a futuristic vision. In the near future, it will automate the knowledge workforce of the banks. It will also make the process intelligent enough to do away with cyber risks and the competition posed by Fin-Tech players. AI keeps upgrading itself from time to time with least human intervention. It will also help the banks to leverage the human resources with Artificial Intelligence so that the best can be made out in the operational and decision making part of the banking function. By adopting this latest technology, the banking leaders will take decisions with due diligence and derive the maximum benefit out of it.

In this pandemic, where the world and especially the Indian economy, is facing a challenge, people are mostly dependent on banks for assistance and help. Had there been proper AI implementation before, analysis and suggestions by AI would have been a great help to the customers and government as well. However, this pandemic has turned out to be an eye-opener for the banking sector and the implementation of AI should be as fast as possible.

## SUGGESTIONS

The research brings out the necessity to implement AI in the Indian banking system. It also brings out the challenges which the Indian banking sector would face if they decide to implement AI in their systems.

Hence, the research recommends the Indian banking sector to implement AI in their systems considering the challenges and the remedies provided. The remedies are as follows:

- i. Data storage facility needs to be improved and banks should be in close contact with its customers so that data can be extracted on a real-time basis.
- ii. In a country like India with over 150 sizeable spoken languages, banks must go deeper into the masses to gather collective data from them which

can synergize the implementation of AI in the banking sector.

- iii. The staff must be made familiar with the latest technologies and must also be taken into confidence for the implementation of AI.
- iv. The banks must collaborate with the government to take necessary steps for the reduction of unemployment caused due to AI implementation and to reduce capital adequacy ratio so that funds can be used for AI implementation.
- v. With a smaller number of data scientists available in the country, there must be a collaboration between the institutes and other research centres to develop more data scientists in the country.
- vi. The old aged customers would be reluctant to change from the traditional method of banking. Hence, they should be taken into confidence by providing technical knowledge and measures to prevent fraud.

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Behavioural finance as a discipline rose because the investor decisions are not always guided by rationality, challenging the utility maximising assumptions of traditional finance.

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# The Irrational Investor: An insight into the behavioural biases in investment decision-making

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## ABSTRACT

Much of the literature we read about finance is from a traditional perspective called 'Traditional Finance' where we assume that an investor is rational, i.e., a person who knows what choice to make in order to maximize utility. We call him a 'rational economic man'. Behavioural finance, however, challenges this theory and states that investors do not always make rational

and well-informed decisions, diverging from the theoretically optimal decision-making.

**KEYWORDS:** Traditional Finance, Rational Economic Man, Behavioural Finance.

## INTRODUCTION

Behavioural finance aims to understand how investors actually make decisions by applying psychology in finance. Studies have shown that when investors are faced with decisions requiring complex thinking and judgement, they have difficulty in developing and analyzing a logical and well-planned set of actions. When we face large amounts of data requiring systematic and proper synthesis, the response to such situations becomes sub-optimal. The decisions are taken based on heuristics and preferences.

By gaining an insight into the behavioural biases, investors can possibly try to educate themselves or adapt the biases into decision-making in order to make better financial decisions that are consistent with traditional finance. Integration of the behavioural aspect with objective decision-making can lead to superior results.

We have categorized behavioural biases into two - cognitive biases, i.e., errors based on faulty judgement and information processing, and emotional biases, which are influenced by feelings and emotions.

## RESEARCH OBJECTIVES

The primary objective of the study is to determine the biases exhibited by investors that affect their investment choices and decision-making ability with respect to investing in the National Stock Exchange, India.

To meet this objective, the research seeks -

- To identify the cognitive biases affecting the investment choices of Indian investors.
- To identify the emotional biases affecting the decision-making ability of Indian investors.

## RESEARCH METHODOLOGY

A closed-ended structured questionnaire using Google Sheets is designed to obtain responses. The sample size for the study is chosen as 60. Convenience sampling technique is used to collect data from investors in National Stock Exchange. Microsoft Excel software is used for statistical computation. Firstly, the correlation coefficient is calculated to test the relationship among the behavioural biases. Then, analysis using the Pivot Tables of Microsoft Excel is done in order to analyze the responses of the survey.

## COGNITIVE BIASES

These errors arise out of faulty statistical or information processing. Although they do have an emotional component, reasoning error and judgement play a dominant role. These biases can often be minimized by proper education, training and behavioural analysis combined with thought process alteration.

**Illusion of Control Bias:** This bias refers to a situation wherein the investor believes that he can control the outcomes of his decisions. The perceived belief of controlling the outcomes and thinking about possessing more control over the situation than reality leads to inflation of confidence and generates illusions. It leads to ad-hoc and frequent trades, reducing portfolio returns and having excessive turnover costs.

Overcoming the bias requires educating the investor regarding the probabilistic nature of investing. Capital markets are highly complex and are not under a retail investor's control.

**Hindsight Bias:** This is a situation where investors view certain events as predictable, after its occurrence. It is a belief associated with overestimating one's predictive and judgemental capacity. People often view past events and assume it to be reasonably predictable ex-post. The bias makes an investor too certain about his predictive capacity and fuels a false sense of confidence in him. This can lead to bad investment decisions in the future.

Unbiased comparison of results with forecasts and predictions, and maintaining a record of predictions

with analysis of gaps in forecasts can help in overcoming the bias.

**Framing Bias:** It is a tendency of answering the same question differently based on the way it is framed and asked. Information processing of the question varies because of the presentation of the question and affects the choices made. For example,

1. Potato Chips (30 per cent fat-free)
2. Potato Chips (Contains 70 per cent fat)

An individual is likely to choose the first pack of chips.

The bias can be overcome by obtaining a holistic view of the situation and analyzing it from different viewpoints. Neutrality and open-mindedness help tackle biased responses.

**Mental Accounting Bias:** It refers to a situation wherein people assign sums of money for different uses and assign mental accounts to it. Investment of such sums are based on the type of mental account it has been put in. For example - money for daily expenses and retirement are put in low-risk investments, whereas bonus is invested in risky assets.

Individual investments are required to be viewed from the 'portfolio perspective', considering the overall asset allocation and factoring in correlations among investments to eliminate this bias.

## EMOTIONAL BIASES

These biases arise out of emotion, feelings and intuition. They are deep-rooted in the investor's personality and are, therefore, difficult to mitigate. They require accommodating the portfolio to suit the investor's type. The bias also contains elements of cognitive dissonance. However, the investor's belief is primarily based on unconscious emotion.

**Loss Aversion Bias:** 'The irony of obsessive loss aversion is that our worst fears become realized in our attempts to manage them.' – Daniel Crosby

A loss-averse investor is one who dislikes losses more than one appreciates profits, i.e., utility lost due to a given amount of loss is greater than utility gained on

account of similar gains. An individual's willingness to take risk differs when faced with losses and gains. It is found that investors exhibit risk-averse behaviour in the realization of profits, i.e., book profits early and make 'risk-seeking' behaviour in terms of realization of losses, i.e., take unnecessary risks to recoup the losses.

Entry and exit from investments should be justified by their fundamentals and be consistent with an investor's risk and return objectives. This can lead to rational investment decision-making.

**Status-Quo Bias:** 'In investing, what is comfortable is rarely profitable.' – Robert Arnott

This bias occurs when investors are unwilling to make changes to the existing situation on account of comfort and inertia. It occurs when investors do nothing, i.e., maintain a status-quo instead of trying to make changes to the portfolio. It is a tendency to let things be when investments are giving satisfactory returns instead of looking out for better opportunities providing even better returns.

The bias can be moderated by teaching the investor the importance of diversification and proper asset allocation.

**Overconfidence Bias:** It refers to a bias wherein investors place unwarranted confidence in their own judgements, intuition, reasoning and cognitive capacity. This results from overestimating one's knowledge levels, ability and access to information. This bias has two main components,

- Illusion of knowledge: the tendency of the investor over-estimating his judgemental and cognitive capacity.
- Self-attribution: The tendency to credit oneself for profits, and blame other factors for losses.

Reduction of this bias requires keeping a proper record and justification for each investment and ex-post analysis by the investor.

**Regret Aversion Bias:** It refers to the tendency of investors to avoid making decisions due to the fear that the actions could be wrong. This leads to an investor holding onto an underperforming investment for too long. It causes reluctance to sell on the fear that the

investment will increase in value in the future, causing regret in having sold it. The bias can also initiate 'herding behaviour' by investors, meaning that investments are made on the basis of what others are doing instead of relying on their own analysis.

'Most people get interested in stocks when everyone else is. The time to get interested is when no one else is. You can't buy what is popular and do well' – Warren Buffett

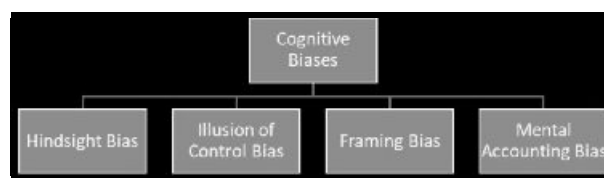
Correction of this bias requires an understanding by the investor that long-term outcomes of the portfolio should not be sacrificed to follow the current trend.

## DATA ANALYSIS AND FINDINGS

Table 1 is the correlation matrix of the biases under consideration, with correlations expressed in percentage terms.

bias and hindsight bias with an experience of investing in the stock market. There is 26 per cent negative correlation between the illusion of control and loss aversion bias due to the contrasting behavioural traits of these biases, i.e., loss-averse traders hold loss-making portfolios with the hope for a turnaround, and hence trade infrequently, whereas the former bias makes the trader trade more frequently than required.

The next two parts of the data analysis focus on the cognitive and emotional biases by describing the summary of responses of the diagnostic questions asked and show an experience-wise breakdown of the results to show the level of bias among investors with a varying degree of experience.



