



PBME

PERSPECTIVES ON BUSINESS MANAGEMENT & ECONOMICS

Volume III • December 2020

Single-Blind Peer-Reviewed Edited Book

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Printed & Published by

Viswamitra Foundation
Yendada, Visakhapatnam,
Andhra Pradesh, INDIA 530 045

ISBN: 978-81-951151-1-2 • Website: www.pbme.in

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VOLUME III • DECEMBER 2020

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Perspectives on Business Management & Economics

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ISBN : 978-81-951151-1-2

Price : Rs. 600

Publishers:

Viswamitra Foundation

Road No.1, Rama Gardens, Yendada, Visakhapatnam, Andhra Pradesh, INDIA 530045

Phone : +91 97008 14899

E-mail : publisher@viswamitra.org

Printed by Viswamitra Foundation Visakhapatnam, Andhra Pradesh, INDIA.



PREFACE

Volume III of our Perspectives on Business Management & Economics (PBME) carried some exciting updates from the Business Management and Economic landscape. PBME looks at various exciting insights since its inception and continues to look forward to more zeal and enthusiasm from our eminent researchers who update us about various developments from different businesses and economies and provide food for readers' thoughts from different streams of businesses and economy.

As the world moves away from the pandemic gets adjusted to the "new normal," the challenges and opportunities are being discussed and focused on by our experts worldwide. Almost all sectors of the economy have started their transition in response to what is hinted.

We are sure that the readers of this volume will get some exciting insight, as every paper contributed to this volume has its significance. Thus, we believe that this volume can help the researchers in conceptual development and identify research gaps that can become inputs for further research.

The contributions of our respected authors have made our dream come true. A book is not just a collection of papers holding relevant information but is more than that. It provides information related to a stream and kindles the researcher's thoughts within the reader. It opens the scope of research by showing the link between concepts and fields.

The PBME team has put in constant efforts in setting higher research standards to the contribution, only with the ambition of creating a research sensitive society. We here believe in learning and growing together. Our effort is consistent, and we are persistent in doing what we believe. Let us strive together for a better tomorrow.

Editorial Team

Perspectives on Business Management & Economics

Volume III • December 2020



ABOUT THE EDITORS

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A COMPARATIVE STUDY OF RELATIONSHIP OF GOLD ETFs WITH INDIAN CAPITAL MARKET INDEX AND EXCHANGE RATE



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ABSTRACT

The last few weeks have turned out to be a roller-coaster ride as we saw the COVID-19 pandemic intensify as it moved from China and engulfed most of the developed world. Apart from unprecedented policy actions like synchronized national lockdowns to counter the spread of the virus, and “do whatever it takes” monetary policies to cushion the economic disruption; we also witnessed global stock markets lost about a quarter of their value due to corona-driven panic selling. But Gold, like in past similar crises, had flourished. This paper empirically investigates the causal relationship of 3 Gold ETFs traded on NSE with Market Index (Nifty 200) and with the Exchange rate (USD to INR). An attempt has been made to study whether the relationship between variable change during the period of crisis. The period considered for the study is from January 2010 to September 2020 and this has been considered in 2 parts; the full period and during COVID-19 driven crises period. Techniques of time series analysis have been used to measure the causal relationship between the variables. The paper also tried to capture the performance trend of Gold ETFs in comparison to a stock market index and movement in the Exchange rate. Granger causality test applied on both the sub-periods provide reasonable evidence that indicates the existence of unidirectional causality running from INDEX and 3 Gold ETFs in the study during the crisis. However, no such causal relationship exists between the Gold ETFs and Exchange rate.

Keywords	Gold ETFs, Market index, Exchange Rate, Granger Causality test
JEL Classification	C22, G01, G1
Cite this Article	Verma, Ankit., Jajoo, Anu. (2020, December). A Comparative Study of Relationship of Gold EETs with Indian Capital Market Index and Exchange Rate. In Perspectives on Business Management & Economics (Vol. III, pp. 1-11). Retrieved from http://www.pbme.in/papers/62.pdf
Article History	Received: October 15, 2020; Accepted: October 30, 2020; Published: December 31, 2020



INTRODUCTION

Gold has a deep-rooted significance in Indian history. Over the years, India's passion for gold turned stronger, with Indians consuming the most gold globally. A majority of the Indian population survives on meager resources, yet they buy gold and make it an integral part, irrespective of gold rates prevailing in their area.

Recent weeks have turned out to be a roller-coaster ride as we saw the COVID-19 pandemic rapidly intensifying as it moved on from China and engulfed almost the entire world, with cases and fatalities rising across the world. As a result of this, unprecedented policy measures like synchronized national lockdowns to control the rapid spread of the virus and do whatever it takes monetary policies from the central bank to cushion the economic disruption were taken. We also witnessed stock markets worldwide lost about a quarter of their value due to virus-driven panic selling. Further, we all witnessed the health crisis snowball converting into an economic one with the world quickly moving from fears of a recession to indeed a recession. However, gold helped investors get through it. The following are a few reasons behind it:

1. During the recession, counterparty risks increase in paper assets like bonds. However, on the other hand, gold cannot default, go bankrupt, or fail to carry out its end of the deal. The value of gold sustains despite the recession as it is backed up not just by paper promises but by inherent value.
2. Gold does not require a business to keep it afloat, unlike equity-based securities. Gold's value does not seem dependent on profits and revenues. Gold is hence put in an advantageous position as losses hit stocks during an economic downturn.
3. To reignite economic activities, central banks cut rates to increase the economic system's money supply. As a result, fixed-income instruments will yield lower or re-price at a lower interest rate. This lowers the opportunity cost of holding gold, further increasing its attractiveness as an asset class in a low-yielding recessionary environment.
4. Central banks infuse money into the economy by bond-buying programs to dodge a system-wide collapse and boost economic activity. With excess money supply in the economy, there builds a probability of higher inflation over the next few years, lowering the purchasing power of the currency being held. On the contrary, gold has a reliable store of value as it cannot be printed or created at central banks' discretion.
5. The value of gold rises during economic distress and crisis as people escape from risky assets and invest in gold's safety. Thus, gold attracts more flows, and this momentum, in turn, ensures further gains.

Gold is thus proved to be an ideal asset class to hedge portfolio get through a recession. Because of the nationwide lockdown, there are restrictions on the movement of people and non-essential goods, making it difficult for investors to source physical gold coins and bars for their investment needs. This difficulty could be tackled by choosing to allocate their investment in gold via the gold fund route. Gold funds are well regulated and operate despite the lockdown. It has become a preferred way to invest in the precious metal as investors can sit in the safety and comfort at home and buy and sell it as and when they want.

It is important to understand the relationship between the Gold and Capital Market Index. The general established view is that they are negatively linked; when the stock goes up, the Gold dives, and vice versa. There could be two scenarios to explain the relationship. The first could be short-term, and the other could be long-term. Let us take an example for understanding these scenarios.



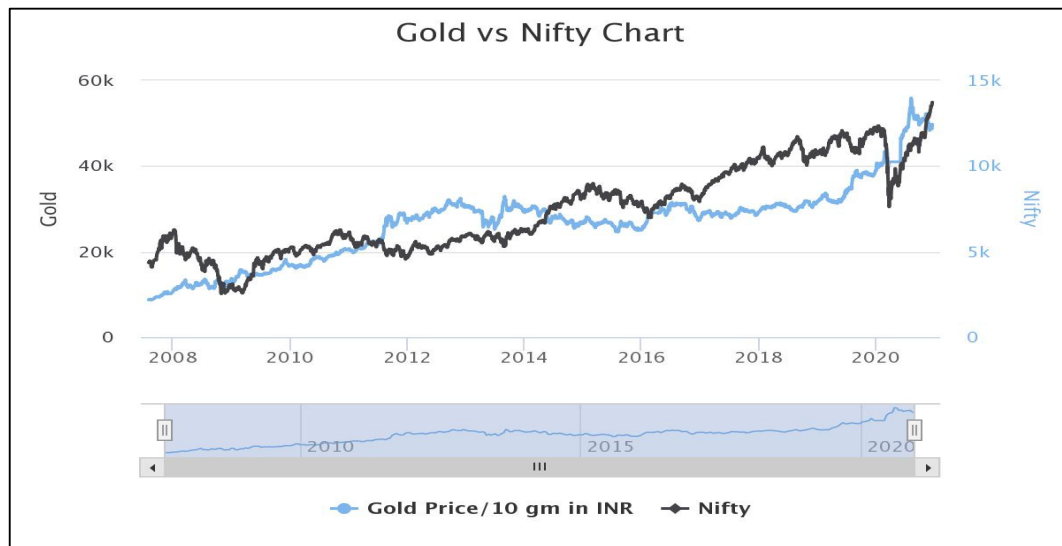
- a. **Short-term:** A farmer has limited land on which he decides to grow 'Apples' and 'Oranges.' After some time, the price of 'Oranges' starts to fall. Being a businessman, the Farmer decides to increase the supply of 'Apples' and reduce 'Oranges' to ensure that he earns more or less the same. This way, a farmer is utilizing his limited land in a better manner. This same human behavior applies to Stock prices and gold. Both Equity and Gold are asset classes. People invest money in these two with the view of earning returns on their investments.

When there is a boom in the Stock Market, Equity as an Asset class becomes more attractive, and people try to invest more money in the Stock Market. People have limited resources. Thus, money here is a limited resource. With little money to invest in their hand, people will invest more in Equity, and less will be left to invest in gold.

However, if the Stock Market crashes, people will fear putting money in Equity. In such a case, they will find other Asset classes like gold, fixed deposits, amongst others, more attractive and put their money there. Hence, theoretically, there is an inverse relationship between gold and the stock market in the short term. This happens primarily due to psychological reasons.

- b. **Long-term:** In the long term, all the Asset class (fundamentally strong) perform well. Figure 1 depicts how gold and the stock market has performed in the past 20 years.

Figure 1: Gold Vs. Nifty Chart



Source: equityfriend.com

LITERATURE REVIEW

There are various studies, technical papers, and articles expressing aspects that influence stock market prices and Gold prices at the global level, such as:

Ahmad Nawaz, Sara Moomal (2012) studied the volatility in gold price returns and their investigation. They used the standard deviation as a Descriptive Model and GARCH as an Econometric Model to study volatility. They observed a mean reversion in their study, showing that the alpha and beta are far from 1, which made them conclude that gold prices have been volatile.



Mishra P.K (2010) analyzed the causality relation between domestic gold prices and India's stock market returns. Their study considered the domestic gold prices and stock market returns based on the BSE 100 index. They investigated the Granger causality in the Vector Error Correction Model for the period from 1991 to 2009. Their study provides evidence of feedback causality between the variables, which infers that the Gold prices Granger-causes stock market returns and the stock market also returns Granger-causes the gold prices in India during the sample period, which made them conclude that both the variables contain some significant information for the prediction of one in terms of another.

Qureshi Saba (2019) examined the asymmetric and spillover effects among gold, exchange rate, and Pakistan's sectoral stock returns. The Threshold GARCH model observed that both gold and exchange rates' volatilities transmit to each sectoral stock return in the overall sample period. The variations in gold returns lead to variation in the exchange rate and vice versa. They observed in their study that gold and exchange rate spillover effect on sectoral stock returns is significantly higher in times of pre-Asian financial crisis than other sub-periods, along with the bidirectional mechanism of volatility contagion between gold and exchange rate. Their findings provide weak evidence on volatility spread between gold and exchange rate in the course of a post-global financial crisis phase.

Tripathy Naliniprava (2016) performed a research study investigating the integration between Gold and Stock market prices (Nifty) using monthly time series data. This study uses the Unit root test, Correlation test, Granger causality test, and Johansson's co-integration test to evaluate their relationship. Her study found no causal relationship between the Gold Price and Stock market price in the short run. The CUSUM test also confirms that the long-run relationship is a presence in-between Gold and Stock market price and exhibits the stability of coefficient. The study concluded that the Stock market price could be used to predict the Gold price. Her study also recommended that integration between Gold and Stock market price necessitates global investors' need to follow the portfolio stock selection strategy to add value from investments in India. However, the scope of these opportunities is limited in the short-run.

Maryam Al-Ameer, Walaa Hammad, Arrej Ismail, Allam Hamdan (2018) considered the relationship between two main economic variables, namely, gold and the Stock market in Germany that is represented by the HDAX Index under the Frankfurt Stock Exchange. Their study used the Descriptive statistic tests, Pearson's correlation test, Unit root test to assure data are stationary for the Johansen's Co-integration test and the Granger Causality test. They divided the data were into three periods: Pre, during, and post to the financial crisis to measure the different effects in each period. The results showed that there is a correlation between gold and the stock market that differs in each period, there was a moderate positive correlation, before the financial crisis, there was a very strong positive correlation, during the financial crisis, the correlation was positive but weak and low which means it is insignificant, while during the period after the financial crisis a strong high negative correlation was observed. The co-integration test results were all the same for all three different periods (before, during, and after the financial crisis), and there is a long-run relationship between the gold and stock market (represented by the HDAX Index). The same observation applies to the Granger causality test, as there was no Granger causality (No Cause-effect relationship) between gold and the stock market.

Nawaz Nishad (2013) performed the study to understand investors' various investment options; factors need to be aware of and know-how of investing in gold; pros and cons of different forms of investments, and to assist investors in creating awareness about various gold



investment options. For the study, they collected primary data and Secondary data. Primary data consists of a questionnaire and secondary data through the website, research papers, and magazines. This study found that many investors still prefer jewelry, gold coins, and gold bullion bars forms of investment. They prefer to invest in ETF and Futures and options that give investors more returns/profit and an easy form of investment.

Lahoti Jyoti (2017), in her study, focused on various gold investment schemes available in the market and furthered the investor's attitude towards the investment. This study aimed at collecting investor's responses towards investment in gold. Pros and cons of investing in gold have been elicited. She threw light on the different avenues of gold investment available in the market. This study tried to ensure that gold becomes tradable and generates revenue rather than lying idle as a dead investment.

Choudhry Taufiq, Hassan Syed H., Shabihave Sarosh (2015) investigated the nonlinear dynamic co-movements between gold returns, stock market returns, and stock market volatility during the global financial crisis for the UK (FTSE 100), the US (S&P 500), and Japan (Nikkei 225). Initially, the bivariate dynamic relationships between i) gold returns and stock market return and ii) gold returns and stock market volatility are tested; both of these relationships were further investigated in the multivariate nonlinear settings by including changes in the three-month LIBOR rates. In this paper, correlation integrals based on the bivariate model show significant nonlinear feedback effects among the variables during the financial crisis period for all the countries under study. Minimal evidence of significant feedback is found during the pre-crisis period. The multivariate tests, including changes in the LIBOR rates, provide results similar to the bivariate results. These results imply that gold may not perform well as a safe-haven during the financial crisis period due to the bidirectional interdependence between gold returns and stock returns as well as stock market volatility. However, gold may be used as a hedge against stock market returns and volatility in stable financial conditions.

OBJECTIVES

1. To study the causal relationship of stock indices and exchange rate on Gold ETFs traded in the Indian capital market
2. To compare the trend of the gold returns vis a vis stock index return
3. To investigate the changes in the relationship between Gold ETFs and Index, Exchange rate during pandemic driven crises

DATA AND METHODOLOGY

This paper is structured to discuss the Gold ETFs & Market index's relationship and the Gold ETFs & Exchange rate for ten years and overlapping the pandemic period.

Data: The stock Index used in the study is Nifty 200, representing about 86.7% of the free-float market capitalization of the stocks listed on NSE as of March 29, 2019. Gold ETFs are taken as a proxy to study the change in the Gold asset. The three Gold ETFs considered for this paper are listed on NSE, the market leaders in India HDFC Gold ETF, UTI Gold ETF, and SBI Gold ETF. The exchange rate used in the study is USD-INR. The daily data from the year 2010 to September 2020 has been applied in the study. Data for the time series has been obtained from NSE records and records of respective Gold ETFs Mutual funds AMC to analyze the influence of the COVID-19 pandemic on Gold ETF's relationship Stock Index and Exchange rate. The period under study has been considered into 2 phases; the full period and during the crisis period (Jan 2020-Sept 2020). Table 1 shows the CAGR for all the variables under study.



Methodology

The return of the market index, Gold ETFs, and Exchange rate at time t is calculated by taking the natural logarithm using the closing price. $R_t = \ln (P_t / P_{t-1})$.

The Descriptive Statistics of the returns have been calculated to check the normality of the return time series. Jarque-Bera test (Table 2) was applied to check the normality. If the test statistics are greater than the critical value, the inference that returns are not normally distributed can be drawn.

Pearson's coefficient of correlation is calculated to study the strength and direction of the relationship between Gold ETFs with market index and Exchange rate.

ADF: Each financial time series is tested for stationary, the null hypothesis to check whether there exists unit root or not is tested by the most popular unit root test used in most of the causality test research Augmented Dickey fuller test. ADF test constructs a parametric correction by assuming that the time series y follows an AR(1) process and adding lagged difference terms of the dependent y variable. In this study, the ADF test has been applied, and the analysis is done by considering a lag of 1 variable. Test regression is as follows:

$$\Delta Y_t = \alpha + \beta_t + \gamma Y_{t-1} + \delta_1 \Delta Y_{t-1} + \dots + \delta_p \Delta Y_{t-p} + \epsilon_t$$

where: α = constant, β = coefficient on a time trend,
 p = the lag order of the autoregressive process

ADF statistics is a negative number and is compared with the calculated ADF critical values; the more negative a number, the stronger inferences can be drawn to reject the null hypothesis that at some significant level, there is a unit root /non-stationery.

To investigate the cause and impact relationship between Gold ETFs and Nifty 200/USD-INR, a globally accepted Granger Causality test has been applied. The test was performed on both the full sample period and the crisis sub-period. Granger Causality test is the statistical test to determine whether a one-time series is useful in forecasting another. The unidirectional and bidirectional relationship explain whether one variable can predict another. Its mathematical formulation is based on linear regression modeling of stochastic processes (Granger 1969).

To test the causality between variables following the bi-variant regression model is used.

$$\begin{aligned} \Delta X_t &= \alpha_x + \sum_{i=1}^k \beta_{x,i} \Delta X_{t-i} + \sum_{i=1}^k \gamma_{x,i} \Delta Y_{t-i} + \epsilon_{x,t} \\ \Delta Y_t &= \alpha_y + \sum_{i=1}^k \beta_{y,i} \Delta Y_{t-i} + \sum_{i=1}^k \gamma_{y,i} \Delta X_{t-i} + \epsilon_{y,t} \end{aligned}$$

The F statistics obtained from the test indicates if X granger causes Y or not. If the value is significant, then we can say that X's changes happened first, followed by changes in Y.

EMPIRICAL DISCUSSION

CAGR Returns in Gold ETFs are the most common mutual fund returns used when a fund's performance is discussed, and the CAGR of total returns in the stock market depicts the rate of growth in average returns generated. As indicated by the calculated figures in Table 1, it was observed that the market's CAGR went negative during the crisis period under study. On the contrary, the CAGR of Gold ETFs went vertically up.



Table 1: CAGR Returns Table

Particulars	10 Years	5 Years	3 Years	1 Year
HDFC GOLD ETFs	9.9%	12.0%	15.6%	33.3%
UTI GOLD ETFs	10.4%	12.0%	13.1%	36.8%
SBI GOLD ETFs	10.0%	12.3%	16.0%	33.9%
NIFTY 200 INDEX	7.1%	7.6%	8.3%	-1.1%
USD to INR	5.7%	3.7%	3.4%	4.4%

Source: Author compilation from various sources

Jarque-Bera test was done to confirm the normality (Table 2). A normal distribution has a skew of zero (i.e., it is perfectly symmetrical around the mean) and a kurtosis of three. The null hypothesis for the test is that the data is normally distributed; the alternate hypothesis is that the data does not come from the normal distribution. As displayed by the calculations in Table 2, the small p-values are a piece of strong evidence that rejects the null hypothesis of the Jarque-Bera Test. This implies that the data does not come from the normal distribution.

Table 2: Descriptive Statistic of the variables: Full period

	UTI	SBI	HDFC	NIFTY	USD
Mean	0.0330	0.0323	0.0320	0.021566101	0.020608
Standard Deviation	1.9758	1.2755	0.8735	1.086710544	0.545736
Skewness	0.4855	-0.8498	-0.2320	-1.1820	0.7941
Kurtosis	415.97	333.12	12.2	15.9	105.4
JarqueBera	14040.86	5792.23	3.10	7.88	238.75
p value	0.000000	0.000000	0.211987	0.019380	0.000000

Source: Author compilation

Pearson's correlation coefficient among the variables is reported in Table 3. The correlation table displays a negative correlation between changes in the gold price and changes in the NIFTY 200 market price index during the crisis period.

Table 3: Correlation Matrix - full period and during crises

	UTI		SBI		HDFC		NIFTY		USD
	Full period	During crises	Full period	During crises	Full period	During crises	Full period	During crises	
UTI	1								
SBI	0.9776	0.9711	1						
HDFC	0.9808	0.9894	0.9977	0.9864	1				
NIFTY	0.4165	-0.0923	0.3938	-0.1826	0.4040	-0.1344	1		
USD	0.5701	0.5004	0.5631	0.5632	0.5787	0.5282	0.8184	-0.857	1

Source: Author compilation

Before following formal tests of stationary, it is necessary to plot the logarithmic form of time series variables, as we have done in figure 3. These graphs clarify the nature of the series. A non-stationary time series may give spurious results, so it is imperative to integrate the time series in the same order. Each time series under consideration is tested for stationary, and the result of the ADF test is depicted in Table 4. ADF test has been performed to check the stationarity of the time series, i.e., whether the shift in time does not cause a change in the

shape of the distribution (Table 4). This test's null hypothesis is that there is a unit root; the alternate hypothesis is that the time series is stationary. The ADF test statistics displayed in Table 4 are more negative than the tabulated critical values calculated at 1 percent, 5 percent, and 10 percent. Thus, the variable series are integrated at the first difference I(1).

Table 4: Unit root test - Augmented Dickey-Fuller for stationarity

	Variable	UTI	HDFC	SBI	Nifty	USD to INR
	ADF Test Statistics	-76.517	-51.577	-65.328	-48.399	-56.661
ADF Ref. range (Tau Statistics)	1%	-3.434	-3.434	-3.434	-3.434	-3.434
	5%	-2.863	-2.863	-2.863	-2.863	-2.863
	10%	-2.568	-2.568	-2.568	-2.568	-2.568
	Significance	I(1)	I(1)	I(1)	I(1)	I(1)
	Conclusion	Series does not have a unit root	Series does not have a unit root	Series does not have a unit root	Series does not have a unit root	Series does not have a unit root

Source: Author compilation

Granger Causality Test was performed to investigate causality between variables considered in the study (Gold ETFs, NIFTY 200 Index, and Exchange Rate-USDINR) in a time series (Table 5.1 and 5.2). The null hypothesis for the test is that lagged x-values do not explain the variation in y. In other words, it assumes that x(t) does not Granger-cause y(t). As per the calculation displayed in Table 5, if the p-value is greater than 0.05, we accept the null hypothesis, or else we reject the null hypothesis.

Table 5: Granger Causality Test

Table 5.1 Granger Causality Test Result - Full Period				
Null Hypothesis	Lag 2		Lag 4	
	F statistics	p-value	F statistics	p-value
INDX does not granger causes HDFC Gold ETF	1.14	0.24	3.18	0.012**
HDFC gold ETF does not granger cause INDX	0.87	0.41	3.27	0.01088**
INDX does not granger causes SBI Gold ETF	0.65	0.51	1.46	0.209
SBI gold ETF does not granger cause INDX	1.15	0.31	1.005	0.403
INDX does not granger causes UTI Gold ETF	0.28	0.74	2.55	0.036**
UTI gold ETF does not granger cause INDX	1.38	0.25	4.02	0.003*
EXRATE does not granger causes HDFC Gold ETF	0.29	0.74	0.23	0.92
HDFC gold ETF does not granger cause EXRATE	0.50	0.6	0.95	0.432
EXRATE does not granger causes SBI Gold ETF	0.25	0.77	1.39	0.233
SBI gold ETF does not granger cause EXRATE	0.69	0.49	0.48	0.749
EXRATE does not granger causes UTI Gold ETF	0.34	0.70	0.22	0.925
UTI gold ETF does not granger cause EXRATE	0.82	0.43	0.79	0.529
*, **, *** denotes significance at 1%, 5% respectively				

Table 5.2 Granger Causality Test Result – During Crises				
Null Hypothesis	Lag 2		Lag 4	
	F statistics	p-value	F statistics	p-value
INDX does not granger causes HDFC Gold ETF	5.85	0.0034 *	4.81	0.001*
HDFC gold ETF does not granger cause INDX	2.12	0.122	2.72	0.03**
INDX does not granger causes SBI Gold ETF	8.41	0.0003*	5.20	0.0005*
SBI gold ETF does not granger cause INDX	2.002	0.137	0.97	0.42
INDX does not granger causes UTI Gold ETF	1.63	0.198	0.40	0.0034*
UTI gold ETF does not granger cause INDX	1.94	0.145	1.50	0.20
EXRATE does not granger causes HDFC Gold ETF	1.016	0.364	0.705	0.58
HDFC gold ETF does not granger cause EXRATE	0.60	0.54	1.12	0.34
EXRATE does not granger causes SBI Gold ETF	0.80	0.449	0.56	0.68
SBI gold ETF does not granger cause EXRATE	0.35	0.698	0.70	0.58
EXRATE does not granger causes UTI Gold ETF	1.61	0.201	0.82	0.51
UTI gold ETF does not granger cause EXRATE	1.13	0.324	0.66	0.61
*, **, *** denotes significance at 1%, 5% respectively				

Source: Author compilation

RESULT AND FINDINGS

Past one year return of Gold ETFs and market index substantiates an inverse relationship between the market returns and the Gold returns. This relationship can be seen in Figure 2, where returns of all variables are plotted.

