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# WORLDWIDE RECESSION AND INDIAN ECONOMIC PERFORMANCE

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## **Abstract**

With the collapse of Lehman Brothers and other Wall Street icons, there was growing recession which affected the US, the European Union (EU) and Japan. The basic cause of the crisis was largely an unregulated environment, mortgage lending to subprime borrowers.

The paper attempts to examine the Impact of recent global economic meltdown and its impact on India by using economic indicators and the application of exogenous growth model ( $Y = TFP * k$ ). Ten countries China, India, Brazil, USA, UK, Australia, S. Africa, Japan, Russia and Canada has been selected and data for over last 20 years' period has been taken to analyse the impact of global meltdown. The paper also ranks the nations in terms of gravity of the impact of recession.

It was found that GDP fell steeply for USA, UK Canada and South Africa. Rising trends were observed for China, India and Russia. It did not create any dent for Japan and Australia. The situation for employment was the same as GDP and went in tandem with that. The paper concludes that China was the least affected by recession and India followed closely. In other words, the comparative impact on India for global meltdown was minimal. USA and UK were worst affected. Also, it is concluded that developing nations benefitted out of global meltdown unlike developed nations.

***Key words: Financial Crisis, Recession, GDP, Employment***

## **Introduction**

The financial crisis that began in the United States in the sub-prime mortgage market in 2007 and then spread quickly to Europe became a global crisis, affecting both financial systems across the globe and economic activity in virtually all countries. Emerging market countries have been hit hard. Even those countries that had strengthened their policies and built defences to withstand a less benign global environment than that which existed for much of the previous decade have not been spared.

The transmission of the crisis from the U.S. and Europe to the rest of the world came through a number of channels. India, being a free market economy itself, was not insulated from this turmoil. It is evident in the sharp depreciation of rupee against the dollar and the fall in BSE Sensex. FIIs pulled out their money in huge numbers. Companies which had exposure to risks associated with Lehmann or Meryl faced losses. ICICI is an example, which faced an approximately Rs 375 crore loss. Thousands of jobs also were lost and pay cuts and pink slips were the order of the day.

Despite all this, India has been able to avert a major disaster. And this is only because of those very regulations which we have been denouncing as being anti-liberal. Financial sector has been advocating reforms for a long time now which means easing up of these regulations and policies. However, this time, these very policies have helped in thwarting the crisis. Take for instance, the unsecured loans. In India, they aren't easy to get. And these loans are the possible trigger of sub-prime crisis in the US.

It doesn't stop there only. Reserve Bank of India has been favouring inflation control over economic growth for a long time now. This has resulted in tightening of liquidity in the market and steep rise in the interest rates. This has caused a slowdown in demand in the real estate sector as well as some others. RBI's non-reformist approach also included measures such as controlling inflow and outflow of equity into the Indian markets. A prime example lies in the fact that we received an inflow of about \$100 billion in the year 2008, which in many opinions, is probably about \$30 – \$50 billion less than what could have been there had RBI been more reformist. This approach on RBI's part deterred extra hedge funds from entering India and in process, saved us the blues which Wall Street is suffering from. Most of these hedge funds would have been managed by biggies such as Lehmann or Meryl. And with their going down, our markets could have crashed further had these funds not being restrained. One just shudders thinking about the outcome had these funds been invested in real estate or some other sector? We could have been sitting on a financial disaster ourselves. Though the impact of global financial crisis on India was stronger than expected, it was the first to recover as the Government took correct decisions and changed the established fiscal and monetary policies. As was also stated by our Prime Minister Dr. Manmohan Singh while addressing the US-India Business Council (USIBC) in November 2009 he said "I am happy to say that India has been able to face the global economic downturn better than most other countries in the world. Our strategy, therefore, must aim at sustaining a high rate of growth on the strength of strong domestic demand. We seek to achieve this through a large increase in investment in infrastructure."

The relatively limited impact of the turmoil in the financial markets of the advanced markets economies in the Indian financial markets, and more generally the Indian economy, has been assessed in this context.

## **Review of Literature**

Until the 1980s, long-run productivity growth was interpreted mostly with exogenously driven explanations. In the mid-1980s, a number of growth theorists became dissatisfied with this approach. "This dissatisfaction motivated the construction of a class of growth models in which the key determinants of growth were endogenous to the model" states Barro (1995, p.38), led to determination of the long-run growth within the approach, more than some exogenously growing variables. The neo-classical growth model, based on works of Solow (1956) and Swan (1956), has seen a revival of interest with the appearance of the new endogenous growth theories that have challenged its predictions as well as its consistency with the new stylized facts of growth. The main prediction of the neo-classical model, supported by the refinements of

Cass (1965) and Koopmans (1965), is that economies which are similar in technologies and preferences are expected to converge to the same level of per capita income.

The studies on endogenous growth that followed Kaldor's (1960) function of technical progress, Arrow's (1962) idea of learning by doing and Shell's (1967) specification on the inventive sector devoted to produce knowledge represent the most advanced answer to some of these weaknesses. Romer (1990), Grossman and Help man (1991) have enriched Shell's intuition by linking the appearance of new intermediate products and quality based innovation

to the development of knowledge.(Chaudhary, Sodani, and Das 2020) point at the unanticipated and confusing effects of COVID-19 pandemic, which spread globally and spiralled out of control, on the world's booming economy. The study also showed that the present recession seemed to be fundamentally different from previous recessions that had upended the nation's economic structure. While governments, corporations, conglomerates, and multinationals continue to recognise the scope of the pandemic, it is undeniably urgent to plan for a future that is structurally more conducive to living and working. (Li et al. 2021) Examine the impact of the global financial crisis, and the COVID-19 pandemic on the macroeconomic variables of the US economy. The study confirms that the current pandemic shows more severity in terms of economic activity, than the previous financial crisis had experienced. However, the authors conclude that the impact of the crisis on the recession probabilities is lower than that at the start of the 2009 crisis. (Jaiswal and Dubey 2022) The effect of the Global financial crisis started in April 2007, but after the collapse of the Lehman Brothers and some other giant financial services companies, these effects spread throughout the world. Government of India and the RBI introduced some monetary and fiscal policies to control the effect of crisis. However, it was felt that there is a need to build a proper financial and fundamental infrastructure to increase the demand for goods and services in the economy.

All the above models explain endogenous growth through the addition of some particular factors in the production function. Hence, they consider production simply as the transformation of given inputs into output, ignoring that modern dynamic economies are characterized markedly by repeated shifts of production functions due to innovation, as well as by uncertainty and the entrepreneurs' discovery role.

### **Objectives:**

The present paper has three-fold objectives:

1. Analyse the effect of global meltdown using economic indicators for the 10 chosen countries over the last 20 years' period.
2. Quantify the effect of global meltdown on these countries using the exogenous model applied over the last 20 years.
3. Analyze and interpret the impact of global meltdown over these countries and rank them in order of being affected by global meltdown.
  - Need for the study:

As the world recovers from the pandemic economists foresee the global economy move into the worst recession since World War II. According to World Bank forecasts "the global economy shrinks by 5.2% this year" (June 2020 *Global Economic Prospects-World Bank*). This paper studies the Global financial crisis (GFC) of 2008-09 for a better understanding of the economic indicators of the GFC and develop a proactive approach in facing such crisis.

### **Research methodology:**

Twenty years' data on GDP, per capita income, total factor productivity, and employment for the ten nations have been collected and exogenous growth model

$$Y = TFP * k$$

has been applied to see the impact of economic meltdown on these nations. The trends have been analysed over the past 20 years of the various economic indicators. Based upon the

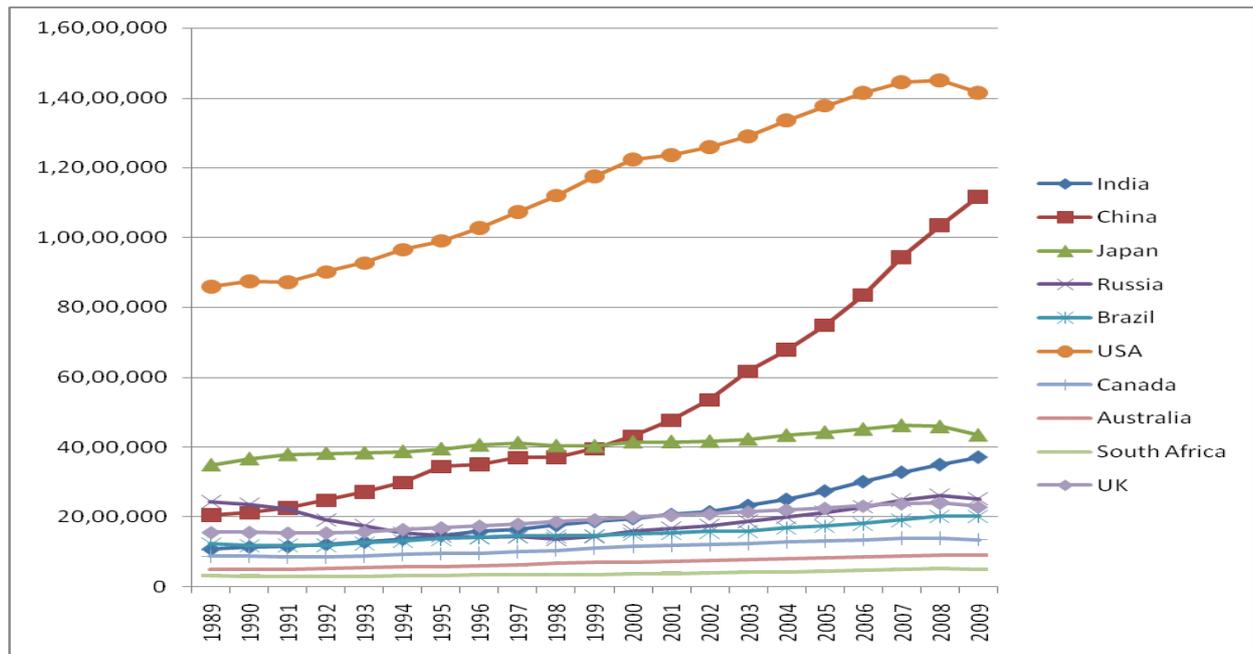
results the ten nation's i.e. USA, UK, Canada, India, China, Russia, Brazil, South Africa, Japan and Australia have also been ranked in terms of the impact of the recession.

## Analysis and interpretation

### ECONOMIC INDICATORS

#### **GDP as an economic indicator**

GDP in million dollars

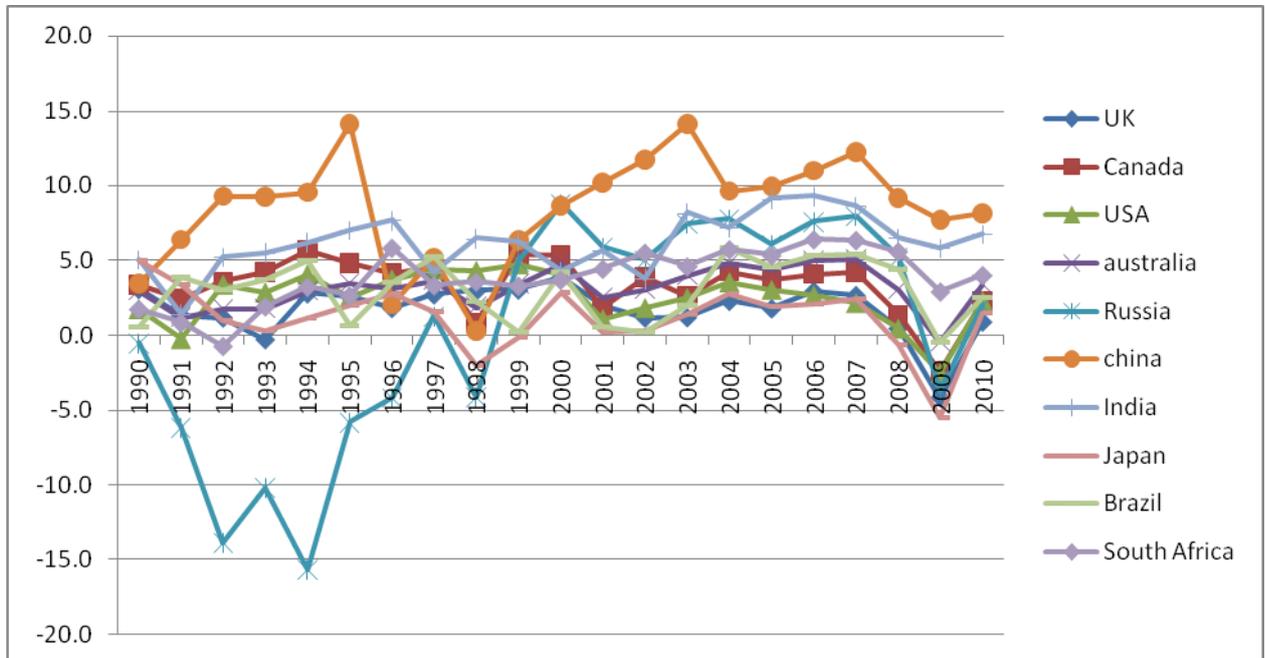


From above the following interpretations can be made:

1. USA leads in GDP, although one can see a steep fall in GDP and a complete reversal of growth rate in USA's, GDP in year 2008. This owes its existence to recession.
2. China is the closest competitor to USA from the chosen set of 10 nations. Japan and India follow closely and then there is a clutter of all the other nations.

But GDP may not be a suitable criterion; therefore, growth rate expressed as percentage of GDP has been taken

## Growth rate as an economic indicator

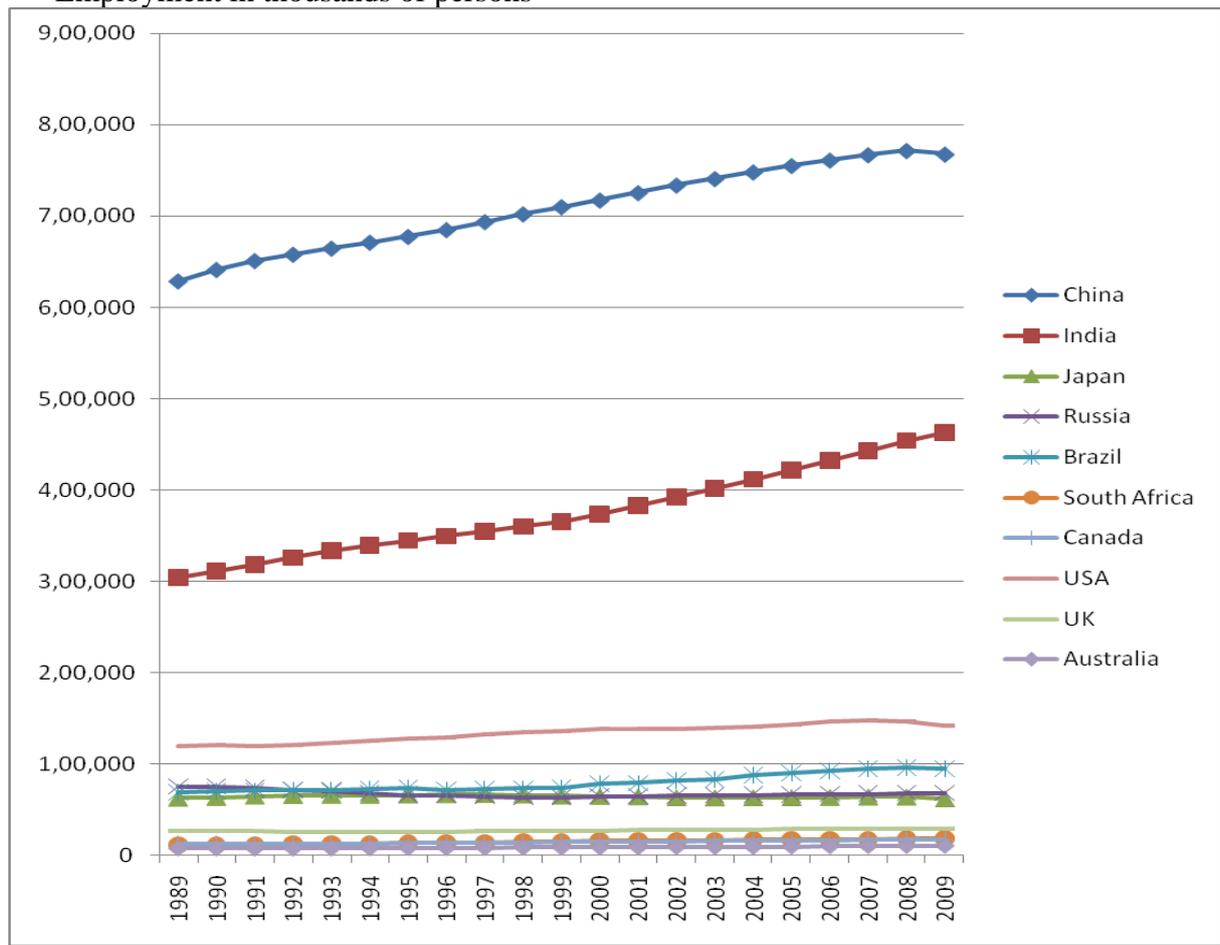


Clearly, the leader is China with growth rate exceeding 10% sometimes. closely followed by India and South Africa.

During recession in 2008-2009, it can be seen a huge dip in the countries growth rate. No country exhibited positive growth, of the 10 nations selected in the analysis.