Flowchart 1

Source: Authors' Compilation

	Experience of Investing in Stock market	Loss Aversion	Status Quo	Overconfidence Bias	Regret Aversion bias	Illusion of Control Bias	Hindsight Bias	Framing Bias	Mental Accounting Bias
Experience of Investing in Stock market	100%								
Loss Aversion	-18%	100%							
Status Quo	-4%	-17%	100%						
Overconfidence Bias	7%	2%	20%	100%					
Regret Aversion bias	25%	-3%	6%	6%	100%				
Illusion of Control Bias	13%	-26%	15%	-4%	16%	100%			
Hindsight Bias	20%	-16%	-26%	0%	-4%	9%	100%		
Framing Bias	-1%	-15%	14%	2%	-10%	6%	0%	100%	
Mental Accounting Bias	8%	8%	-2%	-5%	-15%	-9%	3%	18%	100%

Table 1

Source: Authors' Compilation

The majority of the biases have low to negative correlation among them. However, there is 25 per cent and 20 per cent positive correlation of regret aversion

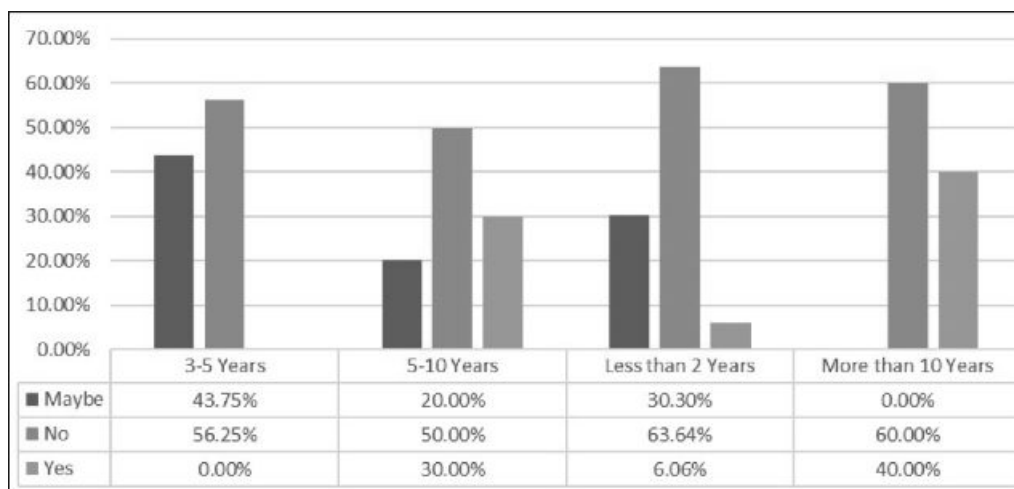


## Hindsight Bias

I could have predicted the onset of sub-prime crisis.				
Investing Experience	Maybe	No	Yes	Grand Total
3-5 Years	7	9		16
5-10 Years	2	5	3	10
Less than 2 Years	10	21	2	33
More than 10 Years		3	2	5
<b>Grand Total</b>	<b>19</b>	<b>38</b>	<b>7</b>	<b>64</b>

The respondents were asked if they could have predicted the sub-prime crisis. About 60 per cent of the respondents declined to be able to predict the credit crisis, with around 11 per cent agreeing to it. Therefore, it can be said that the majority of investors did not suffer from hindsight bias.

**Table 2**  
Source: Authors' Compilation



**Figure 1: Prevalence of bias on the basis of experience of investing in stock markets.**  
Source: Authors' Compilation

## Illusion of Control

I am usually informed about all the fundamentals of the companies I invest in.						
Investing Experience	Agree	Disagree	Neutral	Strongly agree	Strongly disagree	Grand Total
3-5 Years	5	4	4	2	1	16
5-10 Years	2	4	3	1		10
Less than 2 Years	15	8	7	2	1	33
More than 10 Years	3			2		5
<b>Grand Total</b>	<b>25</b>	<b>16</b>	<b>14</b>	<b>7</b>	<b>2</b>	<b>64</b>

**Table 3**  
Source: Authors' Compilation

The respondents were asked if they knew about all the fundamentals of the companies they invest in as an indicator of inflated confidence in controlling the outcome of their investments. Half of the respondents

disagreed or were neutral, signifying that the bias is not prevalent amongst the majority of the respondents. Experience-wise breakdown of responses indicates that the highly experienced investors possessed the bias.

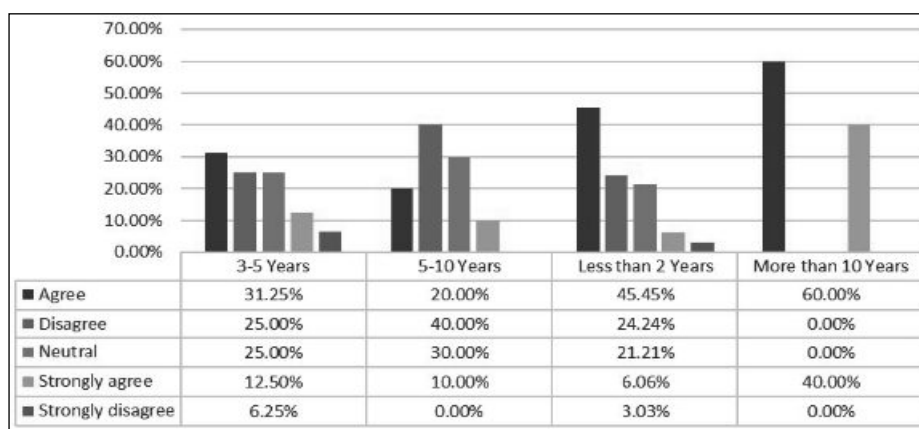


Figure 2: Prevalence of bias on the basis of experience of investing in stock markets.

Source: Authors' Compilation

## Framing Bias

Which investment portfolio would you choose?				
Investing Experience	I am indifferent between the two.	Portfolio A - Having 6% Average return with 12% Standard Deviation	Portfolio B - Having returns ranging from -18% to 30%	Grand Total
3-5 Years	1	6	9	16
5-10 Years	3	2	5	10
Less than 2 Years	7	10	16	33
More than 10 Years	1	2	2	5
<b>Grand Total</b>	<b>12</b>	<b>20</b>	<b>32</b>	<b>64</b>

Table 4

Source: Authors' Compilation

The respondents were asked to choose between two portfolios which are essentially the same. However, one is framed according to the risk involved and the other based on the returns. The returns are calculated using two standard deviations above and below the average

return. Around 19 per cent of the respondents were indifferent between the two portfolios, but the majority chose different portfolios, signifying a strong existence of this bias.

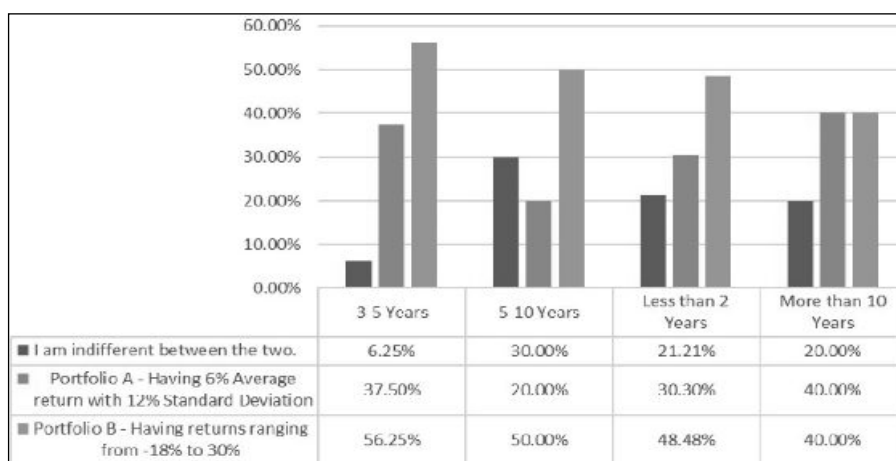


Figure 3: Prevalence of bias on the basis of experience of investing in stock markets.

Source: Authors' Compilation

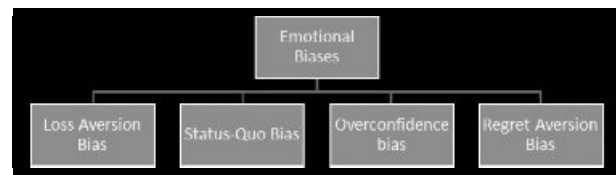
### Mental Accounting Bias

Do you divide your wealth and invest them on the basis of your goals? For example - money for retirement and necessities (Low risk investment), and leisure (invested in risky assets).				
Investing Experience	Maybe	No	Yes	Grand Total
3-5 Years		3	13	16
5-10 Years	2	2	6	10
Less than 2 Years	5	7	21	33
More than 10 Years		1	4	5
<b>Grand Total</b>	<b>7</b>	<b>13</b>	<b>44</b>	<b>64</b>

Table 5

Source: Authors' Compilation

The respondents were asked if they divide and invest the money on the basis of the goals it is meant to fulfil. Around 69 per cent of the respondents agreed to the question, signifying that investors do maintain mental accounts for their investments.



Flowchart 2

Source: Authors' Compilation

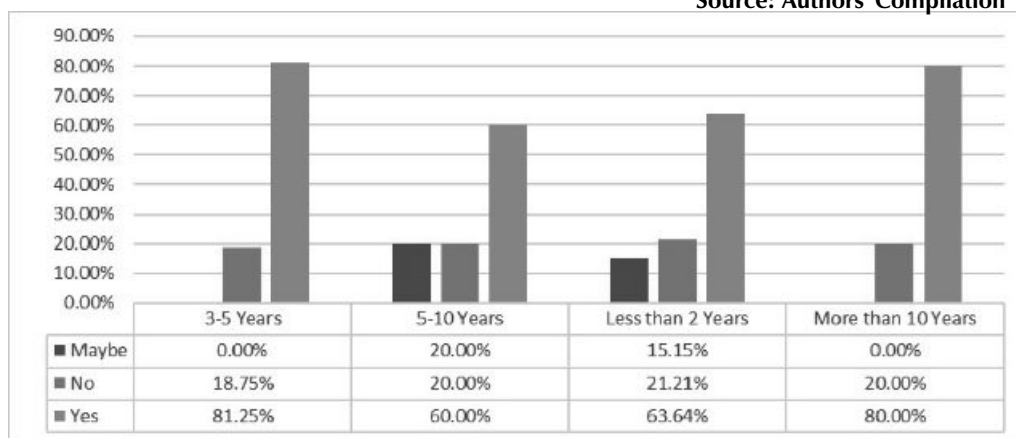


Figure 4: Prevalence of bias on the basis of experience of investing in stock markets.