The inference from the negative correlation between the variables is that gold is used as a hedging tool during crisis time. The ADF test concluded that the series is stationary on the first difference. The Granger causality number indicates the existence of unidirectional causality running from Index and 3 Gold ETFs in the study when two lags and four lags are applied at the 1 percent and 5 percent level of significance. Hence, it is observed that the returns of the Market Index led to an increase in the Gold price during the crisis, but a rise in Gold price does not lead to an increase in Market Index. However, the Exchange rate does not Granger cause the gold price nor the gold price Granger causes the Exchange Rate (i.e., they are independent of each other).

CONCLUSION

The study tried to examine the causal relationship between Gold ETFs prices and the Nifty 200 Index and Exchange rate for ten years and during the pandemic period. The study used daily data from the year 2010 to September 2020. The Granger causality test result reveals that the Market Index returns lead to an increase in the Gold price during the crisis, and a rise in Gold price does not lead to an increase in Market Index. During the COVID-19-driven pandemic time, the stock market crashed, and Gold prices went to an all-time high price level in India as it is considered a safe haven during the crisis. Thus, we may consider gold as a tool to hedge the portfolio during a crisis.

However, during the normal period, Gold and the Stock Market are indifferent because today, gold does not have a practical application in business and everyday human needs. It means that gold operates by a different set of independent factors and principles, and knowing what these are and what kind of impact they have is important. The macro factors that may impact the fluctuation of Gold prices (such as Inflation, Interest Rate, Monsoon, Correlation with other asset classes, Geo-political factors, Mining production, amongst others) need to be analyzed for better empirical analysis. This could be a possible area of future research in India.

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GRAPHS

- i) Figure 2: Price trends of the Gold ETFs, USDINR, and Market Index (Source: Prepared by Authors)
- ii) Figure 3: Log price of Gold ETFs and Index and ER Full period (Source: Prepared by Authors)

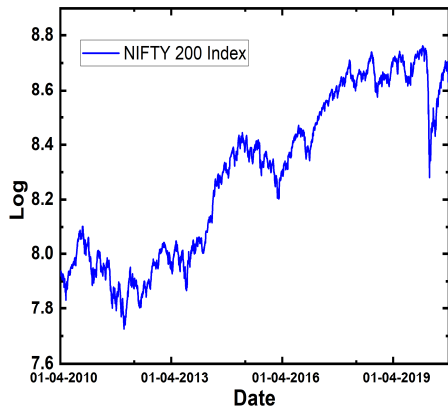
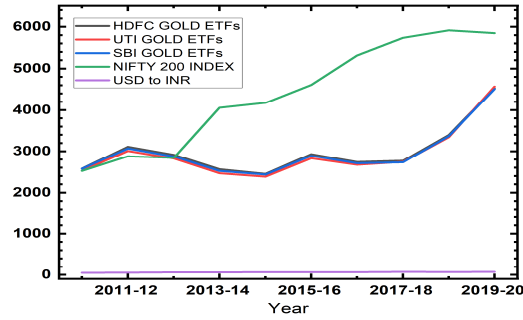


Figure 3.1

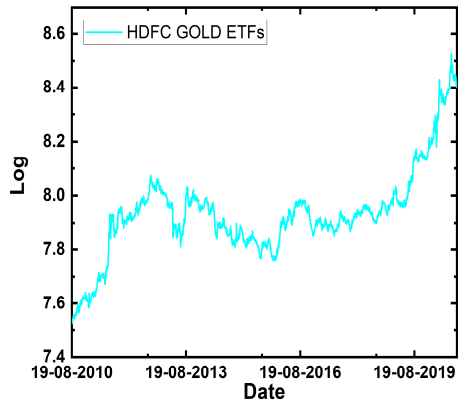


Figure 3.2

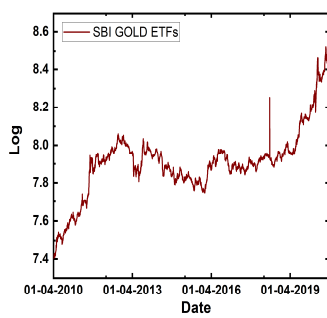


Figure 3.3

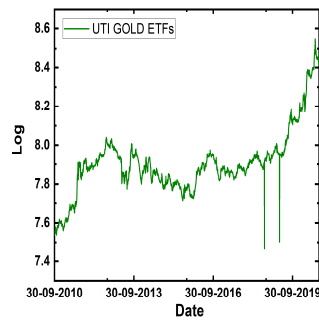


Figure 3.4

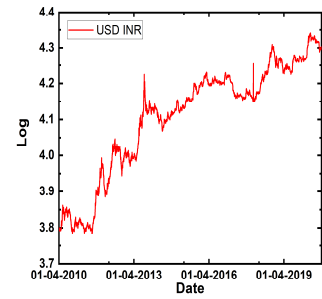


Figure 3.5

CHALLENGES AND OPPORTUNITIES DURING COVID-19 ON ENTREPRENEURSHIP IN INDIA



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ABSTRACT

COVID-19 pandemic began to spread over the world from the end of December 2019. Its outbreak adversely affected all sectors of the world posing a new challenge for the Indian entrepreneurship ecosystem. It affected the viability and growth of the enterprise. Entrepreneurs have to deal with social distancing, work from home, travelling restrictions and lockdown taken to prevent the spread of corona virus. Some entrepreneurs have had to close temporarily, while others have to carry out small scale activities. Therefore, innovations need to be seen in all aspects of entrepreneurial effort. The barriers to this epidemic need to be overcome. Enterprises need to find ways to survive and to get their product to the customer.

The country focusing on the development and implementation of new technologies, tools and systems to address COVID 19 related issues. The government of India has come up with a number of new schemes to promote these activities through entrepreneurship.

This study discusses what challenges COVID spread in entrepreneurship and different opportunities that created to overcome the obstacles.

Keywords	entrepreneurship, innovation, government schemes, opportunities
JEL Classification	L26, O30, D81
Cite this Article	Sajitha, S. (2020, December). Challenges and Opportunities during COVID-19 on Entrepreneurship in India. In Perspectives on Business Management & Economics (Vol. III, pp. 12-24). Retrieved from http://www.pbme.in/papers/70.pdf
Article History	Received: October 15, 2020; Accepted: October 30, 2020; Published: December 31, 2020



INTRODUCTION

In the context of the worldwide COVID-19 pandemic, entrepreneurs have to face a new environment. Entrepreneurs are to put into practice taking the risk and innovative skills to combat the epidemic. As a business founder, they will also need to use different action plans in places depending on their sector and industry.

The Ministry of Finance released a special economic package, 'Atma Nirbhar Bharath Abhiyan' or 'Self Reliant India' mission on May 12 2020 to fight COVID -19 pandemic in India. India's Government takes necessary measures for the existing micro, small and medium enterprises, and new entrepreneurs to come forward. The finance minister announced the first tranche of 'Atma Nirbhar Bharath Abhiyan' to help existing micro, small, and medium enterprises. It provides financial assistance to survive existing enterprises. It revised the definition of MSMEs distinction between manufacturing and services sector to be eliminated, and necessary amendments to the law will be brought about.

The Government of India has come with several schemes to promote new entrepreneurship. The schemes provide financial assistance and guidance to entrepreneurs having solutions to fight COVID -19 pandemic. Startup India scheme putting forward resources with various stakeholders to promote startups. They guide entrepreneurs by conducting webinars, offers information and resources to entrepreneurs to the footing in these unprecedented times.

OBJECTIVES

1. To identify the problems faced by entrepreneurship during COVID -19 pandemic.
2. To discuss the opportunities of entrepreneurship in COVID -19.
3. To understand the impact of COVID -19 on entrepreneurship in India.

RESEARCH METHOD

This study is based on Secondary data sources collected from various journals, websites, online media, and news reports.

DISCUSSION

CHALLENGES OF ENTREPRENEURSHIP DURING COVID-19

The following are the challenges faced by entrepreneurs during the COVID-19 period

Lockdown issues

A nationwide lockdown, businesses are experiencing major impacts regardless of how established they are and having to re-look at how they manage and operate their business, including re-visitation of their business plan. Problems such as social distancing, traveling restrictions, employment barriers, and changing environment affected entrepreneurship.

Operational barriers

Enterprises that had to defer their physical operations with social distancing becoming a norm shifted their operations online and implemented work from home (WFH). The enterprises have to change the physical activities to a new platform.



Decline in sales

The decrease in sales of the firm during the lockdown period adversely affected the operations and revenue of enterprises. The customers made purchase products according to their priorities. Those businesses facing insufficient delivery mechanisms meet barriers in sales. A decline in sales leads to falling revenue of the business.

Difficulty in meeting working capital

There is difficulty in making short-term payments as there is a decline in revenue. Payment to creditors bill payment and current liabilities cannot be met within the stipulated time.

Personnel management

There was a situation where not all employees could come to work. Sick employees are not permitted to come to work. Some of them going to quarantine, and the areas will become cantonment zones. The employees who go to quarantine are only permitted to come to work if they do not have the disease. So the enterprises faced the problem of managing employees. This adversely affected the operations of the enterprise.

Innovation

Innovation to be applied to overcome the new challenges faced by entrepreneurs in this situation. The entrepreneurs have to introduce new methods of managing the current crisis.

Digital environment

As the COVID-19 pandemic continues to disrupt supply chain processes and businesses worldwide, consumer shopping habits have changed, causing many companies to switch to online channels to maintain sales. Entrepreneurs have to modify their operations to digital platforms. Enterprises must rethink their digitization strategy and put measures in place that establish sustainability for the longer-term challenges to return.

Availability of capital

New entrepreneurs faced the problem of unavailability of capital for their business due to the changing environment due to COVID-19. The absence of economic activities during the lockdown period lead to problems in raising capital for new enterprises

Marketing strategy

Existing marketing strategies may fail at the time of COVID-19 to deliver the product to customers' hands. The marketing strategies should be changed according to the changing situation. Adopt marketing strategies to maximize return on investment with efficient, targeted marketing that gets results.

OPPORTUNITIES OF ENTREPRENEURSHIP

The opportunities of Indian entrepreneurship during COVID -19 in the existing MSME sector and new enterprises are discussing below:



ASSISTANCE TO MSME SECTOR

The Indian MSME sector is the backbone of the economic structure. It contributes 30% to Gross Domestic Product (GDP), and export from MSME is 48%. It is the second-largest employment generating sector after agriculture. It provides employment opportunities for to 110 million persons in India.

ASSISTANCE BY ATMA NIRBHAR BHARATH ABHIYAN

Atma Nirbhar Bharath Abhiyan intends to address the needs of MSMEs by adopting various financial assistance. The Government has also finished the distinction between manufacturing and service-related MSMEs and widened the scope of micro, small, and medium category enterprises.

Table 1: Earlier and Revised Definitions of MSMEs

Earlier MSME classification			
Criteria: investment in Plant and Machinery or Equipment			
Classification	Micro	Small	Medium
Manufacturing enterprises	Investment < 25 lac.	Investment < 5 cr.	Investment < 10 cr.
Services enterprises	Investment < 10 lac.	Investment < 2 cr.	Investment < 5 cr.

Revised MSME classification			
Composite Criteria: Investment and Annual Turnover			
Classification	Micro	Small	Medium
Manufacturing and services	Investment < 1 cr. & Turnover < 5 cr.	Investment < 10 cr. & Turnover < 50 cr.	Investment < 20 cr. & Turnover < 100 cr.

Source: Author Compilation

Following are the assistance given to the MSME sector

Collateral free automatic loans

1. Rs. 3 lakh cr. to collateral-free automatic loans for businesses, including MSMEs



2. Borrowers with up to Rs. 25 crores outstanding and Rs.100 crores turnover eligible.
3. A 12-month moratorium on principal repayment
4. Loans to have 4-year tenor.
5. 100% credit guarantee cover to banks and NBFCs on principal.
6. The scheme can be availed till October 31, 2020.
7. It will benefit 45 lakh units

Rs. 20,000 crores subordinate Debt for stressed MSMEs

1. Functioning MSMEs that are NPA or are stressed will be eligible
2. Govt. will provide a support of Rs. 4,000 cr. to Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE)
3. CGTMSE will provide partial credit Guarantee support to Banks
4. Promoters of the MSME will be given debt by banks, which will then be infused by the unit's promoter as equity.

Equity infusion for MSMEs

1. Will provide equity funding for MSMEs with growth potential and viability.
2. Will provide equity funding for MSMEs with growth potential and viability
3. Funds of Fund will be operated through a Mother Fund and few daughter funds
4. Fund structure will help leverage Rs.50000 cr. Of funds at daughter funds level.
5. It will encourage MSMEs to get listed on the main board of stock exchanges.

Global Tenders to be disallowed up to Rs. 200 cr.

1. Global Tenders will be disallowed in government procurement tenders up to Rs. 200 cr.
2. This will be a step towards self-Reliant India and support Make in India.
3. This will help MSMEs to increase their business.

Other interventions for MSMEs

1. MSMEs currently face problems of marketing and liquidity due to COVID
2. E-market linkage for MSMEs to be promoted to act as a replacement for trade fairs and exhibitions
3. Fintech will be used to enhance transaction-based lending using the data generated by the e-marketplace.
4. The Government has continuously monitored dues' settlement to MSME vendors from Government and Central Public Sector Undertakings.
5. MSME receivables from Govt. and Central public sector enterprises (CPSEs) to be released in 45 days.

TIMELY WORKING CAPITAL ASSISTANCE TO REVITALISE INDUSTRIES IN TIMES OF CORONA CRISIS (TWARIT) SCHEME

The unprecedented situation caused by Corona Virus and the consequent lockdown has critically impacted the Ministry of Micro, Small, and Medium Enterprises (MSME) sector. Timely Working Capital Assistance to Revitalizes Industries in Times of Corona Crisis (TWARIT) is a scheme by SIDBI, for its existing customers impacted by COVID-19 under the Emergency Credit Line Guarantee Scheme. It provides need-based assistance in the form of working capital term loans to its existing customers. It has been introduced for supporting the



MSMEs to continue functioning during this current situation. As part of this scheme, the SIDBI seeks to provide much-needed relief to the MSME sector by providing 20% of the total outstanding loans up to Rs. 25 crores.

As part of this scheme, the SIDBI seeks to provide much-needed relief to the MSME sector by providing 20% of the total outstanding loans up to Rs. 25 crores. The objective of the TWARIT Scheme is to provide needed relief to MSME units whose operations are impacted by COVID-19.

The MSMEs or Business Enterprises which are constituted in the form of proprietorships, Partnerships, Registered Companies, Trusts, and Limited Liability Partnerships (LLPs), can avail the benefits of the TWARIT Scheme

FEATURES OF TWARIT

1. The interest of Working Capital Term Loan at 8.25 percent.
2. It provides a tenure of 4 years that is a moratorium of 1 year, and the principal amount needs to be repaid within three years.
3. SIDBI provides an extension of charges on the Primary Security or Collateral Security under the TWARIT scheme
4. No additional collateral will be insisted for additional funding under this SIDBI's Scheme.
5. 100% credit guarantee
6. There is no processing fee for obtaining the TWARIT scheme loan
7. The borrowers need not pay any penalty for the prepayment TWARIT scheme
8. To obtain the loan under this SIDBI's Scheme, the MSME units need not pay any amount as promoter's contribution.
9. TWARIT is valid up to October 31, 2020, or till notification by the National Credit Guarantee Trustee Company, whichever is earlier.

Eligibility Criteria for TWARIT Scheme

1. To avail the benefit of the TWARIT scheme, the MSME must be GST registered in all cases, and this condition is not applicable for entities that are not required to obtain GST registration.
2. The entity's turnover for the financial year 2019-2020 should be Rs.25 cr. to avail of the benefit.
3. To be eligible under the scheme, all existing borrower accounts, including under Credit Delivery Arrangement with combined outstanding credit facilities of the unit, should be Rs. 25 crores as of February 29, 2020
4. The TWARIT Scheme is valid for existing customers on the books of the Bank.
5. To avail of the TWARIT loan, borrower accounts should be less than or equal to 60 days past due as of February 29, 2020.
6. Under the TWARIT scheme, an 'opt-out' option will be provided to the eligible entity to enable them to choose whether they wish to opt-out of the TWARIT facility.

All borrowers who have not been classified as Special Mention Accounts (SMA 2) or Non-Performing Asset (NPA) by any of the Member Lending Institutions (MLIs) as of February 29, 2020, will be eligible for the scheme.



CII COVID REHABILITATION AND RELIEF FUND (CRR)

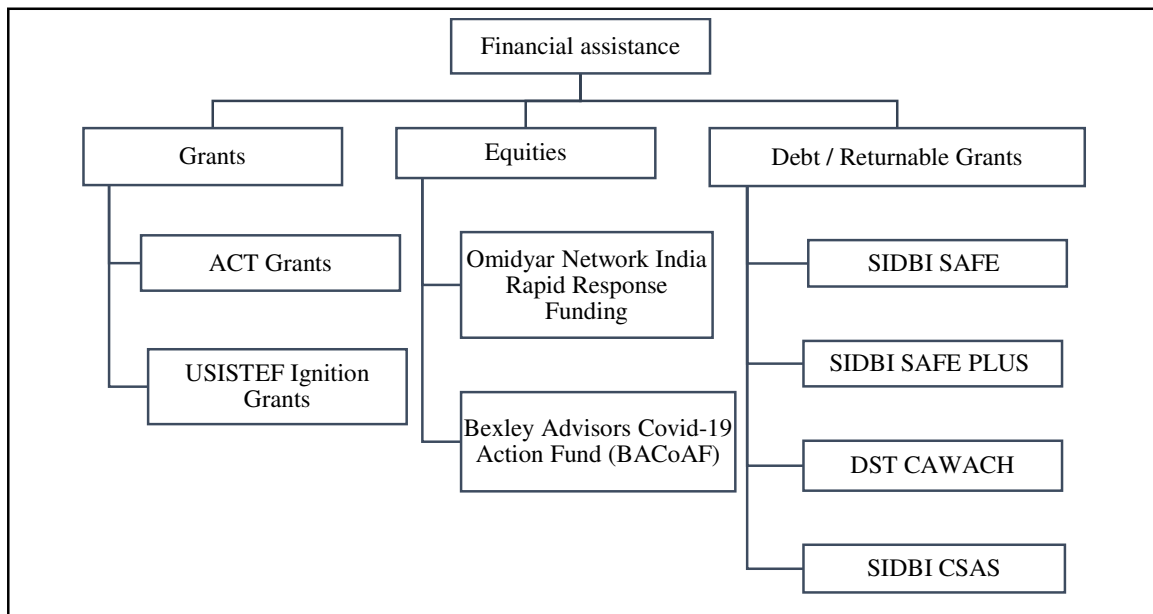
The Confederation of Indian Industry (CII) has found out a CII COVID Rehabilitation and Relief Fund (CRR) for Micro, Small, and Medium Enterprises (MSME) to tackle COVID-19. The CII COVID Rehabilitation and Relief Fund (CRR) will assist small enterprises or MSME in rehabilitation during the COVID-19 pandemic. The fixing of the Relief Fund is predicted to curtail the impact of COVID-19 on the MSME sector.

The Confederation of Indian Industry (CII) will also request to all its members to contribute any amount from their corporate social responsibility allocation for the CII COVID Rehabilitation and Relief Fund (CRR). With MSME facing a cash crunch, CII requested for extra ad-hoc sanction of capital to the tune of 25% of the sanctioned limit as a relief measure.

The industry body suggested deferment of EMIs and rate of interest on capital also. Fixing a special MSME Factoring fund to enable MSMEs to discount their bills to approved retailers in 15 days and permit retailers to pay in 120 days would help in faster realization. It facilitates to give discounts to authorized MSME retailers within 15 days, and pay retailers within 120 days would help in speedy implementation.

ASSISTANCE TO NEW ENTREPRENEURSHIP

Figure 1: Financial Assistance to Entrepreneurs



Source: Author compilation

GRANTS

ACT (ACTION COVID-19 TEAM) GRANTS

ACT Grants is seeking capital efficient, scalable solutions from NGOs and innovative start-ups requiring an initial seed grant to fight the pandemic's speed. Its mission is to seed and



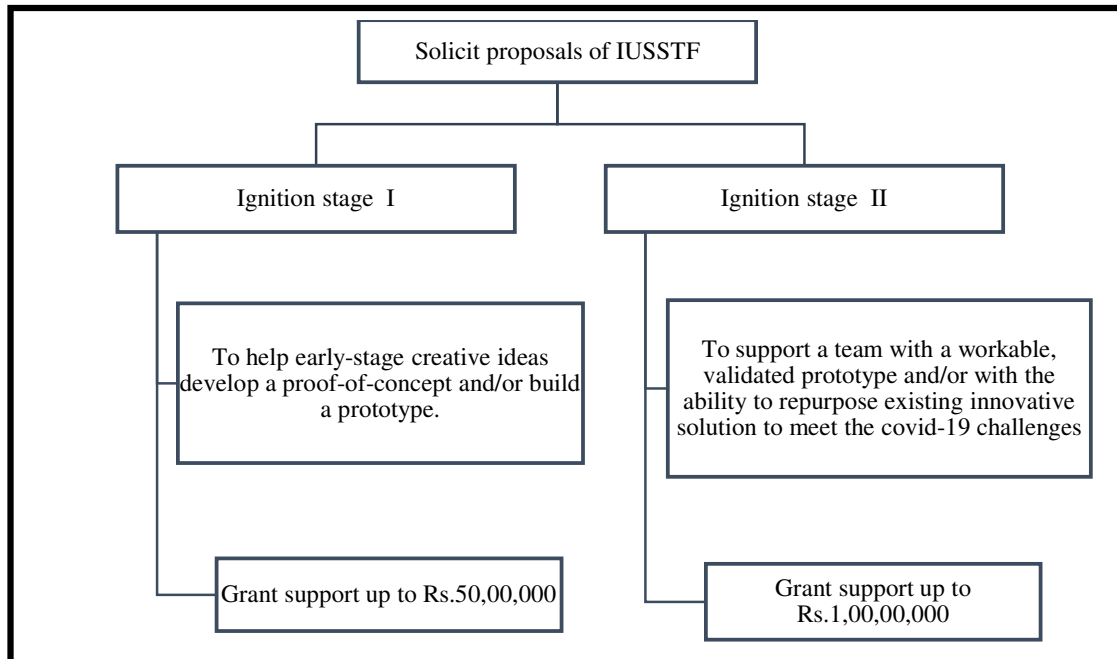
empower teams that are harnessing technology to make a large-scale impact within the direction, prevention, and eradication of COVID-19. ACT Grants may be an Rs. 100 crores grant created by India's venture capital and start-up community. It provides financial assistance to the following project ideas.

1. To reduce disease spread, including digital tools, social distancing apps, contract tracing, telemedicine, education, etc.,
2. All ideas help to scale testing for COVID-19.
3. Initiatives to disease management at home like telemedicine provided healthcare services at home and guided to recover at home unless critically needed to go to hospitals.
4. Management of critically ill patients by providing expanded ICU capacity, including trained staff, ventilators, oxygen supply, beds, tools for tracking capacity, etc.
5. To provide mental health support to families of patients and the broader community

UNITED STATES - INDIA SCIENCE AND TECHNOLOGY ENDOWMENT FUND (COVID-19 IGNITION GRANTS)

The governments of the United States of America (through the Department of State) and India (through the Department of Science & Technology) have established the United States–India Science & Technology Endowment Fund (USISTEF) for the promotion of joint activities that might lead innovation and entrepreneurship through the appliance of science and technology. The U.S.-India Science and Technology endowment activities are implemented and administered through the bi-national Indo-U.S. Science and Technology Forum (IUSSTF)

Figure 2: Program Structure of Proposals of IUSSTF



Source: Authors compilation

EQUITY FINANCING

Equity financing offering investors equity ownership in business exchange for their investments. Following are the equity financing to Indian entrepreneurs.