## Employment as an economic indicator

Employment in thousands of persons



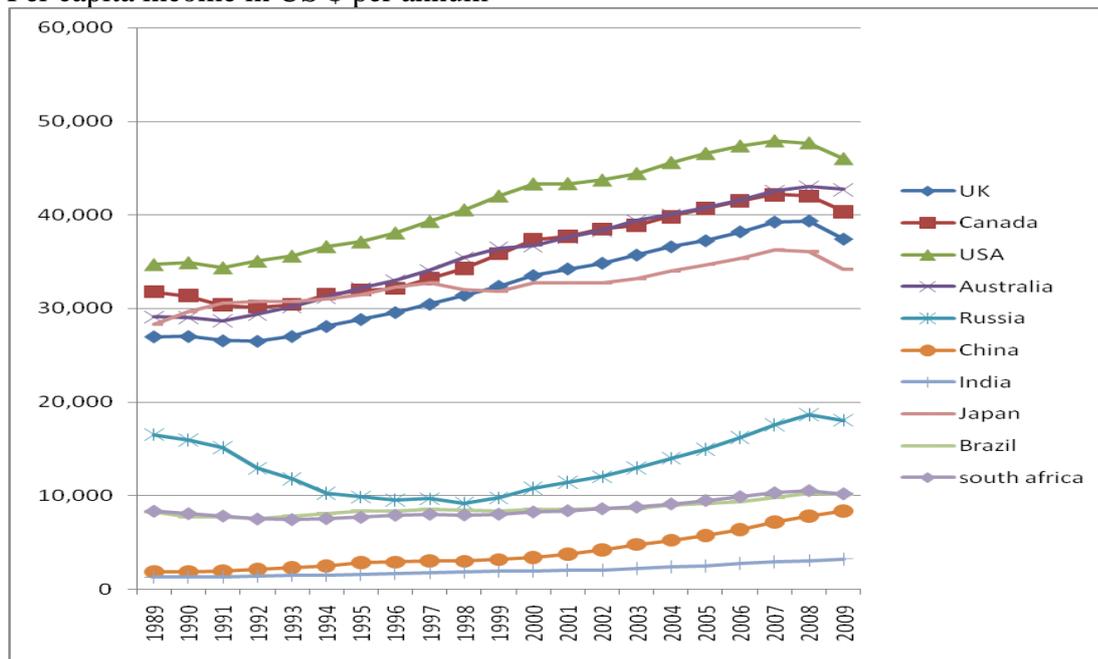
In employment, the top two countries in terms of population are the topmost ones.

The key points to note here are,

1. India, although second in race, has been able to provide employment to its population at a faster rate, considering the steepness of its slope.
2. China was affected by recession and it saw a shock in form of negative employment rate.
3. Worst affected, as one can see, is USA, which has a sharp turn in employment

## Per capita income as an economic indicator

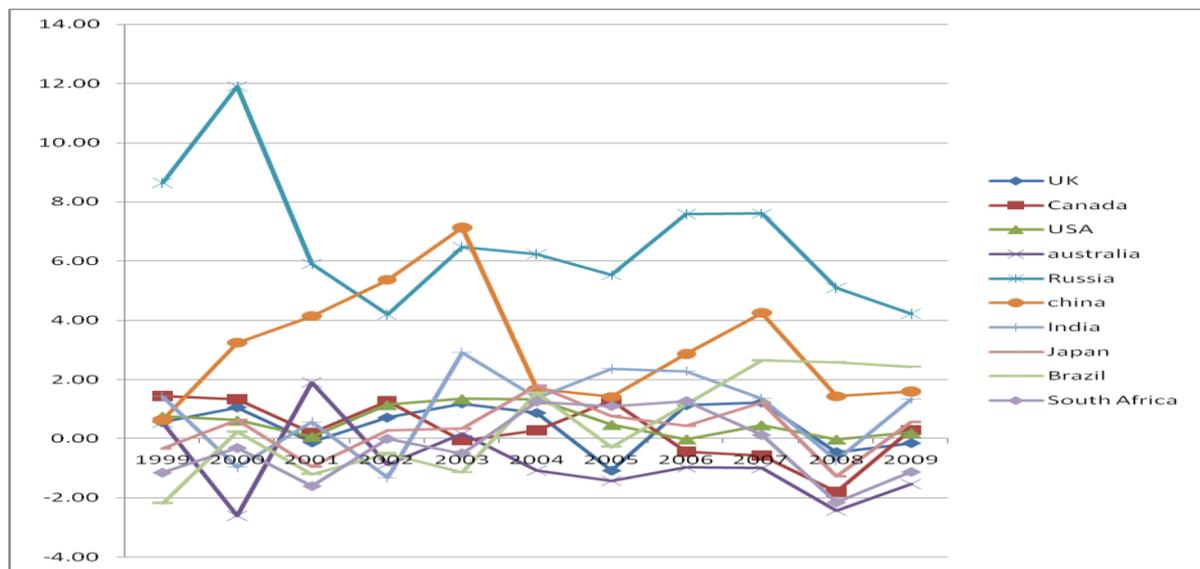
Per capita income in US \$ per annum



Here, it can be observed that.

1. India and China finish the last in this race, but both have shown growth in per capita income despite recessionary scenario.
2. USA, UK, Canada, Australia and Russia are the top position holders, USA being the first one, but notable all have shown a steep fall in the per capita income, which shows how developed countries have been affected.
3. China has remarkably shown a consistent high rise, despite recessionary scenario.

## Technology/labour productivity as an economic indicator



This is the hardest one to explain given the ups and downs that can be seen for every country for a total factor productivity function. Total factor productivity or TFP as it is usually called, was initially employed to only determine the total labour productivity and is a coefficient that determines the productivity of labour. But with coming up of technology, labour productivity

and per capita labour output increased and therefore, the term TFP came to be a measure of the technology and the labour productivity of a nation.

The interpretations that could be driven out of this are,

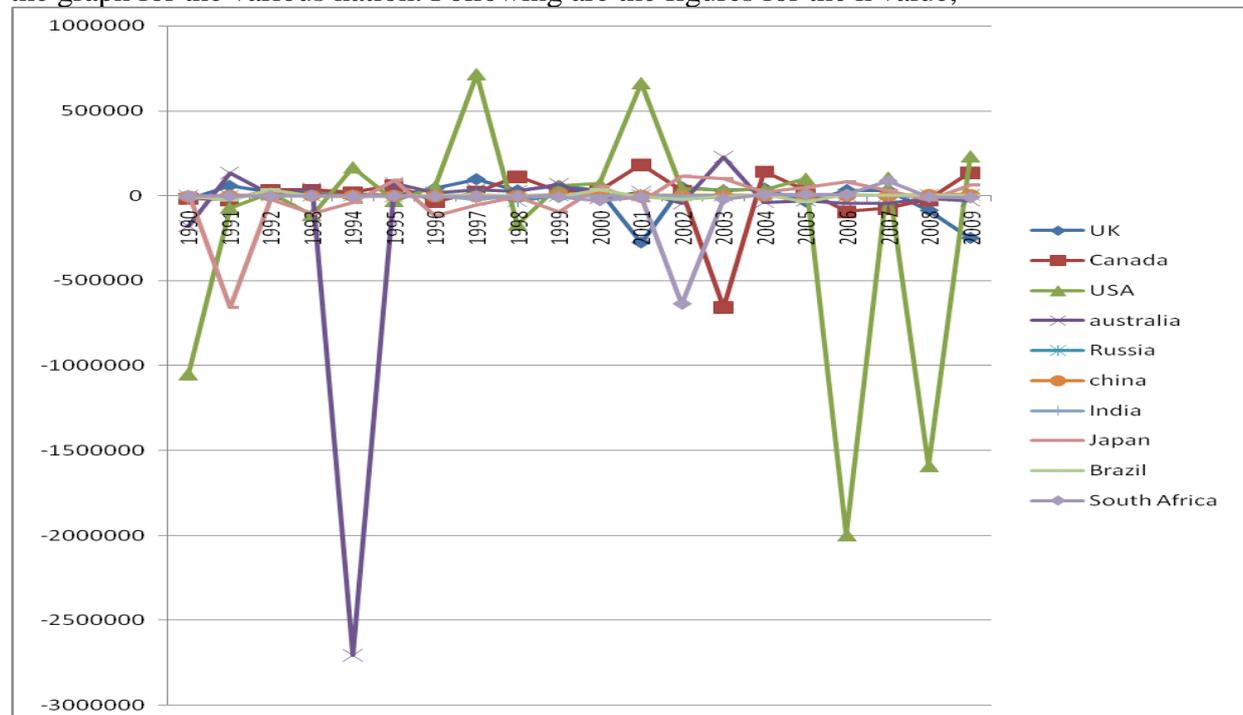
1. India has been consistent low scorer on the scale of TFP, this shows that labour is not utilized to its full extent and technology has very less impact on total labour output.
2. Highest scorers are Russia. China and Brazil in this field and all three finish the race at the top of charts.
3. During recession, the TFP value must increase as this is very important measure to fight the global meltdown. Therefore, it can be observed that India, South Africa, USA, UK, and Japan. can see a rise in TFP.
4. Moreover, the observation is that during recession, all three top scorers see a fall in TFP.

### Exogenous growth model

The formula that has been used for exogenous growth model is-

$$Y = \text{TFP} * k$$

Since, Y=Per capita income and TFP are available to us, k has been calculated and plotted on the graph for the various nation. Following are the figures for the k value,



The graph above provides the value of k which is the output per worker, taking into account the labour Productivity, the technology and the per capita income of the nation. From this one can find the roots of the recession very easily,

Following are the observations from the graph above,

1. USA has the lowest peaks in year 2006 (the housing bubble began) and the year 2008 (the bursting of housing bubble) which was the onset of recession.
2. Also, during the period 2007-2009, the economic activity is on a reducing side and the k value is reducing for most other countries.
3. Only visible gainer during recession has been China, in terms of output per worker which used its communist tactics to govern a nation to piece meal system and fight out the best battle out of recession of all the nations.

## Results and conclusion

The results during the year 2008-2009 (years when the effect of global meltdown was felt throughout the world) for various countries and the visible trends are as under-

Country	USA	UK	Canada	Japan	Australia
<b>GDP</b>	Steep fall	Fall	Fall	No effect	No effect
<b>Employment</b>	Fall	Little Fall	Stagnant	Stagnant	Stagnant
<b>Per capita income</b>	Steep Fall	Steep Fall	Steep Fall	Fall	Fall
<b>TFP</b>	Fall	Fall	Fall	Steep Fall	Fall
<b>Exogenous growth model</b>	Fall	Fall	<b>Rise</b>	Stagnant	Fall
<b>Overall ranking</b>	<b>10 (last)</b>	<b>9 (Second last)</b>	<b>6</b>	<b>8</b>	<b>7</b>

Country	India	China	Brazil	Russia	South Africa
<b>GDP</b>	<b>Rise</b>	<b>Steep rise</b>	Stagnant	<b>Rise</b>	Fall
<b>Employment</b>	<b>Steep rise</b>	<b>Rise</b>	Stagnant	<b>Rise</b>	Stagnant
<b>PCI</b>	Stagnant	<b>Rise</b>	Stagnant	Fall	Stagnant
<b>TFP</b>	<b>Rise</b>	Stagnant	Stagnant	Fall	<b>Rise</b>
<b>Exogenous growth model</b>	Fall	<b>Rise</b>	Stagnant	<b>Rise</b>	Fall
<b>Overall Ranking</b>	<b>2 (second in race)</b>	<b>1 (winner)</b>	<b>5</b>	<b>3</b>	<b>4</b>

Step fall- Largest fall, Fall- Decline/decreasing rate, Stagnant- No change/effect

Rise- Rise in the indicator, Steep rise- Remarkable rise

\*All countries show a fall in growth rate during recession. Thus it falls in category of **fall** for all.

## **RANKING**

Thus, the effect of global meltdown can be ranked as under,

1. **China – Best fought through global meltdown**
2. India- Second best in our rating
3. Russia
4. South Africa
5. Brazil
6. Canada
7. Australia

8. Japan
9. UK- Felt the hit of global meltdown only lesser than USA
10. USA- felt the hit of global meltdown the most

Thus It could be seen how the developing nations had an upper hand in the recessionary scenario and in fact India was second best in finishing the recessionary race.

Also it can be concluded that the balancing effect of recession and the factual correction of the statement of exogenous growth model that the countries will converge in their growths if they are subject to similar circumstances.

Nation specific inferences are as follows-

### **China**

The biggest gainer out of recession because-

- Government control over all economic activity helped thwart effects of recession.
  - Human resource became critical resource during recession, China had plenty.
  - Less ties with USA in trade helped China grow even through recession.

### **India**

India finished second in the race through recession because-

- Human resource became critical, India had plenty.
- Indian community is known for its 'saving skills', savings rate helped India through recession.
- World moved from more expensive USA and UK to lesser expensive BRIC nations including India.

### **Russia**

Russia finished third because-

- Lesser ties with USA and UK and huge land resource, scanty population.
- BRIC nation are the nations which are growing and felt the burnt lesser.

### **South Africa**

S. Africa was stagnant after recession. Its main GDP component is diamonds, whose largest buyer is USA, which put bars on imports. This resulted in the stagnancy.

### **Brazil, Canada and Australia**

These three nations took somewhat a middle spot and were near about in various factors, though still could be rated as 5, 6 and 7 respectively.

### **Japan**

Japan was one of the three nations that finished last. The reason being USA and UK as its chief buyers. Known for its automobile and software industry, Japan saw a setback on both.

### **UK**

A close ally of USA, UK had to pay the price to have the closest cross Atlantic treaties with USA on all possible aspects, resulting in the worst's effects of recession on both the nations

### **USA**

Being the epicentre of recession, the effects of recessions were worst on USA. Almost all industries saw a downfall and this is evident from the characteristic fall and steep falls in almost all economic indicators.

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# PERFORMANCE ANALYSIS OF LARGE CAP INDIAN MUTUAL FUND PORTFOLIOS

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## **Abstract**

Mutual funds are crucial in promoting a healthy capital market. They actively assist the secondary market, improve capital market liquidity, and offer financial market stability. A mutual fund is a financial entity that combines the money of several individuals and invests it in various financial instruments such as equities and bonds. Assets under Management (AUM) in the mutual fund industry increased by 41% in fiscal year 2021. The AUM was worth INR 33.67 trillion as of June 30, 2021. The corporate bond funds were the most appealing in fiscal 2021, with net inflows of INR 3,299 crore. This study tried to solve the following research questions: What effect will the study have on investors? The following research questions were attempted to be answered in this study: How are investors influenced in terms of risk and returns on their investments in large size mutual fund schemes over the research period? RQ2: Did any of the selected large cap mutual fund schemes outperform or underperform the market? And RQ3: Which mutual fund scheme's performance outperforms the others based on rank? The research relies on secondary data. This research looks at the performance of Large Cap funds in India. Ten Large Cap open ended mutual funds with NAVs were chosen for this investigation. Risk and reward were examined by finding out Average Return, Standard Deviation, Beta. The collected data is the monthly closing NAV recorded from April 1, 2017 to March 31, 2022. Since its beginnings in 1963, the Indian mutual fund sector has come a long way. The sector has grown enough in all dimensions, including the number of fund houses, the number of schemes, funds mobilization, assets under management, and so on. The fund market began with just UTI mutual funds, and there was a very limited range of funds for investors at the time, but today investors have a lot of option and may invest in different funds based on their needs. Hybrid mutual funds, for example, are a blend of debt and equity products. The outcome generated is Debt mutual funds are best suited for investors who don't want to take high risks and are willing to accept lower returns in the form of regular but lower returns with lower risk. Equity mutual funds are best suited for investors who are willing to bear the high risk in order to reap higher benefits.

***Keywords: Mutual Fund, NAV, Investment, CAGR, Standard Deviation, BETA, Correlation.***

## **Introduction**

A Mutual fund is a collective investment vehicle that collects & pools money from variety of investors and invests the identical in equities, bonds, government securities, market instruments. The money collected in mutual fund scheme is invested by professional fund managers in stocks and bonds etc. in line with a scheme's investment objective. The income / gains generated from this collective investment scheme are distributed proportionately amongst the investors, after deducting applicable expenses and levies, by calculating a scheme's "Net Asset Value" or NAV. In return, open-end investment company charges a tiny low fee. In short, open-end investment company could be a collective pool of cash contributed by several investors and managed by an expert Fund

Manager. Mutual Funds in India are established within the type of a Trust under Indian Trust Act, 1882, in accordance with SEBI (Mutual Funds) Regulations, 1996. The fees and expenses charged by the mutual funds to manage a scheme are regulated and are subject to the boundaries specified by SEBI. A Mutual Fund is a trust that collects money from investors who share a common financial goal, and invest the proceeds in different asset classes, as defined by the investment objective. Simply put, mutual fund is a financial intermediary, set up with an objective to professionally manage the money pooled from the investors at large. Mutual funds may appear to many individuals to be a complex notion. People are familiar with classic wealth-building approaches such as fixed deposits, which are as straight forwards they appear. Mutual funds, on the other hand, may appear complex, yet they operate on a very simple concept. A mutual fund is a type of financial instrument used to invest in the stock market. It establishes a pool of money by accepting investments from individuals, corporations, and non-resident Indians (NRIs) and investing it in capital market instruments such as shares, debentures, and stocks. The money comes from investors that have a shared financial aim in mind, such as capital appreciation and/or dividend income.



### Literature review

**Dr. R. Narayanasamy & V. Rathnamani (2013)** The study “Performance Evaluation of Equity Mutual Funds (On Selected Equity Large Cap Funds)”, basically, dealt with the equity mutual funds that were offered for investment by the various fund houses in India. This study mainly focused on the performance of selected equity large cap mutual fund schemes in terms of risk- return relationship. The main objectives of this research work was to do analysis of financial performance of selected mutual fund schemes through the statistical parameters such as (alpha, beta, standard deviation, r-squared, Sharpe ratio). From foregoing performance analysis of the selected five equity large cap funds, it showed that all the funds have performed well during the study period. The fall in the CNX NIFTY during the year 2011 has impacted the performance of all the selected funds. In the ultimate analysis it concluded that all the funds have performed well in the high volatile market movement expect Reliance vision.

**Heer Manish Shah (2015)** “Analysis of selected large cap open ended equity schemes of mutual funds India” this study dealt with the equity mutual funds that are offered for investment by the various fund houses in India This study mainly focused on the performance of selected equity large and mid-cap mutual fund schemes in terms of risk -return relationship. The main objectives of this research work were to analyses financial performance of selected mutual fund schemes through the statistical parameters such as alpha, beta, standard deviation, Sharpe ratio. This study examined ten open-ended schemes being launched by various Mutual Fund companies. These schemes have been selected on the basis of regular data availability. The data collected is on from secondary source and the figures are dated on 16th January, 2015. It was concluding that by analyzing Standard Deviation, Sharpe, Beta and Alpha certain funds are best while certain are worst. Each measurement has its own interpretation by which an investor can judge in which fund to invest.