Source: Authors' Compilation

I book my profits early, but I continue to hold shares which are currently incurring losses, hoping for a turnaround.					
Investing Experience	Agree	Disagree	Neutral	Strongly Agree	Grand Total
3-5 Years	8	2		6	16
5-10 Years	3	2	2	3	10
Less than 2 Years	20	3	3	7	33
More than 10 Years	2	1	2		5
<b>Grand Total</b>	<b>33</b>	<b>8</b>	<b>7</b>	<b>16</b>	<b>64</b>

Table 6

Source: Authors' Compilation

Respondents were asked if they exited their profitable trades early while holding on to their loss-making investments with the expectation of recouping the losses. 51.56 per cent and 25 per cent of the

respondents agreed and strongly agreed, respectively. Hence, it can be concluded that the majority of the investors suffer from the loss aversion bias.

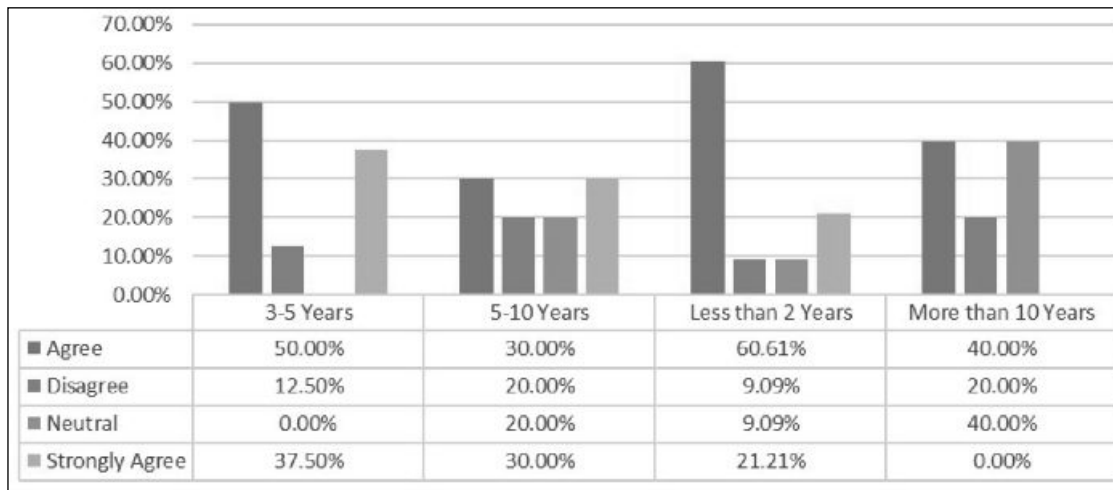


Figure 5: Prevalence of bias on the basis of experience of investing in stock markets.

Source: Authors' Compilation

### Status-Quo Bias

After purchasing shares, I do not usually worry about short term price fluctuations because I have a long-term perspective.					
Investing Experience	Agree	Disagree	Neutral	Strongly agree	Grand Total
3-5 Years	8	3	2	3	16
5-10 Years	5	1	2	2	10
Less than 2 Years	14	5	4	10	33
More than 10 Years		2		3	5
<b>Grand Total</b>	<b>27</b>	<b>11</b>	<b>8</b>	<b>18</b>	<b>64</b>

Table 7

Source: Authors' Compilation

The opinion of the respondents was taken to identify the tendency of not making sufficient changes in the portfolio out of comfort and inertia. They were asked whether they analyze the short-term movements in

their portfolios or not, with a long-term holding period. 42.19 per cent and 28.13 per cent of the respondents agreed and strongly agreed, signifying that the majority of the respondents suffered from this bias.

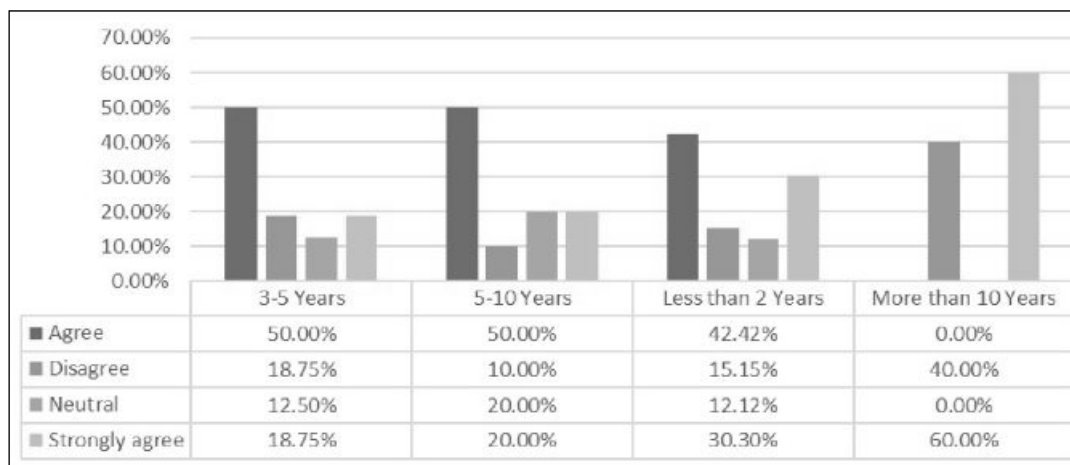


Figure 6: Prevalence of bias on the basis of experience of investing in stock markets.

Source: Authors' Compilation

### Overconfidence Bias

The losses in my previous investments was more of a bad luck than my own poor judgement.						
Investing Experience	Agree	Disagree	Neutral	Strongly agree	Strongly disagree	Grand Total
3-5 Years	5	5	5	1		16
5-10 Years	3	2	3	2		10
Less than 2 Years	8	11	12	1	1	33
More than 10 Years	1	3	1			5
<b>Grand Total</b>	<b>17</b>	<b>21</b>	<b>21</b>	<b>4</b>	<b>1</b>	<b>64</b>

Table 8

Source: Authors' Compilation

The respondents were asked whether they believe that the losses in their investments occurred due to their misjudgement or any other external factors. About 33 per cent of the respondents agreed to this statement, while 39 per cent disagreed and about 33 per cent were

neutral. The results contradict behavioural finance theories which advocate that investors are prone to self-attribution, i.e., claiming responsibility for profits but blaming external factors for losses.

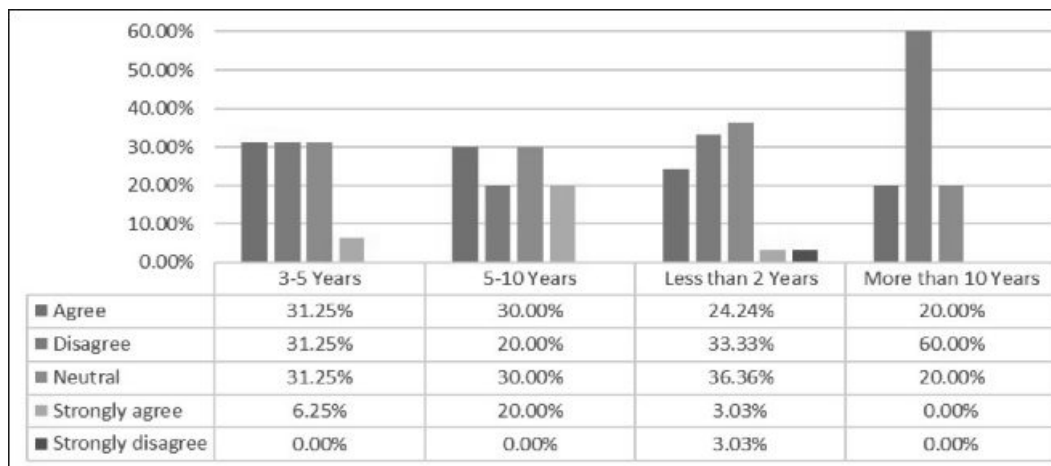


Figure 7: Prevalence of bias on the basis of experience of investing in stock markets.

Source: Authors' Compilation

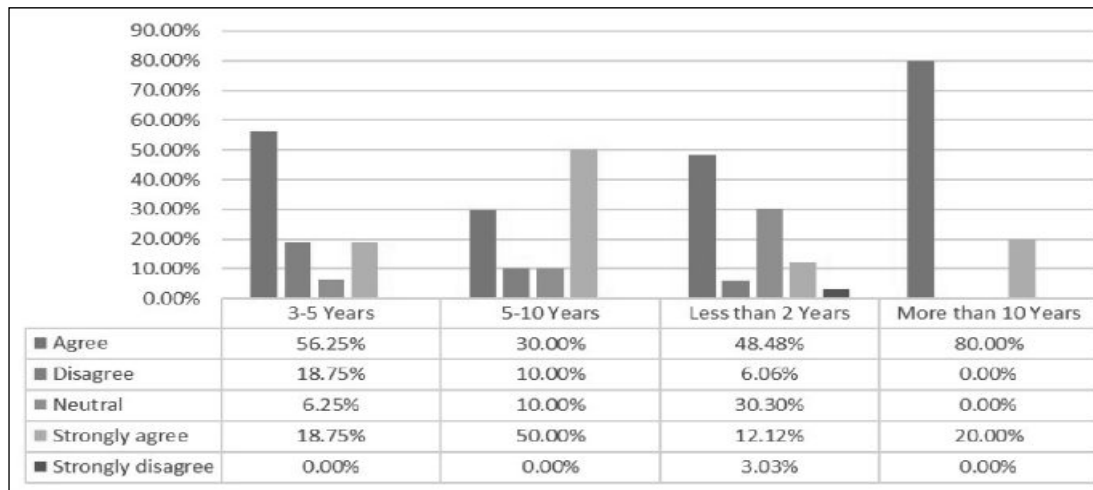
I am holding on to a few underperforming shares because I believe prices will soon revert.						
Investing Experience	Agree	Disagree	Neutral	Strongly agree	Strongly disagree	Grand Total
3-5 Years	9	3	1	3		16
5-10 Years	3	1	1	5		10
Less than 2 Years	16	2	10	4	1	33
More than 10 Years	4			1		5
<b>Grand Total</b>	<b>32</b>	<b>6</b>	<b>12</b>	<b>13</b>	<b>1</b>	<b>64</b>

Table 9

Source: Authors' Compilation

The study aimed to identify whether investors were holding on to their loss-making positions with the hope of reversion in prices. Over 50 per cent of the investors agreed to holding on to their underperforming stocks with the hope to recoup the losses sustained.