OMIDYAR NETWORK INDIA RAPID RESPONSE FUNDING

Omidyar Network India invited proposals for rapid response funding to overcome the challenges posed by the COVID-19 situation and, therefore, the socio-economic impact. It was announced on March 24, 2020. They offered 10.75 crores for this initiative. A proposal between Rs. 5 lakhs to Rs. 2 crores is considered in this initiative. They are considering the following initiatives.

- Data, apps, and other technology-led initiatives
- Community outreach and mobilization campaigns
- Initiatives that improve the economic strength of NHB workers and small businesses
- Fact-based inputs that can inform the thinking of decision-makers in responding to the crisis (e.g., actionable research, narrative building, storytelling, and community campaigns)
- Collaborative efforts amongst funders and solution providers

BEXLEY ADVISORS COVID-19 ACTION FUND (BACoAF)

The Bexley Advisors COVID-19 Action Fund is meant as a bridge to capital for innovators on the frontlines of the pandemic, who are creating solutions for the challenge. It will connect the startups with investors to help them raise funding in equity or debt. Also, the company will not charge any engagement fee for the transaction. The firm has committed a quarter of its resources to rapidly creating investment material for the most promising candidates and waived its engagement fees for the duration of this crisis. Following that, for all entrants who are working on designing a product or solution in response to the COVID-19 crisis, Bexley will run their standard investment banking mandate and present the shortlisted ideas for funding to a collection of marquee investors.

DEBT / RETURNABLE GRANTS OPPORTUNITIES

SIDBI ASSISTANCE

The SIDBI Assistance to Facilitate Emergency response against COVID-19 (SAFE scheme) and SAFE Plus are the two schemes of SIDBI. SIDBI supports initiatives that manufacture products or provide services associated with fighting the COVID-19 with the launch of two schemes. These schemes are launched to help support the efforts to address the COVID-19 emergency. Under the schemes, loans are available at a 5% rate of interest within 48 hours. Draws under the scheme shall be valid till September 30 2020

SIDBI SAFE

Doling out loans of up to Rs 50 lakh, The SIDBI Assistance to Facilitate Emergency (SAFE) response against the COVID-19 scheme aims to offer assistance to such MSEs, thereby making it easier for them to facilitate tasks that can help tackle the pandemic. SAFE gives financial assistance to MSEs who manufacture any product with a direct link to COVID-19, such as hand sanitizers, gloves, mask, headgear, protective gowns, aprons, bodysuits,



ventilators, goggles, labs, etc. It can also help them buy equipment for manufacturing or purchase raw material and consumables for production.

FEATURES

1. The loans are collateral-free
2. An interest rate of 5 percent per annum will accrue for a maximum loan repayment term of 5 years.
3. Open to SIDBI and non-SIDBI customers.
4. No processing fee or repayment charges exist.
5. The loan amount is Rs. 200 lakhs (up to 100% subject to asset coverage)

SIDBI SAFE PLUS

SAFE Plus has been specially introduced to supply emergency capital against confirmed government orders related to fighting the virus. Schemes are opened to all MSMEs, whether SIDBI's existing customers or new ones with specific orders from the Central/State government or government agencies nominated for the purpose. The loan amount is Rs. 100 lakhs and the interest rate is 5% per annum.

FEATURES

- It provides financial assistance up to Rs. 1 crore to Micro, Small, and Medium Enterprises (MSME) to make essential items to combat the COVID-19 pandemic.
- The cost of the credit guarantee is borne by SIDBI.
- The eligibility criteria for non-SIDBI customers are to have cash profit in last year's balance sheet, and the account should not be in SMA 1/ 2 category.
- Security in the case of non-SIDBI customers will be escrow arrangement or Power of Attorney in favor of SIDBI.

SMILE SCHEME

SIDBI has also opened a further financial window for Healthcare Sector under its flagship scheme called SIDBI's Make in India Soft Loan Fund for Micro Small and Medium Enterprises (SMILE). Medium and long-dated loans under SMILE at attractive rates shall be provided for financing the healthcare sector, including hospitals, clinics, etc., for their requirements related to fighting COVID-19 outbreak.

Features

1. Financial assistance is available for financing the healthcare sector, including hospitals, nursing homes, clinics, etc., for their requirements related to fighting Corona Virus.
2. SIDBI's existing customers or new to SIDBI customers, both are covered, including Greenfield, are included in this scheme.
3. It provides financial assistance up to 75 percent of the project cost in the form of a term loan
4. The interest rate is 6.02 percent p.a. for the loan up to 30 months and Normal rate as per rating and tenure of more than 30 months.



DST CAWACH

The Centre for Augmenting WAR with COVID-19 Health Crisis (CAWACH) is a program of the Government of India and the following organizations:

1. National Science and Technology Entrepreneurship Development Board (NSTEDB)
2. Department of Science and Technology (DST)

DST CAWACH is formulated to support research and development efforts during this direction and end any longer damage to the economy.

FEATURES

1. Rs. 50 lakhs to Rs. 200 lakhs per startup for a period of 3 to 5 years.
2. The scheme provides assistance to the enterprises which producing ventilators and PPE Sterilizers and Disinfectants, diagnostic kits, Informatics
3. Tenure less than seven years in existence

SIDBI CSAS

SIDBI provides funds to meet the start-ups' operational and financial challenges and endeavors to provide financial assistance and stability via its COVID-19 Startup Assistance Scheme ('CSAS'). This scheme helps innovative startups that have demonstrated the ability to adapt to the economic impact of COVID-19 and have ensured employees' safety and financial stability. CSAS can be used for various working capital requirements like salaries/wages, rent, administrative expenses, payment to vendors, etc. The loan may also be considered against the GST refunds of startups.

FEATURES

1. The maximum tenure is 36 months, including a maximum moratorium period of 12 months.
2. Loan to be repaid in max 24 installments.
3. Loan amount not more than Rs. 2 crores per startup
4. The interest rate for the loan under the scheme shall be 10.50 percent per annum at a reducing balance.
5. It is a collateral loan
6. Equity kicker up to 10 percent of the loan amount at a 50 percent discount to the previous investment round

ELIGIBLE CRITERIA FOR STARTUPS

1. The Government specified startups that have received funding through at least one of the Alternate Investment Fund registered with SEBI.
2. Startups with a minimum employee base of 50 employees. This may also include their foot soldiers (It is relaxable on a case-to-case basis).
3. Startups that are having FY 2019 and FY 2020 minimum turnover between Rs. 10 crores to Rs. 60 crores.
4. Startups should have positive unit economics.
5. Startups should have been incorporated for less than ten years
6. Startups should have a positive net worth.



7. Startups should have demonstrated innovative measures for ensuring business continuity during the COVID-19 period
8. Startups should have taken adequate measures and ensured employee safety and financial stability.
9. Promoter/founder of the startup should have invested their own capital in the business

Insurance for Employees

Each loan to startups will carry the following insurance:

1. Keyman insurance assigned to SIDBI
2. All employees' term insurance up to INR 10 lakhs
3. Pattern of cost of the premium as follows

Table 3: Pattern of cost of the premium

Providers	Cost of premium Percentage
SIDBI	50
Investor fund	25
Startup	25

Source: Author compilation

The share of the startup may be apportioned in the loan disbursement amount.

IMPACT OF COVID-19 ON ENTREPRENEURSHIP

The COVID-19 has followed by social distancing, and the lockdown has hit the business market so hard. The entrepreneurs look forward to how they manage and operate their business to keep the financial wheel turning. With the change in the market due to COVID-19, the businesses needed to change their entrepreneurship perspective. The transition to work from home has yielded positive results, as this ensured business continuity in a cost-effective manner, improving quality and productivity for most organizations. Industries like healthcare, education, entertainment, and basic day-to-day necessities are flourishing. The virtual stimulation leads to the formation of the physical existence of systems online.

The Indian Government has put forward various schemes to support existing MSMEs and new startups to overcome the barriers created by COVID-19. The Ministry of Finance announced a series of relief measures, through relaxation in tax and other corporate regulatory compliances, to ease the MSMEs' compliance burden during COVID-19. ACT grants gave supporting hands to 55 startups, and CAWACH helps 54 startups to come forward.

CONCLUSION

As COVID-19 continues to expand, the livelihood of many entrepreneurs and small businesses are under threat. Entrepreneurs face many obstacles, such as facing short-term challenges, reducing barriers to entrepreneurship, and increasing entrepreneurial potential to help speed recovery and protect overall employment in the long run. This can be done through activities that keep startup active in the short term and increase new firms' growth potential. The obstructions due to lockdown have considerably disrupted supply chains and reduced workforce availability and demand. COVID -19 is a challenge for existing and new startups. Crisis periods are not only a challenge but also new opportunities for entrepreneurs. Startups



are able to address barriers posed by difficult health or financial situation and respond to changing priorities and needs.

As entrepreneurship takes on challenges, they must see this crisis as an opportunity to develop new ideas. The Government comes up with plans to promote existing MSMEs and entrepreneurship that were to manage the COVID -19 challenges related to health care, social protection, and barriers. Raise awareness of current guidelines and support initiatives to help entrepreneurs cope with the COVID-19 crisis.

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AN EMPIRICAL STUDY ON THE ONLINE SHOPPING ACCEPTANCE: PRE AND POST COVID-19 OUTBREAK



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ABSTRACT

The COVID-19 outbreak an uncertain pandemic has affected every parts of the society. The safety of the people is now at very risk and most of the people are now using online shopping ways especially in containment zones. In order to reduce the transmission of the pandemic disease government has advocated social distancing and various pharmaceutical measures. Government has also issued advisory for self-quarantine as well as isolation and asked corporates and firms to allow work from home for their employees. This may affect the e commerce business due to the lockdown of some regions of the country because their business operations may get disrupted. It is actually a period when there is a peek in demand for home delivery of products and people may switch into online shopping. The outbreak of corona virus has also affected the business models and supply chain network. The virus causing the coronavirus disease 2019 called Covid-19 continues to spread across the globe, and the online retailers are wondering how it will affect their business. This chapter aims to give relevant information about the online shopping acceptance before and after corona virus outbreak. Here we are analysing and discussing whether there is a reduction in traditional shopping methods and rapid jump into online shopping due to the pandemic outbreak. Going digital is much more than a trend today because it has various positive effects on all type of businesses both from economic perspective as well as from consumer related perspective. Digital or online shopping is also very important during this pandemic period because of the prime reason of safety.

Keywords	online shopping, digital payment, consumer behavior, customer attitude
JEL Classification	D00, D10, H00
Cite this Article	Srivastava, Kirti. (2020, December). An Empirical Study on the Online Shopping Acceptance: Pre and Post COVID-19 Outbreak. In Perspectives on Business Management & Economics (Vol. III, pp. 25-30). Retrieved from http://www.pbme.in/papers/72.pdf
Article History	Received: October 15, 2020; Accepted: October 30, 2020; Published: December 31, 2020



INTRODUCTION

Goods were exchanged for goods several decades before. Later it gets replaced by money, which was considered a medium of exchange during transactions involving value. Goods of any kind could be purchased with this medium of exchange. The traditional shopping method involved stepping into a store, and purchasing was made by touching and experiencing the product. This pattern of purchase was only followed several years before. Later with the advent of shopping, online things got changed. Everything was made available with just clicks. Purchasing online was just a matter of time. Although its initial period created several confusions like internet availability, computer facilities, etc. now online shopping is considered the easiest way to purchase any products. Amazon, Flipkart, etc., are famous online shopping sites. The significance of online shopping was magnified due to the pandemic- coronavirus. Now online shopping is a platform for all kinds of purchases. This article examines the acceptance of online shopping and its growth during the pre-and post-corona periods is discussed.

CONSUMER BUYING BEHAVIOUR IN ONLINE SHOPPING

Most consumers do online shopping because it saves time, offers home delivery, provides ease in shopping, provides convenience, offers more variety of products for apparels, accessories, ticketing, etc., than that of traditional stores. The products can be sorted on the basis of price, relevance, new arrivals, popular products, etc. Most of the shoppers get the information primarily from a website and social media advertisements and by word of mouth communication.

FACTORS INFLUENCING THE ONLINE SHOPPING BEHAVIOR OF CONSUMERS

According to earlier business concepts, profit-making was considered to be the sole aim of every business. However, later, it was slightly changed to consumer satisfaction and profit-making, which fetched better results. The consumer is treated like a king. Moreover, it is very difficult to predict their taste and preferences, especially when it comes to online shopping. Getting customer acceptance is the most tedious task for every online business. Several factors influence consumer behavior, other demographic factors like gender, age, income, etc., and geographical factors. Following are certain factors influencing online shopping;

FINANCIAL RISK

Financial risk is considered to be an important factor influencing online shopping. It is the perception that the money spent on purchases may be lost. This is a common fear among the old generation compared to millennials. There may be some fraudulent cases where people may potentially lose their money during online shopping. Unsecured online shopping sites pose a threat to this industry. Some people are reluctant to share their bank account details on account of this.

THE DIFFERENCE IN THE ACTUAL PRODUCT

In traditional brick and mortar stores, the customers get to see and touch the product to check its quality before making a purchase. Nevertheless, the same is not possible during online shopping even though maximum efforts are made to cover up this deficiency. Customers can read through the product descriptions, product reviews by previous users, zoom in to see the product, etc. However, sometimes, the actual product may not meet the expectations.



CONVENIENCE

The most important advantage of online shopping is the convenience in shopping it provides to its customers. A person from any corner of the world could get an opportunity to try and experience the product. 24*7 availability is an added advantage of online shopping.

RISK OF NON- DELIVERY

Most of the online shopping sites offer speedy delivery of products within the stipulated time or sometimes earlier. There are also incidents of non-delivery. Loss of money, time, etc., makes customers aggressive.

RETURN POLICY

Return policy enables the customers to return the unsatisfied product to their manufacturers within the time limit. If the delivered product does not meet the expectations or the product is defective, the customers can return the product and get a refund. So, there is no wastage of money.

CULTURAL DIFFERENCES

Different customers have different tastes and preferences. As they come from different cultures, each of them requires special treatment. Timely market research helps to meet this objective.

CONSUMER BENEFITS AND RISKS IN ONLINE SHOPPING

We know that online shopping has various advantages like convenience, time-saving, easy to search online, home delivery, etc., compared with offline shopping or traditional shopping. However, the relationships between shopping intention and perceived risks are also very significant. In sequence, cause-and-effect relationships are analyzed, and we can understand that the price risk and product risks are perceived to be the most serious hindrances negatively influencing customer attitude. Meanwhile, trust, security, quality, and quantity of products, etc., are very important aspects of online shopping. These factors are often considered as risks related to online shopping. If the customer is able to take a certain amount of risk while purchasing online and making online payments, it should be ensured that they actually receive quality goods and services. It is actually the duty of various e-commerce website operators and companies to take a follow-up or feedback from the respective customers after their goods have been sold online. Otherwise, there is a chance that they may lose their online customers.

CONSUMER PERCEIVED VALUE IN INTERNET SHOPPING

We know that e-service quality and customer perceived value influence customer satisfaction, and then it influences customer loyalty. It is found that customers with a high perceived value have a stronger relationship between satisfaction and customer loyalty than customers with a low perceived value. It is also evident that emotional and rational routes influence customer loyalty in the online shopping process. In the pre-purchase stage, the customers get attracted by online retailers through the quality of e-service. In the purchase stage, online retailers should focus on the emotional factors that are customer satisfaction. In the post-purchase stage, rational factor such as customer perceived value should be analyzed because it plays an important role because they can strengthen the relationship of customers with the brand



and also between satisfaction and loyalty. We know that consumers may make a choice at each of the purchase stages according to their preference, and also, it is very important to examine the relationship between customer satisfaction and loyalty by identifying the effects of customer perceived value.

CUSTOMER ATTITUDE TOWARDS ONLINE SHOPPING

Different customers have different attitudes towards online shopping. Attitude ranges from enthusiastic to positive to indifferent to negative and even hostile. Customers a positive attitude towards a particular online shopping site due to two factors:

1. Trust
2. Expected benefits

1. Trust

The base of every online shopping is trust. Customers make purchases merely based on what they view on their screen. They trust service providers and online shopping sites. When they receive what they have exactly seen on screen, customers will be delighted. Otherwise, things may go the other way. So, trust has an important role in online shopping.

2. Expected benefits

Every online shopper expects basic things like a fair price, quality products, after-sale services, etc. Customers show a positive attitude towards those online shopping sites that meet their expectations. Quality of the product could be assured in the traditional way of purchase. So, it is the responsibility of the online product providers to ensure the quality of the products they offer. The problem of unfair prices could be solved more easily in traditional shopping by way of bargaining to an extent. Therefore, to retain customers, online shopping sites should charge fair prices for their products. Even a very low price than normal could also lead to a potential loss of customers. Mere delivery of products to customers' doorstep is not enough. After-sale services need to be provided. This will create a positive attitude among customers.

NEW ONLINE SHOPPING TRENDS

Several new trends have been introduced in the e-commerce sector that boosts up online shopping. Some of them are mentioned below:

CHATBOTS TO IMPROVE ONLINE SHOPPING EXPERIENCES

Chatbots enable the stores to interact with thousands of customers while giving them the feeling of personal attention and care recommendations based on their responses.

BIG DATA FOR CREATING PERSONALIZED EXPERIENCES

Online shopping sites are gathering big data to offer a personalized experience to each customer. Timely surveys are conducted to know the preference of customer attitude and likes.



MOBILE SHOPPING

Online shopping apps are made available. So that customers can shop at any time using the apps installed on their mobile phones. They are timely intimated about new offers and benefits using this app.

MORE PAYMENT OPTIONS

Other than cash on delivery, many convenient payment tools have been introduced. Google Pay, PhonePe, Paytm, etc., and credit card facilities are made available to make easy payments.

AN INCREASED VOLUME OF VOICE SEARCH

People are relying on voice assistants like Amazon Alexa, Google Assistant, to do check products online.

FINANCIAL CAPABILITIES AND TECHNOLOGICAL IMPLICATIONS FOR ONLINE SHOPPING

In order to promote online shopping among customers, first of all, they need to have the knowledge and ability to avoid difficulties with financial issues. The customers need to be financially capable, and it helps to put consumers on the path of a financially stable future. There are various principal components we need to be analyzed in order to understand the effect of consumers' financial capabilities and technology use on the decision to purchase online such as digital banking usage, financial advice, payment risk, and financial attitude. It is evident that individuals who use smartphones and administrate a social media account are more likely to involve in purchasing through online mode. Moreover, the decision to purchase online is more for those individuals who are well aware of digital banking usage, financial advice, technology usage, attitude towards risk tolerance, etc. We must highly encourage consumers to use digital banking and consult their financial issues when purchasing online with their respective bankers and financial institutions.

There is a potential effect of consumer financial capability on their online purchase decisions and the capability of consumers' behavior toward financial products/services. The customers' knowledge and understand about finance related matters play an important role in their purchase decision towards all products. Customer knowledge in financial matters helps them to manage their money and to take control of their income. Financial capability refers to the ability and opportunities to act and use people's knowledge, skills, attitudes, habits, motivations, and awareness of basic financial products they need to manage their finances. Furthermore, it is also evident this financial capability influences consumer online shopping decision making. Not only financial capabilities but technological implications also have an influence on the online shopping attitude of customers. By increasing smartphones and social media, the technological implications for online shopping are more. The widespread adoption of the banking sector, and its linkage with the online environment, a customer with more banking experience tend to choose the Internet as a platform for shopping.

IMPACT OF COVID-19 ON E-COMMERCE

Due to community spread as a result of the pandemic outbreak, the Indian Government issued an advisory for isolation measure and social distancing, leading to unpredictable and unintended consequences in the e-commerce sector because most of their operations get



disrupted. This had affected the e-commerce business in a drastic way when there is a high demand for online shopping of goods and home delivery of products under the present circumstances. The outbreak of coronavirus accelerated India's e-commerce market even though it was initially severely affected during the lockdown. The e-commerce sector is set to grow at an annual growth rate of 19.6% between 2019 and 2023 because the consumer is highly shifting from traditional shopping to online shopping.

Moreover, we can say there are a positive push and a steep increase of 25.9% in online shopping during the pandemic outbreak. The country's lockdown situation had led to an overall decline in consumer spending. However, a rise in online shopping has partially offset this because most consumers stay at their homes due to safety and maximum utilized various online channels for purchasing products. The most used online payment modes are Google Pay, Paytm, Amazon Pay, PhonePe, etc. The pandemic outbreak of COVID-19 has a greater implication on consumers' buying behavior and pushes them to adopt online shopping.

ONLINE SHOPPING ACCEPTANCE PRE AND POST COVID-19 OUTBREAK

COVID-19 has changed the shopping trend itself. Even though online shopping was accepted as a convenient mode for purchases by many, COVID-19 has accelerated this trend and triggered changes in online shopping behaviors that are likely to have lasting effects. According to a UNCTAD survey entitled "COVID-19 and E-commerce", this pandemic has changed the way of e-commerce use by consumers. The survey results revealed that more than half of the respondents shop online more frequently than before. The survey also shows that consumers in emerging economies have made a greater shift to online shopping. Even though online purchases rise, consumer spending falls due to income shortage. As per the survey results, consumers have postponed their larger expenditures for later and focus on more essential products. The number and frequency of online purchasing are on their hike. This shows the greater acceptance of online shopping after the pandemic outbreak. Online shopping was normal before the COVID-19 disease outbreak. However, now, online shopping has turned out to be the best purchase option among all categories of consumers.

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FORENSIC ACCOUNTING IN INDIA: IMPACT ON FRAUD DETECTION



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ABSTRACT

Knowing the monetary aspects of the organization, to stakeholders depends on the financial statements. It helps to grasp the expansion graph of the organization and as a result to requires investment choices to the general public. The ultimate aim of a "true and fair view", advised by Generally Accepted Accounting Principles (GAAP), is that the correctness of financial statements. But, because the business world extremely focuses on profit, fraud creeps into accounts. The human greed for money, power, and fame results in such white-collar crimes.

Forensic Accounting is the incorporated term of both investigation and accounting. It may be specified as the art of detecting fraudulent activities through fact-finding skills, from financial statements. As a developing economy, India has seen several crucial monetary scams like Satyam Computers Scam (2009), PNB Scam (2018), etc. These scams highlight the need for more stronger steps towards Forensic Accounting. The subject is considered as a new stream of study since corporate fraud are reaching their peak. This study is principally for knowing how this sophisticated stream can help detect fraudulent activities of the business in INDIA. How effectively this stream of accounting can be used for the betterment of the organization, i.e. while not scams is that the aim of this analysis.

Keywords	forensic accounting, white-collar crimes, corporate frauds
JEL Classification	E00, G01, M41
Cite this Article	Mohan, Lekshmi. (2020, December). Forensic Accounting In India: Impact on Fraud Detection. In Perspectives on Business Management & Economics (Vol. III, pp. 31-38). Retrieved from http://www.pbme.in/papers/80.pdf
Article History	Received: October 15, 2020; Accepted: October 30, 2020; Published: December 31, 2020



INTRODUCTION

Financial crimes are the major curse to third world countries, especially in India. As per records, India has the top rank in corporate frauds. In a developing economy, white-collar crime is investors' nightmare. Technology may be both boom and curse in this field. It may be used to be more secured and also for manipulating the statements. Financial crimes become routine in the normal life of the business. Forensic Accounting is the sum of accounting, auditing, and investigation. It facilitates the public to know the "true and fair view" of the concern. Nowadays, this stream gathers more attention, and India needs forensic accountants. It is on the ground that Berlin-based NGO pegs; the most corrupted nation in the Asian Pacific region is India. Forensic accounting helps the nation to be corruption-free, scam-free, and fraud-free.

FINANCIAL FRAUDS AND INDIA

India has plenty of stories to depict the frauds. The scams, which made the crisis in India's history, show the broken parts of economic development. The journey begins with Harshad Mehta, who had broken the whole stock exchange into pieces, and a number of investors stopped their lives due to huge losses. It was in 1991, which made a loss of over Rs. 5,000 crores. Then in 1992, Fodders Scam, which met a loss of Rs. 850 crores. It is clear from many cases such as C.R. Bansali Scam (1995, Rs. 1200 crores), UTI Scam (Rs. 4,800 crores), Ketan Parekh Securities Market Scam (Rs. 1,250 crores) (2001). The list is lengthy and continues. After every scam, blame-game plays and no strict rules are followed by Indian companies to make a full stop to this. In a bid to check corporate frauds and scams, the Ministry of Corporate Affairs (MCA) has revised The Companies (Auditors Report) Order (CARO), under which auditors are now required to report more extensively on many crucial aspects. This includes frauds, loan defaults, whistle-blower complaints, and Benami properties. Under CARO, auditors will have to comment on a total of 50 matters in their audit report against the earlier 21 (Section 143) companies act. The incomplete table shows the dangerous growth of fraudulent activities in the corporate field.