**Samyabrata Das (2015)** The main objective of the study “An Empirical Study on the Performance of Select Large Cap Equity Mutual Funds in India” was to analyse the performance of select actively managed large cap equity funds in the line of risk-return parameters. This study was based on fourteen funds from twelve Asset Management Companies. All the funds were ranked under seven performance measures, namely, fund return, fund standard deviation, Sharpe Ratio, Treynor Ratio, return from systematic investment plan (SIP), Jensen Alpha, and RSQ, for five different time periods of 1-year, 3-year, 5-year, 7-year, and 10-year. The data were obtained from websites of Bombay Stock Exchange (BSE), AMFI website, and articles published in financial dailies, finance-based

magazines and periodicals. The universe of large cap funds (80) were taken from [value-research-online.com](http://value-research-online.com) and Mutual Fund Insight. The chosen time period is a mixture of several bull and bear phases. The month-end NAVs, under “Growth” option, of each fund have been obtained from the official websites of the AMCs, and Blue Chip(<http://bluechipindia.co.in>).

**Shivangi Agarwal&Nawazish Mirza (2017)** “A Study On the Risk-Adjusted Performance of Mutual Funds Industry In India” examined the performance of selected mutual schemes on the basis of risk and return and compares the performance of these selected schemes with benchmark index to see whether the scheme is outperforming or underperforming the benchmark. This study assessed the performance of Indian mutual fund schemes using Sharpe ratio, Treynor ratio, Jensen’s Alpha and Value at risk for a sample of 100 Indian mutual fund schemes. The study period was from January 2013 to June 2016. The sample comprised of 18 diversified equity schemes, 9 tax saving schemes, 17 large cap funds, 16 long term gilt, 8 long term income, 8 short term income funds, 11 small/ mid cap funds and 12 ultra-short term funds. The data collected is for the daily closing NAVs of the mutual funds along with their benchmark index, expense ratios, type of fund, the ratings and returns the sample of 100 funds selected was some of the top rated funds as per CRISIL 1, Value Research and Morningstar India in their individual fund categories. The data is extracted from DataStream and Association of mutual funds in India.

**Sumant L. Wachasunder (2017)** The study “Performance Analysis of Mutual Funds: Selected Large Cap Equity Fund Schemes” 10 top performing large cap schemes were selected to make a comparative study on the risk and return offered by these funds. The objectives of the study were to evaluate the past performance of selected open ended Equity mutual fund schemes of large cap equity schemes and to carry out the risk return analysis of the sample funds selected. For benchmarking and comparison purpose BSE Sensex and NSE-Nifty is used. To consider risk free return yield on 91-day Treasury bills was accepted which was 7.54%, during the study period. The study used the methodology of Sharpe, Treynor and Jensen for the performance evaluation of mutual funds. From the study it was observed that among the selected funds Edelweiss Exchange Traded Scheme – RP was considered as a fund with moderate risk as well as moderate returns, against which the Birla Sun Life top 100 fund – direct plan was considered as high risk with high returns.

**R.Nandhini&Dr.V.Rathnamani (2017)** Conducted a Study on the Performance of Equity Mutual Funds (With special reference to equity large cap and mid cap mutual funds) to analyzed the performance of selected Equity Large cap Small cap & Mid cap mutual funds scheme and measured of risk & return associated with selected mutual fund with risk return measurement tools such as alpha, beta, standard deviation and Sharpe ratio. The study whether the mutual funds are able to provide reward to variability and volatility. The study is based on secondary data which was collected from various sources like published annual reports of the sponsoring agencies, online bulletins, journals books, magazines, brochures, newspapers and other published and online material. A period of 5 years from April 1st 2012 to March 31st 2016 have been taken up for the purpose of the study. In this study it was found that there was an increase in NAV of selected five large cap and small & mid cap mutual fund during the study period (2012-2016). Among selected 5 large cap funds SBI BLUE CHIP fund has been ranked first based on various parameters. FRANKLIN INDIA SMALLER COMPANIES fund has been ranked first among the five small and mid-cap mutual fund.

## Objectives

Intention of this study is to appraise the performance of mutual funds from various selected Mutual fund houses under the category of Large Cap fund in India. Based on the detailed Literature Review given where research gap is clearly identified. The following Research Questions (RQs) and related Objectives (O) are developed for further analysis.

*"RQ1: How investors are affected during the study period in terms of their risk and returns on their investments in large cap mutual fund scheme?"*

O1: To analyse the risk and return profile of select large cap mutual fund scheme.

*RQ2: Whether any select large cap mutual fund scheme outperformed or underperformed the market?"*

O2: To evaluate Outperformance or Underperformance of select large cap mutual fund scheme.

*RQ3: Which mutual fund scheme performance is better than others among the select based on ranks?"*

O3: To evaluate the performance of select mutual fund schemes.

## Research Methodology:

The study is based on secondary data. The required data related 10 mutual fund schemes is collected from various sources like [www.amfiindia.com](http://www.amfiindia.com) & [rr.finance](http://rr.finance) NSE Nifty 50 data is downloaded from [www.investing.com](http://www.investing.com). The present study considers the data for 5 years.

## Assumptions:

The research is based on the following assumptions:

1. Treasury bill as a risk free return.
2. Benchmark is Nifty 50; on the basis of this market return is calculated.

## Period of Study:

This study is mainly focused on NAV of randomly selected Large Cap Equity Mutual fund. Selected period was for 5 years from 1st April 2017 to 31st March 2022.

## Tools/ Techniques used:

Descriptive statistics such as Mean, Variance, Standard Deviation, Covariance and Beta are used All the analysis are performed using MS Excel.

## Sample Size:

Ten Large Cap Equity Mutual Fund Schemes were considered as the sample size for this research.

## Sample Variables

1. Canara Robeco Blue Chip Equity Fund
2. Kotak Bluechip Fund
3. Invesco India Large Cap Fund
4. Axis Blue Chip fund
5. IDBI India Top 100 Equity Fund
6. Tata Large Cap Fund
7. SBI Blue Chip Fund
8. IDFC Large Cap Fund
9. ICICI Prudential Bluec hip Fund
10. LIC MF Large Cap Fund

## Data analysis and interpretation

### Yearly Average:

#### 1) Canara Robeco Blue Chip Equity Fund

##### Years Average NAV

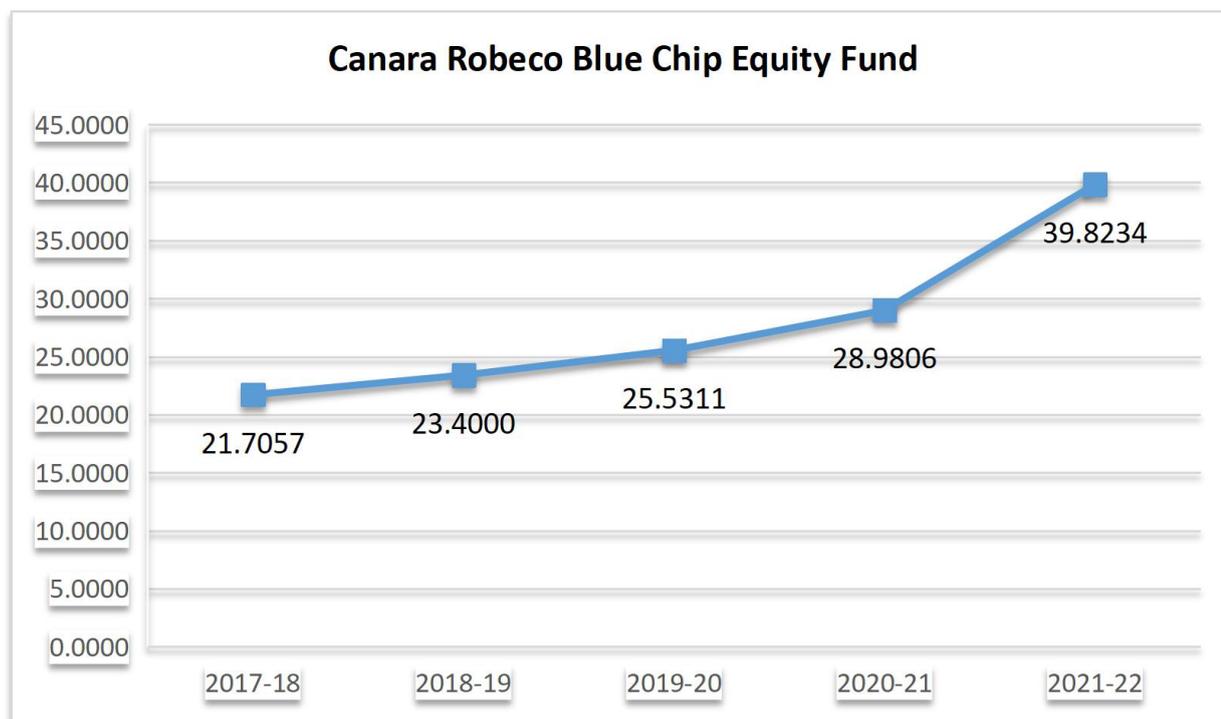
2017-18 21.7057

2018-19 23.4000

2019-20 25.5311

2020-21 28.9806

2021-22 39.8234



In the above figure, Y-axis denotes as average yearly NAV and the X-axis denotes as years. There is an overall increasing trend for the Canara Robeco Blue Chip Equity Fund. In the year 2021-22, the company's NAV is highest i.e 39.8234. The lowest NAV value is in the year 2017-18 i.e 21.7057.

#### 2. Axis Blue Chip fund

##### Years Average NAV

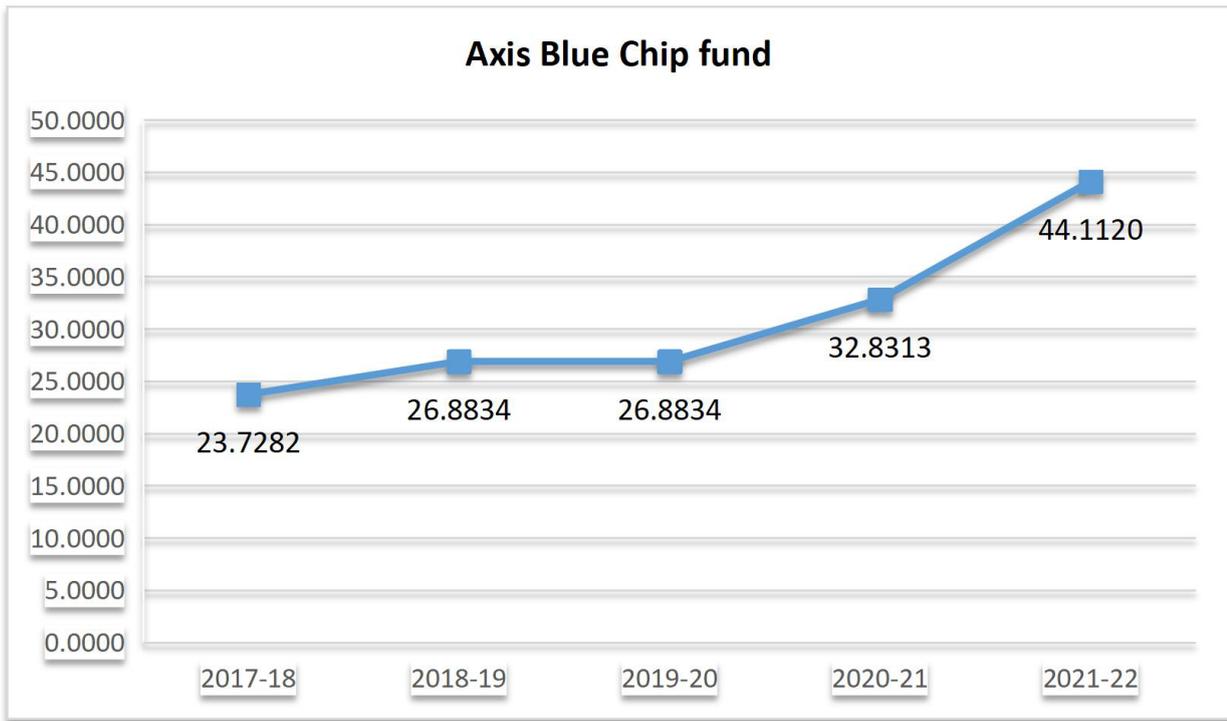
2017-18 23.7282

2018-19 26.8834

2019-20 26.8834

2020-21 32.8313

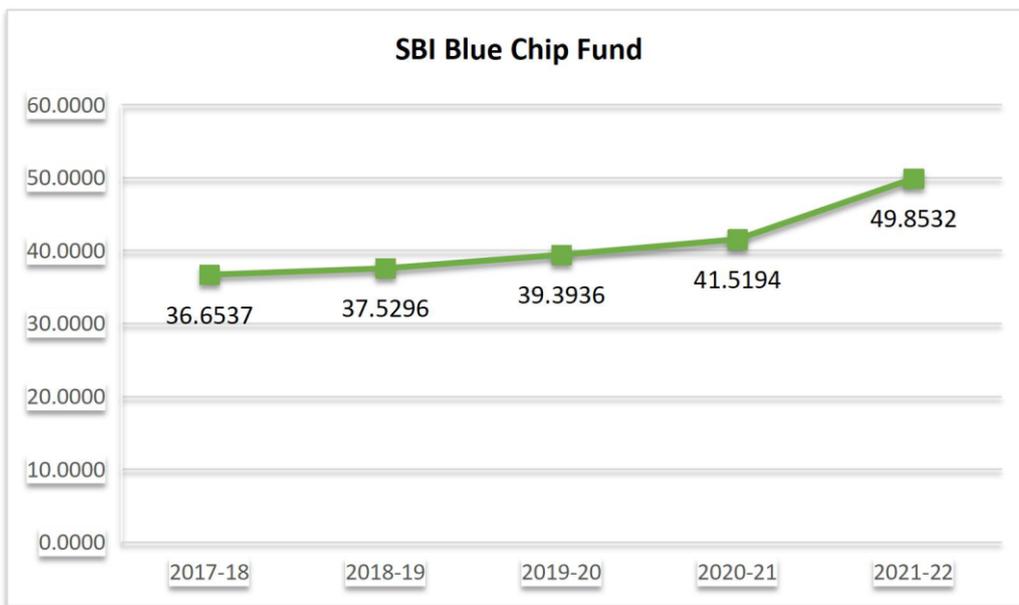
2021-22 44.1120



In the above figure, Y-axis denotes as average yearly NAV and the X-axis denotes as years. There is an overall increasing trend for the Axis Blue Chip fund. In the year 2021-22, the company's NAV is highest i.e 44.1120. The lowest NAV value is in the year 2017-18 i.e 23.7282.

### 3. SBI Blue Chip Fund

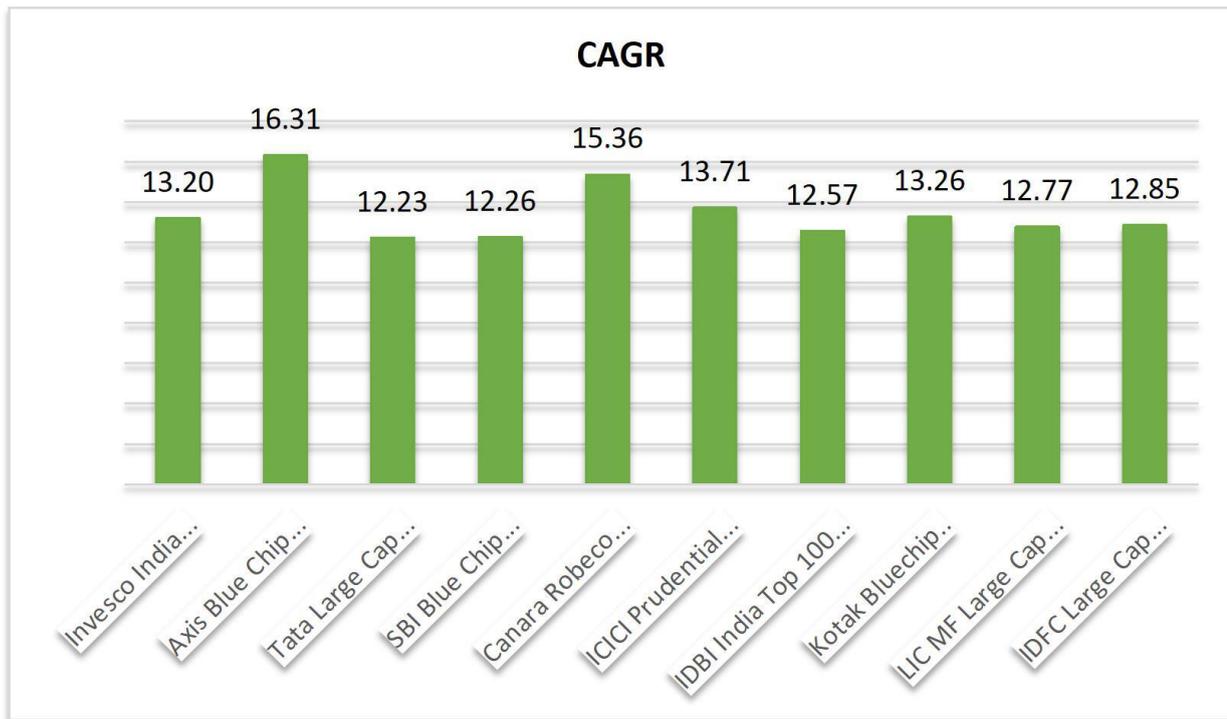
Years	Average NAV
2017-18	36.6537
2018-19	37.5296
2019-20	39.3936
2020-21	41.5194
2021-22	49.8532



In the above figure, Y-axis denotes as average yearly NAV and the X-axis denotes as years. There is an overall increasing trend for the SBI Blue Chip Fund. In the year 2021-22, the company's NAV is highest i.e 49.8532. The lowest NAV value is in the year 2017-18 i.e.36.6537.