In our study, the bias is prominent amongst the highly experienced investors, with 80 per cent of them agreeing to hold such positions.



**Figure 8: Prevalence of bias on the basis of experience of investing in stock markets.**

**Source: Authors' Compilation**

## CONCLUSION

'Las Vegas is busy every day, so we know that not everyone is rational.' – Charles Ellis

Behavioural finance as a discipline rose because the investor decisions are not always guided by rationality, challenging the utility maximising assumptions of traditional finance. The research sought to identify the cognitive and emotional biases affecting investment decisions. In the study conducted, participants were found to exhibit both cognitive and emotional biases.

Cognitive biases are information-processing errors that arise due to faulty reasoning of our minds. Individuals can reduce the bias by remaining vigilant, i.e., by being aware of such bias, following a rational decision-making process, and accurately weighing in all information before making decisions.

Emotional biases arise out of emotions and impulses of the investors and are deep-rooted in the investor's psychology. Correction of emotional bias is difficult since the investor is likely to become defensive rather than considering alternatives. Hence, a diplomatic approach based on appropriate questions can be used to systematically develop rational thinking.

The study concluded that two cognitive biases - namely framing and mental accounting bias, and three emotional biases - namely loss aversion, status-quo and regret aversion bias affected investor decision-making. The study also aimed to discuss the steps to overcome the effects of the biases on investment decision-making,

starting from understanding and detection of biases to the education and moderation for improving upon economic outcomes.

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# Seeds of Tech: From Lab to Battlefield

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One of the fundamental principles of science is the notion that all researches are carried out with sound scientific methods that would add value to our civilization.



*'The First World War was chemical; the Second World War was nuclear; and that the Third World War—God forbid—will be biological.'*

- Michael J. Ainscough

## ABSTRACT

Biotechnology is meant to improve our lives and health and the use of such dates back over six thousand years. On the contrary, since the origin and evolution of life, organisms have constantly used toxins to eliminate each other. All of these form biowarfare. Mankind does participate in such warfare by taking advantage of these organisms capable of producing toxins.

The article discusses the early use of bioweapons similar to that used by Hannibal of Carthage over King Eumenes II to the massive USSR army program called "Biopreparat". Their research pursued the most contagious and lethal diseases like plague and smallpox to the development of novel bioweapons through genetic engineering. Many countries in the world have well-organized research labs, fund allotment and seemed to be well prepared against chemical, biological and nuclear attacks. Despite use of bioweapons over multiple times in the history of mankind, the most trending is the use of more virulent tailored pathogens (the new generation bioweapons). The invention of CRISPR technology along with its Cas9 enzyme has revolutionized the arena of "genome editing". The categories of genetically engineered pathogens could possibly lead to a widespread disease outbreak. Biowarfare constantly threatens human health, food security and environmental resources.

Biotechnology seems to be a double-edged sword for good as well as evil. The same biotechnology that promises to save lives can also be misused to kill masses and this face of biotechnology is known as black biology. It causes

sickness and creates panic and uncertainty - paralyzing the government, military responses and triggering a social and economic breakdown. Biosecurity has to turn out to be a crucial component of national security, especially for the industrialized nations.

**KEYWORDS:** Biotechnology, bioweapons, Biowarfare, genetically engineered pathogens, genome editing, new generation bioweapons.

## INTRODUCTION

Biotechnology is defined as 'the application of science and technology to living organisms, as well as parts, products and models thereof, to alter living or non-living materials for the production of knowledge, goods and services.' It is the technology based on biological science that couples cellular and biomolecular processes in order to develop technologies and products to assist in the improvement of our lives and the health of the planet. Such practices date back over six thousand years. An example of the same would be making bread and cheese. The synthetic biology domain comprises recombinant DNA technology, gene manipulations, designing, and improvement of designs, redesigning, and production of biological entities like enzymes, genetic pathways, and cells.

Since the origin and evolution of life about 3.5 billion years ago, organisms have constantly used new means to eliminate each other. From bacteria to snakes, all use toxins and these comprise an element of the different forms of biowarfare. Mankind participates in such warfare by taking advantage of the organisms capable of producing toxins. Starting from the throwing of cadavers for contaminating the water supply to the use of botulinum, aflatoxin, abrin, smallpox, Yersinia, and Clostridium for inflicting damage and destruction on the other side, are all forms of biowarfare. The ease of its availability and the disruptions it causes led the scientists to call it the 'Poor Man's Nuclear Arsenal'. These weapons have low conspicuousness, higher potency, easy accessibility, and easy transport and distribution. With advancement, today's bioweapons are more lethal and are able to trigger mass destruction even before suspected. The use of genetic engineering

along with information technology has made it possible to design bioweapons of choice. The rampant progress of SARS-CoV-2, left the people helpless and the desperation for a vaccine left us clueless, paralyzed, and panicked. Hopefully, it shall teach us how to efficiently respond to, and handle these bioagents in a sensible and ethical manner.

One of the fundamental principles of science is the notion that all researches are carried out with sound scientific methods that would add value to our civilization. However, a country, a radical group, or a terrorist organization could misuse such outcomes of research to harm the innocent. In this article, biowarfare has been focussed upon and discussed, where biotechnology has been redirected to harm a group of individuals.

## APPLICATIONS OF BIOTECHNOLOGY FOR WELFARE

Before we start discussing biowarfare and the possible devastating effects it has, we all appreciate that biotechnology could be a possible solution to heal the world. It can be used for increasing crop yields and making cultivation possible under stressed conditions, it can contribute towards reducing the world's hunger, it may lower the requirements of fertilizers and pesticides, increase the nutrient profiles of the crops, thereby making the plants free from toxins and contribute to improving health. It also contributes towards energy conservation by lowering the temperature requirement for chemical reactions, reduces water usage, helps in water treatment, waste treatment, and a host of other activities. The choice is ours; it depends on how we use it.

Presently, there are over 250 health care products and vaccines available for treatments that were previously impossible. New ways have come up for the treatment of diseases with the advances in biotechnology. Clinical trials have proved the successful prevention of Alzheimer's disease progression in mice with gene therapy. Furthermore, new gene therapy techniques could accomplish the first-ever reversal of 'sickle cell anemia' in a French adolescent. Biotechnology can be



used to lessen carbon emissions and thereby help in GHG mitigation and environmental homeostasis. The oil-based raw ingredients in the plastic industry can be substituted with sugar by using microorganisms. With biotechnology, wastes could have better biodegradable properties and landfills could be managed more effectively, leaving a small footprint. Sewage can be treated with bacteria like *Pseudomonas* and *Mycobacterium*. Oil spills and nuclear wastes can also be treated with biotechnology.

Recently, the invention of CRISPR technology along with its Cas9 enzyme has revolutionized the arena of 'genome editing'. The Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR) made small fragments of harmful DNA to be snipped off and be replaced with regular sequences. CRISPR is a specific DNA fragment with 2 distinct characteristics- the nucleotide repeats and the spacers. The spacers are pieces of DNA that intersperse among the repeat sequences. The spacer sequences were acquired from a previously attacked organism like the viruses and serve as a pool of memories which the bacteria could recognize in the subsequent attacks. CRISPR-Cas9 technology was adapted from the natural defence mechanism of bacteria and archaea who use CRISPR derived-RNA and other Cas proteins to thwart viral and other foreign attacks. Basically, these organisms chop the DNA of the invading organisms and destroy them. The genomes of several organisms translate a series of messages that are encoded in their DNA sequences. Editing by CRISPR involves altering these sequences, and this would change the messages instead. CRISPR-Cas9 can be used to insert cuts in the DNA and trick the cells' natural DNA repairing mechanism by introducing the changes we desire.

Such applications need not necessarily be fatal or harmful in changing our lives. Revolutions in biotechnology are profoundly positive and negative across the globe. Man has been practising changing plants and animals for ages- first through selective breeding and more recently through tools at the molecular level. It definitely lends the potential for progress in healthcare, agriculture, and environmental issues. Yet, the ever-increasing diversification presents

new ethical challenges and risks, namely the bioweapons and biowarfare. With such equipment in our hands, we even talk of 'designer babies'. The possible technologies could make children with no biological parents, bring back the extinct woolly mammoths, develop human organs in pigs, or even recreate the entire human genome! Biotechnology, in the pursuit of doing good and marvellous, may create unequal societies.

### **APPLICATION OF BIOTECHNOLOGY FOR AN APOCALYPSE**

We have read about the Spanish Flu and other such incidents of the past and also about a few scattered contemporary events and attacks, however, witnessing and living such events is not what we have ever dreamt of. Many countries of the world have well-organized research labs, fund allotment, and seemed to be well prepared against chemical, biological and nuclear attacks. Yet, COVID-19 has shown us that that 'well preparedness' is not enough and that we need to think extensively before we put a step forward to revert the application of biotechnology.

#### **The early use of bioweapons**

Hannibal of Carthage secured a victory over King Eumenes II of Pergamon in 184 BCE by throwing vessels filled with venomous snakes into their ships during the battle of Eurymedon. In the fourteenth century, the Tatar force threw plague-infected corpses in the enemy groups. In the French and Indian War of the eighteenth century, the blankets that were used by smallpox victims were given to the native Americans. Anthrax, glanders, cholera, et al, were used during the First World War. One of the most notorious examples is the Japanese army exposing 3,000 prisoners to plague, anthrax, and syphilis during the Second World War. In 1944, the United States stockpiled enough quantities of botulinum toxin and anthrax for using them in case German forces would have used their bioagents first. The British carried out trial tests in 1952 which included Operation Cauldron. The accidental release of anthrax from Sverdlovsk, Soviet Union, killed at least 66 people in 1979. This was denied earlier but eventually

confirmed in 1992. Iraq started their bioweapon program in 1985, making anthrax, aflatoxin, and botulinum. They admitted to the possession of Scud missiles, rockets, and spray tanks as means of delivery after the Persian Gulf War. Around 751 people were intentionally infected with Salmonella in 1984 by the followers of Rajneesh. A similar attempt was made in Tokyo to spray anthrax by the Aum Shinrikyo cult in 1994. Many of us could recall the delivery of anthrax smeared letters to the government offices of the United



**Figure 1: Iraqi Al Hussein Scud missiles that were destroyed by the UN during the bioweapon investigation schedule after the 1991 Gulf War.**

**Source: Block, S.M., Living nightmares: biological threats enabled by molecular biology. The new terror: Facing the threat of biological and chemical weapons, 1999: p. 39-75.**

States of America in 2001. There are innumerable instances of the use of biological agents and their toxins throughout human civilization. What is worth noticing is the evolution of these bioagents and the increasing threats that they pose to us.