The reasons for the growth of the scandals may be the following:

1. Rotation of the statutory auditor collusion and lobbying
2. The certificates of auditors are hardly scrutinized carefully
3. Internal auditors can detect, but they are hardly in a position to initiate proper action in proper time.
4. Internal audit and audit committee fails to shed light on corporate fraud.

The Government of India is now concentrating on making the country corruption-free. The introduction of GST and demonetization of high-value currencies are some of the Government of India's steps for the former said initiative. SEBI and RBI are other institutions that were concentrating on the same problem.

LITERATURE SURVEY

Zysman (2004) stated that Forensic Accounting utilizes accounting, auditing, and investigative skills when conducting any kind of investigation. Equally critical is responding immediately and communicating financial information clearly and concisely in a courtroom setting. Lavan Yahaya states that accountants currently understand forensic accounting as an elaborated activity unto itself by countering fraud. Many prominent people studied the topic to make the topic familiar. Several studies by prominent universities are widening the scope.



OBJECTIVES OF THE STUDY

This study's primary objective is to find the effectiveness of implementing forensic accounting in India for corporate fraud detection. The other objectives are:

1. To know the increasing trend of scandals in India.
2. Reasons for the increasing trend.
3. Challenges for forensic accounting in India

RESEARCH METHODOLOGY

This study undergoes an exploratory research method. The data collected are secondary from different organizations and government reports, journals, and websites. It uses both qualitative and quantitative data for the study

DISCUSSION

CORPORATE FRAUD

Fraud is a legal term. There is no widely accepted definition of fraud. It may be any dangerous or harmful activity committed to taking advantage of other people with malicious intentions. Corporate fraud may be misusing the organization's power and cheating others, including the public, for personal gain. Corporate fraud is a curable plague that is increasing in nature. It has become in the organized form due to the emergence of technology. Corporate fraud may be the following:

1. Asset misappropriation: The assets are misused like false inventory, falsified asset requisition, etc.
2. Bribery and corruption: It is a serious economic crime that offering or giving something to influence the officials to act for some personal gain.
3. Financial fraud statement: Manipulating the statements by overstating the expenses, window dressing, etc.
4. Corporate espionage: Stealing the secret information of the competitive company to making advantage to the company.
5. Investment Trends: Making false investment trends in the stock exchange. Cases of Harshad Mehta and Ketan Parekh are fabulous examples.
6. Insider trading: The administrative officials in the organization uses the information for committing financial fraud

WHY DOES CORPORATE FRAUD HAPPEN?

There are some theories related to fraud. It is good to look into those to get a correct picture of why corporate frauds happen.

FRAUD TRIANGLE THEORY

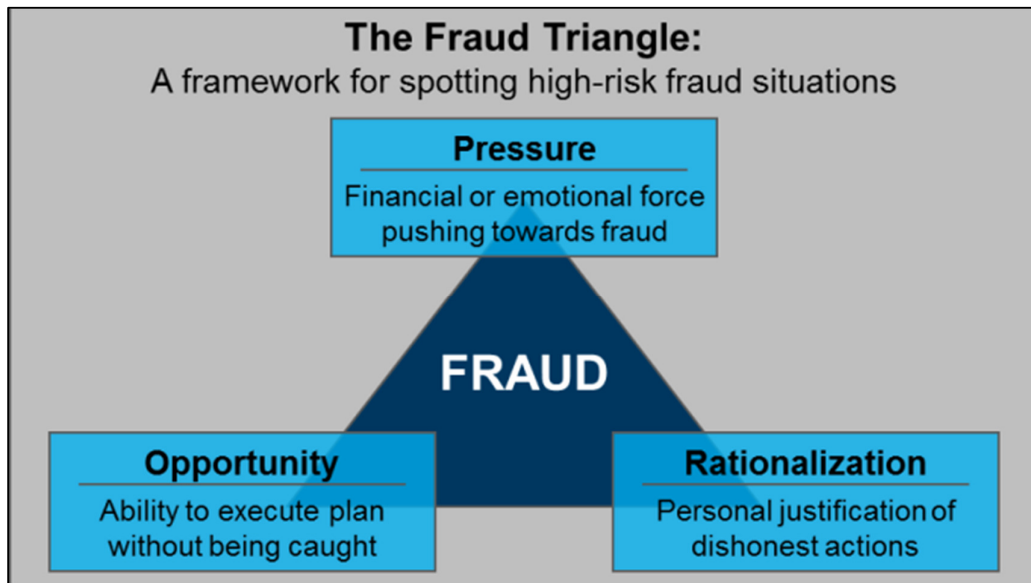
Donald Cressey, an American criminologist, developed the theory. He found out that the three factors to commit fraud are :

1. The pressure to commit a criminal activity
2. Opportunity: the situation must be favorable to commit the fraud



3. Rationalization: the mindset of the person to conduct the unethical act

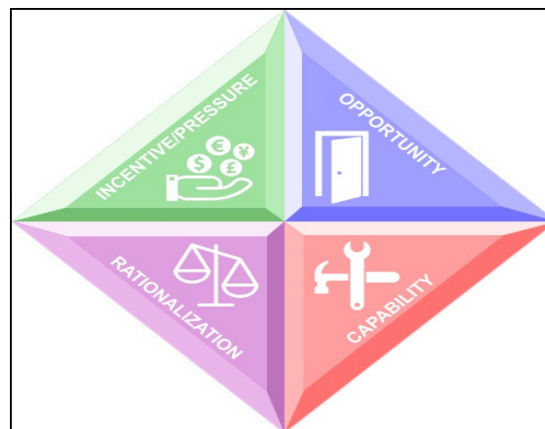
Figure 1: The Fraud Triangle



Source: <https://www.brumellgroup.com/news/the-fraud-triangle-theory/>

FRAUD DIAMOND THEORY

Figure 2: Fraud Diamond Theory



Source: Leandra Lederman

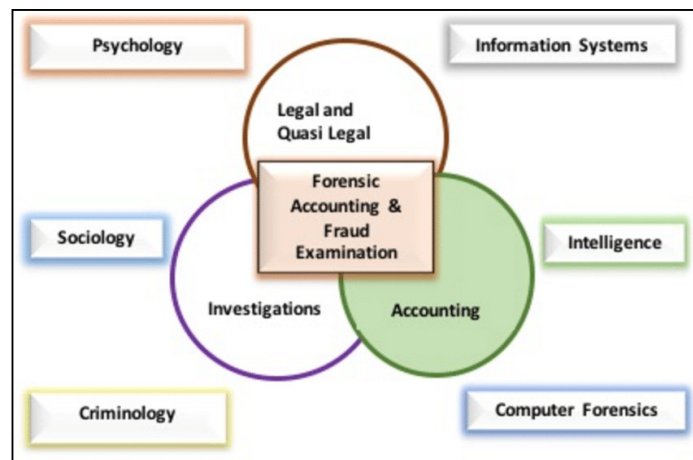
Here Wolfe and Hermanson added on additional factor capability. The first-factor pressure occurs due to motivational factors such as financial pressure, monetary gain, achievement, etc. the second factor says opportunity gets when environmental factors and victim characteristics become favorable. Then comes the next factor, rationalization, when one believes that the violation of rules is acceptable and that others' respect reduces. The last factor introduced in fraud diamond theory, capability, explains how fraud varies from person to person. The knowledge about corporate governance/ economic situations, the ability to manipulate others, technical knowledge to steal, etc., determines a person's capability to fraud.

These theories play a vital role in corporate to create fraud. The goodwill may lose due to revealing the fact, the growth of the competitors, etc., may also increase corporate fraud.

FORENSIC ACCOUNTING

In Kautilya's Arthashastra, the famous book of Kautilya firstly mentioned the need for forensic accounting. It is in the developing stage that India realizes the importance of forensic accounting. After major scams like the Satyam scam, Indian companies focus on forensic accounting techniques. It is the integration of some disciplines, which may be apparent from the chart.

Figure 3: Forensic Accounting & Fraud Examination



Source: Adapted with modifications from McIntyre et al

Forensic accounting helps the organizational system to improve the integrity of financial reporting. It helps to identify the fraud and theft in the firm. It restores public confidence toward the organization, which helps to increase goodwill. Better corporate governance can be developed in the firm. Overall it will create a positive work environment and strengthen the confidence of auditors in the firm. Hence, forensic accounting is a must needed stream in the Indian economic scene.

SKILLS NEEDED FOR A FORENSIC ACCOUNTANT

1. Investigative skills
2. Auditing knowledge, accounting knowledge
3. Knowledge in criminology
4. Knowledge in legal norms, IT field

COMPANIES ACT, 2013 WILL BE A BLESSING TO FORENSIC ACCOUNTING

In India, forensic accounting is in its early stage. The companies act 2013 made limelight to this stream in our country. Under Section 245(1g), the investors can claim damages from the auditors, management, and other consultants for the loss due to the statements' wrongdoing. Section 140 explains the group of auditors and the firm will be liable for the frauds in the firm's books. Moreover, the directors also will be liable for the same under Section 149 of the act. Section 177 states that the audit committee has the authority to investigate and can obtain

professional advice from external advice and the right to get full information about the company. The act also states that the Central Government can establish an office called the Serious Fraud Investigation Office (SFIO) to investigate frauds relating to a company. As a result, the amended Companies Act, 2013 will root for forensic accounting growth in India.

CHALLENGES OF FORENSIC ACCOUNTING IN INDIA

As a developing country, there are certain challenges to forensic accounting in India. It can be pointed out as follows.

1. A limited number of forensic investigators
2. Influence of politics
3. Interference of judicial system.
4. Difficult to sue fraudsters from other countries.
5. Ever developing technology

TECHNIQUES INVOLVED IN FORENSIC ACCOUNTING

1. Background reading: The publically available data are scrutinized here to get a picture of its situation.
2. Benchmarking: It is the practice of comparing the results metrics and business process with the industry best.
3. Theory of relative size factor: It is a powerful tool used in this field. Here, all unusual fluctuations resulting from the fraud and general errors are highlighted here. RSF shows the ratio between the largest and second-largest number in the given set of numbers.
4. Data mining: It is software depending automatic mining process, which turns the raw data into useful information from a large set of data.
5. Computer-Assisted Auditing Tool (CAAT): These are computer programs that conduct auditing procedures.
6. Ratio analysis: Various ratios from the statements are prepared and compared to each other.



Table 1: Fraudulent practices followed by Indian Companies

Name of the company	Nature of accounting practice followed	Remarks
Sathyam Computers (2009)	<ul style="list-style-type: none"> ▪ Fake billing ▪ Window dressing ▪ Fake bank statements from different parts of the world which actually not existing 	<ul style="list-style-type: none"> ▪ Replaced board of directors by professionals ▪ The Mahindra group took over the company
Kingfisher Airlines	<ul style="list-style-type: none"> ▪ Pledged brand name by overvaluing 	<ul style="list-style-type: none"> ▪ A complete failure business and bankrupt
Jet Airways	<ul style="list-style-type: none"> ▪ Overstatement of commission and expenses ▪ Fake accounting invoices. 	<ul style="list-style-type: none"> ▪ The total liability of Rs. 25000 crores
Bhushan Steel	<ul style="list-style-type: none"> ▪ Fund transferred to related parties account, which raised by the company by loans ▪ Fake asset purchases and fund utilized by promoters for personal gain 	<ul style="list-style-type: none"> ▪ Currently under IBC ▪ JSW steel is expected to takeover
Punjab National Bank (PNB)	<ul style="list-style-type: none"> ▪ Was defrauding the bank by opening LC of huge amount without any underlying asset 	<ul style="list-style-type: none"> ▪ The biggest fraud in the banking field ▪ Red alert by RBI
IL&FS	<ul style="list-style-type: none"> ▪ Diversion of the borrowed funds to relative entities ▪ Imprudent lending to parties not creditworthy ▪ Over invoicing project cost and overstating profit ▪ Non-disclosure of some facts. 	<ul style="list-style-type: none"> ▪ Largest corporate fraud in India ▪ Experts replaced the Board of Directors, and some of the infrastructures were sold
DHFL	<ul style="list-style-type: none"> ▪ Granting loans to related parties of promoters and not creditworthy ▪ Creation of 6 lakh dummy accounts ▪ Evergreening bad loans 	<ul style="list-style-type: none"> ▪ First corporate fraud in the housing finance field
PMC	<ul style="list-style-type: none"> ▪ Lending to HDIL through fictitious accounts, violating single party lending rules for several years ▪ 70 percent of the loans to HDIL 	<ul style="list-style-type: none"> ▪ Bank tries to reconstruction
YES Bank	<ul style="list-style-type: none"> ▪ Imprudent lending process ▪ Overstating profit ▪ They were charging high commission rates. 	<ul style="list-style-type: none"> ▪ By the intervention of RBI, the bank restored original health by equity infusion by institutional investors.
Café Coffeeday	<ul style="list-style-type: none"> ▪ Over leveraging ▪ Diversion of fund to non-core business. 	<ul style="list-style-type: none"> ▪ Suicide by promoter ▪ TATA group is in talks for taking over
Spot Exchange of India	<ul style="list-style-type: none"> ▪ Teeming and lading 	<ul style="list-style-type: none"> ▪ Sale proceeds the assets

Other recent fraud cases in India are:

1. Ranbaxy and Religare groups
2. Kwalita products
3. Amrapali builders
4. C G Consumers
5. Cox & King

RECOMMENDATIONS

1. With specific indicators, frauds can be detected in the earliest stage. A robust internal control system should be developed in the organization.
2. SEBI and RBI should have tightened the rule towards fraudulent activity
3. Due importance to forensic accounting stream
4. More courses to create skilled forensic accountants.
5. Especially in private companies, forensic accountants must be an unavoidable one.

CONCLUSION

The development of industries is essential for national development. Frauds are significant impairments towards this. Hence, it is crucial to devise policies and rules that stop fraud. Giving due importance to a career in forensic accounting is one step towards this. The increasing demand in the current regulatory, legal, and business environment should stimulate accounting programs to emphasize and embrace forensic accounting. Some skills are relevant and important for the outcome of forensic accounting education. Educators can use these skills as a guide to direct curriculum with the proper outcome objective.

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CONVERGENCE OF FISCAL AND MONETARY POLICY FOR V-SHAPE RECOVERY OF THE INDIAN ECONOMY



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ABSTRACT

The dark clouds of recent pandemic are hovering around the entire world. It has necessitated the urgent need for upgraded and prepared medical facilities especially for the developing countries like India. On social and economic front, the impact is equally catastrophic creating sense of uncertainty and ambiguity in the minds of consumers, business and investors as well as the government. The present scenario calls for extensive reforms and changes in order to revive the overall sentiment's and bring the Indian economy on track. This paper highlights the importance of mutually reinforcing fiscal and monetary policy reforms for V-shaped recovery of the economy. India needs to unleash the same animal spirit which was demonstrated in the post-1991 liberalization. Structural reforms together with the right channelizing of capital in critical sectors is the need of the hour. Fiscal policy is an instrument of economic development and aims at accelerating the rate of development through direct controls or pushing for structural reforms. Monetary policy aims at facilitating economic growth through suitable interest rate policies thereby infusing capital in the strategic sectors of the economy.

Keywords	economic reforms, v shaped recovery, structural reforms, fiscal policy, monetary policy
JEL Classification	E52, E62
Cite this Article	Sharma, Geetanjali. (2020, December). Convergence of Fiscal and Monetary Policy for V-Shape Recovery of the Indian Economy. In Perspectives on Business Management & Economics (Vol. III, pp. 39-46). Retrieved from http://www.pbme.in/papers/93.pdf
Article History	Received: October 15, 2020; Accepted: October 30, 2020; Published: December 31, 2020



INTRODUCTION

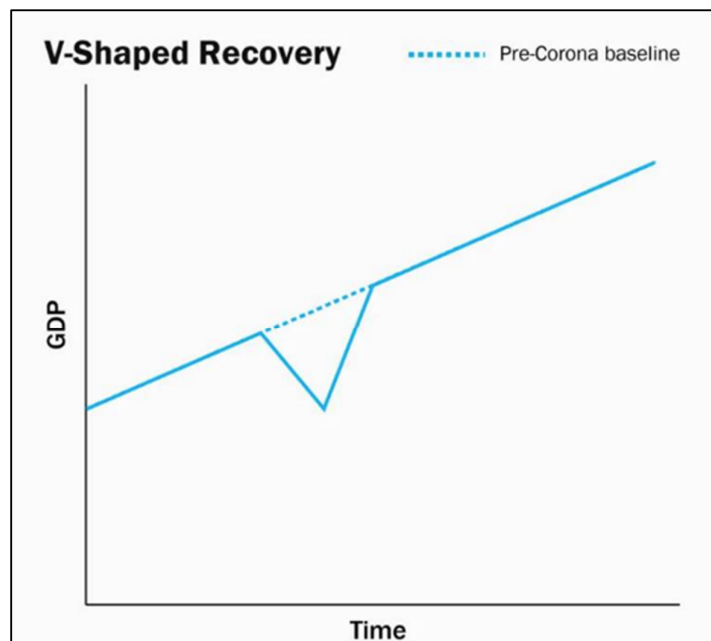
The pandemic faced today has clearly eliminated the distinctions between developed nations and developing countries. The world has been the witness of such pandemics in the previous centuries with equally disastrous consequences as seen today—Asian influenza in 1957, Hong-Kong influenza in 1968, Spanish flu in the 20th century. There was an outbreak of Severe Acute Respiratory syndrome in 2002, which had a tremendous impact on economic activities. The economies face both micro and macro-level issues creating a vicious circle of low production, unemployment, and consequently social unrest. The situation is grave, especially for developing countries like India, which has been already grappling with healthcare infrastructural issues. Thus, there is an arduous task for the policymakers to strike the right chord and maintain a balance between lives and livelihoods.

The silver lining is that India has been able to withstand economic shocks since independence. We have come a long way from being an economy with a GDP of merely Rs 2.7 Lakh cr to that of targeting a 5 trillion economy in coming years. The economy did reach its lowest ebb pre-liberalization era but soon become one of the fifth largest economies in the world.

The scenario today is grave due to the 'Act of God.' However, optimism is also seen among the policymakers and some economists, keeping in mind a large consumer base. There has also been much debate about the shape of economic recovery India would witness. The majority of literature refers to V-shaped recovery, especially after such pandemics. Chief Economic Advisor K Subramanian's comment that the worst is over for the Indian economy is witnessing a V-shaped economic growth after the world's most stringent lockdown.

V-shaped recovery is when the economy rebounds after a steep fall. Incomes and jobs are lost temporarily, and later due to multiple factors, the economy trends back on the growth trajectory.

Figure 1: Shape of the V-Shaped Recovery



Source: <https://www.brookings.edu/blog/up-front/2020/05/04/the-abcs-of-the-post-COVID-economic-recovery/>

Figure 2: GDP levels



Source: Tradingeconomics.Com | Ministry of Statistics and Programme Implementation (MOSPI)

India witnessed a huge contraction in Gross Domestic product with a record growth contraction of -23.9% in the second quarter of the Fiscal Year.

Figure 3: Sector-wise GVA (Gross Value Added) decline

INDUSTRY	CHANGE OVER PREVIOUS YEAR	
	April-June 2019-20	April-June 2020-21
	Agriculture, forestry & fishing	3.0%
Manufacturing	3.0%	-39.3%
Construction	5.2%	-50.3%
Trade, hotels, transport, communication & services related to broadcasting	3.5%	-47.0%
Public administration, defence & other services	7.7%	-10.3%
Gross Value Added (GVA)	4.8%	-22.8%
Gross Domestic Product (GDP)	5.2%	-23.9%

Source: <https://www.drishitias.com/current-affairs-news-analysis-editorials/news-analysis/01-09-2020/print>

GVA is the sum of a country's GDP and net of subsidies and taxes in the economy.

Thus, the economy's dismal scenario due to the pandemic and consequently followed by necessary lockdown requires resilient stimulus packages to reboot the economy. This does not mean that public expenditure is the only cure for reviving the economy. It is both the government-backed up by the monetary policy which would substantiate the recovery.



Counter-cyclical macroeconomic policies are designed to stimulate the economy backed up by structural reforms like labor and Farm reforms recently announced. The reforms are expected to break the rigidities, which has been a significant obstacle on the path of entrepreneurs wanting to increase the production cycle aggressively. For example, Contract Farming Bill will allow the marginal farmers to enter into a contract with large business houses and large retailers on pre-determined prices for their produce. This would lead to a trickle-down effect.

Similarly, labor reforms announced by the government would give breathing space to the industrialist (reducing the compliance filings). There is an urgent need for our industries to gear up to break the cycle of unemployment. The government's new labor code is a historic step towards giving new life to the staggering industries. Fixed Term Employment, an extension of Occupational Safety, Health and Working Condition Code, 2020, and allowing migrant workers to avail ration facilities will give a sense of security to the workers, thereby increasing their productivity and industrial output.

Monetary policy should initiate credit growth, which is the lifeline for industries, while the Fiscal policy has to catalyze investments on a large scale.

LITERATURE REVIEW

Spanish Flu occurred in 1920. Calvin Coolidge was elected the U.S. President, and his immediate step to repair the economy was to go for significant tax cuts. The combination of technology and pent-up capital resulted in the economic renaissance. This was also supported by the mass manufacturing of millions of cars, and consequently, the other industries like Rubber, Steel, Restaurants also flourished.

There are three pillars of any kind of Disaster Management-government, business institutions, and community. Roger Kaufman (in 1995) gave importance to the extensive role of the government to serve and regulate the society during any kind of emergencies. In his empirical study 'Structural Changes and Development Policy 1979, Hollis B Chenery defined development pattern as "systematic variation in any significant aspects of the economic or social structure associated with a rising level of income." He, in his three-principal development-Accumulation process, Resource Allocation process, and Demographics and Distribution process, reiterated the importance of the government expenditure and revenue for bringing an increase in the GDP levels.

Professor V.K.R.V Rao analyzed Keynesian theory's applicability and maintained his work on "Financing for capital Formation and Price behavior in an underdeveloped Economic ". The importance of deficit Financing is a critical tool to increase the economy's capacity, thereby increasing the supply curve. This is true especially for developing nations like India where the structural rigidities pose an enormous challenge to the industrial development.

Fiscal Policy, according to Nurkse's theory, assumes an important role in harnessing incremental saving ratio. The incremental saving ratio can be raised through government stimulus packages to create social and economic overheads. Similarly, Raja J. Chelliah's report on Fiscal policy in underdeveloped countries stressed balancing both in real and money terms. It further added that implementing the financial plan and the achievement of balances in real and money terms would largely depend on Fiscal Measures.

Monetary policy's importance can be substantiated with IS-LM model of macroeconomics, which emphasizes that a fall in the real interest rates would increase the national output.



Mundell-Fleming model stated the relationship between the interest rate and economic growth. The monetary policy framework in India has gone through various transition phases. After independence, the central bank's role was aligned with the nation's planned development process. It played a significant role in regulating credit using bank rates, Open market operations, and Reserve requirements.

Based on the RBI Report of Expert committee under Dr. Urjit Patel's chairmanship, a formal transition towards a flexible inflation target was made in 2016. Recently the apex bank is also using unconventional monetary policy measures. These include interest rates on risk-free bonds, liquidity, and credit spreads. The objective is to align the conventional tools with unconventional measures to promote economic growth and stability. Monetary-fiscal coordination was highlighted in the monetary policy committee on March 27, 2020, stressing on Coexisting monetary and fiscal policy is essential to overcome the surmountable challenges due to COVID-19.

OBJECTIVES OF THE STUDY

1. To highlight the importance of Fiscal and Monetary tools for achieving Economic growth.
2. To understand the importance of convergence of Fiscal and Monetary Policies.