## II. CAGR

<b>Funds CAGR</b>	Invesco India Large cap Fund 13.20
Axis Blue Chip fund 16.31	Tata Large Cap Fund 12.23
SBI Blue Chip Fund 12.26	Canara Robeco Blue Chip Equity Fund 15.36
ICICI Prudential Blue chip Fund 13.71	IDBI India Top 100 Equity Fund 12.57
Kotak Bluechip Fund 13.26	LIC MF Large Cap Fund 12.77
IDFC Large Cap Fund 12.85	



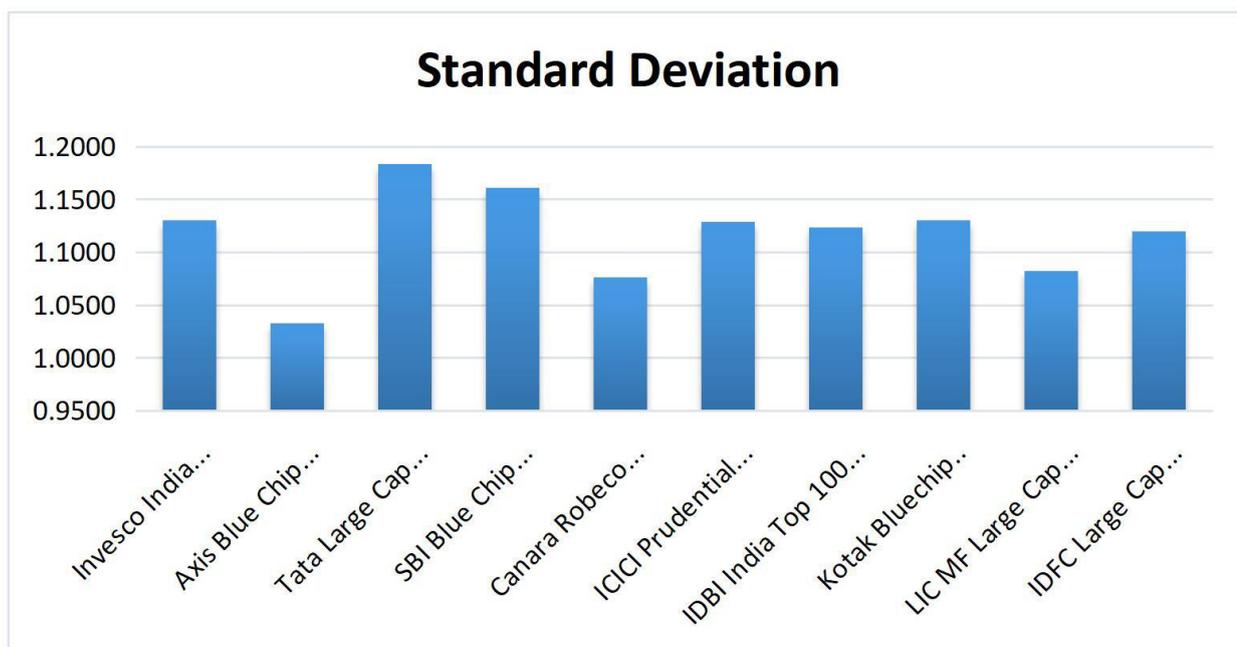
Compound Annual Growth Rate (CAGR) is the annual growth of mutual fund over a specific period of time. Above figures shows that Axis Blue Chip fund has the highest CAGR value which is 16.31 &

Tata Large Cap fund has the lowest CAGR value which is 12.23.

## III.

Funds	Standard Deviation
Invesco India Largecap Fund	1.1300
Axis Blue Chip fund	1.0331
Tata Large Cap Fund	1.1839
SBI Blue Chip Fund	1.1608
Canara Robeco Blue Chip Equity Fund	1.0762
ICICI Prudential Bluechip Fund	1.1291
IDBI India Top 100 Equity Fund	1.1236
Kotak Bluechip Fund	1.1305
LIC MF Large Cap Fund	1.0826
IDFC Large Cap Fund	1.1200

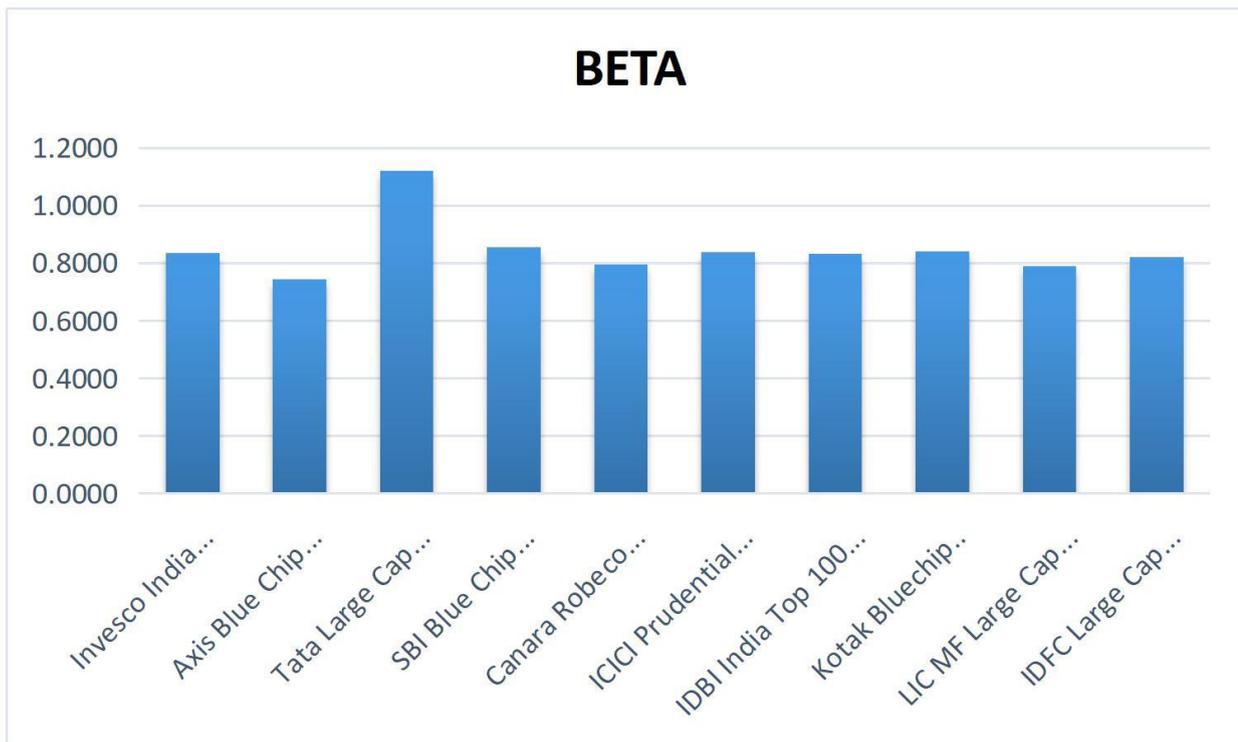
## Standard Deviation



The standard deviation shows the deviation of the fund's returns from the mean. The Figure shows the highest value of standard deviation for TATA large cap fund which is 1.1839 and the lowest value of standard deviation is Axis blue chip fund which is 1.0331. This means that most volatile funds amongst the sample's funds is TATA large cap fund that is it has the highest amount of risk associated with it. On the other hand, the Axis blue chip fund has the least amount of risk associated with the selected funds. A standard deviation indicates that the data point can spread far from the mean & a small standard deviation indicates that they are clustered closely around the mean.

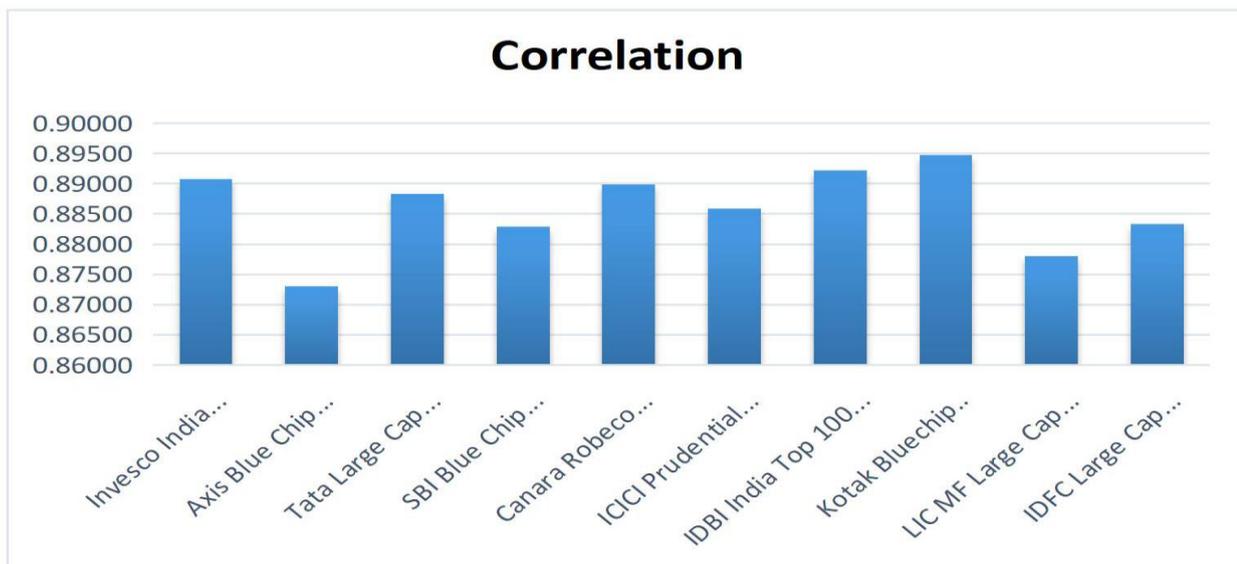
#### IV Beta

Funds Beta	
Invesco India Largecap Fund	0.8361
Axis Blue Chip fund	0.7458
Tata Large Cap Fund	1.1210
SBI Blue Chip Fund	0.8564
Canara Robeco Blue Chip Equity Fund	0.7956
ICICI Prudential Bluechip Fund	0.8379
IDBI India Top 100 Equity Fund	0.8329
Kotak Bluechip Fund	0.8423
LIC MF Large Cap Fund	0.7889
IDFC Large Cap Fund	0.8212



The beta calculation is observed and shows that among all the funds, Beta of Tata large cap fund is more than 1 which depicts that the fund is more volatile as compared to the market. Among the selected sample the Beta of Axis blue chip fund is the lowest which is 0.7458 & the beta of Tata large cap fund is highest which is 1.1210 among the selected sample. Overall it concludes that among the selected sample schemes, Tata large cap fund is the riskiest one with Beta more than 1, which means Tata large cap fund is riskier than the market.

### V. Correlation



Correlation is a statistical technique that shows whether & how strongly pairs of variables are related. Kotak bluechip fund shows the highest correlation with the benchmark which is 0.89474 & it means that this scheme returns are highly correlated with the benchmark, & the lowest is shown by the Axis blue chip which is 0.87301, it means that this scheme returns are less correlated with the

benchmark. Correlation indicates the measure both the strength and direction of linear relationship between two variables.

### **Findings & conclusion**

This study assesses the performance of Large Cap funds in India. In this study ten Large Cap open ended mutual fund with their NAV's were selected in this study. Risk and return were analyzed by finding out Average Return, Standard Deviation, Beta. The data used is monthly closing NAV recorded in the period starting from 1st April 2017 to 31st March 2022. The Indian mutual fund industry has come a long way since its inception in 1963. The industry has witnessed sufficient growth in all parameters be it like number of fund houses, No. of schemes, funds mobilised, assets under management etc. The fund industry in the beginning consisted of UTI mutual fund only, and that point of time there was a very limited choice of funds for the investors but today the investors have lot of choice and according to their need they can invest in different funds. Like Hybrid mutual funds are the combination of debt and equity instruments. Equity mutual funds are suited for investors who are ready to bear the high risk in order to reap higher benefits while Debt mutual funds are suited for investors who do not want to take high risk and are willing to accept lower returns in the form of regular but lower return with lower risk.

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# EMERGENCE OF PAY IN GUEST HOUSE BUSINESS IN GOA AS AN ALTERNATE TRAVEL ACCOMMODATION: AN EMPIRICAL STUDY

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## **Abstract**

Pay in Guest House business offers a unique opportunity to the customers and service providers. The business has potentials to serve a significant role in boosting the tourism sector in Goa. In this regard, a primary study of various aspects is presented in the research paper. The research papers explain the improvement in various socio-economic factors due to the business. It concludes that the business has very high potential for growth in future.

**Keywords:** *Guest House, Customer, Tourism and Home Stay*

## **Introduction:**

Goa was liberated from the Portuguese regime on December 19th, 1961. Along with Daman and Diu, Goa was also a union territory of India till 29th May 1987. On 30th May 1987, Goa became 25th state of India. It has a geographical area of approx. 3702 Sq. Kms. The population of the state is roughly fifteen lakhs. Goa has two districts (North Goa and South Goa) and 12 talukas. Goa's per capita income is the highest amongst other states of the country. Goa has second lowest poverty ratio in the country. The main contributors to Goan economy are Tourism, Agriculture, Industry, Construction, Banking, Trade, Fishery and Mining. Goa is known for its natural beauty, welcoming nature of its population, thus making it one of the most attractive tourist destinations in the country. In recent decade tourism has emerged as the major employer in the state.

The business of renting houses to tourists in the coastal regions of Goa is gaining popularity. The existing literature suggests that the homestays may have the potential to serve a significant role in boosting the tourism sector in Goa. The homestays influence language learning, cultural immersion, and the development of international understandings amongst the tourist and the hosts. It reflects the Level of engagement between tourists and hosts, including the important role of community connections.

Tourism is the backbone of economy of the state of Goa, employing more than 40% of the population directly and indirectly. The tourism sector has grown rapidly in recent past with total tourist arrivals increasing from 23 lakhs in 2005 to 78 lakhs in 2017, an annual growth of nearly 11%. The tourist mix of the state is dominated by Indian tourists that comprising about 89% of overall tourist arrivals in Goa.

October to December is considered as peak season for tourism in the state. About 50% of the tourist arrivals are registered during October to December annually. This puts Goa's ecological, infrastructural and other tourism resources under immense stress. The state government has developed 'The Goa Tourism Master Plan, 2016' which aims at exploiting the tourism sector to its

full potential and overcoming the present challenges in an efficient manner. The framework for implementation of the GTMP 2016 is laid out in 'The Goa Tourism Policy 2019'. The feedback and suggestions of various stake holders affected by tourism sector were considered for developing the policy.

### **Literature Review:**

(Sharma, 2019) in the paper titled 'A Study on acceptance of homestay as an emerging trend in alternate travel accommodation in India case study of heritage house in Ahmedabad', the author has studied the trends of accommodation and homestays. The objective was to identify the reason for the popularity of homestays and future prospects of home stays. The author has used chi square test, correlation tabulation and factor analysis. The author has analyzed behavior of the homestay provider as well as the customer of the homestay service. The author concludes that there is less popularity of the homestay program in India and this needs to be promoted. Promotion of Homestays will enhance the cultural heritage in different parts of the country.

(Thapa, 2018) The purpose of this study was to identify various attributes of home stays in entire nation. the author has collected reviews from various location across the country and the author has used quantitative content analysis for the research and has also used correlation test to study the various attributes. The paper concludes that the psychological and emotional factors like, warm welcome, excellent service, being helpful and polite to guest are among the top attributes that the homestays guests prefer. The author suggests for the study on the other emotional attributes to have more in depth knowledge about the topic.

(Navare, 2016) in the paper titled 'Homestay - an emerging accommodation Preference for Travelers in India', has studied the popularity of Homestay amongst the tourist in India. The author has studied the expectations of tourist who prefer homestay. The author has used questionnaires and sampling techniques and the respondents were the travelers and travel agents. The author concludes that the tourist prefers to stay at a place where they feel comfortable. The homestay providers should possess adequate knowledge and education to conduct the programme of home stays professionally.

(Kannegieser, 2015) The paper depicts how the rural homestays which are exclusively run by women in Darjeeling district are profiting on socio economic level and how the women are able to derive specific personal benefits from the home stay and how the members of the families are getting benefited. The author conducted interviews of individuals and also the formal and informal groups in the district. The study shows that income of the families involved in Homestay program increases over a period of time. The female member of the family owning the homestay tend to give more importance and attention to the decorative part of the house and does they are able to meet the quality standards for the homestay guests. The homestay program provides employment opportunities to the female members.

(Bhan, 2014) the author has studied tourism in India in his research paper. The objective of the study was to emphasize the major opportunities available for Homestay tourism in India and identify the challenges faced by the hosts. The study area was Northern parts of the country specially the hilly region. The author found that the local people involved in the home stay program lack financial assistance, adequate knowledge about program and lack in management and planning too. It becomes difficult for the home stay hosts to manage the tourist professionally and thus the homestays program remains underrated.

(Kontogeorgopoulo, 2013) The paper titled 'Homestay tourism and commercialization of the ruler homes in Thailand', the author has studied the rural Homestay program in the Thailand. For his study the author has used various case studies and research articles to come to a conclusion. The author has also interviewed respondents involved in the homestay program. The paper shows how the rural people with available resources make best use of their homes for generation of income through Homestay program. The author has concluded that the homestay program in Thailand, special in the rural area is doing quite well and encouraging foreign tourist.

(Macek, 2008) In this paper the author has done research on the Homestays in Johar Valley of Uttarakhand. Methodology used by author is seminars, field review, note taking, Mapping and sketching. The author has also used Evaluation Matrix to describe the different factors in the Johar Valley. The author has studied the difference between the rural and urban Homestays. The objective of this research was to study how to uplift the Homestay program in the rural villages. The author noted some important points in his findings and suggested that the rural Homestay should use modern techniques and new innovative ideas.

(Chakraborty) this paper titled 'Homestays as a reliable promotion tool for cultural tourism and security in Indian context' the author has explained the importance of homestays in promoting the cultural heritage in India, though India is slow in case of growth in the economic conditions but it has a huge variety of cultural heritage which is unknown to many people including the Indian People. Most of the cultural and traditional places are located in the rural areas where the hotel and high-quality accommodation facilities are limited. Thus, the homestay program plays an important role in the promotion of cultural heritage in India.

(SUBASH) In the paper titled 'The Role of Homestays in Community Based Tourism Development in Kerala', the author has studied about the tourism in Kerala and how the homestays will play an important role and giving a boost to the tourism sector. The author has used primary and secondary data. The Government in Kerala provide Homestay facilities which differs from the homestays provided by the local people in the state. The author concludes that the local homestay providers lack management skills. He suggests that if the proper knowledge is provided for the local Homestay providers then it will improve the homestay quality in the state of Kerala.

(Mr. Venkatesh. R) the paper titled 'The role of homestays in promoting rural tourism', the author has attempted to create awareness about the homestay programme in rural areas. The objective of the study was to understand the potential of rural tourism and to identify the impact of homestays on the rural tourism. The author states that the local tourism needs to be promoted and the best source for this is to enhance homestays in rural areas. Tourists look for quality environment and which is abundant in the villages. Homestays will play a key role in the upliftment of the rural tourism in future.