### The Soviet Union programme of bioweapons

The former USSR continued an undercover and unlawful offensive bioweapons programme in the early 1990s. Their massive army programme called 'Biopreparat' had a civilian cover that employed around 50 per cent of the USSR's 60,000 workers in over 18 bioweapons (BW) facilities. The yearly allotment in the 1980s was millions of US dollars. Their research activities pursued the most contagious and

lethal diseases like plague and smallpox. On the other hand, the USA primarily worked with organisms that are non-contagious to humanity like anthrax and tularemia. The operation was so secretive that it became known to the United States intelligence only in 1989 after one of the scientists deserted to the United Kingdom.

It was Dr. Vladimir Pasechnik, a top-ranking secret scientist and the Director of the Institute for Ultra Pure Biological Preparations in Biopreparat. He reported the wide-ranging research programme in 1989 after he absconded to the United Kingdom. He revealed further information about the development of novel bioweapons through genetic engineering. The topmost priority was given to enhance the lethality of plague and



**Figure 2: Biopreparat locations for bioweapons programs during the 70s and 80s.**

**Source: Block, S.M., Living nightmares: biological threats enabled by molecular biology. The new terror: Facing the threat of biological and chemical weapons, 1999: p. 39-75.**

tularemia. They strived to develop successive generations of tularemia cultures by inserting engineered plasmids that would become resistant to all known western antibiotics. The USSR had stocked 20 tons of dried plague powder. Germs like plague, anthrax, and small pox could be delivered through spray tanks, cluster bombs, and intercontinental ballistic missiles.

In 1992, another scientist who deserted to the United Kingdom, known by the code name 'Temple Fortune',

corroborated the earlier statement. The USSR continued the clandestine operations even after the announcement of their termination by Mikhail Gorbachev and subsequently by Boris Yeltsin. The scientists reported the making of an avirulent super-plague in a stored system that could be transformed into a lethal one before weaponization. This is known as a binary biological weapon where the benign pathogens could be mixed with virulence augmenting plasmids just prior to the loading process. The third absconded scientist, Kanatjan Alibekov, disclosed that the Russians, by 1992, had a total of 52 pathogens or combined agents like Marburg, Ebola, smallpox, et al. They labelled the deadly, infectious, and easy to produce and transport pathogens as 'battled strains', with anthrax being their favourite. Alibekov also disclosed the research towards the creation of totally novel forms of life. The first chimera was made by the insertion of Venezuelan equine encephalitis viral DNA into the vaccinia gene. He also mentioned the transference of the myelin toxin gene to *Yersinia pestis*. The accidental release of *Bacillus anthracis* spores in 1979 from the Sverdlovsk facility killed 66 people.

### **The new generation of bioweapons**

Bioweapons have been used multiple times in the history of mankind, but what is trending is the tailored making of pathogens that would be more virulent and lethal. Recreation was first made possible by Dr. Eckard Wimmer in 2001 when he created the poliovirus. Dr. Jeffrey Taubenberger and Terrence Tumpey recreated the influenza virus of 1918 again in 2005. The application of genetic engineering allows phenomenal changes in the characteristics of the organisms. Such changes can be achieved by adding, altering, or deleting genetic sequences. With the advancement of knowledge, increased ability to synthesize DNA, and computation capabilities, the capacity of creating biological weapons increased manifold. The United States evaluated the effectiveness of *Fusarium* along with its genetically engineered version to be used against the coca plantation from which cocaine is obtained.

Many of the well-known universities and institutions

across the globe have both the expertise and technology that could produce such deadly strains of pathogens. It is not surprising that terrorist groups have easy access to this knowledge. It is possible that Iraq deterred from biological and chemical warfare during the Gulf war due to the fear of an overwhelming nuclear attack. The possibility of the use of genetically engineered bioweapons by the terrorist groups is minimal, however, the result of such a happening would be enormous.

### **The controversy regarding SARS-CoV-2**

The French Nobel Laureate in Medicine in 2008, Luc Montagnier, ignited controversy by claiming that the SARS-CoV-2 which produced COVID-19 was created in a laboratory. It is worth mentioning that Luc Montagnier co-discovered Human Immunodeficiency Virus (HIV) along with Francoise Barre-Sinoussi. The WHO scientists studied around 15,000 sequences of this virus. Subsequently, during the virtual briefing, they reported that this virus is natural in origin. As of 7th August, 2020, the SARS-CoV-2 virus has infected over 19.3 million people, killing more than 718 thousand people worldwide. Studies were conducted by the Scripps Research Institute in the USA which were subsequently published in *Nature* on 17th March, 2020. According to them, SARS-CoV-2 binds perfectly to the ACE-2 receptors of humans, and such precision would not have been possible to design. Prior to this, another publication in *Nature* in February reported a 96.2 per cent similarity between SARS-CoV-2 and BatCoV RaTG13. BatCoV RaTG13 virus is found to reside in the intermediate horseshoe bats. This 3.8 per cent difference of about 800 nucleotides links the virus to its host as different strains.

### **Phases in weapon development and requisites**

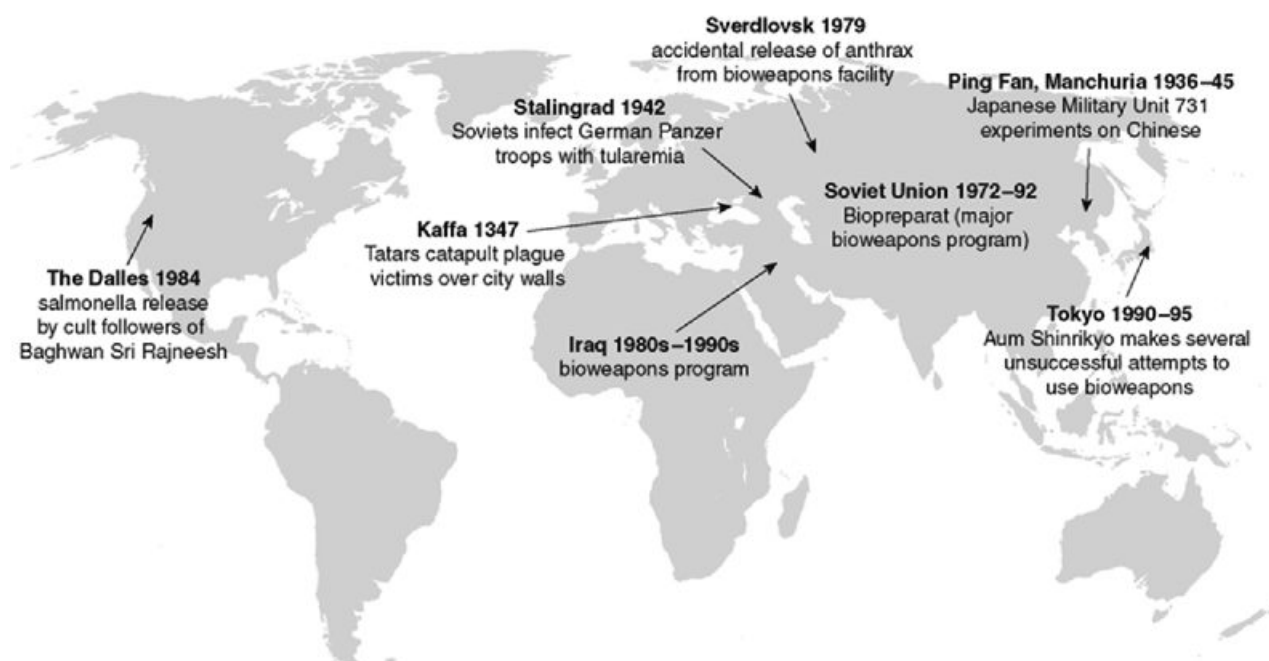
The evolution of chemical and biological weapons can be broadly divided into 4 phases. In the first phase of World War, the use of chlorine and phosgene was witnessed. Nerve agents like tabun marked the second phase with anthrax and plague bombs in the Second World War. The use of Agent Orange in the 1970 Vietnam War and a group of mid-spectrum agents like Novichok mark the third phase. Agent Orange brought

crop destruction and defoliation. Novichok has both the chemical and biological properties of auxins, physiologically active compounds, et al. The period of the biotechnological revolution and genetic manipulation marks the fourth phase.

The usage of bioweapons depends on numerous factors like research, advancement, demo programs, devising

groups and approach a spectrum of possibilities in which countries, organizations, or individuals can possibly use them as their weapon of choice.