DOMESTIC MEASURES FOR ECONOMIC GROWTH-FISCAL AND MONETARY POLICY

Figure 4: Tools of Macro Economics



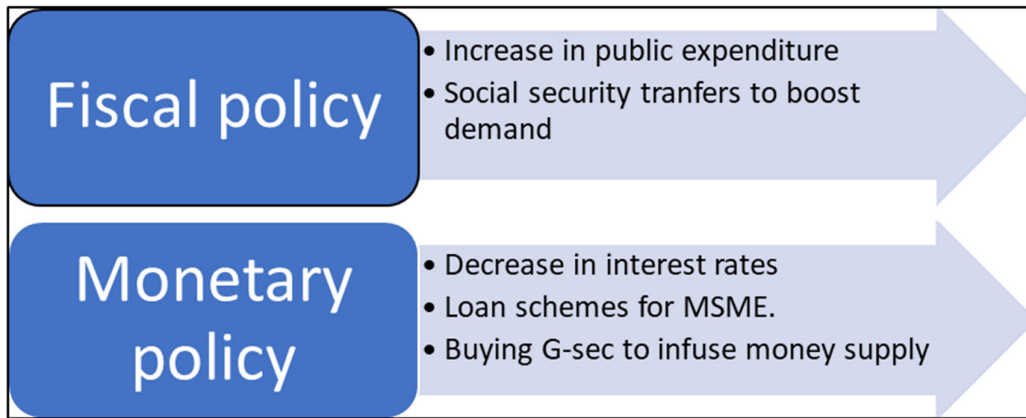
Source: Author compilation

Economic growth and development for any economy depend on Macroeconomics-Fiscal and monetary policies' two most important pillars. Appropriate and timely interventions by the government and banking authorities act as a catalyst for economic activities. Fiscal policy is the policy of the government. No country can achieve its macro-objectives of income, output, and employment with comprehensive and flexible fiscal actions. Fiscal policies' essential tools are public spending or expenditure, public borrowing, taxation, and deficit financing. There are two types of Fiscal Policies-Expansionary and Contractionary. When the economy is facing inflationary conditions, which affect the demand and consequent fall in the currency value, the government adopts a Contractionary policy, restricting its non-development expenditure, resorting to high taxation levels.

Contrary to this, during times like low economic activities, stagnant production, and dampened demand, there is a need for Expansionary Fiscal policy. During such phase of the Economy, the government resorts to increased public expenditure, especially the development and capital expenditure, leading to 'Crowd-in private investments. During the present pandemic scenario when India faces a considerable contraction in GDP, low private investments, and low demand, the government, through its fiscal stimulus packages, has vowed to undertake public expenditure on social and economic heads expected to stimulate production, employment and income.

Monetary policy is another crucial macroeconomic instrument to achieve the objectives of the economy. Its tools like Open market operations, bank rate, Reserve ratio requirements, and adopting selective methods and controls stabilize the economy. During Inflationary tendencies, the central bank adopts 'dear money policy,' thus restricting the excessive money supply. These require an expansionary monetary policy. The central bank injects liquidity in the market by lowering interest rates and giving special incentives like Loan Moratoriums to the small and medium industries. Recently RBI had announced a Repo-rate cut by 115 basis points from 5.15% to 4.40% as a measure to combat the impact of COVID-19. It also purchased government securities worth Rs. 10,000 crores in September 2020 to infuse money into the economy. Both Monetary and Fiscal policy needs to work in a coordinated manner to achieve the economic objectives of output, employment, income, and economic growth.

Figure 5: Expansionary Policies during the pandemic



Source: Author compilation

CONVERGENCE OF FISCAL AND MONETARY POLICY

Professor Arthur Lewis defines Economic growth as “growth of output per head of population.” Growth is to bring a sustained increase in output or income. Gross capital formation is a crucial factor that determines growth. It refers to aggregate investments, stocks of physical capital goods like plants, machinery. The high growth rate is determined by various factors like the policies of the government, liquidity or credit growth in the economy, Technological progress, and progressive cycle of demand and supply. During normal circumstances in any economy, the growth of the economy takes its course with the factors stated above. However, during situations like war or pandemic like this business cycles gets disrupted. It is any government's task through its Fiscal and monetary tools to bring sustain the growth trajectory. This task becomes difficult and challenging, especially when the economy faces lower ebbs.

Pandemic like COVID 19 has been catastrophic for all types of economies. Under such circumstances, all the governments worldwide' task is to maintain a balance between lives and livelihood. Thus, both Fiscal and monetary policies have to work in sync to ensure that adequate measures are taken to minimize the damage. India's GDP showed a considerable contraction. Core sectors like construction, manufacturing, transport, and communication have shown an enormous decline. Lockdown (which was inevitable) resulted in a decline of house-hold incomes from about 9 percent in late February to a massive dip of 45.7 percent in mid-April. Although post-festive season, there have been green shoots, still lots have to be initiated to maintain a sustainable increase in income, output, and employment. Calibrated fiscal and monetary policy reforms have to be initiated to support the economy.

Fiscal policy tools like taxation, public expenditure, and public borrowing play an indispensable role in accelerating growth, especially when the private sector is reluctant to invest due to uncertainty looming around. Pandemic conditions followed by lockdown; problems related to migrant labors virtually halted production activities all over. During crises like this, fiscal policy through its public expenditure and counter-cyclical policy of deficit-financing is essential to combat depressionary phases. When private investments are virtually faced with a downward beat, the expansionary fiscal policy is the need of the hour. Public expenditure on structural and social, and economic overheads like investments on crucial infrastructural projects helps in a glibing boost to the economy. Simultaneously, tax benefits to the industrial sector add to the benefits. Infrastructural investment remains the best antidote –creating ‘crowd –in investments- and boosting labor productivity. In this direction, the Government of India announced a Rs 1.10 lakh crore platform for infra debt financing with a Rs 6,000 crore equity infusion in the National Investment and Infrastructure Fund to boost infrastructure financing.

Creating a conducive environment for productive activities requires eliminating red-tapism, procedural bottlenecks. This also helps in attracting forcing investments, thereby helping the economy to recover faster. The monetization of public assets such as roads, bridges, and ports airports also helps resolve the credit crunch. Through the legislative way, social and economic reforms usher new hope to the areas that have been plagued with outdated norms. The government initiatives in bringing about Farm bills and labor codes are thus an earnest effort towards reforms' objectives. The new farm bill (although there are voices against it) would finally help the marginal farmers of India to directly sell their produce in the market without intermediaries taking their share. Also, Rs. one lakh crores Agriculture Infrastructure Fund (AIF) has been launched, facilitating farm gate infrastructure development.

The new labor codes would create a sense of security to the business houses, attract foreign investments, and increase production, employment, and income.

These social and economic reforms should also be in sync with the monetary policy initiatives to bring about a desirable growth trajectory. The apex bank must ensure that an adequate supply of capital is channelized by lowering interest rates, giving thrust to the investment demand. Recently the RBI also has given stimulus packages with two components one 50,000 crores for the National Bank for Agriculture and Rural Development (NABARD), Small Industries Development Bank of India (SIDBI), and National Housing Bank NHB). In addition to this, the RBI allowed a one-time debt restructuring for Micro, Small, and Medium enterprises. Infusing liquidity directly into Non-banking financial companies (NBFC) and giving financial reconstruction to the core sectors like power, construction, and real estate would calibrate with the fiscal stimulus announced. The convergence of Fiscal stimulus with that of monetary packages will have a dual effect as C. Rangarajan, former RBI Governor. One, it would inject liquidity, and the second, it would create demand. Recapitalization of banks has been another step to contain Bank non-performing assets.

Thus, fiscal policy interventions in the form of infrastructural investments, reforms in land, labor markets, banking sector steps in lowering interest rates, and reducing reserve ratio requirements would pave the way for uplifting the dark clouds of economic distress.



CONCLUSION

The positive signals or Green shots are beginning to show with the right mix of Fiscal and Monetary stimulus. GST-E bills, electricity, petrol, and diesel showed signs of recovery in September 2020. Data has shown that electricity generation marked growth of 4.2 percent in September 2020 from 3.3 percent in August. Similarly, auto-production recorded an upbeat production of 11.7 percent in September 2020. These sectors would undoubtedly have spillover effects in the coming months. Therefore, it is imperative that the role the government of India and the monetary policy is playing of diligent reformist is vital to be continued till the economy works at the pre-COVID times. Economic Growth is indispensable. The Government, with its complete focus on structural reforms and public expenditure, together with monetary policy support with a lower interest rate regime, will keep the wheel rolling. Strong Fiscal and monetary stimulus on reviving the economy with emphasis on inclusive and sustainable development will kick-start the cycle of growth and development.

Famous quote by Peter Drucker “The Ultimate resource in Economic Development is People. It is people, not capital or raw materials that develop an economy”. It is thus overcoming pandemic with emphasis on reviving all society segments through appropriate measures and policies towards a complete V-shaped recovery.

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**UNDERSTANDING THE MARKET DEMAND PATTERN AND
PRESCRIBING BEHAVIOR OF DOCTORS FOR VITAMIN
DRUGS IN THE INDIAN PHARMACEUTICAL MARKET
UNDER THE COVID-19 PANDEMIC SITUATION: A CASE
STUDY OF VITAMIN D3 AND ITS PROMOTIONAL
STRATEGY**



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ABSTRACT

In the face of the COVID-19 pandemic demand for vitamins by consumer rises as customers look to support their immune health, overall wellness, and reduce anxiety. Consumers have increasingly turned towards vitamin products and expressing greater interest in engagement with the vitamins. The study helps to understand how COVID-19 impacts vitamin consumption in the Indian pharmaceutical market. In 2020-21 demands for vitamins would continue to rise in the Indian pharmaceutical market. It is wise for suppliers, manufacturers, and retailers, of vitamins to begin preparing now for the future markets where demand for vitamins by consumers continues to grow beyond its historical aspects. The research focuses on a case study of Vitamin D3.

And also this study helps in understanding the prescribing behavior or pattern of the customer's (doctor's) brand preference for these Vitamin D3 categories in this pandemic; how this pandemic has led to an increase in the prescription generation for vitamins.

The study was done in the region of Prayagraj district (Uttar Pradesh) among the Specialist Doctors/ Physicians and retail Chemists around the hospitals/ nursing homes and other localities over telephonic survey, with the help of structured questionnaire for knowing their prescribing behavior, its demand pattern and effective promotion strategy of Vitamin D3 among them. The results show the rise in its consumption in this pandemic situation. Hence, contribute to capturing the market demand for vitamins in the present and future.



Keywords	Consumer demand, Vitamin, Prescribing behavior, COVID-19
JEL Classification	I11, I12, M30, M31
Cite this Article	Tiwari, Pragya., Raychaudhuri, P.S., & Rastogi, Ajay. (2020, December). Understanding the Market Demand Pattern and Prescribing Behavior of Doctors for Vitamin Drugs in the Indian Pharmaceutical Market under the COVID-19 Pandemic Situation: A Case Study of Vitamin D3 and its Promotional Strategy. In Perspectives on Business Management & Economics (Vol. III, pp. 47-56). Retrieved from http://www.pbme.in/papers/68.pdf
Article History	Received: October 15, 2020; Accepted: October 30, 2020; Published: December 31, 2020

INTRODUCTION

Vitamins are substances that are required for the normal growth and development of the human body. There are 13 vitamins that the body required, namely, Vitamin A, Vitamin B, Vitamin C, Vitamin D, Vitamin E, and Vitamin K (MedlinePlus, 2020). All over the world, most people use multivitamins daily for treatment or prevention of chronic disease. The wide availability of vitamins and uncontrolled advertisements about these agents increases consumption among people (Cheryl L Rock, 2007).

Widely vitamins used as a source of dietary supplements and commonly prescribed medication by physicians for mild illness to severe chronic illnesses. It also helps in enhancing wellbeing and enhancing immunity (Marcus R, Conlston AM, 2001). In a drug utilization study in one of the secondary care hospitals, Maharashtra found that multivitamin products were contained by 16% of the prescriptions. Furthermore, more than one vitamin supplement was contained by 2% of the prescription (Potharaju HR, Kabra SG, 2011).

About 20% of Indians consume vitamins daily, and 18% take vitamins once or twice a week, according to Euromonitor International's Health & Nutrition Survey, 2018. Vitamins demand boosted due to the COVID-19 pandemic. Mainly those associated with immune system enhancers, including both multivitamins and Vitamin C. In the initial phase of lockdown in many stores, there is a shortage of Vitamin C due to the surge in demand for Vitamin C, leading to it being out of stock (Euromonitor International, 2020).

In 2020 according to the report of Statista, 2020 revenue in the segments of vitamins and minerals to US\$168.82m. Furthermore, the market was expected to grow by 4.7 percent annually.

An increase in social media usages and rapid digitization has increased awareness regarding nutrition care, and also access to vital information has improved. For the growth of India's dietary supplements market, rising per capita income and rapid growth of the e-commerce market are the major drivers (BUSINESS WIRE, 2018).

Due to Vitamin D's immunomodulation role, its insufficiency affects the immune functions (Cameron F. Gunville, Peter M. Mourani, Adit A. Ginde, 2013).

Acute respiratory tract infections are associated with the decrease in levels of Vitamin D proved by clinical studies. By secretion of antiviral peptides, innate immunity increases, thus improve mucosal defenses (Nurshad Ali, 2020).



Some recent reviews hypothesized that the insufficiency of vitamin D3 might compromise the respiratory immune function, thus increasing the risk of COVID-19 severity and mortality. The correlation of Vitamin D levels with COVID-19 severity and mortality is shown by various retrospective studies (Brown Robert Andrew, Sarkar Amrita, 2020). SARS-CoV-2 during infection uses the immune evasion process, which is followed by cytokine storm and hyper reaction cytokine storm in some patients (Juan Garcia-Revilla, Tomas Deierborg, Jose Luis Venero, Antonio Boza-Serrano, 2020).

As per the researchers' report, the prevalence of severe Vitamin D deficiency (defined as 25(OH)D less than 25 nmol/L) with the death rate per million people due to the COVID-19 is significantly and strongly correlated. Various data support a correlation between levels of Vitamin D and COVID-19 mortality rate. That shows the association between a low level of Vitamin D and disease severity due to COVID-19. These findings do not necessarily mean low Vitamin D levels raise the COVID-19 death rate or that normalizing the Vitamin D level would bring this rate down. However, researchers also opined that other variables such as unknown genetic factors and inadequate healthcare services could account for a higher COVID-19 mortality rate and a higher prevalence of vitamin deficiency. Additional data in the US shows that blacks and Hispanic Americans' mortality rate due to COVID-19 is larger than among the general population. It shows that as compared to other groups, these groups have low levels of Vitamin D (Pugach IZ and Pugach S, 2020).

India receives adequate sunlight all year round is in the tropical zone near the Equator; however, humid and hot weather perhaps keep them away from enough sunlight. Therefore, the majority of the Indians are deficient in Vitamin D levels, nor do they take enough Vitamin D supplements in their food products (Aparna, P et al., 2018; Padhi, S et al., 2020). Recent developments have also shown the role of Vitamin D in enhancing immunity and counter chronic inflammation and infections, besides its earlier role of calcium, phosphorus, and skeletal metabolism (Verma, R et al., 2017). These above facts have enabled the prescribing doctors to write Vitamin D as a significant component of prescription in patients with COVID infections in India.

On healthcare resources, physicians are the primary decision-maker. The prescribing decisions of the physicians are the key to hospital dominance over the health sector market players. The factors influencing the prescriber's decisions are the most important input to devise a regulation for the pharmaceutical market, to develop guidelines for practice, and for the policy of healthcare. Prescribing decisions mostly influence by factors like physician's attributes, cost of medicine, promotion strategies, and pharmaceutical industries. The negative impact of a wide range of factors can be reduced by using valid and reliable practice guidelines and thus promoting rational prescribing effectively (Davari M, Khorasani E, Tigabu BM, 2018).

For the prescription demand generation, face to face product detailing to doctors was the conventional method that was the main means, but the new Internet-based initiatives also play an important role in the generation of demand (Ray Tapan J, 2013).

In the digital world, generating prescription demand is volatile, uncertain, complex, and ambiguous. In contrast with the consultants for a prescription generation, the promotional tools like gifts and support to seminars or conferences are sometimes more influential (Corckburn, 1997).

LITERATURE REVIEW



Indian pharmaceutical market: The Indian pharmaceutical market has unique characteristics. Firstly, 70-80% of the retail market sales consist of branded generic drugs. Second, a dominant position is driven by formulation development capabilities and early investments by local players. Low price levels driven by intense competition is the third one. India ranks 3rd in terms of volume and 10th rank in terms of value (<https://www.mckinsey.com>, 2020).

Vitamins: For vital functions of the body, vitamins are essentials. Based on age, pathological conditions, and physiological state, vitamins should be used in the right quantity to obtain maximum benefits (Murphy SP, White KK, Park SY, Sharma S, 2007).

Vitamin D: Through various mechanisms, Vitamin D can reduce the risk of microbial infections and deaths. Through the induction of antimicrobial peptides, Vitamin D enhances innate cellular immunity partly. It is also a modulator of adaptive immunity and enhances cellular immunity (Biancatelli RMLC, Berrill M, Marik PE, 2019).

On March 23, 2020, a former director of the Center for Disease Control and Prevention, New York City Health Department, proposed using Vitamin D to combat the COVID-19 ([foxnews.com](https://www.foxnews.com), 2020).

Cholecalciferol is known as Vitamin D3. Cholecalciferol is a kind of vitamin made by the skin when presented to daylight/ sunlight; it is also found in certain nourishments and can be taken as a dietary enhancement.

Pharmaceutical promotion: According to WHO, Pharmaceutical promotion is a set of all persuasive activities and informational activities that induce the prescription, purchase, supply, and use of medicinal drugs by manufacturers and distributors (Leonardo Alves T, Lexchin J, Mintzes B, 2019).

Two types of promotional activities by pharmaceutical companies are information provisions and gifts to clinicians. Information provisions in direct mail, e-promotion, medical journal advertising, meetings, visits of sales representatives at doctors' offices or a hospital setting, sponsored continuing professional education, and sponsored presentations at conferences (Anonymous 2013). Conference registrations on behalf of companies, free samples, honoraria and contractual funding for advisory board memberships, and reimbursements of official travel expenses, reimbursements to participating in official market seeding research, participation in speaker's bureaus, provision of patient education services or personnel for clinicians' practices and reimbursements for guest authorship include in gifts (Parker L, William J, Bero L, 2018).

OBJECTIVES OF THE STUDY

1. To understand the impact of COVID-19 on the use of Vitamin drugs in the Indian pharmaceutical market.
2. To study the impact of COVID-19 on the use of vitamin D3 in the Indian pharmaceutical market.
3. To understand the prescribing behavior of the doctors for vitamin D3.
4. To explore the Promotional tools which influence prescription writing of doctors in this COVID-19 pandemic.

RESEARCH METHODOLOGY

Study type: It is both exploratory and descriptive. Also, both qualitative and quantitative approaches have been adopted. A quantitative approach with a questionnaire and a qualitative approach with interaction interviews during questionnaire responses have been adopted (E Bell, A Bryman, B Harley, 2018).



Sampling technique: Here, the purposive sampling method was adopted.

Data collection: The data was collected through the field and online survey using a questionnaire and from secondary sources.

Sources of Data: The researcher collected the data from the Specialist Doctors/ Physicians and retail Chemists' response around the hospitals/ nursing homes and other localities over the telephonic survey and some on-field collections with the help of a structured questionnaire among Prayagraj regions of Uttar Pradesh, India. The question variables related to understanding and learning their prescribing behavior, demand pattern, and effective promotion strategy that affect their prescribing behavior among the different regions helped in doing quantitative analysis. The researcher has also referred to various articles, journals, and brochures on websites.

Study Timeline: One month (June 2020 – July 2020)

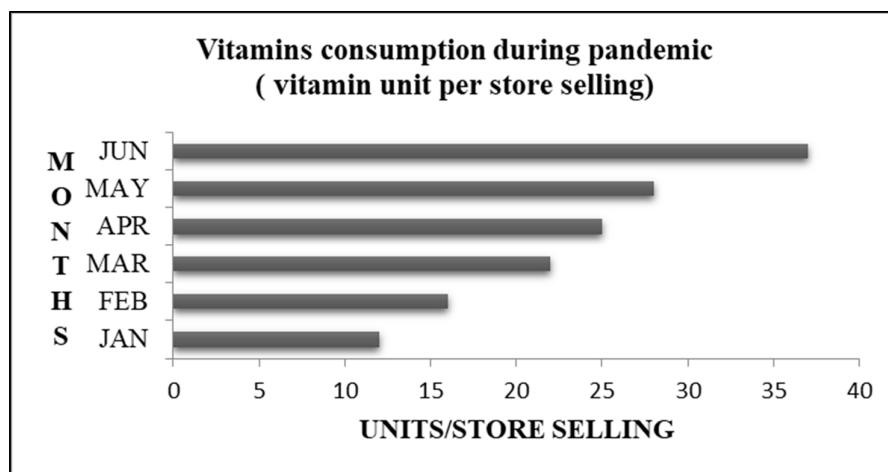
Sample size: The sample size was 70 (25 doctors and 45 chemists)

Data Analysis and Interpretation: The analysis and interpretation of the data have been carried out to deduce the conclusions with the aid of appropriate tools like bar charts, graphs, and pie-charts, etc.

ANALYSIS AND INTERPRETATION

Different graph and bar chart plots of Specialist Doctors/ Physicians and retail Chemists (25 doctors and 45 chemists) were done, which helped clarify the variables under the main study. The descriptive method of result analysis was adopted. Google Forms is used to generate bar charts, while Microsoft Excel is used to derive pie charts for analysis and interpretations. The averages were calculated based on the percent response.

Figure 1: Consumption of Vitamins during pandemic (COVID-19)



Source: Researchers survey

INTERPRETATION

1. Figure 1 shows that the consumption of vitamins increases month-by-month (day-by-day), followed from January to June 2020.

- It shows that the monthly (daily within a month also) Vitamins units per store sales were increasing drastically in a linear manner during this pandemic year.

Table 1: Vitamin 25(OH) D levels in general adult population and mortality rates per million from COVID-19 in European countries and their correlation statistics

Country	Prevalence (%) of Vit. D < 25nmol/L	Prevalence (%) of Vit. D < 50 nmol/L	Mean (nmol/L) Vit. D	Population	COVID-19 Deaths	COVID-19 Deaths/million
UK	15.4	56.4	47.4	65761117	41747	635
France	6.3	34.6	60	67848156	29401	433
Belgium	7.3	51.1	49.3	11720176	9655	824
Germany	4.2	54.5	50.1	80159662	8801	110
Netherlands	4.9	33.6	59.5	17280397	6078	352
Ireland	6	45	56.4	5176569	1705	329
Denmark	0	23.6	65	5869410	597	102
Finland	0.2	6.6	67.7	5571665	326	59
Norway	0.3	18.6	5	5467439	242	44
Estonia	4.5	51	51.6	1228624	69	56
N= 10						
Correlation coefficient	0.76	0.52	-0.57			
T- statistics	3.33	1.72	-1.98			
P- value	0.01	0.12	0.08			

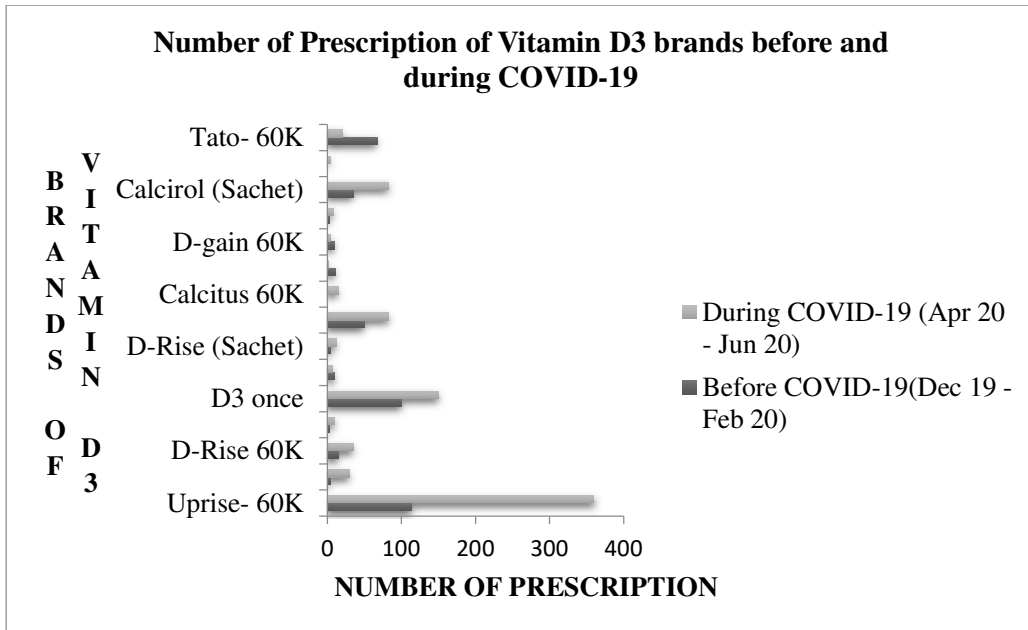
Source: <https://doi.org/10.1101/2020.06.24.20138644>, Data retrieved June 14, 2020

INTERPRETATION

- The above Table 1 shows that authors have referred the Vitamin 25(OH) D levels in the general adult population in some European countries for the last ten years for both genders/ ages 40-65 as compiled in 2019 by ECTS statement in the European Journal of Endocrinology and the country data about COVID-19 on mortality rates per million from COVID-19 in European countries from John Hopkins University of Medicine Resources center through four data retrievals between May 11, 2020, and June 14, 2020. For the demographics 2020 country data, the CIA World Factbook has been used.
- The above Table 1 shows significant results that severe Vitamin D deficiency is strongly and significantly correlated with COVID-19 deaths per million population with $r = 0.76$, $p = 0.01$ at a 95 percent confidence interval. Similar findings have been noted and hypothesized in the Indian population for COVID-19, as cited earlier above by Padhi, S, et al. (2020)
- While, the prevalence of mild Vitamin D deficiency is moderately correlated with COVID 19 deaths per million with $r = 0.52$, $p = 0.12$. However, this correlation does not reach statistical significance. For the mean Vitamin D levels, they are inversely correlated with the COVID-19 deaths per million with $r = -0.57$, $p = 0.08$.
- Since the correlation coefficient $r = 0.76$, it means that the death rate from COVID-19 can be explained by the prevalence of severe Vitamin D deficiency. This finding by itself does not necessarily mean that low Vitamin D levels increase the death rate or that correcting

Vitamin D levels would decrease the mortality because another variable could cause both a high prevalence of Vitamin D deficiency and increased COVID-19 deaths. Examples of such variables could be an inadequate healthcare system or the prevalence of unknown genetic variation.