### **Need for the Study:**

Pay in guest house business is an emerging trend in the tourism sector of Goa. Very little attempt is made to analyze it as potential employer for the Goan population. Pay in guest houses gives a unique opportunity to the tourists to interact with the hosts and cultural exchange is also made possible through these interactions. Every house hold can exploit this opportunity with little input and earn an additional income to sustain their livelihood. There is an urgent need to evaluate Pay in guest house business as an important component of Tourism Industry of the State.

### **Objectives of the study:**

- To study the motivational factors behind the emergence of Payin Guest House business.
- To understand the problems and prospects of the Payin Guest House business.

### **Research methodology:**

The data collected via questionnaire method was analyzed with the help of Henry Garrett ranking method to analyze, what the major reasons which motivate the people to start the Payin Guest House business.

## Analysis and Results:

The analysis and the report of the same is as follows.

**Table 1.1**

Rank	Factors					Total
	Extra source of Income	Employment opportunity	Monetary support in future times	Opportunity for local business	Future scope and opportunity	
1	243	10	117	0	14	<b>384</b>
2	103	76	205	0	0	<b>384</b>
3	14	67	10	175	118	<b>384</b>
4	0	149	52	70	113	<b>384</b>
5	24	82	0	139	139	<b>384</b>
<b>Total</b>	<b>384</b>	<b>384</b>	<b>384</b>	<b>384</b>	<b>384</b>	

**Table 1.2**

Rank	Percent	Garret score
1 <sup>st</sup>	19	68
2 <sup>nd</sup>	39	56
3 <sup>rd</sup>	59	46
4 <sup>th</sup>	79	35
5 <sup>th</sup>	99	9

**Table 1.3**

Rank	Extra source of Income		Employment opportunity		Monetary support in future times		Opportunity for local business		Future scope and opportunity	
	Freq	Total	Freq	Total	Freq	Total	Freq	Total	Freq	Total
1st	243	43.03125	10	1.770833	117	20.71875	0	0	14	2.479167
2nd	103	15.02083	76	11.08333	205	29.89583	0	0	0	0
3rd	14	1.677083	67	8.026042	10	1.197917	175	20.96354	118	14.13542
4th	0	0	149	13.58073	52	4.739583	70	6.380208	113	10.29948
5th	24	0.5625	82	1.921875	0	0	139	3.257813	139	3.257813
	<b>384</b>	<b>60.29167</b>	<b>384</b>	<b>36.38281</b>	<b>384</b>	<b>56.55208</b>	<b>384</b>	<b>30.60156</b>	<b>384</b>	<b>30.17188</b>

**Table 1.4**

<b>Factors</b>	<b>Mean Score</b>	<b>Rank</b>
Extra source of Income	60.29167	1 <sup>st</sup>
Employment opportunity	36.38281	3 <sup>rd</sup>
Monetary support in future times	56.55208	2 <sup>nd</sup>
Opportunity for local business	30.60156	4 <sup>th</sup>
Future scope and opportunity	30.17188	5 <sup>th</sup>

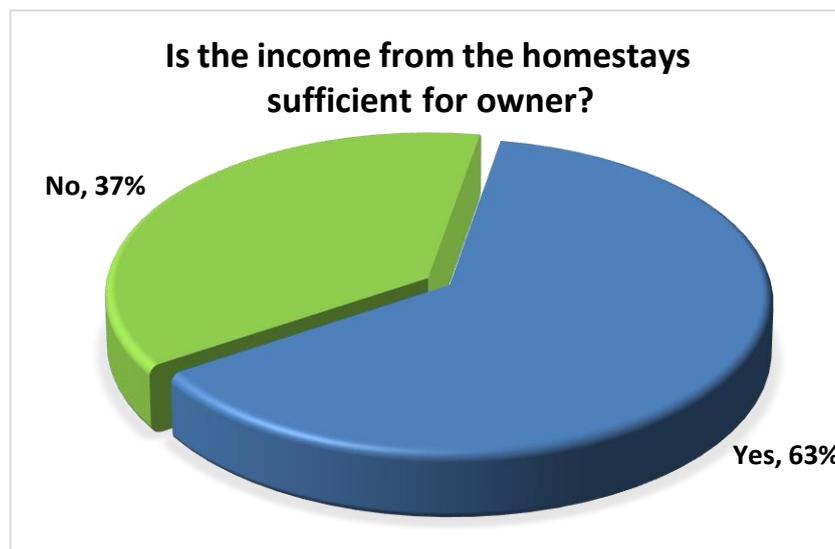
The ranks shown in the above table 1.4, clearly depicts that the main reason for starting a Pay in Guest House by any individual or a family is that it acts as a source of income that is received from the Pay in Guest House business. The monetary support in the future times is ranked second; both of these two factors are related to the financial factors which every individual dream about. The problem of employment opportunity is everywhere in the country and the same can be seen in Pernem taluka. It is believed that the Pay in Guest House business helps in reducing the unemployment rate which also seen in the pastel study conducted. Opportunities for the locals are ranked fourth. It can be opined that the Pay in Guest House program creates and would be creating future employment opportunities and the opportunities for other local business is ranked, the factor of employment is up to the mark.

The following data shows whether the income earned from the Pay in Guest House business is sufficient or not.

**Table 2.1**

<b>Is the income from the rent sufficient for owner?</b>	<b>Respondents</b>	
	<b>Numbers</b>	<b>Percentage</b>
<b>Yes</b>	242	63%
<b>No</b>	142	37%
<b>Total</b>	<b>384</b>	<b>100%</b>

**Graph 2.1**



From the above pie chart, it can be opined that 63% of the respondents are of the opinion that the income earned from the Pay in Guest Houses is sufficient to fulfill their need. 37% of the respondents are of the opinion that the income earned from the Pay in Guest House is not sufficient for them. They are not satisfied because Pay in Guest Houses earnings are the only source of income for meeting their expenditures and amount received as rent is not sufficient to meet all its expenditure. Through the interviews it can be inferred that most of the people venture into Pay in Guest House program for the purpose of earning an extra income. The analysis from Garret ranking method also describes the same. On the basis of this, the following study shows the expenditure pattern of the income earned from the Pay in Guest House business.

**Table 3.1**

Rank	Factors					
	For daily household expenses	To expand the Pay in Guest House business	Save money for future	Use for investments purpose	Spend on luxury	
1st	185	0	139	29	31	<b>384</b>
2nd	169	30	171	14	0	<b>384</b>
3rd	30	65	28	261	0	<b>384</b>
4th	0	203	31	80	70	<b>384</b>
5th	0	86	15	0	283	<b>384</b>
<b>Total</b>	<b>384</b>	<b>384</b>	<b>384</b>	<b>384</b>	<b>384</b>	

**Table 3.2**

Rank	Percent	Garret score
1 <sup>st</sup>	19	68
2 <sup>nd</sup>	39	56
3 <sup>rd</sup>	59	46
4 <sup>th</sup>	79	35
5 <sup>th</sup>	99	9

**Table 3.3**

Rank	For Daily Household Expenses		To Expand the Pay in Guest House Business		Save Money for Future		Use for Investments Purpose		Spend on Luxury	
	Freq	Total	Freq	Total	Freq	Total	Freq	Total	Freq	Total
1st	187	33.11458	0	0	142	25.14583	29	5.135417	31	5.489583
2nd	172	25.08333	30	4.375	173	25.22917	14	2.041667	0	0
3rd	30	3.59375	67	8.026042	28	3.354167	264	31.625	0	0
4th	0	0	205	18.6849	31	2.825521	82	7.473958	71	6.471354
5th	0	0	87	2.039063	15	0.351563	0	0	287	6.726563
<b>Total</b>	<b>389</b>	<b>61.79167</b>	<b>389</b>	<b>33.125</b>	<b>389</b>	<b>56.90625</b>	<b>389</b>	<b>46.27604</b>	<b>389</b>	<b>18.6875</b>

**Table 3.4**

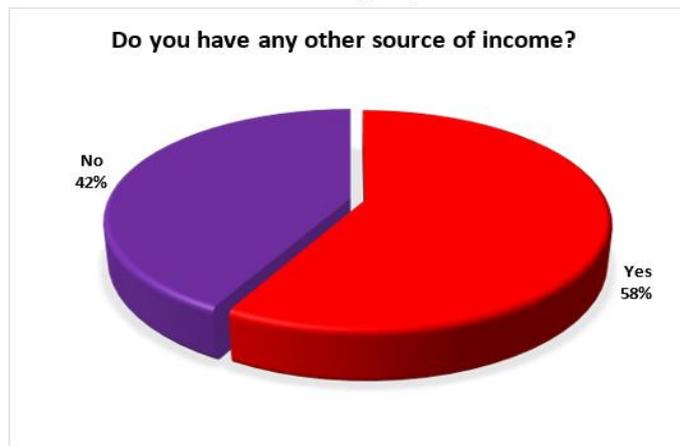
<b>Factors</b>	<b>Mean Score</b>	<b>Rank</b>
For daily household expenses	61.79167	1 <sup>st</sup>
To expand the Pay in Guest House business	33.125	4 <sup>th</sup>
Save money for future	56.90625	2 <sup>nd</sup>
Use for investments purpose	46.27604	3 <sup>rd</sup>
Spend on luxury	18.6875	5 <sup>th</sup>

The previous data exhibited that people venture into the Pay in Guest House business for the purpose of earning an extra income. The same can be related to this study which indicates that Pay in Guest House owners spend the income earned from the Pay in Guest Houses for daily household expenses. The most important thing in an individual’s life is to cater to its daily household expenses. Even an average earning individual cannot afford to run normal household expenses. The income earned from the Pay in Guest Houses is an excellent source for meeting such expenses. The savings from the income earned is ranked at the second position which describes the saving habits of the Indian families. The savings are then being utilized for investment in various avenues which in turn is used for the growth and expansion of the business which is ranked at the fourth position. As the Pay in Guest House owners are focusing on savings and investments, they prefer not spending much on luxury life style due to which it has been ranked at the fifth position. The question was asked whether the Pay in Guest House owners have any other source of income. The response received is as follows.

**Table 4.1**

<b>Do you have any other source of income?</b>	<b>Respondents</b>	
	<b>Numbers</b>	<b>Percentage</b>
<b>Yes</b>	223	58%
<b>No</b>	161	42%
<b>Total</b>	<b>384</b>	<b>100%</b>

**Graph 4.1**



The above graph highlights other source of income earned by the respondents. The data indicates that 58% of the respondents have other source of income as some of them are working in Government departments, running their own businesses and some are involved in agricultural activities. 42% of the respondents do not have any other source of income. They are fully dependent on the amount earned by the Pay in Guest House facility provided by them. While doing Pestle analysis of the study, it was realized that most of the Pay in Guest House owners do not register the business with the tourism department. This was one of the major issues which can be counted with large numbers because very few Pay in Guest House owners have registered their Pay in Guest House area with the tourism department. The study tries to understand the reason behind the Pay in Guest House owners not opting for the registration of the service. Some of the major reasons which forces Pay in Guest House owners not to register were analyzed with the help of Garret Ranking Test.

**Table 5.1**

Rank	Factor					
	Lengthy process	Lot of paper work	Difficulty in getting the approval	To save the tax	Lack of awareness about the procedure	
1	91	132	70	24	67	<b>384</b>
2	148	142	67	27	0	<b>384</b>
3	97	29	147	73	38	<b>384</b>
4	24	81	43	156	80	<b>384</b>
5	24	0	57	104	199	<b>384</b>
<b>Total</b>	<b>384</b>	<b>384</b>	<b>384</b>	<b>384</b>	<b>384</b>	

**Table 5.2**

Rank	Percent	Garret score
1 <sup>st</sup>	19	68
2 <sup>nd</sup>	39	56
3 <sup>rd</sup>	59	46
4 <sup>th</sup>	79	35
5 <sup>th</sup>	99	9

**Table 5.3**

Rank	Lengthy process		Lot of paper work		Difficulty in getting the approval		To save the tax		Lack of awareness about the procedure	
	Freq	Total	Freq	Total	Freq	Total	Freq	Total	Freq	Total
1 <sup>st</sup>	91	16.11458	132	23.375	70	12.39583	24	4.25	67	11.86458
2 <sup>nd</sup>	148	21.58333	142	20.70833	67	9.770833	27	3.9375	0	0
3 <sup>rd</sup>	97	11.61979	29	3.473958	147	17.60938	73	8.744792	38	4.552083
4 <sup>th</sup>	24	2.1875	81	7.382813	43	3.919271	156	14.21875	80	7.291667
5 <sup>th</sup>	24	0.5625	0	0	57	1.335938	104	2.4375	199	4.664063
<b>Total</b>	<b>384</b>	<b>52.06771</b>	<b>384</b>	<b>54.9401</b>	<b>384</b>	<b>45.03125</b>	<b>384</b>	<b>33.58854</b>	<b>384</b>	<b>28.3724</b>

**Table 5.4**

Factors	Mean Score	Rank
Lengthy process	52.06771	2 <sup>nd</sup>
Lot of paper work	54.9401	1 <sup>st</sup>
Difficulty in getting the approval	45.03125	3 <sup>rd</sup>
To save the tax	33.58854	4 <sup>th</sup>
Lack of awareness about the procedure	28.3724	5 <sup>th</sup>

The registration of Pay in Guest Houses is a challenging task for all the Pay in Guest House owners. This includes lot of paper work and it is a lengthy process. These ranks and the factors depict the difficulty level of getting the Pay in Guest House program registered with the tourism department. From the above table it can be analyzed that majority of the Pay in Guest House owners do not register themselves because of the amount of paper work which is required during the registration of the Pay in Guest House. It can also be observed that lengthy process is being ranked at the second position which states that respondents are not keen on registering their Pay in Guest Houses due to lengthy processes to be followed which hampers their income until the registration process is completed. Many of the Pay in Guest House owners have faced lot of difficulties in getting the necessary approvals from the various departments which is the third ranked factor affecting the registration of the Pay in Guest Houses. As income earned under Pay in Guest House program needs to be tax assessed, due to which many of the Pay in Guest House owners are not keen on getting themselves registered under the Pay in Guest House business. Lack of awareness about the procedures to be followed

and submission at various departments are not known to the Pay in Guest House owners, due to which it is ranked at the fifth position in the above-mentioned test.

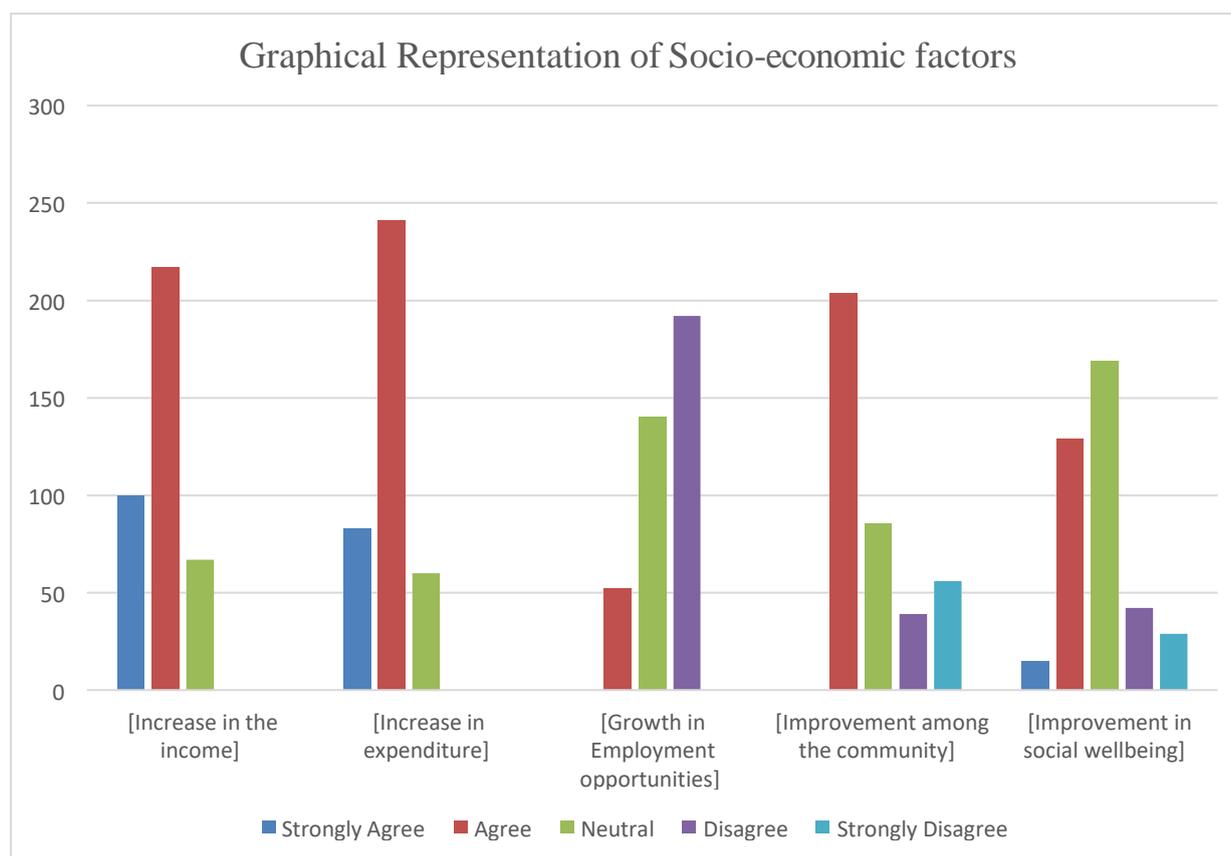
To understand the impact of Pay in Guest House business on the socio-economic status of the Pay in Guest House owners a Likert scale questionnaire was framed and the data form the same has been

shown in the following graph.

**Table 6.1**

Socio Economic factors	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
Increase in the income	100	217	67	0	0	<b>384</b>
Increase in expenditure	83	241	60	0	0	<b>384</b>
Growth in Employment opportunities	0	52	140	192	0	<b>384</b>
Improvement among the community	0	204	85	39	56	<b>384</b>
Improvement in social well-being	15	129	169	42	29	<b>384</b>

**Graph 6.1**



The above chart depicts the socio-economic factors which are affected or which are related to the Pay in Guest House business, the graph clearly shows that the income and expenditure both increase simultaneously. With the factor related to the unemployment it can be seen that people doesn't believe that there is a growth in the employment opportunities. The Pay in Guest House program is not so developed in the state and in the region to give a boost to the employment opportunities. With the rise in standard of living and foreign tourist vesting and staying in the local areas the is an improvement among the community and improvement in the social well-being.