- I. Binary bioweapon: Comprises a two-part system and already exists. Independently, the elements are safe to handle. But when combined, they become lethal. The system may involve a virus as a helper or



**Figure 3: Some past incidents that involved bioweapons.**

**Source: Block, S.M., Living nightmares: biological threats enabled by molecular biology. The new terror: Facing the threat of biological and chemical weapons, 1999: p. 39-75.**

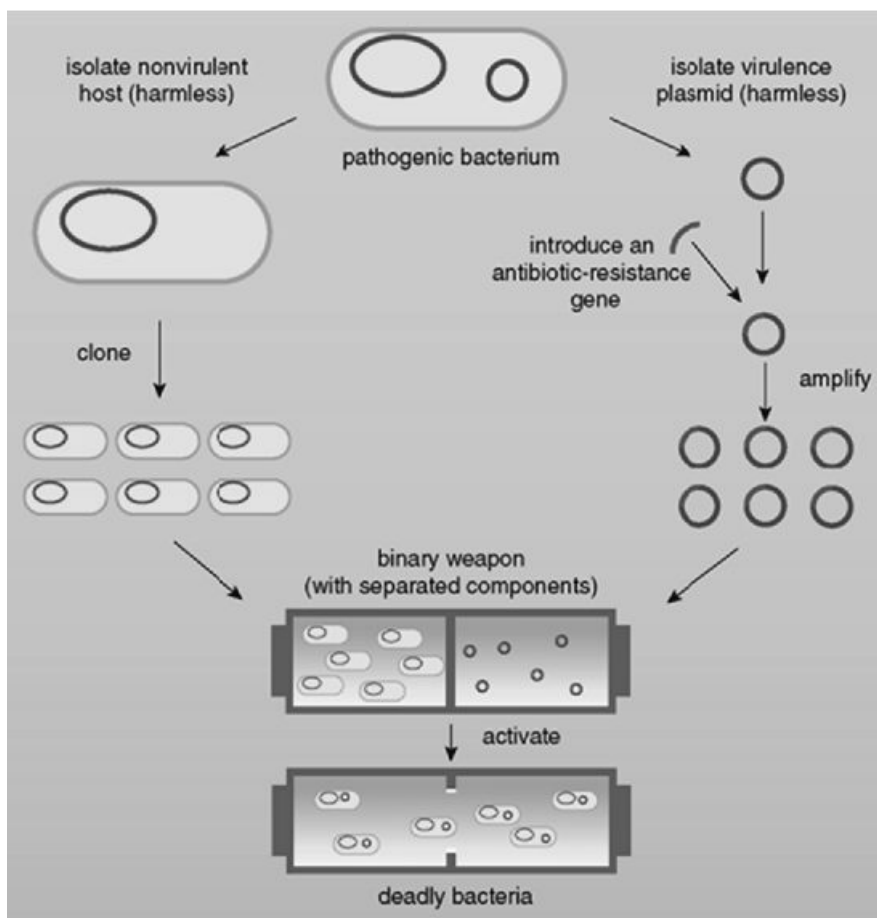
strategies for testing the efficiency of the properties, mass-scale production of the pathogen, maintaining such lethal and pathogenicity during deliveries, and the storage and stockpiling of agents. There were instances of using minuscule ricin pellet that was inserted in the target using the umbrella spike. A bioweapon comprises of the bioagent coupled with a delivery tool. Microbe proliferation is quite easy as compared to its dissemination. The development of bioweapon requires infrastructure and expertise. Well-funded terrorist groups manage to hire scientists to gather knowledge on weaponization techniques.

### **Categories of genetically engineered pathogens**

The genetically engineered pathogens fall into six

a virulent bacterial plasmid. Let us take, for example, the Hepatitis D with Hepatitis B as the helper virus. Both of these need to infect the cells simultaneously. They are usually transmitted sexually or through contaminated needles. The Hepatitis D infection is not possible alone, but together, it takes benefit of the protein expression by the Hepatitis B virus to increase the rigorosity. Other examples of virulent plasmids are *Yersinia pestis*, *Bacillus anthracis*, *Shigella dysenteriae*, and *Escherichia coli*. In the wrong hands, these can be impending threats.

- ii. Designer genes and life forms: After the human genome project is completed, it could pave the way



**Figure 4: Modern technique to produce novel and desired strains of bioweapons.**

**Source: Block, S.M., *Living nightmares: biological threats enabled by molecular biology. The new terror: Facing the threat of biological and chemical weapons*, 1999: p. 39-75.**

to understand the complex genetic information. The human genome project can be used to produce novel life forms. The genome sequence of 599 viruses, 205 natural plasmids, 31 bacteria, one fungus, two animals, and one plant is already recognized. All this information can be used to develop synthetic viruses and organisms. Recombinant DNA technology genes could be inserted to change the genetic properties. For instance, take the example of insulin production in bacteria. It is beneficial and life-saving, however, one cannot overlook the perils because the same techniques can be used to programme organisms into an infectious one. Interested countries and organizations can now use the genomic database

openly and design as per their requirement. All genes responsible for virulence and evading immune response can be used from the microbial genomic database. Researchers from the Wisconsin University had partially constructed the Spanish flu strain of 1918 in 2004 through reverse engineering. The scenario might change in the coming few years where synthesis could become more simplified. Imagine the impact of the Spanish Flu which killed at least 20 million people across the world in 1918 in the present scenario.

- iii. Gene therapy: It is often used for treating many genetic diseases in humans where the defective gene/genes are replaced with a normal gene/genes to improve the patient's condition. Such a healthy gene transfer needs a vector for reaching the target.

The commonly used vectors are genetically altered viruses that bear the normal human DNA sequence. They can be retroviruses, adenoviruses, herpes simplex viruses, et al. Two types of gene therapy can be practiced. Germline therapy has the ability to correct the defective gene and is passed through generations or simply inherited. Alternatively, somatic cell therapy affects only the individual that received the treatment. The same can be done in animals too. Promising results were obtained by the Michigan University and the Kansai Medical University of Japan when they used it for the restoration of hearing in mature animals. On the contrary, Australian researchers developed the mousepox virus trying to prevent a plague in the

mice population. Instead of saving them, it killed almost all the mice. The mousepox creation was unintentional but had the possibility of being fatal. Gene therapy has a promising future but possesses threats to create new bioweapons.

system, reactivate dormant genes to cause destruction, or trigger the host cell to apoptosis. Such futuristic diseases are not unlikely and can be a lethal bioweapon.

iv. Stealth viruses: This works in a similar way to gene therapy and comprises cryptic viral infection that gains entry and spreads in human cells through the use of vectors. After entering, they may remain in dormancy till they are activated by some internal or external factors. An oncovirus may enter the host cell, remain dormant till an exogenous signal activates the host cells to become abnormal and ultimately lead to death. In the hands of the perpetrator, such viruses can be engineered and made to infect the entire population, causing havoc with the blackmail and threat to activate the pathogen. Such a bioweapon is futuristic but not impossible.

v. Hot Swapping diseases: Most of the viruses are non-pathogenic and exist in evolutionary equilibrium. The virus either gains virulence or moves out of the host range on the disruption of the equilibrium. While entering a different host species, it might get mutated. Animal viruses residing in the host reservoir do little harm to its host. Consider, for example, the Hantavirus in the rodents, Ebola virus in bats, and eastern equine encephalitis virus in waterfowls. Moving out of natural hosts may turn these viruses into lethal pathogens. Such diseases can be a potential bioweapon as categorized by the CDC.

vi. Designer Diseases: The knowledge about molecular biology has reached a point where diseases can first be conceptualized, and subsequently, pathogens could be produced with the desired impact. These diseases may attack the hosts' immune

Bacterial diseases	Pathogen
Anthrax	<i>Bacillus anthracis</i>
Plague	<i>Yersinia pestis</i>
Brucellosis	<i>Brucella suis</i> , <i>B. melitensis</i> , <i>B. abortus</i>
Glanders	<i>Burkholderia mallei</i> , <i>B. pseudomallei</i>
Plague	<i>Yersinia pestis</i>
Q fever	<i>Coxiella burnetii</i>
Rocky Mountain spotted fever	<i>Rickettsia rickettsia</i>
Psittacosis	<i>Chlamydia psittaci</i>
Tularemia	<i>Francisella tularensis</i>
Typhus fever	<i>Rickettsia prowazeki</i>
Viral diseases	Pathogen
Smallpox	<i>Variola major</i>
Viral encephalitis	Venezuelan equine, eastern equine, tick-borne encephalitis virus
African hemorrhagic fever	Ebola, Marburg, Congo-Crimean virus
South American hemorrhagic fever	Junin, Machupo, Sabia, Flexal, Guanarito virus
Hemorrhagic fever with renal syndrome and Hantavirus Pulmonary syndrome	Hantavirus
Others	Rift Valley, Lassa, yellow fever virus
Fungal diseases	Pathogen
Rice blast	<i>Magnaporthe grisea</i>
Rye stem rust, wheat stem rust	<i>Puccinia graminis forma specialis tritici</i>
Biological toxins	Source
Botulinum toxin	<i>Clostridium botulinum</i>
Enterotoxin B	<i>Staphylococcus aureus</i>
Epsilon toxin	<i>Clostridium perfringens</i>
Ricin	<i>Ricinus communis</i> (castor bean)
Shiga toxin	<i>Shigella dysenteriae</i> , <i>S. flexneri</i>

**Table 1: Few important bioagents that can act as bioweapons.**  
Source: Prevention, C.f.D.C.a.

### Biowarfare and its consequences

Biowarfare is the deliberate utilization of microorganisms and toxins to trigger diseases and/or kill cattle, crops, and humans. All the three categories of bioweapons, chemical weapons, and nuclear weapons, exhibit the shared property of inflicting mass annihilation; even though biowarfare is somewhat different. Biowarfare could be traced to hit economic targets like crops, livestock, and the environment. Furthermore, they lead to a disease outbreak in the form of endemics, epidemics, and pandemics. Of all the three lethal weapons, bioweapons are the most feared one. Biological warfare constantly threatens human health, food security, and environmental resources. Anticrop warfare agents like herbicides and defoliants may result in famines, malnutrition, and economic breakdown. The two World Wars have witnessed the cases of late blight in potatoes, anthrax, wheat rusts, et al. Food borne pathogens cause morbidity in 6.5 million – 33 million cases, and up to 9,000 deaths in the United States every year. These incidents can be attributed to *Salmonella typhosa*, *Campylobacter jejuni*, *Escherichia coli*, *Listeria monocytogenes*, *Staphylococcus aureus*, and *Clostridium perfringens*. Whitefly transmitted the viral disease of crops which brought severe economic losses amounting to \$50 million in the Dominican Republic in the mid-1970s. Even the use of cocaine, heroin, and marijuana, derived naturally or by genetic engineering is another form of biowarfare.

The biotechnology that promises to save lives can also be misused to kill masses. This is known as black biology. This revolution in biotechnology could be considered as a potential 'Revolution in Military Affairs' (RMA) and requires four essentials- technology progression, integration of novel technology in army systems, army functioning invention, and structural adaptation. The human genome is sequenced. Gene therapy would permit replacement and mending of the defective genes. Gene therapy promises to be the holy grail of modern medicine. Molecular genetics, genome sequencing, and gene splicing have the potential for dual-use. Paradoxically, the biotechnology that is used to produce novel drugs or vaccines could be utilized to develop dangerous virulent weapons. So, science that

could be employed to protect lives can also be utilized to kill people. Increased biotechnological knowledge results in the inclination of the terrorists to perpetrate mass fatalities and amplified desolation.