Figure 2: Prescription of vitamin D3 brands before and during COVID-19

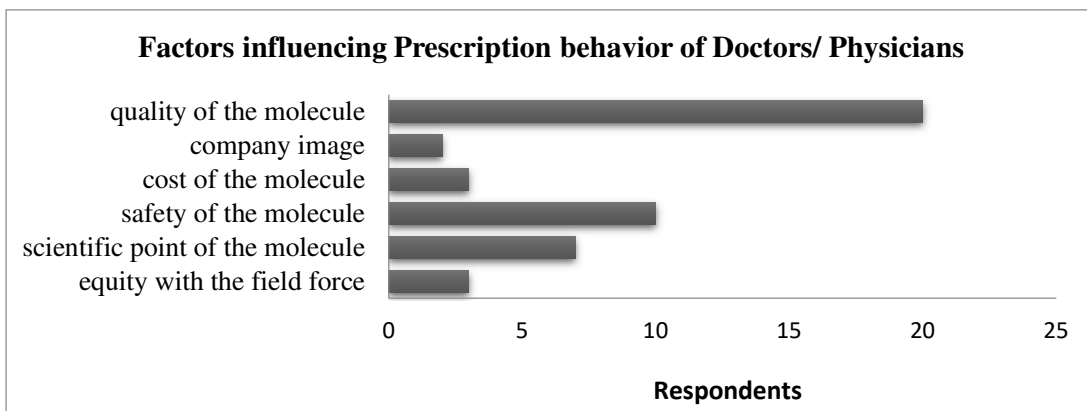


Source: Researchers survey

INTERPRETATION

1. The above graph shows the increase in Vitamin D3 brands' prescriptions before COVID-19 (Dec19-Feb20) and during COVID-19 (Apr20-Jun20).
2. It shows that before the COVID-19, prescriptions of Vitamin D3 brands were less than during the COVID-19 situation.
3. It also shows that Uprise-60K is the leading brand of Vitamin D3 in this pandemic situation.

Figure 3: Prescription behavior of Doctors/Physicians

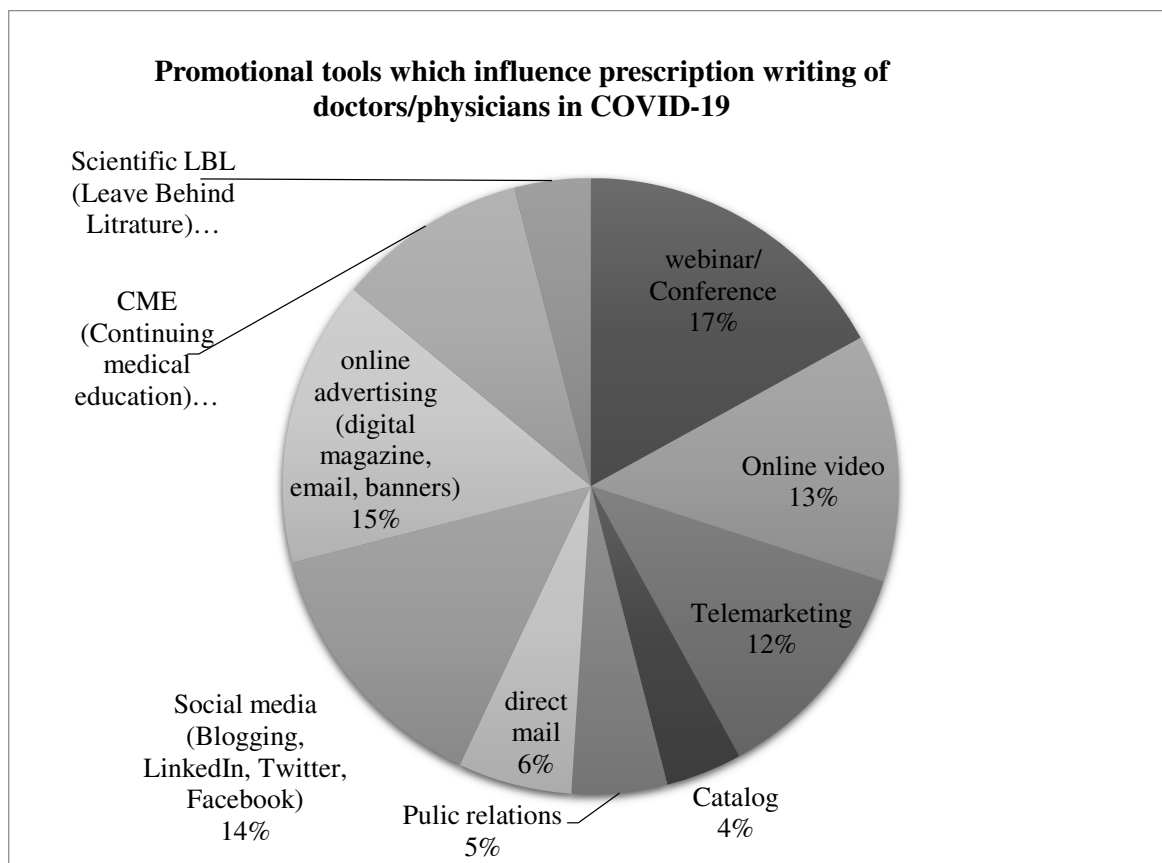


Source: Researchers survey; Sample size: 25 doctors

INTERPRETATION

1. The above graph shows the attributes or factors that influence the prescribing behavior of physicians/doctors.
2. The graph shows that the molecules' major factors, quality, and safety, largely influence the physician/doctors' prescription writing.

Figure 4: Promotional tools that influence prescription writing of doctors/physicians in COVID-19 pandemic



Source: Researchers survey

INTERPRETATION

1. The above pie-chart shows the promotional tools which influence prescription writing of doctors in the COVID-19 pandemic situation.
2. It shows that promotional tools adopted by the sales force team of pharmaceutical companies nowadays have changed and transformed, as physical interaction between physicians/doctors is avoided due to the COVID-19 situation.
3. Researchers found that nowadays, there is a more digital media approach. The Pie-chart shows that digital channels like webinars/conferences, online advertisements (digital magazines, banners, and emails), social media (LinkedIn, Twitter, and Facebook), telemarketing, and online videos (of Mechanism of action) largely influences prescription writing of doctor's in COVID-19 pandemic situation.

CONCLUSION

Thus, we summarize and conclude, corresponding to each of the objectives:



1. The study has explained the direct impact of COVID-19 on Indian pharmaceutical markets' vitamin segments. It was concluded that vitamins per unit sales or vitamins' consumption has increased during this pandemic situation of COVID-19.
2. Significantly and strongly prevalence of severe Vitamin D deficiency with the death rate per million people due to COVID-19 is correlated. This has been observed in different European countries and hypothesized in the Indian population too. Moreover, the consumption of Vitamin D3 rose from the past months. It is wise for suppliers, manufacturers, and retailers of vitamins to begin preparing now for the future market where demand for vitamins by consumers continues to grow beyond its historical aspects. Furthermore, it contributes to capturing the market demand for vitamins in the present and future.
3. The quality and the safety of the drug molecule are the primary attributes that are majorly important and influence physicians/doctors for prescribing.
4. The promotional tools adopted by the sales force team of pharmaceutical companies nowadays have changed, as physical interaction between physicians/doctors is avoided due to the COVID-19 situation. It was found that currently, the companies have adopted more digital media approach. Digital channels like webinars/conferences, online advertisements (digital magazine, banners, and emails), social media (LinkedIn, Twitter, and Facebook), telemarketing, and online videos (MOA) largely influence prescription writing of doctors in the COVID-19 pandemic situation.

LIMITATIONS

1. The study was conducted in the Prayagraj district (Uttar Pradesh) region only; perhaps a wider sample base could have been taken so that the results could have been more generalized. The sample size could have been larger.
2. Not all respondents have responded, so the study cannot give 100 percent accurate results.
3. Some of the Doctors/ Physicians and retail Chemists were reluctant to have communication so that the response could be a bit biased.

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MARKETING IN THE 21ST CENTURY



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ABSTRACT

Marketing is no longer restricted today to traditional methods, thanks to the use of internet and social media, the ever-advancing technology, and the world becoming a global village. Before 1900, marketing was usually done by word of mouth, and personal recommendations. In 1904, the term “marketing” was officially coined by the University of Pennsylvania and the industries mainly focussed on increasing production. With the advent of radio in the 1920s, TV and telephones in the 1940s, the product advertisements started and marketing mix concept was born. 1950s and 1960s marked the golden age of advertising. The 1970s marked the birth of IMC process and Societal marketing concepts. In the 1980s, the concept of CRM was formed and marketing became more personal. In 1980s, “guerrilla marketing” started using originality and shock to advertise with minimum budget. In the 1990s, internet, a new exciting marketing medium heralded the digital marketing era. Search Engine Optimization (SEO), a much smarter marketing idea was born in this decade. The new millennium in 2000 saw the birth of social media, another new platform for the marketers. Today, in the last twenty years, a gradual transformation in customer expectations and severe competition among the marketers led to the strategies like experiential marketing, social network marketing, affiliate marketing, rural marketing, ambush marketing, viral marketing, green marketing, neuro marketing. Today in 2020, the consumer's growing dependence on technology and the internet has made the “digital, online and database marketing” concepts more indispensable retaining the traditional values of marketing.

This chapter explores how these contemporary concepts are used to convey a better and superior experience away from customer imagination by focusing on practical examples and case studies.



Keywords	guerrilla marketing, societal marketing, experiential marketing, digital marketing, neuromarketing
JEL Classification	M31
Cite this Article	Bagchi, Chitra., Mohanty, Sagyan Sagarika. (2020, December). Marketing in the 21 st Century. In Perspectives on Business Management & Economics (Vol. III, pp. 57-70). Retrieved from http://www.pbme.in/papers/77.pdf
Article History	Received: October 15, 2020; Accepted: October 30, 2020; Published: December 31, 2020

INTRODUCTION

Marketing has been age-old, but the term "marketing" used to describe commercial activities like buying and selling products or services gained popularity in the late nineteenth century. The study of Marketing as a discipline and its history is meaningful because it helps define the baselines upon which changes can be recognized and understood and how the discipline evolves in response to those changes. Marketing as a concept is continuously evolving, making it hard to keep track of these ongoing changes. Marketing in the 21st century has changed drastically from its early beginning and took a new shape and form filled with many challenges and an overflowed prospect that makes marketing super dynamic.

PARADIGM SHIFT IN MARKETING STRATEGIES IN THE LAST 100 YEARS

Scenario before 1900

Since physical goods were produced in small batches, usually by hand, marketing was done by positive word of mouth communications and personal recommendations. As mass-production set in, it became necessary to sell more and more products, and marketing as we know it was born.

The early 1900s

In 1904, The University of Pennsylvania was the first to coin the term "Marketing" when it offered a course named "The Marketing of Products," and the term "marketing" is officially born. The industry mainly focused on increasing production, and marketing was limited to a little more than efficient product distribution. In 1910 a famous quote from Henry Ford summed up the spirit of marketing in this decade perfectly: "They can have any color they want as long as it is black." At this time, marketing efforts mainly centered around the Production concept, which focused on production, manufacturing, and economies of scale.

Scenario in 1930

The radio was invented in the 1920s, which helped the Companies to reach the masses. The advertisers could now easily convey the products' existence to the consumers with the new technology's help. At this phase, mass production got disturbed due to lack of demand caused by the Great Depression of the 1930s, and companies started selling their existing accumulated unsold stocks. Selling them out got tougher, which compelled the companies to start looking for aggressive and unethical means to sell. It is thought that the selling orientation started during this Depression, which continued well into the 1950s. The selling orientation was characterized by pushing products and aggressive selling by hook or crook, which often involved door-to-door sales.



The 1950s: The birth of Marketing Mix

The 1950s saw the birth of a plethora of marketing ideas. This was due to TV's invention in 1941 and the gradual increase of the phone in the 1940s. The concept of a marketing concept or marketing mix was born at this time, and the marketers started using different combinations of Product, Price, Promotion, and Place or Distribution. Characteristics of the marketing orientation were marked by understanding the customer's needs, wants, tastes, preferences, and behaviors. The marketers understood that sales, advertising, product management, and pricing should be integrated and in sync with the consumers. The 1950s and 1960s are also perceived as the golden age of advertising.

1970 and 1980

Phillip Kotler is often credited with first proposing the societal marketing orientation or concept in an article in 1972. The main tenets of societal marketing were characterized by an attempt to match the stakeholders' organizational commitments, which included individuals in its environment, including customers, employees and investors, and other businesses. It stated that consumer rights, fair pricing, and ethics in advertising should be kept in mind. It was in the 1970s that the world saw the birth of synergy marketing. Synergy Marketing is defined as the interaction of marketing elements that, when combined, produces a total effect that is greater than the sum of the effectiveness of individual elements. During this era, CRM or customer relationship management slowly started developing as a powerful tool for marketing. Potential customers were started to be tracked by the marketers to convert them into prospects. Marketing got more personal in the 80s. 80s also saw the advent of "Guerrilla marketing, which started using originality and shock to advertise and promote a product or service with very little budget.

1990

The Internet turned out to be a new Avatar in the 1990s, which totally changed the marketing scenario. Marketing professionals quickly started testing new marketing ideas on this exciting new medium. Soon it was followed by a smarter marketing idea is SEO Search Engine Optimisation. Its basic function is to rank a product or service at the top of Google or yahoo's search results to give the seller an edge.

2000 and onwards

The birth of social media in the new millennium became a game-changer and a huge milestone for marketing. The customers became more knowledgeable and got access to more information about products and services. They got more conscious about their rights and responsibilities as consumers as the Internet got much personalized. In the last ten years, the Internet posed to be a new challenge for marketers. It allowed the customers to compare the marketers' products and services, and they could even block or filter them. Marketing is largely focused on catering to customers' needs and desires and about building relationships. The integration of smartphones in our daily lives has further expanded marketing opportunities, including email marketing and mobile marketing campaigns. The growth in digital media and automation has offered tremendous scale and growth, but the immense rise of Google, Apple, Facebook, and Amazon has consolidated tremendous scale and power in a few companies which control the majority of advertising spend and eyeballs. These Companies have immense data on consumers. Social Media coupled with Artificial Intelligence has made the products much more customized with a more personalized Digital media approach.



In 2020, a gradual transformation in customer expectations and severe competition among the marketers led to experiential marketing, social network marketing, affiliate marketing, rural marketing, ambush marketing, viral marketing, green marketing, and neuromarketing. In 2020, the consumer's growing dependence on technology and the internet had made the "digital, online and database marketing" concepts more indispensable, retaining the traditional marketing values.

SOCIETAL MARKETING

The Social Marketing concept, as the name depicts, is based on the principle of social welfare, a more socially responsible, moral, and ethical model of marketing countering consumerism. It is a modified version of the traditional marketing concept that surfaced in 1972 by Philip Kotler, while many companies' unethical practices became public during the 1960s & 70s. According to Philip Kotler, "The social marketing concepts holds that the Organization's task is to determine the needs, wants and interest of target markets and to deliver the desired satisfaction more effectively than competitors in a way that preserves or enhances the consumer's and society's well-being." The definition underlines that the organization should emphasize the long-term interest of the society concurrently with customer satisfaction and profit as the intention.

Societal marketing is closely related to or can be simply termed as an outgrowth of the concept of CSR and sustainable development. In the 1960s & 70s, many companies' unethical practices surfaced publicly, which gives rise to social marketing concept to create responsiveness towards society amid corporate. The theory was developed to tackle the consumerism and exclusive profit motive of business. The social responsibility concept believes that the business is a part of the larger society in which it exists and must therefore act to enforce advancements upon the firm and serve society. This concept argued that marketing should be related to social progress rather than commercial gain. Marketer's motive should comprise of conservation rather than mere consumption.

The Social marketing model consists of an integrated approach by balancing the three vital elements inclusive of society (social welfare), consumers (customer satisfaction), and company objectives (profit). It attempts to carry on social responsibility, public welfare, and sustainable development in the long-term.

Marketers adopting this strategy had many advantages: creating a better brand image, gaining competitive advantages over competitors, attracting, retaining, and developing sustainable relations with different stakeholders. In many cases, societal marketing proves to be profitable and sustainable in the long run. The following case elaborates the concept of societal marketing to a large extent.



Tata Salt Sehat Ki Chuski Campaign: To move beyond mere Sampling: A case of societal marketing

The salt brand TATA and “the Brand Brewery” had undertaken a two-day mobile on-ground activation – Sehat ki Chuski campaign during the Jagannath RathYatra Puri, Odisha, in the year 2016. Owing to its immense popularity every year, the RathaYatra witnessed a massive number of footfalls in the city, which welcomes devotees from far off places and different corners of the world, confronting the scorching heat, irritating humidity, and dusty winds.

Hinged on this insight, TATA had come up with an easy-to-consume and real-time solution by offering tangy 'Energy Pops', which were special energy ice bars made of Tata Salt, lemon, sugar, and purified water. Hundred and thirty kilograms of Tata Salt were used in making the branded ice pops, which were manufactured at Kolkata and were brought to Puri in freezer vans before being handed out to pilgrims from the three customized branded Tata Salt carts. Pradyumn Tandon, founder, and director, The Brand Brewery, added, as the Government of Odisha banned all kinds of outdoor advertising on the place of Rathyatra, "We wanted to create something around the occasion that goes beyond mere product sampling. While other aspects are taken care of, the devotees' basic health requirements have to be looked at. Hence, we came up with the idea of 'Energy Pops', which would help them maintain their energy levels despite the sweltering heat. People from all parts of the world travel to witness the RathYatra, and we felt that this was a great way to connect with the devotees effectively and grab eyeballs by providing an on-the-spot relief solution to make their experience stress free and memorable."

GUERRILLA MARKETING

The business world may be complicated, but marketers love to try short and stupid strategies to create some tactful impressions in the competitive world. However, to remain effective, these strategies need to change with the change in time and technology. In the 1960s, companies put much emphasis on heavy advertising spending in various mass media channels with the objectives of attracting and educating customers. As heavy competition is the generic feature of the marketing world, these promotional efforts gradually became feeble to draw customer attention. In this scenario, marketers struggle to stand out of the crowd kicked off and popularize Guerrilla Marketing concept organically.

The term Guerrilla marketing was formally introduced by Jay Conard Levinson in his handbook called “Guerrilla Marketing” in the year 1984. In his book, he proposed unique ways of approaching and combating the traditional form of advertising. According to Levinson, the Guerrilla campaign needed to be shocking, unique, unconventional, and outrageous and, lastly, should have the ability to create a buzz, which spreads like wildfire is good enough to reach a maximum targeted audience.

In marketing, guerrilla techniques mostly play on the element of surprise. It focuses on highly unconventional campaigns that catch people unexpectedly in the course of their day-to-day routines. Guerrilla marketing adopts multiple techniques and strategies to establish contact and interact with target audiences to create an emotional reaction and memorable experience among the target audiences. It is a concept that compiled the secrets of getting significant advertising results with little or no money investment. It lives on the principle of “No Rule is the Rule.”



Guerrilla marketing's significant advantage is that it is relatively inexpensive compared to any traditional advertising media channel because a successful guerrilla campaign requires supreme imagination, unparalleled creativity, and appropriate time and energy for implementation. Therefore, it is a suitable strategy for any kind of business irrespective of its size and categories. Another success driver of the guerrilla campaign is the flexibility of application and implementation. In addition to this, like marketing itself, the discipline has become more and more customer-oriented in subsequent years. The development of guerrilla marketing reflects this trend. It builds on a surprise effect to make the message worth telling and, thus, to gain the attention of a high number of recipients. The fact that consumers themselves diffuse the message within their social networks saves advertising costs. In this way, guerrilla marketing claims to achieve a highly efficient ratio of costs and benefits due to the surprise effect, diffusion effect, and cost-effectiveness. The following case explains how the Guerrilla campaign looks like and implemented to get successful results.

The Magic effect of HUL's 3 Roses tea brand: Demonstrated through Guerrilla Marketing

HUL also brought a novel strategy for its 3 Roses tea brand to the MahaPushkaram in Andhra Pradesh in the year 2015. The largest tea brand in South India wanted to advertise an improved formulation. Apart from upping the visibility of the brand, HUL distributed 3000 special cups across 250 tea stalls. The brand logo and message appeared on the cup when it was filled with a hot beverage, something novelty for large parts of the rural audience. Says Shiva Krishnamurthy, general manager, and category head tea, HUL, "We wanted to convey the message during the moment of truth, which is that of consumption. The cup transforms a mundane moment into a magical one.

There was a unanimous 'wow' around the 'magic' effect. Many even wanted to take the cup home with them! While not getting into the specifics, HUL claims a rise in offtake for 3 Roses within 12 days of the festival.

DIGITAL MARKETING

There is a huge number of people gathered or involved, there is an enormous marketing opportunity. As per the statistics, the total world population is calculated as 7.593 billion by January 2018. Out of this total, internet users are 4.021 billion, and active social media users are estimated at 3.196 billion. The above statistics give a clear picture of increasing web traffic and the growing inclination of the population towards the digital world. As people are increasingly using a digital device for their day-to-day life, the digital platform is incorporated into marketing plans that swiftly. Digital Marketing broadly refers to communicating value to the customers by using digital tools. It is the marketing of products or services by using digital technologies, mainly on the Internet, but also including mobile phones, display advertising, and any other digital medium.

If we focus on digital marketing operation and implementation, it is much more than a website, email, and social media. It also encompasses content publication, mobile optimization, and data analytics. It is a cocktail of various digital options, tools, and techniques, with each ingredient having its uniqueness and significance in the mix. The concept of digital marketing cannot be understood nor implemented without understanding the following key components.



1. **Search engine optimization (SEO):** SEO is a technique for designing and developing a website to rank well in search engine results.
2. **Search engine marketing (SEM):** SEM is a form of internet marketing that involves the promotion of a website by increasing its visibility in search engine result pages (like Google, Yahoo & MSN) primarily through pay-per-click advertising
3. **Social media marketing (SMM):** Social media marketing, or SMM, is a form of internet marketing that involves creating and sharing content on social media networks in order to achieve marketing and branding goals. (Discuss in detail in this chapter)
4. **Content marketing:** Content marketing is the creation and sharing of content in articles, blogs, videos related to one's product or services on any digital platform. Some digital marketing experts say that content is the silver bullet of digital marketing.
5. **Email marketing:** Email marketing is the cheapest, most preferred, and most effective digital medium? It comprises building a subscribers list and sending emails to the target audience.
6. **Online advertising:** Online advertising is any type of marketing message/communication that shows up with the Internet's help.
7. **Affiliate marketing:** It refers to the use of affiliate partner websites to advertise other e-commerce websites.

If we look back, the term Digital Marketing was first coined in the year 1990s. With the debut of server/client architecture and the popularity of personal computers, marketers justify the concept of providing the right product to the right customer at the right time and place more accurately.

This concept got initiated when people started buying personal computers and using email, and in only two years, between 1994 and 1996, the number of people using the internet went from 16 to 70 million. What caused this explosion of new users was Netscape, the first successful browser. The first-ever clickable banner ad appeared in 1994, and about 44% of people who saw it clicked on it. AT&T owned it, and it was placed on the HotWired website. During the same year, the first e-commerce internet transaction took place, and Yahoo! launched, as well. It grew rapidly, going public in April 1996 and being the most popular starting point for web users by 1998.