## Conclusion:

The business of renting houses to tourists in the coastal region of Goa is gaining popularity. The study shows that Pay in Guest houses helps in reducing the unemployment rate in the state. The analysis proves that Pay in Guest House program can create future employment opportunities for local population.

The study also proves that 63% of the respondents are satisfied with the services offered by the Pay in Guest Houses. The complexity of registering the business with the Goa State Tourism Department poses a challenge to the growth of the business. The business contributes a significant share to the income of the owner, growth in employment opportunities and overall improvement in the social wellbeing of the community.

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# ARE CHILDREN CAPABLE OF IMAGINING COUNTERFACTUAL SITUATIONS?

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## **Abstract**

Adult human beings use counterfactual reasoning to determine the cause of an event. In this paper we report an experiment that tested 3 to 5 years old children's ability to imagine contrary-to-fact situations. The children in this experiment were shown video clippings of a causal scenario where one event caused the occurrence of another event. Then the participants were asked to imagine a situation contrary to what they observed and answer simple questions. Children aged 4.0 years to 4.11 years performed well in this task but children of age group 3.0 years to 3.11 years did not. Further analysis of the performance of the 3.0 years to 3.11 years' group showed that the performance of children aged above 3.6 years were much better compared to children aged below 3.6 years.

**Keywords:** *Counterfactual thinking, reasoning, children, development*

## **Introduction**

If the Amphan cyclone did not take place in May 2020, in India (particularly at Eastern India), widespread damage would not happen in those region. If the driver was not busy talking to his wife over phone while driving the car, he would not have met with an accident. If there was no storm then the tree would not have fallen. If I did not waste my time I would have scored more than 80% in the examination. All the above mentioned statements have a common structure; they are of the form "if A had not occurred, B would not have occurred". A careful analysis would show that all of these statements are not about facts but about situations that are 'contrary-to-fact'. In reality Amphan did take place in Eastern India in May 2020 causing massive disaster. The driver was busy taking over the phone while driving and hence met with an accident; etc. Such statements which are about contrary-to-fact situations are called counterfactual statements.

In our day to day life we often utter statements which are about contrary-to-fact situations. These statements are mostly used in determining the cause of an event. From the statement 'if the earthquake did not take place in Nepal in May 2015, thousands of people would not have died' we infer that the earthquake is the cause of death of thousands of people. Counterfactual thinking is most often used in determining the cause of an event where repeated observation (between the two events in which a causal relation is to be established) is not possible. In this paper we aim exclusively to test whether children of 3 and 4 years old are capable of imagining contrary to fact situations.

## **Objectives:**

In this paper we investigated whether 3 to 5 years old children are capable of imagining a contrary-to-fact situation. That is, when children see an event happening in front of them, are they capable of imagining a situation contrary to what they observe. For example, if a child witnesses that 'Ravi stepped on the banana peel and fell down' is it possible for the child to imagine a situation where 'Ravi had not stepped on the banana peel' and hence draw the conclusion 'Ravi would not fall

down'. To test whether children are capable of imagining contrary-to-fact situations small movies were shown to children which depicted the occurrence of an event. Then they were asked to imagine a situation contrary to what is shown in the movie clipping and answer some very simple questions. The questions brought out children's capability of imagining facts contrary to the original situation depicted in front of them. Our experiment is familiar to experiment 1 performed by Harris German and Mills (1996) which they used to test whether young children of 3 to 5 years can engage in counterfactual thinking. The result of their experiments shows that 3 years old children are good at counterfactual thinking.

### **Scope of Study:**

In order to test the counterfactual reasoning ability in children we consider children of two age groups 3 years old and 4 years olds'. Each age group had more than 30 participants studying in kindergarten school of region in and around Kolkata, India. The total number of children were more than 60. The children were familiar with the experimenter. Laptop was used by the experimenter to show few very short video clippings of maximum 30 seconds each. The video clippings were to repeatedly to each child until the child understood the event shown in the video clipping and then they were asked questions contrary to what they have seen. Their answers were noted down by the experimenter.

### **Experiment Design:**

To test children's counterfactual reasoning ability, the children were shown six very short movies each depicting a causal sequence.

For example: *Krishna goes out to play in the park. Then guess what! It suddenly starts raining and Krishna gets wet.*

The participants were then asked two control questions. "Is Krishna wet now?" and "Was Krishna wet before it started raining?" These two control questions were asked to see whether the child observed the movie carefully and is aware of the initial and the final state of Krishna. Then they were asked the test question in which they had to imagine a contrary-to-fact situation and respond accordingly. For example, "What would happen if it had not rained – would Krishna still get wet?" So the test question was of the form, 'what if *A* had not occurred, then *B* or not *B*'.

There were six trials altogether of which the child had to give yes/no response for three questions and had to point out the position of the object as his/her response for the other three questions. Such mixed response patterns were chosen to avoid any form of bias.

**Participants:** 68 children participated in this experiment of which 34 were of 3-years-old (mean age 3.4; range 3.0-3.11) and 34 were 4-years-old (mean age 4.5; range 4.0-4.11). These children were from four play schools in and around Kolkata (West Bengal, India).

**Material:** The materials used in this experiment were very short movie clippings which were shown to the children from the laptop of the experimenter. These movies were prepared exclusively for this experiment by the experimenter using real objects. The movies were soundless but the experimenter narrated to the children all that was happening in the movie.

### **Procedure**

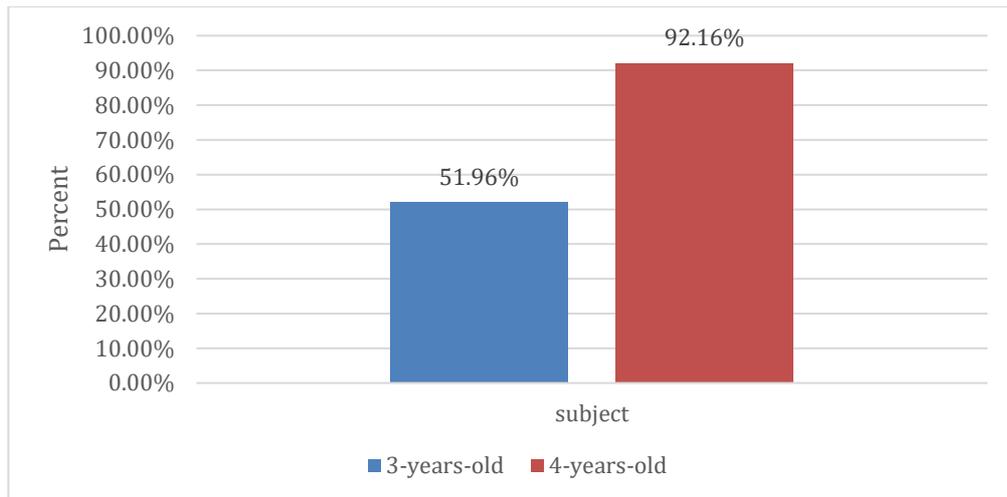
**Familiarization phase:** The experimenter visited each school and spent time with the children. Once the children were comfortable with the experimenter, she introduced the task to the children where the children were shown short movies of some event happening. They were asked to narrate the event they saw. Next, they were asked the two control questions.

**Experimental phase:** After a gap of about 7 days the testing phase began, where the children were interviewed in an empty classroom. In this phase, the children were first shown the movies and they

were asked the two control questions and the test questions. The questions were asked to the children in their own mother tongue. Each answer and statement that the children made while answering the question was noted down in detail by the experimenter.

### Result and Discussion

The aim of this experiment is to assess children’s counterfactual reasoning ability. The result shows that 3-years-old children gave 51.960% correct responses and 4-years-old children gave 92.156% correct answers as depicted in Graph 1. The mean number of correct responses given by 3-years-old children (out of 6) is 3.117 and the mean number of correct responses given by 4-years-old children (out of 6) is 5.526. So it is observed that performance of 4-years-old children is better than 3-years-old children.



**Graph 1: % of correct responses given by 3-years-old and 4-years-old children**

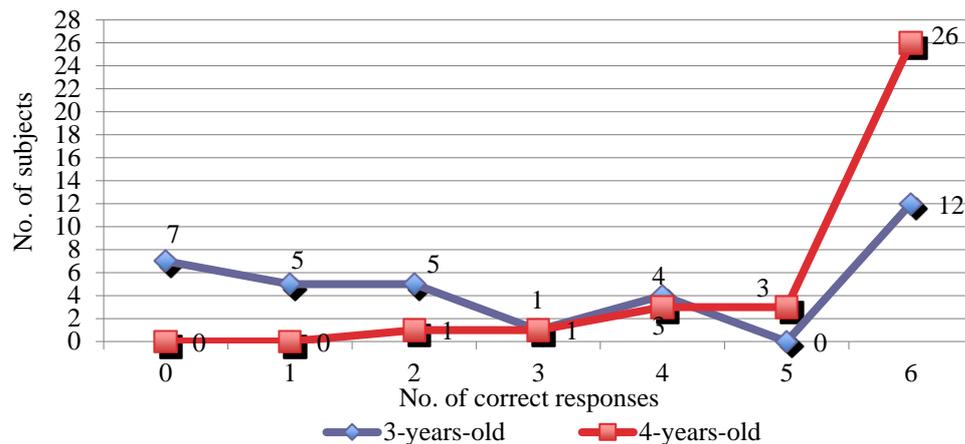
Next, normal test, i.e., z-test, was performed to see whether the performance of the children were at chance level. Z-test is performed separately on the data of 3-years-old children and 4-years-old children. The null hypothesis is taken to be “the performance of the children is at chance level.” To perform the test, the proportion of children (p) scoring less than or equal to 3 for each age group was calculated. So in mathematical terms, the null hypothesis turns out to be  $p \geq 0.05$  and the alternative hypothesis becomes  $p < 0.5$ . Then the z-value is calculated as  $z = (p-0.5)/\sqrt{p*(1-p)/34}$ . Based on these z-values the p-values were calculated for each age group using standard normal distribution. For the 3-years-old children the p-value 0.634 was obtained, therefore, p-value obtained from standard normal distribution is much higher than 0.05. Hence, it can be said that the performance of children of 3-years-old is at chance level. On the other hand, the p-value obtained from 4-years-old children is much less than 0.05 (i.e. 5.762864e-28). So, the performance of 4-years-old children is above chance level.

The above data show that there is a difference in the performance of 3-years-old children and 4-years-old children. Next proportionality test and fisher’s exact test was performed to see whether the difference in performance among the two age groups is significant. These tests yielded the p-value  $2.2e^{-16}$ . As the p-value is much less than 0.05, it indicates a significant difference in the performance between the children of the two age groups. Table 1 brings out more clearly the difference in performance among the 3-years-old age group participants and 4-years-old age group participants.

Number of correct responses out of 6 questions	Number of children	
	Age group: 3-years-old	Age group: 4-years-old
0 correct	7	0
1 correct	5	0
2 correct	5	1
3 correct	1	1
4 correct	4	3
5 correct	0	3
6 correct	12	26

**Table 1: Number of 3-years-olds, 4-years-olds giving 0 - 6 correct responses to 6 questions**

From the table it is seen that among 34 (thirty-four) 3-years-old children, 18 children gave half or less than half correct responses. Among the 4-years-old children, only 2 children gave less than half correct responses. On the other hand, 16 out of 34 3-years-old children gave more than half correct responses, whereas 32 out of 34 4-years-old children gave correct response for more than half of the questions. Graph 2 brings out the response pattern more clearly.



**Graph 2: Number of children of each age group giving 0 to 6 correct responses**

Table 1 and Graph 2 bring out an interesting observation about the performance of 3-years-old children. 7 children of this age group gave no correct responses and 12 children of the same age group gave all correct responses. This group really showed a varied response pattern. Hence a further analysis into the performance of this group was made and an interesting result is observed. The 3-years-old group had 34 children, out of them 17 children's age was between 3.0 to 3.5 years and the rest 17 children's age was between 3.6 to 3.11 years. An analysis of the performance of these children show that out of 12 children of the group who gave all correct answers 10 children were above 3.6 years old and only 2 children were below 3.6 years old. Table 2 below shows the performance of the 3-years-old children more clearly.

Number of correct responses out of 6 questions	Number of children	
	Age group 3.0 - 3.5 years old	Age group 3.6 - 3.11 years old
0 correct	5	2
1 correct	3	2
2 correct	4	1
3 correct	1	0
4 correct	2	2
5 correct	0	0
6 correct	2	10

**Table 2: Number of children from each age group (3.0 – 3.5 years old, 3.6 – 3.11 years old) giving 0 to 6 correct responses to 6 questions**

Here it is seen that children whose age was less than 3.6 years gave less correct answers. Out of 17 children, 13 of them gave 3 or less than 3 correct responses for 6 questions. Only 4 of them gave correct response to more than half of the questions. Out of these 4 children, only 2 of them responded correctly to all 6 questions. Thus, it is seen that children of age group 3.0 – 3.5 years old are not good in counterfactual task when compared with 3.6 years – 3.11 age group. Now if the age group 3.6 – 3.11 is consider, it is found that only 5 children of this group gave wrong responses for more than half of the questions and 12 children of this group responded correctly for more than half of the questions. Out of these 12 children, 10 children gave all correct responses. So it can be said that performance of children of 3.6 to 3.11 years is better than the performance of children of age group 3.0 to 3.5 years. From the overall performance of children of 3-years-old group and 4-years-old group, it can be concluded that counterfactual understanding arises in children sometimes between 3 and 4 years of age. More specifically, it arises between 3.6 to 4 years of age.

#### **Observation**

In the experiment by Harris *et al.* (1996), it was seen that 9 out of 13 3-years-old children were correct in 3 or 4 test questions out of 4 questions. Their success suggests that even 3-years-old children can make counterfactual predictions. The result of our experiments shows that 4-years-old children are good at imagining a situation contrary to what they observe, but the 3-years-old children are not good at imagining counterfactual situations as their performance was below chance level. Though the overall performance of 3-years-old children show that, children of this age group are not good at imagining contrary-to-fact situations, yet a further analysis of the performance of 3-years-old group brings out a striking result. The young 3-years-old group (3.0–3.5) are mostly unable to imagine situation contrary to fact but the elder 3-years-old group (3.6–3.11) are good at such task. Thus it can be claimed that the ability to imagine counterfactual situations arises in the latter half of 3 years of age.

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# ECONOMIC FAULT LINES EXISTING PRIOR TO COVID PANDEMIC IN INDIAN ECONOMY

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## **Abstract**

This research paper aims to identify the preexisting fault lines in the Indian economy, which magnified the economic impact of COVID-19 pandemic. Research analyses Indian economy by using various parameters. In the period of 2016 to 2020, slowdown in the Indian Economy could be analyzed through dampening of GDP, reduction in FMCG demands, flattening of two-wheeler sale, increase in unsold inventories in real estate sector, reduction in export and decrease of repo rate.

*Keywords: slowdown, preexisting fault lines in Indian economy, demand reduction*

## **Introduction**

COVID pandemic and prolonged lockdowns have severely impacted Indian Economy. The impact of COVID was multi sectoral and caused slowdown in economy by showing negative 21% contraction in first quarter of 2020-21 fiscal year. Black swan event of the pandemic caused the severe damage, however Indian economy was showing recessionary trends prior to the advent of COVID. Various faultlines in Indian economy were present already and the pandemic merely resurfaced those faultlines and causing large scale shakedown in an economy. Even speed and magnitude of recovery in various sectors is different. Hence in this research paper, the aim is to understand, analyze and collate the preexisting Fault lines in Indian Economy prior to COVID with correlation of various parameters.

## **Objectives of study:**

1. To analyze the preexisting fault lines prior to COVID outbreak which caused slowdown in Indian Economy
2. To identify various factors which could depict economic slowdown prior to the event of COVID and subsequent lockdown.

## **Literature Review**

Arvind Subramanian and Josh Felman, (2019) in their research paper have highlighted the slowdown in Indian Economy prior to onslaught of COVID pandemic. Subramanian compares present Indian Economy with the financial crisis of 1991 and recession of 2000-01. He argues in favour of structural slowdown by probing various parameters.

Governance issue, increasing inequality and land-capital constraints are few of the reasons. Moreover, twin balance sheet syndrome wherein weak assets of creditors and crumbling balance sheets of businesses further magnified the problem.

Author S. Mahendra Dev and Rajeswari Sengupta (2020) in research paper highlights the impact of COVID pandemic on Indian economy. Dev has argued that the Indian economy was already in a shaking state before the advent of Covid-19. His analysis extends to higher fiscal deficits, difficult

balance sheets of banks, disruptions in supply cycles in the informal sector and poor credit to MSME. Dev assesses macro **Invalid source specified.Invalid source specified**.factors of Indian economy and extrapolates supply and demand shocks after hitting of COVID-19 pandemic.

Thomas Piketty (2013) in his book Capital in twenty first century highlights the pressing issue on income inequality and wealth concentration. He throws light upon the central contradiction of capitalism, where entrepreneur inevitably tends to become a rentier, dominant above labour class. He argues that ' $r > g$ ' where capital growth is faster than the growth of economic output. He specifies that the ratio of wealth to income is rising in majority of developed countries and would continue to do so in coming future. It will then mirror the grim picture of 19th century, where economic elites have merely inherited their wealth rather than earning through sweat equity. His prescription to this is wealth taxation.

James Crabtree (2018) in his book The Billionaire Raj compares the state of Indian Economy the to Gilded Age. He argues that the rewards of India's growth are not shared, and the country's top 1% have accumulated around 60% of its wealth. Larger metropolis cities like Mumbai visually describes inequality in greater strength. Crabtree underlines the funnelling of profits from huge conglomerates into lifestyles of conspicuous consumption. Crabtree interestingly gives the analysis of inequality with adequate data and assessment through different sectors of society.

## **Research Methodology**

The research methodology is based on the secondary data analysis.

Following research objectives were probed by the data analysis:

- Analyzed the preexisting faultlines in Indian Economy by the data from various parameters such as GDP output, consumption of major FMCG companies, Indian net export, policy rate reduction by central bank, inequality and currency weakening, real estate inventories, etc.
- Analyzed the impact of COVID Pandemic and subsequent Lockdowns on Indian Economy.