President Clinton got highly sensitized after reading the 1997 fictional novel 'The Cobra Event' by Richard Preston about a genetically engineered super-virus. This led him to issue two Presidential Decision Directives to address the national security deficiencies. It was in response to the 9/11 attacks and numerous anthrax smeared letters sent in various places that President Bush launched the Homeland Security Council to coordinate the various efforts of around forty institutions at a national level and to have preparedness for the unexpected in the future. The anthrax of 2001 was a known strain and not contagious, however, they are quite stable and can remain viable for years. Genetically altered pathogens, on the other hand, could prove a much more difficult challenge. The Atlanta based Centers for Disease Control and Prevention (CDC) leads in tracking epidemics globally. It had carried out investigations on the outbreak of Ebola, Marburg, Hantavirus, and others. The genomic sequence of smallpox was known and hence, feared to be manipulated. The only authorized laboratories for small pox globally are the American Centers for Disease Control and Prevention and the Russian State Research Center for Virology and Biotechnology situated in Koltsovo. However, it could be apprehended that such cultures might have been transferred elsewhere.

The nations that upkeep the bioweapon capability of research facilities include Russia, China, Iran, Iraq, North Korea, Syria, Libya, India, Pakistan, Egypt, Israel, and Taiwan. Many developed nations have some sort of defense capability against bioterrorism. This generally includes the deployment of 'military mission-oriented protective posture' (MOPP) kit and non-combatant 'hazardous material' (HAZMAT) responder spacer outfits. Vaccines and antibiotics to such intimidations are stocked and seem to be very significant.

The bioweapons are unique in their indiscernibility and have deferred impacts. They not only cause sickness but create panic and uncertainty. They can paralyze the government, the military responses, and trigger a social

and economic breakdown. The choice of bioweapons is usually determined by the technical, financial, and economic potential of the attacker. The risks of infectious diseases emerge and re-emerge on a regular basis. For instance, consider the appearance of bird flu. Both the H5N1 avian influenza virus and the H1N1 swine flu virus resulted in mild pandemics in between 2009 and 2011. The bird flu virus emerged in 1997 and in ten years' time, culled around 300 million birds with over 200 connected human deaths. It appeared in Hong Kong but with time, spread across Asia, Europe, and Africa. Two small clustered sequences of H5N1 were thought to be responsible for a human to human transmission. The H5N1 virus underwent mutations and recombinations with the human-adapted influenza virus, which could lead to the possibility of easy transmission amongst humans. Researchers have developed bio-armory with potent antibiotics, antiserum, toxoids, and vaccines to neutralize and evade a vast pool of these threats.

## CONCLUSION

Biotechnology seems to be a double-edged sword. Once the knowledge is gained, there is no going back. The Biological Weapons Convention {'Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction'} was put to the signature on 10th April, 1972, and has been implemented since 26th March, 1975, following the requisite ratification. As of 2019, the Convention has 183 Parties. The 'Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or other Gases and of Bacteriological Methods of Warfare' (Geneva Protocol) that was put to signature in 1925 and enforced in 1928 preceded the Biological Weapons Convention. It is worth mentioning that the National Bioethics Advisory Commission was formed in 1995 by the Clinton administration to deal with the ethical implications of biotechnology. The threat of genetically tailored pathogens shall persist in the future, as is evident from the covert use of conventional bioweapons in the past. Genetically engineered weapons are cheaper as

compared to nuclear weapons. With a boom in information technology and globalization, access to materials and knowledge is secure. Biological weapons have long-lasting impacts as they can self-propagate with the dissemination process being comparatively simple from infected persons. The attackers can easily conceal their identity and new sophisticated pathogens could be produced. All these features provide biological weapons an advantage over other weapons. Biodefense is a contested area and receives contradictory views. Some people support heavy investments inspite of it being a low threat while others believe that civilian protection under such attacks is nearly impossible. Biodefense comprises of a series of measures that are both active and passive. Active defense averts the bioattacks from reaching target areas. This requires interception. Destruction of weapons without dispersal is difficult. The passive defense comprises the preventive steps to minimize health impacts. It comprises risk assessment detection means, protection gears and equipment, diagnosis, and medical countermeasures. A vigorous, well-conceived, and state of the art technology based on information and communication technology is the key to the success of biodefense preparedness and response. The Defence Research and Development Organization (DRDO) is the core of biodefense in India. Its significant



Figure 5: Essentials of biodefense research as prioritized by the NIH.[37]

Source: Fauci, A.S. and N.T.W. Group, Multidrug-resistant and extensively drug-resistant tuberculosis: the National Institute of Allergy and Infectious Diseases Research agenda and recommendations for priority research. *The Journal of infectious diseases*, 2008. 197(11): p. 1493-1498.



laboratory is the Defence Research and Development Establishment at Gwalior, Madhya Pradesh. It focuses on threats like anthrax, brucellosis, plague, smallpox, botulism, and viral hemorrhagic fever amongst many others.

Biosecurity has turned out to be a crucial component of national security, especially for the industrialized nations. Apart from protecting the army, biodefense initiatives have become an integral part of homeland defense. A number of biosensors using fibre optic and electrochemical devices have been designed. They can detect microbes in food and have clinical and military applications. Immunosensors are used to detect *Candida* and *Bacillus*. Polyvalent immunosensors are designed to detect specific genetically altered agents. As a means of control, national laws should be drafted and implemented. The use of precursor chemicals leading towards weapons should be monitored. Databanks at both international and national levels should be launched to monitor any such trafficking. Greater emphasis should be placed on research in anti-biowarfare and anti-bioterrorism like the protective wearing of hoods, gloves, boots, masks, tunics, protectants (soaps, hypochlorites, and antidotes), et al. Concerns shall remain strong with the current development of what is known as 'synthetic biology'.

It is the scientists that must be aware of the potential abuse of biotechnology. It is the scientific community that enjoys access to information and understands the intricate molecular mechanisms. Hence, they must act as the watchdogs of society and blow the whistle with the intent to maintain peace and benefit humanity.

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## **Echoes of Saga**

### **An Eternal Saga of Firsts and Lasts**

Ayush Garodia and Khushboo Singhal  
Joint Secretaries  
Xavier's Commerce Society

In every book, there is always one important chapter which not only adds life to the entire book but also adds significant meaning to the chapters that follow. It is this chapter which shows the direction in which the novel is about to turn, bringing out the true potential of the story that lies ahead. The Xavier's Commerce Society is one such chapter in the book of our lives, which has helped us redefine ourselves and made us stronger for the future.

On 2nd July 2018, when we entered the gates of St. Xavier's College as Xaverians, we had a lot of questions in mind; questions that did not have any definite answer, that seemed to be frightening and that were sure to lead us to an unanticipated door. In this crossroad of life, the biggest challenge was to choose the right direction among the various choices. Many advised us to follow what comes on our way, while others told us to plan strategically; but everyone assured us that it was a new beginning and change was the only constant that we would witness in the coming three years.

We all seek changes that lead to our continuous development and betterment in the journey of life. Life changes its course from time to time and evolves through the process of natural selection. A change might end up either giving us a bad experience or a good memory, but it is always sure to redeem us from our past. Some changes are often anticipated by us in advance whereas a few changes come to us, bringing new

surprises. The Xavier's Commerce Society was a change we never knew we would go through. Now that we have lived our days as XCSers, we feel blessed to list such a change in our journey of life.

We were welcomed to this new institution with a short video, assuring us that the next three years in St. Xavier's College (Autonomous), Kolkata was going to be full of opportunities and moments with friends we would later call our Xaverian family. With days passing by, we began experiencing the enriching seminars at Innovision, intense panels at Inception, exciting corporate rounds and business simulations at X-Calibre, inspiring industrial visits in X-Pedition and discussions by dexterous panelists at Intelligentsia. During this course, the Xavier's Commerce Society inculcated a sense of respect in our minds. We cannot clearly define one particular reason that sets XCSers apart from the rest. Maybe it was their confidence which could not remain unnoticed in the eyes of others, or maybe it was their passion towards their goal which remained unparalleled with anyone and anything else. All the endeavours and the actions of the XCSers were aligned to their motto of 'Dreams, Development, Destiny'. One could see they had a purpose and all of them truly lived up to it. It grew our desire to become a part of this society and have our hand in taking this society forward.

On 13th of October, 2018, we became a part of this family as Insignia Working Committee Members, the beginning of a much awaited journey. We were clueless about what it had in store but were sure that it would be worth the effort. Enthusiastic to conduct our first event on an international scale, Insignia 2019 was truly the best experience we could witness in the first eight months of our college journey. We were elated to have rightfully lived to the saying: "You never forget your first Insignia." Those were the months when we saw our efforts take shape, where inexperienced, raw individuals racked their heads on making their first ever corporate round while also struggling to learn the art of professionalism. But above all, we met a bunch of individuals, some as our batchmates while some as our seniors, from whom we learnt to work perfectly in a team.

Now that we have proudly donned those black t-shirts, we can rightfully say that the Xavier's Commerce Society is that platform, which gives individuals the wings to fly, voice to bring a change, and courage to face the toughest situations or times. It is the epitome of professionalism, precision and dedication serving as a guiding light in the endeavour of transforming dreams into reality. Since its inception in 2006, the Xavier's Commerce Society has left a remarkable impact on every Xaverian who aspires to enter into the realms of the corporate world. With a plethora of events organized round

the year, not only do they help in enhancing knowledge and ensuring holistic development but also helps in giving Xaverians a practical experience of the corporate culture through the simulations and interviews that have helped individuals climb up the ladder of success and excel in the battle of life.

Becoming an XCSer set the responsibility to carry forward the legacy of a society, whose inception was marked by the launch of Youthink, the annual journal of the Department of Commerce, in 2006. Since then, the society has evolved itself, crossing horizons of international boundaries. It was an opportunity to live a dream and to experience the best in our college. As it is rightly said, "You never change your life until you step out of your comfort zone; change begins at the end of your comfort zone." Our second year journey of XCS helped us step out of our comfort zones by throwing such challenges in front of us which we would not have otherwise met so soon. It taught us that when a team of 23 individuals work in tandem with each other, having each other's back in every grim situation, they can overcome every challenge and barrier. It is the trust, confidence and belief among the members of the society which motivates us to always climb up mountains of excellence and leave behind a strong legacy. It has proved that actions speak louder than words and that people might forget what has been said but actions will always remain engraved in their minds.