In addition to this, 1998 also saw the birth of Google. Simultaneously Microsoft launched the MSN search engine, and Yahoo brought to the market Yahoo web search. Two years later, the internet bubble burst and all the smaller search engines were either left behind or wiped out, leaving more space for the giants in the business. The number of internet users only continued to grow, and there were 361 million internet users in the year 2000. The 2000s were prolific, and a large number of influential platforms appeared during that time period. The digital marketing world saw its first steep rush forward in 2006 when search engine traffic was reported to have grown to about 6.4 billion in a single month.

The 2010s were marked by mobile and smartphone users being more numerous than desktop users. In addition to this, in the year 2002, social networking sites began to emerge. Facebook became the most used social media platform, and Blogger and Twitter were almost as popular. Today, the number of social media users is more than 3.5 billion people all over the world, which makes digital marketing an even more appealing marketing option.

The evolution of digital marketing seems to be a never-ending process. There are new marketing trends appearing every month and new marketing strategies, as well. Looking into this, many companies realized all these fresh new digital options that are popping up are beginning to open new doors of opportunities to market their products and brands.



In the present state of affairs, doing business without digital marketing is like nurturing a plant without giving it air, water, and sun. It is a major driver for marketers as it can produce the relevant campaign with 1/10th of the traditional media expenditure. In addition to this, the digital media campaigns are highly scalable and measured much effectively by tracking it from the very last click. For marketers, digital marketing is the armor in the kitty to breed business in the right and desired direction.

Digital Marketing achievements at Affordable Budget: 293% Traffic increase for Accountancy Firm.

“Exposure Ninja,” a Digital Marketing Agency helping businesses of all shapes and sizes to generate more revenue from the Internet. It supported an accountancy firm that followed a basic online marketing approach with limited scope. It helped redesign the website, research relevant keywords, optimize the blog content, etc. the initial step was keyword research. They looked at the different words and phrases that the client’s potential customers were using when searching for an accountant online. This was also an invaluable exercise in helping them plan their blog content. They periodically ran technical audits on the client’s website and fixed any errors which were spotted. This enabled them to keep the website in the best possible shape for earning new customers.

They improve the existing blogs by adding structure, improving old posts that needed a polish, and creating new content aimed at helping readers solve basic accountancy problems. The new blog content did bring new readers to the client’s website, but after all, enough of them were not becoming customers. To fix this, the agency designed custom online forms for each blog post. They also changed the wording on these online forms to target the issues raised by the blog. This increased the number of people booking consultations with the firm. The client’s website went from 2,894 visitors to a new record of 7,429 visitors. These effective SEO practices resulted in a 293% increase in leads, a 156% in site visitors, and a 31% in requesting for consultation.

Takeaway – With smart SEO tactics, it is easy to mark the SEO search results at a shoe-string budget.

SOCIAL MEDIA MARKETING

The world is changing at a faster rate, so also marketers and their strategy. The world we live in now is a highly digital place. Providing product information and getting feedback is much easier and faster by using various digital tools and platforms. One such platform is social media and networking sites, which the businesses use in a myriad of different ways. Social media marketing is a form of digital and internet marketing that uses social media platforms like Facebook, Instagram, Twitter, LinkedIn, Pinterest, Youtube, Snapchat, Whatsapp, etc., to communicate with the target audience and to promote their brand and product. This consists of a simple process of publishing captivating content on the social media platform for interacting and engaging followers and targeted audiences.

If we look back to the history of social media marketing, the dot-com bubble of 1995 – 2002 was a critical event that allowed the internet to become a viable marketing tool through which companies can reach a range of stakeholders beyond their expectations and before competitors. It began with search marketing, prompting brands to create websites to establish



an online presence. Like Google, Yahoo, and MSN's search engines evolved, companies turned to SEO strategies to remain at the top of search results.

The internet boom touched the peak in 2002 – 2004, with the invention and arrival of social media sites. In 2002, LinkedIn was founded as a networking site for career-minded professionals. By 2020, it had grown to more than 675 million users worldwide. It remains the social media site of choice for job seekers and human resources managers searching for a qualified candidate. Myspace had launched in the year 2003, and it was the most visited website on the planet by 2006, spurred by users' ability to share new music directly on their profile pages. By 2008, it was eclipsed by Facebook. It initiates the shift of internet users from multiplayer online games into social networking sites.

As per the statistics, there are over 2 billion people remain online at any given time. Around 23 percent of the total time spent on the internet is spent on browsing or interacting within social media sites. There are 3 billion active social media users across the globe constitute nearly 40 percent of the world's population. At least 53 percent of active social media sites such as Facebook are following a brand. With the global internet's help, more and more customers (if not all) are expecting major brands to have an online presence. Eventually, corporate recognized these positive aspects of a social media site presence on e-commerce and started creating their own profiles on popular networking sites. It has attracted marketers of different categories and levels to invest in social media to connect with the target audience, build brand image, increase sales, and to generate website traffic. Successful businesses utilize social media marketing for branding, lead generation, research and e-commerce, customer retention, and feedback handling faster irrespective of their location. Not only does social media management significantly reduce marketing expenses and the time needed to market products and services, but it also increased the effectiveness of marketing and overall customer satisfaction. 83 percent of customers who post complaints on a brand's social site like Twitter and get a reply state that they are satisfied. This helped companies retain more of their customers, resulting in increased existing customer transactions.

The spread of tablets, iPads, and Android-operated phones will gradually make internet browsing all the more accessible for consumers, and social media marketing will allow companies to reach out to more target markets. As long as the internet exists, social media will remain an important & integral part of successful marketing strategies.

<p>Effective Usage of #Hashtags: Vogue's Social Media Campaign</p> <p>Vogue India launched a social awareness initiative in October 2014 to draw attention to the empowerment of women. Though started as an initiative to commemorate its seventh anniversary, #Vogue Empower has gone viral on social media and has taken a broader meaning as it continues to touch and influence the lives of rural and urban women.</p> <p>#Vogue Empower raises awareness on social media with a simple message – It starts with you! This initiative has garnered</p>	<p>#Gifted Day: Most Successful Social Media Campaign of AstraZeneca</p> <p>AstraZeneca has taken the initiative called #LVNGWith exclusively for connecting lung cancer attacked people with their loved ones. People were invited to leave their answers on Facebook and Instagram for this question – How will you spend your #GiftedDay? When anyone has lung cancer, every day counts. An extra day in the year, Leap Day becomes a gift.</p> <p>“The Gifted Day” came to life as a 24-hour social content series that aired on Leap Day. Every hour, a member of LVNG With</p>
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<p>much attention on all social media platforms. The latest hashtag to join this noble initiative is #MyChoice, starring Deepika Padukone and 99 other women in the city of Mumbai. This 2-minute short film in collaboration with Homi Adajani speaks about women voicing their choice for equality.</p> <p>Taking a look at the social feed featuring #MyChoice #VogueEmpower, there has been a considerable increase in this hashtag's engagement statistics. It went viral on the internet that attracted 2million+ views in two days.</p> <p>Takeaway – Effective usage of catchy hashtags on your social media posts with popular influencers can boost your social media awareness.</p>	<p>answered, “What are you doing with your extra day of life?”</p> <p>#GiftedDay is such an amazing social media content series that earned half a million views in less than 24 hours, increased 500% of shares, doubled their number of followers, and over 1,500+ people newly joined the LVNG community and many more.</p> <p>Takeaway – Successful social media campaigns help create awareness among the audience and connect people from all over the globe.</p>
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EXPERIENTIAL MARKETING

In the 21st century, it is harder than ever to get consumers' attention by sheer shouting or providing certain incentives. People are now more cynical about brands than they have ever been. Brands are struggling to remain relevant and meaningful by moving beyond traditional marketing communications. Marketers realized that it is time for a re-think. In this era of cut-throat competition majority of customers yearn for a personalized experience and significant interaction with the brand before moving forward with any decision. For that reason alone, it is easy to understand why brands are falling in love with experiential marketing. In this strategy, immersive, live, and memorable experiential campaigns help deliver the brand's message without distractions. It is a unique combination of sights, sounds, textures, tastes, and smells all add up to create an enriching experience that is not available by any other means.

Experiential marketing is a strategy that holds and involves consumers by giving live brand experiences and bringing brands to real life. Sometimes referred to as “live marketing” or “event marketing experience,” the idea behind it is to create a strong & memorable impact on the consumer that will inspire them to share with their friends both online and offline. One survey shows that it is far more effective than any other channel in engaging consumers. Over 50 percent of people say they spend between one and 10 minutes a day engaged with a brand through experiential marketing, compared with less than a minute through TV and Facebook. In addition to this, research by McKinsey found that experiential marketing is the powerful catalyst for word-of-mouth marketing, with branded experiences accounting for 50-80% of all word-of-mouth activity. These experiences could include an event, a part of an event, or a pop-up activation not tied to any event.

According to a statistic, 74 percent of consumers say that experiencing and involving brands and products makes them more likely to buy the product. As a result, growing numbers of marketers are allocating more budgets to experiential marketing, even over advertising and more than half of chief marketers have a plan to spend at least a fifth of their budget on experiential marketing in the near future. An annual survey by Event Marketing Institute projects says that event and experiential marketing budgets will grow 4.7 percent in 2013, up



from 5.0 percent in 2012. The study also says that the world's largest brand - those with \$1 billion-plus in revenue increased event and experiential spending by 9.8 percent in 2012.

If we look back to history, the first documented examples of experiential marketing are from the 1893 Chicago World's fair. Here, brands like Wrigley's, Oabst, and Cracker Jack debuted their brands and products to the world. William Wrigley, Jr. Himself handed out pieces of Juicy Fruit to attendees in hopes of driving sales. After that, Car shows in the 1920s became a popular way to market automobiles to consumers. They did more than just showcase cars in a museum-like atmosphere; they created showy events that motivated people to buy and cherish their cars. A 1998 book titled "The Experience Economy" helps explain the growth of the experiential marketing movement that began around the turn of the century, says a terrific blog post on CK Writes. The book explains that people were willing to pay a premium for products and services that offered an experience along with whatever they purchased. Marketing was evolving around that time anyway because of technology. The Internet gave marketers a new and less expensive way to advertise. Marketers needed to find a new, better way to reach people by trying to skip commercials

What made experiential marketing take-off was the rise of social media. Suddenly marketers were not just reaching the person who attended their event. They were reaching all their friends and colleagues. All those people were invited to participate in the event, even if it was in a very small way. Korody with CK Writes shares a quote by Jonathan Edwards, the Strategy Director at UK experiential marketing Sledge: "Advertising tries to persuade me – but a good experience also gives me a reason to persuade other people." That is true of everything, but it especially applies to how social media allows individuals to reach out to their network and market to them.

Experiential marketing is a golden opportunity to increase customer loyalty and direct sales for different brands, especially small businesses. Successful experiential marketing campaigns do not just introduce people to their brand. However, they serve as ways to activate new customers and introduce them into their sales funnel, with 65 percent of brands saying that their experiential marketing efforts lead to direct sales. However, beyond direct marketing, experiential marketing also provides a way to drastically increase their brand awareness and exposure, either by turning their audience into brand ambassadors or encouraging participants to share their social media experience. As per the marketing week survey, more than 50 percent of the consumers favor experiential marketing to every other marketing form. 48 percent say that they are more likely to buy a new product if they get the opportunity to try it first. Their survey even speaks that experiential marketing increases brand awareness, purchases, and recommendations by more than 50 percent. It can easily enter into the lives of different categories of people, serve them during the hour of need, and mold the strategy according to the situation's demand.

Experiential marketing has come a long way over the past 125 years with many addition and alterations, but many of the tactics remain the same. Throughout the years, there has been one common denominator in experiential marketing: face-to-face engagement or human contact remains the heart of experiential marketing.



Lifebuoy - Lifebuoy Roti Reminder Campaign: To create a brand experience by moving beyond traditional marketing communication

Poor hygiene kills 1.1 million children & people in developing countries. Lifebuoy looked to address this problem at the Kumbh Mela, where over 100 million Hindus sit together to eat. Through an investment of US \$ 36,000 (over Rs 20 lakh at an exchange rate of Rs 60 to a dollar) and appointing over 100 promoters at several community kitchens, 2.5 million Rotis were heat-stamped with the message, 'Lifebuoy se haath dhoye kya' (Have you washed your hands with Lifebuoy?), prompting people to wash their hands before eating. The campaign, executed at the cost of less than 1 cent per contact, earned the brand a media value of over 60 million USD, which is more than 1,600 times RoI. Overall, the brand received sales of 40 dollars for every one dollar spent on the campaign.

NEUROMARKETING

Neuromarketing is the formal study of the brain's responses to advertising and branding and the adjustment of those messages based on feedback to elicit even better responses. Researchers use functional magnetic resonance imaging (fMRI) and electroencephalography (EEG) to measure specific types of brain activity in response to advertising messages. With this information, companies learn why consumers decide what parts of the brain are motivating them to do so.

The term "neuromarketing" was introduced in 2002 by Dutch marketing professor Ale Smidts, but research in the field started in the 1990s. Marketing Professor Gerald Zaltman explored and patented the Zaltman metaphor elicitation technique (ZMET) in the 1990s. General Motors, Procter & Gamble and Nestle, and Coca-Cola have been used this new marketing.

Research shows that just a few parts of the brain respond to the stimuli changes. Nucleus acumens create the expectation of pleasure, the Prefrontal cortex controls higher thinking, Hippocampus helps memory, and Insula anticipates and avoids painful stimuli. The mesial prefrontal cortex—registers disappointment when a hoped-for reward does not materialize. The following experiment explain the concept to a large extent

The famous experiment with Coke and Pepsi by McClures

Researchers had served the participants Coke and Pepsi 1) anonymously and 2) revealing their brands in both behavioral tasting tests and during fMRI scans. McClure and his co-workers noted that a constant neural response is observed in the subjects' ventromedial prefrontal cortex when the drinks are served anonymously. When participants knew what they were drinking, it greatly affected their brain activity and their behavioral preferences.

Brain scans revealed that Coke or Pepsi's choice does not solely depend on their taste but also their labels, since this information activates cerebral areas related to cultural influences. Therefore, the researchers believe that they have proved neurologically how brands influence behavioral preferences when they have cultural reflections.

According to the researchers, the reason for this is that "there are visual images and marketing messages that have insinuated themselves into the nervous systems of humans that consume the drinks" (McClure et al., 2004).



Scientists have witnessed that while knowing that the persons are drinking Pepsi did not change anything. However, when the participants were told that the brand is Coca-Cola, it dramatically affected their preference and also activated their “dorsolateral prefrontal cortex” and hippocampus, both of which are known to change the individual’s behaviors depending on emotions. This led the researchers to think that hippocampus might be responsible for recalling that cultural influences affecting preferences (McClure et al., 2004). The scientists also believed that the study results imply that there are two interacting brain systems in the prefrontal cortex; one for taste and one for recalling cultural influence. This interaction determines the individual’s preferences.

ONLINE MARKETING

Online marketing is the practice of harnessing the web-based channels to convey about a company's products, brands, or a service to its customers. The techniques used for online marketing include email, social media, display advertising, search engine optimization, Google AdWords, and more. Online marketing can deliver benefits to other companies, such as a competitive advantage over others, better control, improved customer service, and efficient communications. Other names for Online marketing are web marketing, digital marketing, or internet marketing. It includes several processes such as social media marketing, search engine optimization, pay-per-click advertising, and search engine marketing. These things have already been discussed in this book chapter.

Targeting the consumers can be done more effectively in an online rather than an offline process. Efficient statistical results are facilitated without extra costs. Business blogs can let consumers and prospects do their own research on the business's products and provide their valuable feedback and reviews. Last but not least, bulk audiences can be reached at a very little budget compared to the existing businesses, and ads are very capturing too.

To summarize, change is the only constant thing in this world, and so are the marketing strategies. Coming to the far end of 2020, given the present pandemic situation, brands worldwide are doing introspection into their strategies to deliver a sense of safety and security amongst the consumers who are going through a crisis, surely to cause long-term psychological changes. This makes it imperative for marketers to adapt to change to win consumer’s trust.

Marketing Researches being done in this COVID situation shows that consumers are expecting more sensitivity and caring attitudes from brands by addressing the larger issue than being opportunistic. Consumers are expecting brands to communicate around the company’s vision and value system. This new trend is expected to continue in the post-pandemic situation too. One would expect that instead of resorting to pushing strategies, large established brands will focus on empathetic communication to connect with consumers on a deeper level. On the contrary, smaller brands and new age start-ups will focus on the funnel content's bottom to push the products for direct results. Irrespective of the pedigree of brands, the age of ‘service with a smile’ will arrive, and that alone will define the success of brands.



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PRADHAN MANTRI JAN DHAN YOJANA (PMJDY) INDIA'S BIGGEST FINANCIAL INCLUSION SCHEME: A STUDY



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ABSTRACT

Financial exclusion creates the problem of social discrimination. Majority of population in India is living in the rural area and that is why they have very limited access to the banking & financial services. An inclusive system of financial services is essential to develop the economy of any nation. Financial Inclusion is an attempt to provide access to affordable and useful financial services to the deprived section and less income group of economy. Hon'ble Prime Minister of India, Shri Narendra Modi has announced India's biggest financial inclusion scheme i.e., Pradhan Mantri Jan Dhan Yojana (PMJDY) on August 15, 2014 and have formally launched on August 28, 2014. This initiative has been started by Government of India to provide universal access to banking and financial facilities starting with basic saving bank account with overdraft facility and RuPay debit card with inbuilt accident insurance facility. The object of this research study is to analyse the progress and current status of PMJDY. It is a secondary data-based study. Secondary data has been collected through published annually, monthly reports of RBI, SLBC, official websites of PMJDY, previous research papers and annual economic survey. Average, percentage, comparative tables have been used to draw the conclusion. The research article explores the progress and current status of PMJDY. The study has also highlighted the issues and challenges in effective implementation of the scheme.

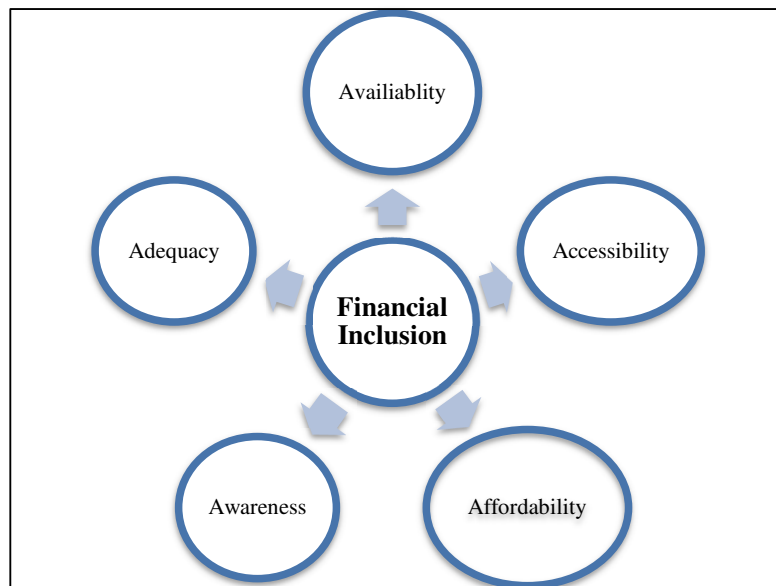
Keywords	Financial inclusion, PMJDY, BSDBA, Banking, RuPay, Direct Benefit Transfer
JEL Classification	E52, O16, E21
Cite this Article	Singh, Vijay Pal. (2020, December). Pradhan Mantri Jan Dhan Yojana (PMJDY) India's Biggest Financial Inclusion Scheme: A Study. In Perspectives on Business Management & Economics (Vol. III, pp. 71-80). Retrieved from http://www.pbme.in/papers/86.pdf
Article History	Received: October 15, 2020; Accepted: October 30, 2020; Published: December 31, 2020



INTRODUCTION

The study of financial inclusion (FI) is very important for the growth of society, the outcome of financial exclusion have a negative impact on the economic and social development of every nation. People who are unable to obtain services from mainstream financial service providers are thus regarded as financially excluded, not only because there are no branches of the bank or other financial institution in their community but also because they are excluded or unable to use services offered by different financial institutions (Maity and Sahu, 2020). Financial inclusion (FI) is an attempt to provide access to affordable and useful financial services and products to the deprived section and low-income group of the society. FI also describes the equality & availability of opportunity to get financial services. The main objective of FI is to remove the obstacles which keep away users from participating in the financial system and provide financial services to fulfill their specific needs without any discrimination. Financial inclusion implies bringing low-income and excluded sections of society under banking coverage by providing them access to banking & financial services at an affordable cost. Financial inclusion includes availability, accessibility, affordability, adequacy & awareness about financial/banking services, as mentioned in Figure 1.

Figure 1: Financial Inclusion. Source: Rangarajan committee report



Source: Author compilation

For the advancement of society and inclusive economic and social growth, financial exclusion has become a priority of many countries. FI is very helpful to reduce the social and economic gap between the poor and rich sections of the population. From a growth point of view, it is recognized as a driver for poverty reduction all over the world. Financial inclusion also pushes up job creation, income & employment opportunity and increase investment in human capital. Without adequate access to formal financial services, individuals and firms need to rely on their own limited resources or rely on costly informal finance sources to meet their financial needs and pursue growth opportunities.

LITERATURE REVIEW

Philip Megicks, *et al.* (2005), in his study titled “Enhancing microfinance outreach through market-oriented new service development in Indian regional rural banks,” explored the effectiveness of Indian microfinance institutions in achieving their social and economic goals. The research paper provides an overview of the main aspects of the present market orientation research set within RRB’s future provision of financial products to the poor. RRBs in India is an integral component of the micro finance sector, which comprises a number of institutions that utilize “self-financing” methods of poverty alleviation. Sharma, M. and Paise, J. (2008) said that FI is a policy priority for development in many countries. By looking at the financial inclusion index developed in levels, human development and financial inclusion in a country move closely with each other, although a few exceptions exist. Among social-economic factors, as expected, income is positively associated with financial inclusion. Kelkar, V. (2010), described that the Indian economy had been significantly influenced by finance. Increment in FI initiatives will decrease the indebtedness of farmers, and it will lead to the modernization of agriculture in India. Enhancement in FI provides better management of risk to the farmers. It would encourage them to accept new techniques at a higher rate and make a positive impact to boost innovations and entrepreneurship.

To analyze the customer attitude towards technology-based services, Singh, J. & Kaur, P. (2013), conducted a study titled “Customers attitude towards technology-based services provided by select Indian banks.” They explained that the overall satisfaction of customers with regards to technology-based services provided by banks in India is based on easy use, low transactional cost, and security. To increase the customer base, bankers should focus on simplifying the technology from a customer point of view, making services more economical, and transparently building the customer's trust. Singh, B. and Singh, S. (2015) stated the current financial inclusion status in India. In this study, he analyzes the level of financial inclusion concerning Pradhan Mantri Jan Dhan Yojana. After implementing this scheme, the result revealed that the record increment in term of opening bank account had been recorded. However, there is still scope for further progress in rural/backward areas.

Jain, S. (2015) revealed in his study that banks have created awareness about financial products and financial literacy in the people who do not have any access to to reduce financial exclusion Maity and Sahu (2018) explained the role of Indian banks in FI and measured their efficiency through data envelopment analysis DEA in financial inclusion respect. Results indicate that selected PSBs operate at 97.48% and private sector banks (PSBs) operate at a 92.26 percent efficiency level. Their input could be reduced by 2.52% for PSBs and 7.74% for PSBs. Inoue T. (2019), through her paper titled “Financial inclusion and poverty reduction in India,” put forward a step towards rural development and try to analyze the impact of FI through commercial banks in development. In her study, results show that FI initiatives are helpful in poverty reduction. To analyze the fact, it has been concluded that government banks, as compare to private banks, have larger estimated values of FI.

OBJECTIVES OF THE STUDY

1. To study the concept of financial inclusion.
2. To analyze the progress and current status of Pradhan Mantri Jan Dhan Yojana.

DISCUSSION

Banks play vital role in the growth of Indian economy, they work as a mobilizers, by collecting the saving of people and further allocate these saving into investment and production activities.