## **Findings**

Indian economy was showing recessionary trends prior to the advent of COVID. Various fault lines in Indian economy were present already and the pandemic merely resurfaced those fault lines causing large scale shakedown in an economy. The fault lines of the Economic slowdown were exposed by COVID pandemic and showing true signs of recession. The fault lines prior to the COVID were measured by various parameters such as reduction in GDP growth rate, reduction of export growth, reduction in the consumption, increased unemployment, Central bank's accommodative monetary policy and rising inequality.

The data showing all of the above asserts the first research problem. The detailed elaboration is discussed in the following paragraphs.

The slowdown is a state of an economy in which growth is slow, flat, or declining. Extended periods of sluggishness can easily lead into a recession, so a sluggish economy is often considered a leading indicator of a potentially steeper downturn.

In India's case, the slowdown occurred prior to the advent of the COVID pandemic of march 2020. Following findings substantiates the slowdown in Indian economy prior to the advent of COVID19 pandemic.

## 1. Dampening of GDP

The GDP growth rate started decelerating from fiscal year 2017 -18 onwards. In the year 2017-18, GDP growth rate was 5.8 %, it further dropped down to 4.8% in 2018-19 and sunk to 3.1% in 2019-20.

This event has occurred without any COVID impact. COVID pandemic impact could be seen in the next fiscal which is 2020-21 and it actually dropped down the growth rate in negative territory.

This decline is so visible despite of the change in two GDP calculation methods such as changing the base year from 2004 to 2011 and GDP calculation of market price from factor cost.

Hence from the data collected from the National Statistical Office, the stark conclusion could be drawn of the slowdown prior to the COVID pandemic.

Gross Capital Formation causes additions of capital goods, such as equipment, tools, transportation assets, and electricity. Generally, the higher the capital formation of an economy, the faster an economy can grow its aggregate income. However, India's gross capital formation as percentage of GDP is reducing. Reduction in the gross capital formation prior to the COVID pandemic also depicts the existing fault lines of Indian economy.

### Annual Growth Rates of Gross National Income and Net National Income (in percentage)

Year	Gross national income		Net national income		Per capita net national income	
	Current prices	Constant prices	Current prices	Constant prices	Current prices	Constant prices
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<b>2011-12 Series</b>						
2012-13	13.5	5.1	13.2	4.5	11.9	3.3
2013-14	12.9	6.3	12.9	6.0	11.5	4.6
2014-15	11.1	7.5	10.9	7.5	9.5	6.2
2015-16	10.5	8.0	10.8	8.0	9.4	6.7
2016-17	11.8	8.3	10.9	8.2	10.6	6.9
2017-18 (2 <sup>nd</sup> RE)	11.2	7.1	12.3	7.0	9.9	5.8
2018-19 (1 <sup>st</sup> RE)	11.0	6.1	10.8	5.9	9.7	4.8
2019-20 (PE)	7.2	4.2	7.2	4.2	6.1	3.1
2020-21 (1 <sup>st</sup> AE)	-4.4	-7.9	-4.4	-8.0	-5.4	-8.9

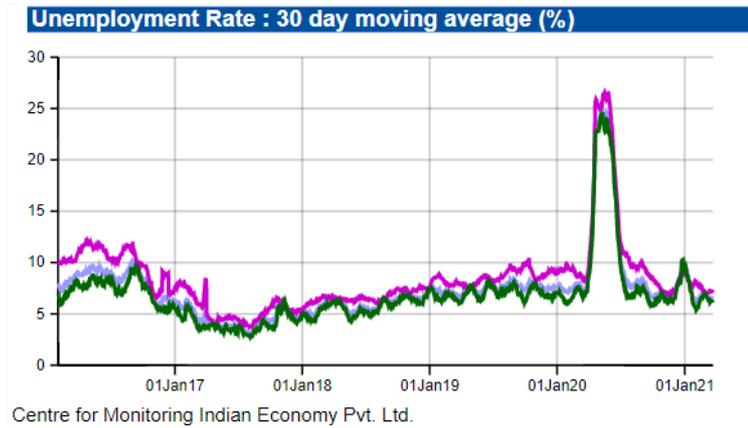
Source : National Statistical Office,

## 2. Unemployment

Unemployment is one of the key indicators depicting health of the economy and the unemployment data can be extrapolated to identify the slowdown in the economy. Ministry of Statistic's 'periodic labour force survey' (PLFS) has analyzed data and suggested to largest unemployment in last 45 years.

It has shown that showed 7.8% of all employable urban youth being jobless, while the percentage for the rural was 5.3 %. The joblessness among males on all-India basis was 6.2%, while it was 5.7% in case of females. It also showed that the unemployment rate for males was higher at 7.1% in cities compared to 5.8% in rural areas. Similarly, the joblessness for women was also higher in urban areas at 10.8% compared to 3.8% in rural areas.<sup>1</sup>

<sup>1</sup> <https://www.livemint.com/news/india/unemployment-rate-rises-to-45-year-high-of-6-1-in-fy18-official-data-1559306879836.html>



Blue → India

Green → Rural

Purple → Urban

### 3. Consumption reduction

Analysis of India's major Fast Moving Consumer Goods (FMCG) corporate sales growth.<sup>2</sup>

		2016	2017	2018	2019	2020	2021
<b>Britannia</b>	Sales (In Rs Cr)	8,397.00	9,054.00	9,913.00	11,054.0	11,599.0	13,340.00
	Sales Growth %		7.82%	9.49%	11.51%	4.93%	15.01%
	Profit (In Rs Cr)	824.00	884.00	1,004.00	1,156.00	1,393.00	1,986.67
	Profit Growth %		7.28%	13.57%	15.14%	20.50%	42.62%
<b>HUL</b>	Sales (In Rs Cr)	32,186.0	33,162.0	35,545.00	39,310.0	39,783.0	46,126.67
	Sales Growth %		3.03%	7.19%	10.59%	1.20%	15.95%
	Profit (In Rs Cr)	4,167.00	4,502.00	5,225.00	6,060.00	6,764.00	7,745.33
	Profit Growth %		8.0%	16.1%	16.0%	11.6%	14.5%
<b>Dabur</b>	Sales (In Rs Cr)	7,779.00	7,613.00	7,721.00	8,514.00	8,684.00	9,632.00
	Sales Growth %		-2.1%	1.4%	10.3%	2.0%	10.9%
	Profit (In Rs Cr)	1,253.00	1,280.00	1,357.00	1,445.00	1,447.00	1,757.33
	Profit Growth %		2.2%	6.0%	6.5%	0.1%	21.4%
<b>Nestle</b>	Sales (In Rs Cr)	9,223.00	10,009.0	11,292.00	12,368.00	13,350.00	13,948.00
	Sales Growth %		8.5%	12.8%	9.5%	7.9%	4.5%
	Profit (In Rs Cr)	926.00	1,225.00	1,606.00	1,969.00	2,082.00	2,132.00

<sup>2</sup> Annual reports of major FMCG companies

	Profit Growth %		32.3%	31.1%	22.6%	5.7%	2.4%
Marico	Sales (In Rs Cr)	6,017.00	5,917.00	6,322.00	7,334.00	7,315.00	8,048.00
	Sales Growth %		-1.7%	6.8%	16.0%	-0.3%	10.0%
	Profit (In Rs Cr)	723.00	811.00	827.00	1,132.00	1,043.00	1,300.00
	Profit Growth %		12.2%	2.0%	36.9%	-7.9%	24.6%

**Table of sales and profits of major FMCG companies in the India**

The FMCG companies chosen were Britannia which produces affordable biscuits, HUL which produces daily care products such as shampoo, soap, etc., Marico which produces daily used hair oil, Dabur produces largely sold Chyavanprash and Nestle produces ready to eat noodles and baby milk powder, etc. The chosen companies hold the dominant market position in their respective segments.

Sales of those companies are largely representative of the consumption across the India by middle class and lower class. Data analysis from the above table showcases the reduction of either sales growth rate or absolute sales in last four fiscal years prior to the advent of COVID pandemic. Hence, those gives valid evidences to suggest that the population of India is reducing on their day-to-day consumption because of economic deceleration.

#### 4. Two-Wheeler Sales and the reduction in Rural Demand

Two wheeler's sales generally denote the rural demand and health of the rural economy. Sale of the two wheelers across the India is an important indicator to assess economic trends. Two-wheeler market is dominated by Hero Motocorp and TVS which contribute around 60% of total sales.

##### Hero Motocorp Profit numbers of last five years

##### TVS Motors Profit numbers of last five years

Year	Profit (in Rs. Cr)	%
2016-17	₹ 3,229.00	
2017-18	₹ 3,672.00	12%
2018-19	₹ 3,405.00	-8%
2019-20	₹ 3,624.00	6%
2020-21	₹ 2,982.00	-22%

Year	Profit (in Rs. Cr)	%
2016-17	₹ 509.00	
2017-18	₹ 664.00	23%
2018-19	₹ 723.00	8%
2019-20	₹ 655.00	-10%
2020-21	₹ 615.00	-7%

Source: Data collated and analyzed from the annual reports of the respective companies

By analyzing the profit numbers of both the two-wheeler motorcycle giants it is visible that there is sharp reduction in the profit of fiscal year 2018-19. This reduction implies that the slowdown in the Indian economy has started much before the COVID crisis of 2020. This reduction directly links to the shrinkage of purchasing capacity in the rural economy.

#### 5. Real Estate and Housing Sector

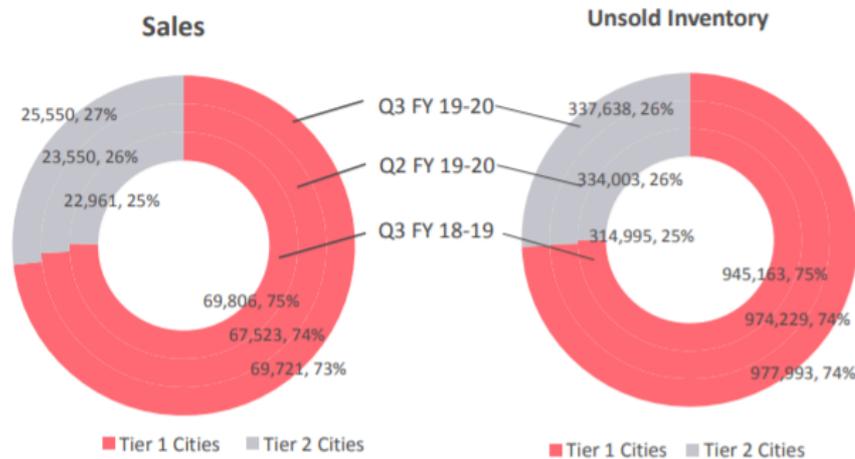
Real estate market generally depicts buoyancy of housing and other commercial activities of the economy. Growth in the real estate sector is highly correlated with the boom in the economy. Apart from that Real Estate sector contributes around 6.1% of GDP (Rs. 12.5 lakh Cr) and around 5.5% of

total employment.<sup>3</sup> However, Indian real estate sector is going under pressure in past few years. Especially the Housing sector is facing many unsold inventories and many unfinished projects.

Year on year the unsold stock increased by 4% across the country (35 cities). Out of top 15 cities, maximum increase was seen in Surat (26%), Nashik (25%), Vadodara (24%) and Pune (21%) while maximum drop was observed in Bhopal (13%) followed by NCR and Kolkata with 7%. Even in the MMR region, YoY decreased maximum in Western Suburb Extended by 17% and Greater Mumbai by 10% and maximum growth in unsold was observed in Central Suburb Extended (26%) and New Mumbai (19%).

**Table of unsold housing inventories**

All India (35 Cities)	Q3 18-19	Q2 19-20	Q3 19-20	QoQ	YoY
Sales	92,767	91,073	95,271	5%	3%
Unsold	1,260,158	1,308,232	1,315,631	1%	4%
Months Inventory	41	43	41	-5%	0%
Wt. Avg. Price (Rs. PSF)	5,991	5,952	5,913	-1%	-1%
New Launches	67,093	80,666	92,409	15%	38%



Source: Residential Real Estate Market Report Q3 2019-20 by Liases Foras, independent non broking research company

This increase rate of the unsold inventory is the cause of concern for broader housing market and it also depicts the faultlines of the slowdown prior to the COVID.

## 6. Production

Manufacturing growth is the gateway to multi sectoral progress. Production of various type of goods helps to expand manufacturing potential. Production in India could be summarized by the Index of Industrial production (IIP) published by the Ministry of the Statistics and Program Implementation (MOSPI). IIP is comprised of various indicators such as primary goods, capital goods, intermediate goods, construction goods, consumer durables and consumer non-durables. In the fiscal year 2019-20 most of category goods have shown the negative growth vis a vis previous year.

<sup>3</sup> [https://www.liasesforas.com/admin/WhitePaper/46/WhitePaper\\_2020-06-19\\_63728186184779.pdf](https://www.liasesforas.com/admin/WhitePaper/46/WhitePaper_2020-06-19_63728186184779.pdf)

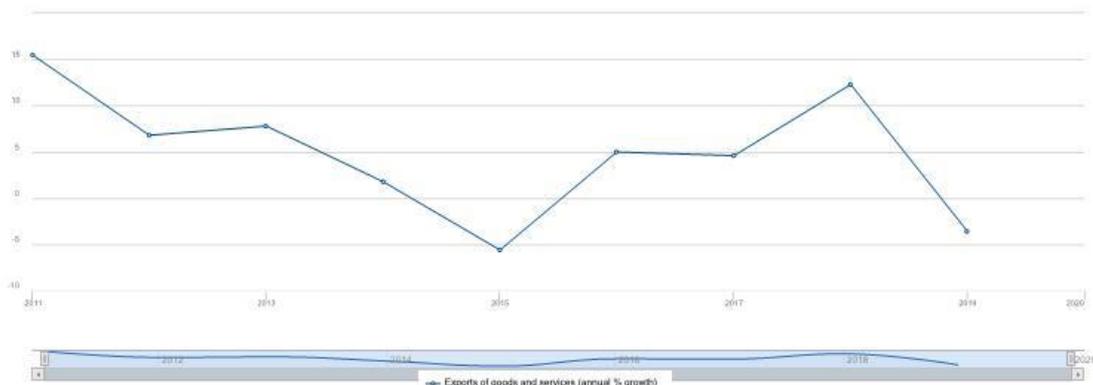
Thus, from the analysis of the data, we can be extrapolated that the production in India started declining prior to the advent of COVID pandemic. Hence the faultlines on the production side was also preexisting.

Annual growth rates as per IIP (%) calculated w.r.t. previous year									
Use-based category	Weight	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Primary goods	34.0486	0.5	2.3	3.8	5.0	4.9	3.7	3.5	0.7
Capital goods	8.2230	0.3	-3.7	-1.1	3.0	3.2	4.0	2.7	-13.9
Intermediate goods	17.2215	5.1	4.6	6.1	1.5	3.3	2.3	0.9	9.1
Infrastructure/ construction goods	12.3384	5.4	5.7	5.0	2.8	3.9	5.6	7.3	-3.6
Consumer durables	12.8393	4.9	5.6	4.0	3.4	2.9	0.8	5.5	-8.7
Consumer non-durables	15.3292	6.1	3.7	3.8	2.6	7.9	10.6	4.0	-0.1

## 7. Export and FOREX

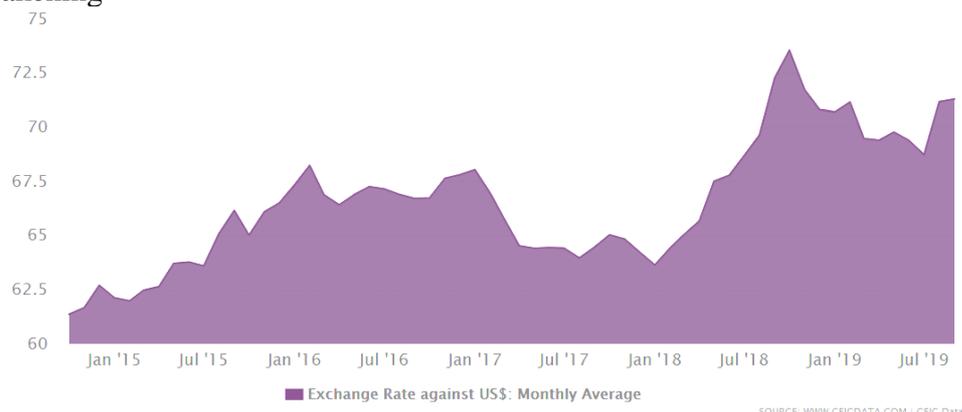
Export of the country signifies quality of goods and services produced as well as competitiveness of the country in the global markets. In India, the export growth has been declining after the year 2018. Moreover, in the year 2019, India's export shrunk in the absolute numbers. The shrinking in export could be linked to the weak global scenarios, however the India's internal faultlines have caused the loosening of competitive edge in the goods and services export market. Continuous reduction of exports could cause stress on India's foreign exchange reserves.

Some structural factors are responsible for reduction in the exports such as low technological adaptability, slowdown of engineering goods, declining IIP, poor progress in electronics and inability to form free trade blocs such as RCEP.



Country: India  
Source: World Development Indicators  
Created on: 04/08/2021

## Currency weakening



**Graph of Indian Rupee to USA Dollar ratio**

Indian Rupee has depreciated vis-a-vis US dollar in last decade. Continuous weakening of Indian currency to the global currencies could be the cause of concern.

### **8. Policy Rate (Repo Rate)**

Monetary policy is the actions undertaken by a nation's central bank (in case of India it is RBI) to control money supply, to keep the inflation under control and to achieve sustainable economic growth. Monetary policy can be broadly classified as either expansionary or contractionary, where former increases money supply in the economy to boost the growth and latter shrunk the money supply to curb the inflation. Maintaining growth and health of economy is majorly work of fiscal policy laid down by present government and their ministers. Monetary policy acts as helping tool for the fiscal policy to ignite the growth in the economy.