From breaching deadlines to meeting them, missing lectures to making up for attendance, getting the designs ready to putting up flexes around the campus, sharing ideas to sharing food, stories and memories, this team of 23 has enjoyed every success and failure together, sharing a stronger bond with every passing day. The vision of our alumni behind commencing this journey and leaving a legacy for future generations to follow, the vigour and enthusiasm with which our seniors led the society, and the constant support which we have received from fellow Xaverians all throughout, has always helped us in moving ahead, setting new benchmarks for the batches to come.

Then it was the time of the year again - Insignia 2020, marking the time from the previous year that had initiated the change within us. It was time to impart a learning experience for the new faces of the society giving them the opportunity to correct themselves from the experience of others, explore their hidden strengths, and work on their inner weaknesses, make new friends, add to the legacy, and bring the change they want to keep the flag of our society flying high. It was time to let them realize their dreams and develop themselves for the greater challenges that lay ahead of their journey.

Now that we are bestowed with the responsibility to lead a group of 45 people, it is not only our duty to live up to their expectations but also continue the legacy and transcend in every sphere.

In such a year that has witnessed misery throughout the world, carrying on with the activities has been a challenge. It was definitely a change that no one was ever prepared for. But challenges are great opportunities in disguise. Accepting every challenge and opening new doors of success, we ensured that we left no stone unturned in our endeavours to provide ample opportunities for the holistic development of Xaverians. Conducting events online, attending meetings from home and exploring new ideas taught us that no matter what comes our way, the show must always go on.

It is rightly said that behind the success story of every organization, there are always the right hands to show the right direction. With this, we would like to extend our heartiest gratitude to the President of the Xavier's Commerce Society, Rev. Dr. Dominic Savio, S.J., for always motivating and inspiring us to move ahead towards the correct path. We will always remain indebted to Rev. J Kulandai S.J. and Rev. Peter Arockiam S.J. for being our guiding light and making us believe in ourselves. It was the constant support and encouragement received from our Deputy President, Prof. Shaunak Roy and Mentor, Dr. Sumona Ghosh, which helped us develop, and transform our thoughts into actions and dreams into reality. Our endeavour of standing out was only

successful because of the immense acknowledgement and acceptance received from the students of St. Xavier's College (Autonomous), Kolkata. It is their willingness to learn and indulge in our ventures which gives us a sense of purpose to toil and better ourselves.

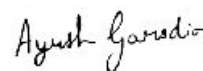
Every story that starts, comes to an end, and every path that one takes has a definite destination. Our journey of XCS which started two years back, is now coming to an end. Little did we know when we had started off with this journey, that this society of 44 members would end up becoming much more than just a society, and its members more than just colleagues.

After a few months, we will again be at the threshold of a change that awaits us. There will be no sleepless nights before the events, no meetings to discuss the plan of action, no celebrations over the success of our hard work; but there will always remain tons of memories and experiences which we shall always cherish. A few months down the line, we will be moving to different paths, different professions, starting and writing new chapters in our book of life. But one chapter which will always remain common and unforgettable to all of us will be the chapter of the Xavier's Commerce Society.

Some chapters become stories and the stories we love best do live on forever. In our book of life, the chapter of Xavier's Commerce Society is, and will always remain, a never ending tale.



**Khushboo Singhal**



**Ayush Garodia**



# DOWN THE SIGHTS

## WII SPORTS



COUPLED WITH THE MOTION-SENSING CAPABILITIES OF THE **NINTENDO WII**, THE GAME BECAME THE BESTSELLING SINGLE-PLATFORM GAME OF ALL TIME.

19  
84

## PACMAN



PACMAN WAS ONE OF THE FIRST GAMES TO BE RELEASED ON THE 8-BIT HAND-HELD **GAME BOY**.

19  
90

## SUPER MARIO



THE FIRST SIDE-SCROLLER IN MARIO SERIES PUSHED THE **SUPER NES** AS ONE OF THE BEST SELLING CONSOLES.

19  
93

## TEKKEN 3



SELLING 8.36 MILLION COPIES ON THE **PLAY STATION**, **TEKKEN 3** EARNED A PLATINUM STATUS.

19  
98

## COUNTER STRIKE 1.6



THE EVERGREEN FPS RELEASED ON THE **MICROSOFT WINDOWS PC** IS ACTIVELY PLAYED EVEN AFTER TWO DECADES.

20  
00

## RESIDENT EVIL 4



RELEASED AS A **GAMECUBE** EXCLUSIVE, THE GAME SOON BECAME A CROSS-PLATFORM HIT WINNING MULTIPLE GAME OF THE YEAR AWARDS.

20  
05



# DOWN THE SIGHTS

## WII SPORTS



COUPLED WITH THE MOTION-SENSING CAPABILITIES OF THE **NINTENDO WII**, THE GAME BECAME THE BESTSELLING SINGLE-PLATFORM GAME OF ALL TIME.

20  
06

## GTA V



INITIALLY RELEASED ON THE **PLAYSTATION 3**, IT BECAME THE FASTEST-SELLING ENTERTAINMENT PRODUCT IN HISTORY, EARNING \$800 MILLION IN ITS FIRST DAY.

20  
13

## FORTNITE



THE **BATTLE ROYALE** BECAME AN INDUSTRY PHENOMENON WITH OVER 10 MILLION USERS AFTER ITS RELEASE ON A FREE-TO-PLAY BASIS.

20  
17

## LEGEND OF ZELDA



RELEASED ON THE PORTABLE **SWITCH** PLATFORM, **BREATH OF THE WILD** HAS BECOME THE STANDARD FOR FUTURE OPEN-WORLD GAMES.

20  
17

## ASSASSIN'S CREED



UTILISING THE **DUALSENSE** TECHNOLOGY OF THE UPCOMING **PLAYSTATION 5**, THE FRANCHISE IS SET TO REVOLUTIONISE GAMING EXPERIENCE.

20  
20

## HALO: INFINITY



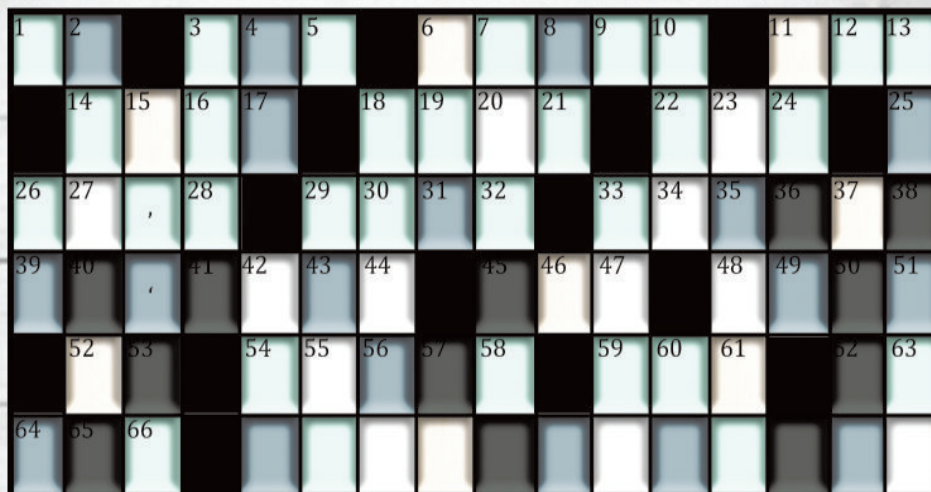
THE SIXTH ADDITION TO THE LEGENDARY SERIES IS SEEKING TO PUSH THE LIMITS WITH THE **XBOX SERIES X** AS THE BATTLE OF THE NEXT-GEN CONSOLES WAGES.

20  
20



# UNRAVELLING PERCEPTIONS

ANSWER THE CLUES GIVEN BELOW TO REVEAL THE HIDDEN MESSAGE. USE THE NUMBERS ASSOCIATED WITH THE LETTERS OF YOUR ANSWER TO FILL THE CRYPTOGRAM/CROSSWORD.



- A. Study of people's efficiency in their working environment.
- B. The name of this brand is derived from the nickname that was given to its founder for his perseverance and determination on the tennis pitch.
- C. Its parent company is General Motors whose logo is inspired by their Blitz truck model.
- D. It is a green brand whose name is derived from the Latin word 'nix' which means snow.
- E. This brand was commissioned in 1974 under operation flood and has recently opened its first restaurant.
- F. Global Freelancing platform formerly known as Elance.
- G. This company launched 'Good Vibes' and 'Relumino' app for deaf-blind and visually impaired people in India.
- H. Owned by United Breweries, this brand is synonymous with beer in India.

A. \_ \_ \_ \_ \_  
13 62 06 23 27 53 29 01 29 39

C. \_ \_ \_ \_ \_  
46 33 65 64

B. \_ \_ \_ \_ \_  
08 30 16 23 40 03/21 38/43  
18/58

D. \_ \_ \_ \_ \_  
44 32 50 05/09 49

E. \_ \_ \_ \_ \_  
01 23 28/41 17/42 51 12/06  
52/59 57 03/07 X 20 55 35 22/49

G. \_ \_ \_ \_ \_  
39 11/26 29 66 47/63 44 36

F. \_ \_ \_ \_ \_  
07/15 33 X 35 12 31  
24

H. \_ \_ \_ \_ \_  
31 55 44 56 54 01 10/14 04/19 61 34  
48/66

**ANSWER KEY**  
A. ERGONOMICS B. LACOSTE C. OPEL D. NIVEA E. MOTHER DIARY F. UPWORK G. SAMSUNG H. KINGFISHER





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**Yogurt Ice Cream** has a citrusy flavour and it's balanced well with freshly chopped strawberries and kiwi.

- *Sanali Ghosh*



The quality of the ice cream is too good !  
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- *Jay Verma*



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- *G Williams*

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Prime Minister

**MESSAGE**

I am happy to learn Xavier's Commerce Society is publishing the 11<sup>th</sup> 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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