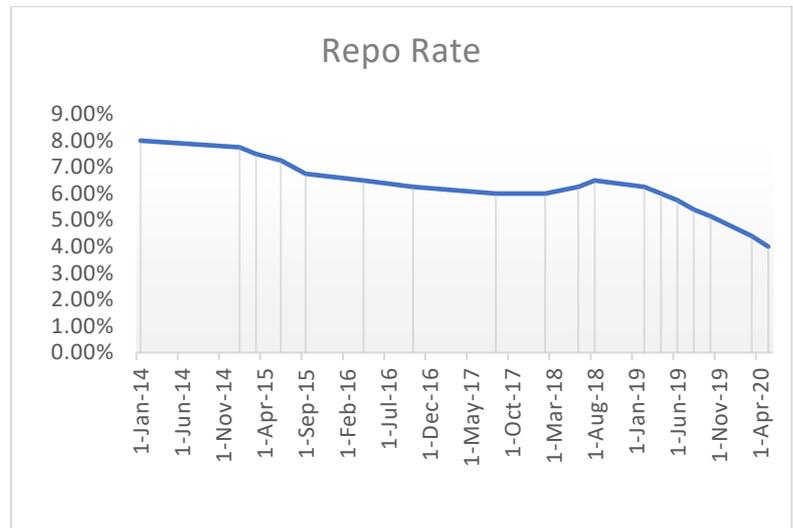
Analysis of the data of the monetary policy from 2014 till 2021 gives various insights about the economy. In past six years the policy rate or the Repo Rate was reduced by 400 basis points. Moreover, after the RBI governor office's charge taken by former bureaucrat and IAS Shaktikanta Das on 12th December 2018 the policy rate was reduced by 250 basis points in two years.<sup>4</sup>

The Policy Rates are to reduce to infuse the growth for incentivizing consumption. The efforts taken by the Monetary Policy Committee (MPC) indicates that drastic reduction in the policy rate aiming to help the fiscal space and to avoid further deceleration of the economy. Thus, from the sudden reduction of repo rate highlights internal faultlines before arrival of COVID pandemic.

<sup>4</sup> <https://www.rbi.org.in/scripts/Annualpolicy.aspx>

**Table and Graph of Repo rate decided by RBI**

MPC Date	Repo Rate
28-Jan-14	8.00%
15-Jan-15	7.75%
04-Mar-15	7.50%
02-Jun-15	7.25%
29-Sep-15	6.75%
05-Apr-16	6.50%
04-Oct-16	6.25%
02-Aug-17	6.00%
07-Feb-18	6.00%
06-Jun-18	6.25%
01-Aug-18	6.50%
07-Feb-19	6.25%
04-Apr-19	6%
06-Jun-19	5.75%
07-Aug-19	5.40%
04-Oct-19	5.15%
01-Mar-20	4.40%
22-May-20	4.00%



Source: rbi website

## 9. Inequality

Inequality in the 21<sup>st</sup> century is rising and which led to the concentration of wealth in the hands of few. In the book ‘Capital in 21<sup>st</sup> Century’ Thomas Piketty has argued that 50% of wealth is concentrated in the hands of less than 1%. His argument of rate of growth of corporate’s profit is more than country’s growth ( $r > g$ ) led to the inequality among the society. The same phenomenon has been captured by James Cratbree in the context of India in his book ‘Billionaire Raj’. Even the recent Oxfam Report asserted that the top 10% of the Indian population holds 77% of the total national wealth.

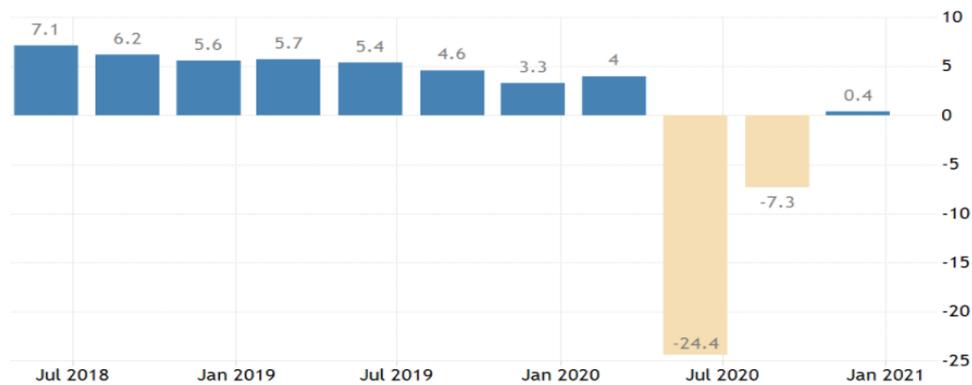
Inequality has been rising sharply for the last three decades. The richest have cornered a huge part of the wealth created through crony capitalism and inheritance. They are getting richer at a much faster pace while the poor are still struggling to earn a minimum wage and access quality education and healthcare services, which continue to suffer from chronic under-investment.

This economic inequality creates the natural faultline for large unemployment and concentration of the wealth in the hands of few.

COVID, Lockdown and Recessionary trend

The Covid-19 has posed an unprecedented challenge for India. Given the large size of the population, the precarious situation of the economy, especially of the financial sector in the pre-Covid-19 period, and the economy’s dependence on informal labour, lockdowns and other social distancing measures are turning out to be hugely disruptive. The central and state governments have recognized the challenge and have responded but this response should be just the beginning. The eventual damage to the economy is likely to be significantly worse than the current estimates. On the demand side, the government needs to balance the income support required with the need to ensure the fiscal situation does not spin out of control. The balance struck so far seems to be a reasonable one but the

government needs to find a greater scope for supporting the incomes of the poor. Involvement of the state and local governments may also be crucial in the effective implementation of further fiscal initiatives.<sup>5</sup>



**Bar graph depicting the contraction of Indian GDP in COVID pandemic**

### Conclusion

Black Swan event of COVID pandemic has shaken the world and the Indian economy drastically. Fragile health of Indian economy prior to the COVID has caused the significant impact on the various sectors. The fragility was analyzed and assessed with through multisectoral data analysis such as reduction of GDP, dampening of exports, lack of production, decreasing consumption, unsold housing inventories, hint of inverted bond yield etc. The pandemic acted as a catalyst to worsen the health of economy by putting it on ventilator. Subsequent lockdowns have resulted into the around 20% shrinkage in the economy. However, the path of recovery is set in after the year because of various measures. In the India's K shape recovery many sectors recovering at different speed. Thus, all of the above observations were analyzed and assessed by data and impact analysis.

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# TECHNOLOGY, MEDIA ENTERTAINMENT, AND TELECOMMUNICATIONS (TMT) INDIAN TRANSFER PRICING IMPLICATIONS

**Radhi Iyer**  
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## **TECHNOLOGY -**

- CONCEPT OF ECONOMIC OWNERSHIP VERSUS LEGAL OWNERSHIP OF EMPLOYEES AND PERMANENT ESTABLISHMENT (PE) EXPOSURES ARISING THEREFROM

In the event the Indian Business Process Outsourcing (BPO) Centre is regarded as a PE of the Foreign Entity in India, profits of the Foreign Entity would be taxable in India to the extent they are attributable to the operations of such PE.

The Director of Income-tax (International Taxation) versus Morgan Stanley and Co. Ltd., a landmark decision lays down rules regarding several fundamental issues in international taxation, such as Service PE, Transfer Pricing, and Attribution of Profits to PE.

Stewardship activities conducted by the employees of Morgan Stanley & Co Inc., USA - MSCO would not constitute Service PE. However, it has held that deputation of personnel to Morgan Stanley Advantage Services Private Limited - MSAS would constitute a service PE. Where the activities of MNEs entail it being responsible for the work of deputationists and the employees continuing to be on the payroll of the MNE, a service PE can emerge.

The Supreme Court has held that as a principle, there cannot be any attribution of Profits if the associated enterprise - MSAS that constituted a PE is remunerated at arm's length basis determined on a proper transfer pricing analysis reflecting the functions performed, assets deployed, and risks assumed by the enterprise.

- OWNERSHIP OF INTANGIBLES - PRODUCT AND MARKETING NETWORK

One of the issues to be dealt with in the transfer of intangible is Ownership and Control.

The tax authority in the absence of correct data to support the transfer price is forced to compare the price with any predecessor transfer, which will be of an entirely different type of intangible property. Hence a lot depends on the taxpayer's capacity in establishing the uniqueness of the intangible property transferred and the reliability of discounting factors when compared to another independent transfer among third parties of similar intangible property, proving also the basis on which different methods of payment of transfer price was arrived at.

The distinction between legal and economic ownership of intangibles is founded on the important economic theory that "reward follows risk, and that marketing intangibles are developed and not discovered like scientific inventions."

In the case of DHL Corporation V. Commissioner: Ninth Circuit Reverses Tax Court on s 482 Allocations to DHL of Foreign Trademark Rights United States Court of Appeals for the Ninth Circuit, DHLI (Non-US Company) had taken the efforts and incurred all overseas (non-US) marketing and development costs, and was the developer and economic owner of the overseas trademark, and thus no income could be imputed to DHL US for such value.

- SELECTION OF TESTED PARTY

The accepted concept of the selection of tested party is to select that enterprise whose functions are least complex and whose information is easily available and dependable.

Under the Indian Transfer Pricing Regulations, there is no specific prohibition for the use of foreign enterprise as the tested party. However generally during the audits, the Indian taxpayer is preferred as the tested party, primarily because it is much easier to use Indian databases. However, at a time, this leads to skewed results.

It needs to be appreciated that because of the serious data limitations in India in many cases more reliable information would be available about the overseas associated enterprise and that the same taken as the tested party. This approach has been accepted by the Tribunal in cases. The only requirement is that for examining the results of the tested party, comparable should be from the same geographical location.

- DETERMINATION OF AN ARM'S LENGTH SERVICE CHARGE

Companies operating in the IT/ITES sectors faced audits in respect of their international transactions with arm's length markups in the range of 25% to 40% on total operating cost, resulting in significant revenue adjustments.

While the high cost-plus mark-ups being proposed by the tax authorities in India have received much publicity, not much has been written about the basis adopted by the tax authorities to arrive at these markups.

The reasons cited for rejecting the comparable proposed by taxpayers often lacked a sound economic basis and were applied arbitrarily and inconsistently.

As the economics of contracts suggest, a cost-plus contract may not be incentive compatibly. Illustratively, under an optimal contract, the unit in India can be compensated at a 13% markup on identifiable project-related costs but not on administrative costs as against a 10% mark-up on the aggregate costs.

Though most of these companies enjoy tax holidays under the Income Tax Act, the incentives are not available for transfer pricing adjustments made during the course of assessments. This may also lead to economic double taxation as these adjustments may not be automatically deductible in the other authority as an expense.

The risk of workforce utilization may be borne by the captive service provider. One is not expected to be compensated for the costs incurred on idle time which is one of the predominant reasons behind captives incurring initial year losses. The position taken is that the markup is to be applied regardless of changes in business conditions.

▪ SPLIT OF REVENUE - ONSITE VERSUS OFFSHORE

- The choice of an appropriate method should depend upon the facts of the case. Choice of contribution in applying the profit split method should be related to the key functions performed, rather than any arbitrary base.
- Geographic Differences are not considered in establishing transfer pricing methodology and remuneration.

Also in a few instances, it is possible to identify the costs associated with the provision of intra-group services within the group to other entities, which allows for an allocation or direct charge of these costs.

In many others, this allocation might not be the most appropriate approach. In such cases, cost allocation & cost apportionment methods are used to allocate these costs based on estimations and approximations and the usage of appropriate allocation keys.

When an indirect charge method is used, the relationship between the charge and the services provided may be obscured and it is difficult to evaluate the benefit provided.

▪ THIN CAPITALISATION

Thin Capitalization involves attempts by MNCs to present what is in substance equity investment in an entity in the form of debt and thereby obtain a more favorable tax treatment.

It is of interest to the revenue authorities, as they are concerned about abuse by excessive interest deductions.

Thin capitalization issues from transfer pricing can also arise where funding is provided to an entity by a third party, typically a bank, but with guarantees or another form of comfort provided to the lender by another group entity/entities (typically the overseas parent).

▪ WHO SHOULD TAX THE LOCATION SAVINGS?

India's tax administration has highlighted India's cost advantage as the primary reason for the outsourcing of offshore work from Europe and the US.

While the importance of cost savings in the final computation of the arm's length mark-up is not explicitly factored into the transfer pricing orders being issued, it is nonetheless pertinent to note that reference to such savings indicates what is driving the tax authorities to justify the high mark-ups being recommended.

One may thus only conjecture that the Indian tax authorities feel vindicated in their approach by claiming to tax a portion of the extra profits MNCs may be realizing from location savings. Sadly, the argument stops there. No regard has been given to the economics driving the offshoring decision, the appropriate quantification of economic cost savings (if any) from the offshoring decision, and last, but not least, the rightful claimant to the cost savings (if any) based on market dynamics.

## ❖ MEDIA AND ENTERTAINMENT

### ▪ “AGE OF A CHANNEL” - NO LONGER A VALUE DRIVER?

One of the established value drivers of this industry was the “age factor.” This factor reflected the maturity and spread of acceptance. The advertising revenue and subscription had a positive correlation with the age factor.

This important value driver is fast losing its steam. Today, the number of existing channels in India has reached a magic number of three hundred and above. New channels with innovative concepts are quick to capture the market and established players like Door darshan are struggling for viewership.

### ▪ CONSTANT ENLARGEMENT OF THE VALUE CHAIN

Television especially the distribution segment has dominated the entertainment and media industry.

The chain of production and thereafter distribution is now segmented among several players: content creators, content providers, channel companies, distribution companies, cable operators, DTH providers, and so on.

Although the subscription revenue comes from the viewers and the advertising revenue from a corporate, this combined amount has to be distributed among so many players. Further, these players are no longer restricted to the authority of India but are spread across the globe. Determining the revenue allocation key for each of these players is the biggest transfer pricing challenge that this industry faces today.

### ▪ RAMPANT USE OF MARKET PENETRATION STRATEGIES BY MEDIA CONGLOMERATES

The simple model of production and distribution has now brought in market penetration strategies. Foreign MNCs with deep pockets are ready to bear heavy losses to capture market share. Whether these losses should be borne by the foreign MNCs or by the Indian subsidiary of the foreign MNC is one of the hottest transfer pricing issues that will come up in the next couple of years.

### ▪ MANDATORY CONTENT-SHARING CONCEPT AND ITS IMPACT ON PRICING MODELS

The broadcasters are impacted due to mandatory sharing of content, described as events of “national importance,” with the state broadcaster. The risk involved in the classification of an event as of “national importance” can change the fortunes of the broadcasters.

The mandatory inter-connect order debars a broadcaster from offering its content exclusively to a single distribution platform. Thus, both the broadcaster and the distributor are unable to exploit the premium value of this exclusive content from consumers who are willing to pay for such premium services. Determination of loss in revenue due to content sharing has become a difficult adjustment for a transfer pricing specialist.

### ▪ PRICING ISSUES DUE TO MOVEMENT FROM ANALOGUE TECHNOLOGY TO DIGITAL TECHNOLOGY

Digital technology such as DTH, broadband-based IPTV, and Satellite TV channels is all in the air and the entire transaction is invisible.

The entire reliance on digital technology is to be placed on agreements signed between the parties. Unfortunately, under transfer pricing norms, these agreements will not hold well if the parties to the agreement are related. That poses a big challenge as the agreements do not operate as a basis for a pricing mechanism and no evidence can be documented or produced before the tax authorities.

▪ ISSUES ARISING DUE TO REGULATORY INTERVENTIONS

On 11 November 2005, the Ministry of Information and Broadcasting (“I & B”), Government of India (‘I&B Ministry’) released Circular No. F.No.13/2/2002-BP&L/ BC IV. These guidelines require that any entity providing television satellite broadcasting services up linked from other countries to viewers in India as well as any entity desirous of providing such service receivable in India for public viewership to take permission from the I & B Ministry.

The I&B Ministry’s attempts to control the transmission are posing several transfer pricing issues. The foreign broadcasting companies have to create an entity in India to hold the regulatory permission to downlink a channel and assure the government that the Indian company shall be responsible for issues arising due to the content that is transmitted.

Thus, from a transfer pricing perspective, this additional layer (the downlinking company in India) calls for certain returns especially for owning an intangible property (with government permission) and for carrying the regulatory risk. How to determine this compensation is a big issue?

❖ **TELECOMMUNICATIONS**

- Typical Inter-Company Transactions in the case of the Telecom Sector comprise - Data, Voice, Restoration, Co-location Services, Sale / Purchase of bandwidth on an Indefensible Right of Use (IRU) basis, Sale / Purchase of raw fiber, sub-leasing of satellite bandwidth capacity.

One of the complexities from a transfer pricing perspective arises when the business model is based on the functions conducted and the risks assumed by divisions of the business rather than by its legal entities.

- A common transfer pricing audit issue is the lack of conformity of transfer pricing with the risk profiles of the transacting parties. This might include, for example, assigning entrepreneurial profits to an entity - in a low tax authority - that does not in practice have substantial entrepreneurial functions.

▪ ISSUES ARISING DUE TO REGULATORY INTERVENTIONS

Telecommunications Regulatory Authority of India (TRAI) has full adjudicatory powers to regulate the tariff charged by the telecom service providers to the customers.

▪ MEASUREMENT OF VALUE DRIVERS - RESIDUAL PROFIT SPLIT METHOD (RPSM)

Given the globally integrated nature of telecommunications services that are provided to customers including the provision of customer-facing solutions and the provision of network capacity, RPSM can be selected as an appropriate transfer pricing method.

The RPSM is a hybrid profit-based method that starts by assigning to each entity a ‘routine’ return for its day-to-day functions. However, the RPSM adds a step in which the routine returns for each entity are totaled and subtracted from the consolidated profit to arrive at a residual profit (or loss). This residual profit is then divided among the entities according to a measure of their relative

contribution to the business drivers of that profit. Relative contributions may be determined by functions performed, risks assumed, resources employed, costs incurred, and value drivers contributed to the overall business.

Thus the RPSM provides for a routine return for routine services and also accommodates compensation for non-routine services and investments in non-routine assets.

When used as part of a transfer pricing policy, profit-based methods typically generate book entries to adjust the financial results of individual entities.

The most critical aspect of the above analysis involves the identification of the value drivers. The telecom industry exhibits significant economies of scale within firms that have a large self-owned global network. Secondly, an efficient selling and marketing team can provide a competitive edge by retaining and adding customers and doing so at lower costs. Finally, the scale of operations is also an important value driver. A larger scale allows a company to reap the benefits of horizontal and vertical integration; it also provides the much-needed cash flow to sustain the current needs of the business.

Estimating the relative contribution made by each of the entities in terms of the value drivers is one of the most challenging tasks in implementing an RPSM. Where an entity contributes to more than one value driver, it is important to quantify the contribution of each value driver reasonably. Efforts must be made to ensure that a measure is determined based on the most reliable data available.

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