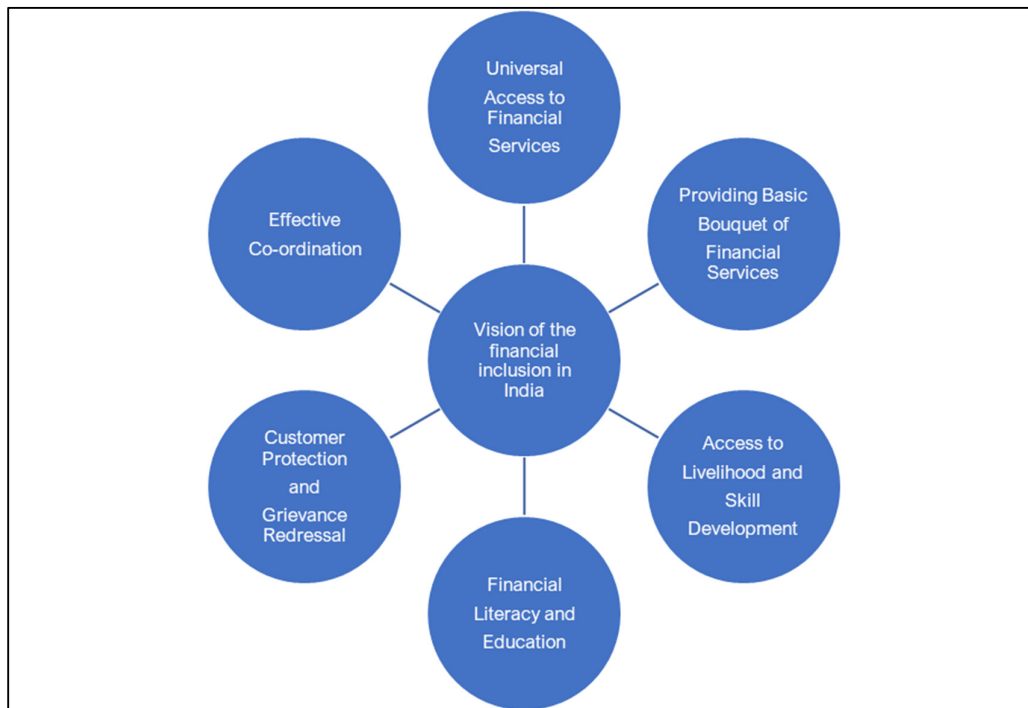


They identify the entrepreneurs with the best chances of successfully initiating new commercial activities, allocating credit to them, and contributing to the nation's economic growth. Financial access is a driver of increasing the living standard and economic condition of the country's weaker and vulnerable population. The concept of Financial Inclusion in India started when inclusive banking began with the nationalization of banks in 1969 and 1980. The term of Financial Inclusion in India was started in the year 2004 by the then RBI Governor Dr. Yaga Venugopal Reddy. The real thrust in the concept of Financial Inclusion comes in the year 2005 when the Reserve Bank of India highlighted its annual policy statement of 2005-06. In 2008 the Government of India appointed a committee of Financial Inclusion under the Chairmanship of Dr. Chakravarthi Rangarajan (19th Governor of RBI). The committee highlights the following main points in his report.

- Approximate 50 % of the people in India do not have bank accounts.
- 11 % of bank branches in India are limited to the metros.
- 90 % of the people do not have borrowing from the banks.
- Nearly 85 % of the population do not have access to insurance services.
- 2 % of the retail investors in India participate in the Indian capital market.

The vision of financial inclusion in the Indian context can be understood with the help of Figure 2.

Figure 2: Vision of Financial Inclusion. Source: National Strategy for Financial Inclusion



Source: Author compilation

IMPORTANT FINANCIAL INCLUSION SCHEMES OF GOVERNMENT OF INDIA

Indian Government has introduced many schemes to increase financial inclusion. These schemes formulate to provide social security to the poor and vulnerable sections of the Indian society. The Government of India has been started below mentioned various financial inclusion schemes over different years.

Table 1: Financial Inclusion Initiatives of Government of India

Years	Description
1969	Nationalization of fourteen banks.
1975	Formation of RRB's.
1980	Nationalization of six banks.
1982	Formation of National Bank for Agriculture and Rural Development.
2000	Formation of SIDBI for Micro Credit.
2006	Formation of committee on FI under the chairmanship of Dr. C. Rangarajan.
2008	Final report on FI submitted by Rangarajan committee to the Finance Minister.
2011	Reserve Bank of India launches Swabhiman Campaign.
2013	DBT (Direct Benefit Transfer) & AADHAR (Unique Identification Number) Scheme.
2014	Pradhan Mantri Jan Dhan Yojana (PMJDY).
2015	Launching of Suknya Samridhi Yojana, Stand up India Scheme, PMMY, Pradhan Mantri Suraksha Bima Yojana (PMSBY), Pradhan Mantri Jeewan Jyoti Bima Yojana (PMJJBY).
2016	Demonetization, RBI approval to set up Small Finance Banks, Payments Banks.
2017	Launching of Indian Post Payment Bank.

Source: Author compilation

FINANCIAL INCLUSION THROUGH FINANCIAL TECHNOLOGY (FINTECH)

Financial technology refers to the utilization of advanced technology in the financial sector. Financial inclusion is extensively improving across the world with the usage of financial technology. In India, there are many fintech companies that are constantly working on simplifying the process of providing financial services to prospective clients. They are very useful to the customers, due to their low-cost services.

Financial technology companies are enabling rural peoples to apply for a loan and open bank accounts by using a mobile phone. Some people have started using advanced fintech options i.e. digital payments system, crowdfunding, electronic wallets, etc. With the help of electronic payment wallet systems, this fintech is also providing a platform the people to make payments for products and services from their residential regions. The Indian Government has also launched many electronic wallet systems through smartphone apps such as BHIM (Bharat Interface for money), Google pay, Aadhaar pay, Paytm etc. Electronic wallets refer to wallets that can be used with the help of electronic means such as mobile phones. These e-wallets can be used for utility bill payments, recharge the mobile phone, and shopping. Many attractive offers and discounts are provided to the peoples who make digital transactions.

IMPORTANT OF FINANCIAL INCLUSION

In countries like India, which comprises rural, semi-urban & urban zones, banks play an important role in the growth & development of the economy. Financial inclusion enables the financially excluded people of urban & rural areas to access the improved range of formal



financial services. In a broader sense, financial inclusion refers to the financial system of developing a habit, culture of saving among a large segment of the rural population and plays a major role in the process of social and economic development. Financial Inclusion reduces the exploitation of weaker/poor sections of society by the usurious money lenders by providing a facility for easy access to formal credit. Financial inclusion is emerging as a new paradigm of economic growth that plays a major role in driving away poverty from the country.

In the Indian context for overall economic and social growth, poverty alleviation, and income inequality reduction, financial inclusion has proved a milestone. The financial inclusion of women is particularly important for gender equality and women's economic empowerment. With greater control over their financial lives, women can help themselves and their families to come out of poverty; reduce their risk of falling into poverty; eliminate their exploitation from the informal sector, and increase their ability to engage in measurable and productive economic activities fully. An inclusive financial system supports stability, integrity, and equitable growth. Therefore, financial exclusion because of several physical, socio-cultural, and psychological barriers warrants attention from the policymakers.

PRADHAN MANTRI JAN DHAN YOJANA (PMJDY)

Pradhan Mantri Jan Dhan Yojana is an ambitious scheme for comprehensive financial inclusion announced by the Hon'ble Prime Minister of India, Shri Narendra Modi, in his first Independence Day speech on August 15, 2014, and formally launched on 28 August 2014 as a National Mission for Financial Inclusion. The basic aim of this scheme is to provide access to banking and financial facilities with at least BSBDA for every household, access to credit, financial literacy, pension, and insurance at an affordable cost. PMJDY works with the philosophy of inclusive growth "Sab Ka Sath Sab Ka Vikas." To gear up the scheme, Prime Minister personally mailed to all the banks' CEOs to cover the six crore households and open their bank account. In this email, he categorically declared that a bank account for each household was a "national priority." Under this scheme, a basic saving bank deposit account (BSBDA) can be opened in any bank or Business Correspondent outlet called Bank Mitra by persons not having any other account.

FEATURES OF PRADHAN MANTRI JAN DHAN YOJANA (PMJDY)

PMJDY has been started with the following features:

1. One basic saving deposit bank account is opened for a person who does not have any bank account.
2. Zero balance bank account is opened under PMJDY.
3. Interest facility is also provided on the deposit in PMJDY bank accounts.
4. RuPay debit card is provided to PMJDY account holder.
5. Insurance Cover (Accident) of Rs. 1 lakh (enhanced to Rs. 2 lakh to new PMJDY bank account opened after 28.8.2018) is provided with RuPay debit card issued to Jan-Dhan account holders.
6. Life Insurance Cover up to Rs. 30,000 also provided to eligible PMJDY account holders who have opened their Jan-Dhan bank account first time between August 15, 2014 to January 31, 2015.
7. After successful operation of six months, Jan-Dhan bank account holders are also eligible for an overdraft (OD) facility of Rs. 10,000.
8. Bank accounts opened under PMJDY are also eligible for Direct Benefit Transfer (DBT) facility, Pradhan Mantri MUDRAYojana, Atal Pension Yojana (APY), Pradhan Mantri

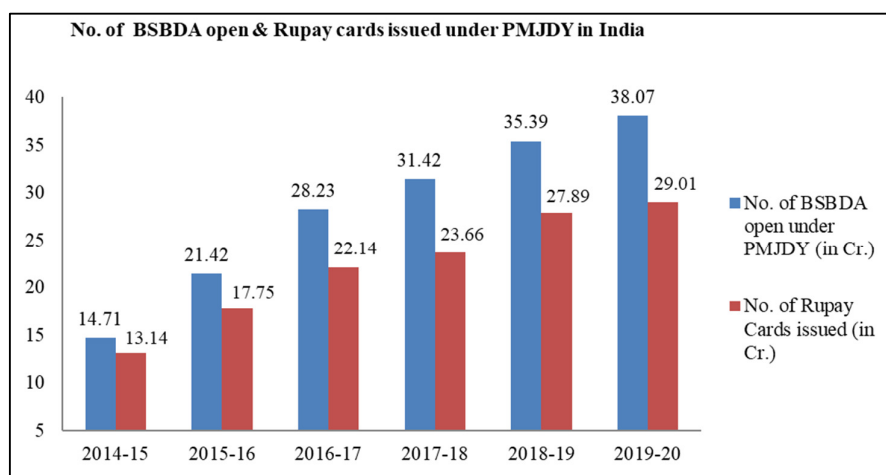


Jeevan Jyoti Bima Yojana (PMJJBY), Pradhan Mantri Suraksha Bima Yojana (PMSBY) scheme.

PERFORMANCE OF PRADHAN MANTRI JAN DHAN YOJANA (PMJDY)

This program exclusively based on the huge branch network of all the commercial banks situated in every corner of the country. This initiative's success story is a result of continuous efforts and working of the entire banking space of over country. We can analyze this financial inclusion initiative with the help of Figure 3.

Figure 3: Progress of PMJDY



Source: <https://www.pmjdy.gov.in/home>

Statistics shown that there is substantial growth with regard to opening basic saving bank deposit account under Pradhan Mantri Jan Dhan Yojana. There was 14.71 crore BSBDA has been opened, and 13.14 crore RuPay debit card has been issued to Jan-Dhan bank account holder till March 31, 2015. This count has been increased to 38.07 crores in the case of BSBDA and to 29.01 crores in RuPay debit card to Jan-Dhan account holders as of March 31, 2020. This shows a growth rate of 158 percent. This is very good from a financial inclusion point of view to bring excluded/weaker sections of Indian society into the mainstream of economic growth. Bank wise performance of PMJDY is tabulated as under:

Table 2: Bank wise performance of PMJDY as of November 11, 2020

Bank Name / Type	Number of Beneficiaries at Rural/Semi Urban Bank Branches	Number of Beneficiaries at Urban Bank Branches	No of Female Beneficiaries (Rural & Urban)	Number of Total Beneficiaries	Deposits in Accounts (In Crore)	Number of Rupay Debit Cards issued to Beneficiaries
Public Sector Banks	20.00	12.66	17.90	32.66	102626.25	25.75
Regional Rural Banks	06.37	00.94	04.23	07.32	25209.09	03.34
Private Sector Banks	00.70	00.57	00.68	01.27	4144.95	01.15
Grand Total	27.07	14.17	22.81	41.25	131980.29	30.24

Source: <https://www.pmjdy.gov.in/home>; All figure in crore

Table 3: State-wise performance of PMJDY as on November 11, 2020

SN	State Name	Beneficiaries at Rural/Semi-Urban Bank Branches	Beneficiaries at Urban/Metro Bank branches	Total Beneficiaries	Balance in Beneficiary Accounts (in crore)	No. of RuPay cards issued
1	Andaman & Nicobar Islands	32,031	16,083	48,114	32.33	40,390
2	Andhra Pradesh	57,97,452	53,50,943	1,11,48,395	3,210.13	87,40,376
3	Arunachal Pradesh	2,21,078	1,30,941	3,52,019	180.02	3,04,233
4	Assam	1,35,30,695	41,05,794	1,76,36,489	4,074.91	1,08,09,647
5	Bihar	3,33,37,732	1,41,52,002	4,74,89,734	13,567.87	3,75,09,967
6	Chandigarh	45,656	2,16,715	2,62,371	133.16	1,83,716
7	Chhattisgarh	1,04,26,364	47,15,081	1,51,41,445	4,162.00	1,04,18,965
8	Dadra & Nagar Haveli	1,29,835	13,722	1,43,557	79.04	91,554
9	Daman & Diu	44,750	14,375	59,125	29.29	44,247
10	Delhi	2,90,909	44,20,140	47,11,049	2,117.26	38,96,297
11	Goa	1,38,508	29,240	1,67,748	111.13	1,17,980
12	Gujarat	98,45,114	59,05,872	1,57,50,986	5,999.05	1,22,54,519
13	Haryana	40,25,096	37,62,752	77,87,848	4,088.55	59,10,454
14	Himachal Pradesh	13,44,162	1,22,139	14,66,301	907.84	11,39,676
15	Jammu & Kashmir	20,44,204	3,66,482	24,10,686	1,316.88	17,84,208
16	Jharkhand	1,24,44,776	26,99,831	1,51,44,607	4,482.23	1,08,04,086
17	Karnataka	87,94,715	62,56,056	1,50,50,771	4,827.87	98,12,822
18	Kerala	24,74,315	21,77,726	46,52,041	1,909.55	28,75,210
19	Ladakh	17,113	3,515	20,628	21.38	18,732
20	Lakshadweep	4,648	1,265	5,913	11.45	4,793
21	Madhya Pradesh	2,05,17,715	1,42,47,753	3,47,65,468	7,050.49	2,63,74,393
22	Maharashtra	1,63,57,544	1,29,05,582	2,92,63,126	9,034.56	2,04,81,736
23	Manipur	4,65,783	5,50,527	10,16,310	214.09	6,99,607
24	Meghalaya	5,11,149	69,631	5,80,780	297.07	3,85,084
25	Mizoram	1,75,730	1,42,941	3,18,671	139.04	1,05,655
26	Nagaland	1,43,755	1,78,539	3,22,294	82.44	2,71,294
27	Odisha	1,31,68,608	36,91,070	1,68,59,678	5,910.45	1,33,44,856
28	Puducherry	79,311	82,214	1,61,525	58.12	1,19,486
29	Punjab	43,21,556	29,79,591	73,01,147	3,140.21	57,80,368
30	Rajasthan	1,89,41,473	97,86,744	2,87,28,217	10,457.32	2,27,65,803
31	Sikkim	61,726	26,134	87,860	48.9	67,242
32	Tamil Nadu	55,82,289	53,73,175	1,09,55,464	2,878.77	89,54,090
33	Telangana	53,25,739	47,69,138	1,00,94,877	2,604.25	82,26,654
34	Tripura	6,34,136	2,52,841	8,86,977	557.92	4,22,334
35	Uttar Pradesh	4,97,92,881	1,98,89,013	6,96,81,894	24,163.49	5,06,65,733
36	Uttarakhand	18,11,738	8,79,706	26,91,444	1,432.56	21,00,460
37	West Bengal	2,79,02,187	1,14,67,802	3,93,69,989	12,648.65	2,49,60,224
	Total	27,07,82,473	14,17,53,075	41,25,35,548	1,31,980.29	30,24,86,891

Source: <https://www.pmjdy.gov.in/home>

According to the statistics in Table 2, the total number of beneficiaries under PMJDY is 41.25 crores all over India, including 27.07 crore beneficiaries belonging to rural/semi-urban bank branches and 14.17 crore beneficiaries belongs to urban bank branches. It is 33 percent of the total Indian population of 125 crores. Sixty-five percent Jan-Dhan bank accounts have been opened in rural and semi-urban areas. Public Sector Bank has played a major role in



opening Jan-Dhan bank accounts with 79 percent, followed by Regional Rural Bank with 18 percent. To increase the coverage under PMJDY in the unbanked/excluded section of society, the Government of India and RBI continue to focus on different modes of operation, i.e., bank correspondents, and organize financial literacy camps. According to the statistics in table 3, in relation to the opening of Jan-Dhan bank accounts under PMJDY, Uttar Pradesh is leading in this race, having 16.87 percent, followed by Bihar, a share of 11.49 percent. Third, the fourth and fifth position has been occupied by West Bengal, Madhya Pradesh & Maharashtra respectively.

The deposit balance and average deposit balance year wise performance of Pradhan Mantri Jan Dhan Yojana (PMJDY) is as under:

Table 4: Deposit wise performance of PMJDY

S.No	Item	Mar-15	Mar-16	Mar-17	Mar-18	Mar-19
1	Number of PMJDY accounts (in Crore)	14.71	21.43	28.17	31.44	35.27
2	Deposit in Jan-Dhan bank accounts (in Rs. Crore)	15,670	35,672	62,972	78,494	96,107
3	Average Deposit per Jan-Dhan bank account (in Rs.)	1,065	1,665	2,235	2497	2,725
4	Number of RuPay debit cards issued to Jan-Dhan bank account-holders (in Crore)	13.14	17.75	21.99	23.65	27.91

Source: <https://www.pmjdy.gov.in/home>

The data in Table 4 reveals that under PMJDY, consistent progress has been observed over the years. More than Rs. 35 crore new Jan-Dhan bank accounts have been opened under the scheme and more than Rs. Ninety-six thousand crores have been deposited in these Jan-Dhan bank accounts. This is very good for the economic growth of the excluded section of Indian society. The average deposit per PMJDY account has been increased up to Rs. 2,275 as of March 31, 2019, as compared to Rs. 1,065 as of March 31, 2015.

CONCLUSION

The results of this study revealed that the Indian Government, along with the Reserve Bank of India, had been taken a number of initiatives to increase financial inclusion for the welfare of the excluded section. They have started/implemented several programs/schemes to increase the reach of Indian society's vulnerable/ excluded sections towards various financial services. PMJDY has become a milestone in this field. Public Sector Bank has played a major role in opening Jan-Dhan bank accounts with a share of 79 percent, followed by Regional Rural Bank with a share of 18 percent. The woman has also actively participated in this regime with a share of 55 percent. Sixty-five percent Jan-Dhan bank accounts have been opened in rural and semi-urban areas. Besides this initiative, the Government has also been focused on organizing financial literacy camp, digital, banking vigilance awareness camp on a frequent basis.

Indian economy is based on the rural communities. The majority of the people are living in the rural part of the country. Who does not have proper access to the formal financial/ banking system? Still, there is much work to do in this field from the Government as well as implementing agency point of view. Only open a bank account will not fulfill the objective of PMJDY. It is a continuous regime to include all Indian citizens into a single banking and



financial services umbrella. They can use these services as, and when they are required, government officers and implementing agencies should have effective coordination for the successful implementation of this initiative. To know the ground realities related to the schemes/program, continuous monitoring, field survey & personal interview should also be organized frequently from beneficiaries. For more coverage under the program, private bankers should also be included in this regime. Motivation is also given to them to expand their area of operation in the rural part of the country.

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IN-STORE TO ONLINE: A PARADIGM SHIFT IN PURCHASE HABITS AND IMPULSIVE BUYING



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ABSTRACT

The purchase patterns of people in society are an area researched by many. Impulsive buying is a type of buying behavior that has gained considerable attention in the consumer industry. With the increasing popularity of online stores and their physical presence in selected locations, impulsive buying and the techniques for promoting this phenomenon have attracted the interest of researchers and industry leaders. This article explains the definition, various stimulus factors affecting online and offline impulse buying behavior of consumers. The article identifies the important factors like internal, external, situational, demographic, and sociocultural which promote impulse buying in a store and online shopping. A change in the buying behavior of consumers due to the digitalization and technological advancement in the field of e-commerce is also noted. Online shopping, is in the upward trend due to various reasons which are also analyzed. The new normal and changing market trend is found to have made online shoppers more impulsive. The aim is to investigate the factors affecting impulsive buying in conventional shopping and research the similarity and differences in an online setting. Also, recent changes in online buying patterns are examined. The possible directions for future research are each factor discussed below and its impact on impulsive buying can be explored in detail. The transition to online shopping, hedonic shopping, and impulsive buying are other areas for further research.

Keywords	impulsive buying, buying instincts, internal-external stimulants, hedonic shopping, market trends
JEL Classification	M30
Cite this Article	James, Shalini., Karthik, S. (2020, December). In-Store to Online: A Paradigm Shift in Purchase Habits and Impulsive Buying. In Perspectives on Business Management & Economics (Vol. III, pp. 81-88). Retrieved from http://www.pbme.in/papers/96.pdf
Article History	Received: October 15, 2020; Accepted: October 30, 2020; Published: December 31, 2020



INTRODUCTION

Consumer behavior is influenced by many factors and is characterized as highly intricate and difficult to forecast. Companies look into how the consumers behave and select from the different alternatives available and try to analyze the impact of products, brand on their buying decisions. They are also interested in the influence of factors like peer groups and family on consumers by exploring consumer behavior.

Impulsive buying behavior can be defined as the shopper's sudden urge to make an unplanned purchase after viewing the product. As compared to the other approaches of decision-making, impulsive buying is imprudent (Rook 1987). Rook's definition was further extended as an unexpected and immediate purchase with no prior planning to buy the specific product category or complete a specific buying task. The behavior is an immediate urge to buy without much reflection (i.e., it is impulsive). In marketing research, impulse buying behavior is irrational behavior from standard buying behavior. Moreover, research both in the academic and the professional fields has revealed that impulse buying has brought in huge sales yearly for various products and services around the world (Cobb and Hoyer, 1986; Rook and Fisher, 1995)

The process of buying goods and services via the internet is known as online shopping behavior. It is also termed as Internet shopping/buying behavior (Liang and Lai 2000). It became popular in the mid- 1990s. Researchers say that online buying has gained momentum since then due to the World Wide Web's popularity. Subsequent years saw a boom in online buying. Studies have shown that one of the motives of using the internet is to gratify their desire. Consumers tend to search for and gather information about products of interest from the web, which leads to buying the product. This is done without prior planning or placing the items of interest into their online cart, or creating a to-buy list (Close, A.G., & Kukar-Kinne y, M. (2010). There is also a change in consumers' buying behavior due to the introduction of credit cards and other online payment facilities. There are shreds of evidence of the presence of unregulated buying in the online mode. Research showed that that online shoppers are more impulsive, which is urge-driven. Surveys estimate that there is an increase in online impulse shoppers. (Robert La Rose).

REVIEW OF LITERATURE

Consumer behavior, which is said to be one of the main focus of marketing, is explained as the diverse interface of effect and perception, behavior, and the environment by which human beings reveal the exchange of characteristics of their lives(Karbasivar A., Yarahmadi H.,(2011). Consumers buying behavior is a psychological response to stimuli and events in the environment. Consumer behavior is the study of how individuals, groups, and organizations select, buy, use and dispose of goods, services, ideas, or experiences to satisfy their needs and wants (Kotler K. et al., 2013). Various factors, such as cultural, social, and personal, in addition to the external and internal stimuli, have an impact on consumer behavior.

The occurrence of impulse buying in the physical store was first recognized as an illogical behavior in the 1940s. This awakens the interest of various researchers. (Rook, 1987). The relevance of impulse buying in consumer behavior has been identified over these years. The researchers have opined that impulse purchases can be further divided based on the consumer's experiencing emotional and/or cognitive reactions other than buying behavior. A certain degree of uncertainty now exists about the role of impulse buying, both in the conventional physical store and the online channel and about which channel encourages this



behavior to a greater extent.

The classification of purchasing patterns as planned or impulse began with the study by Stern (1962). He divided consumer buying behavior as planned, unplanned, or impulse and came up with a basic model of impulse buying by using this categorization. Planned purchases are more rational and involve time, whereas shopping decisions with no pre intentions are unplanned. Impulse buying is unplanned quick and irrational decision making that includes a sudden, strong, and irresistible urge to buy. Among the different buying behaviors, impulsive buying is prevalent. The Impulsive Buying Behavior is unplanned since the consumers do not explicitly search for some products and make no plans to purchase the item.

IMPULSIVE BUYING BEHAVIOR

Past 50 years, consumer researchers have worked to come up with a better definition of impulse buying. Early studies on this topic were viewed from organizational and seller interests, emphasized grouping products into impulse and non-impulse items. Seounmi Youn and Ronald J. Faber (2000) simply equates impulse buying to unplanned purchasing.

Rook (1987) redefines impulse as psychologically driven and is a strong and sometimes irresistible urge to act without deliberation. According to the author, it is a sudden urge one experiences to purchase something instantaneously. The inclination to buy is complex and may kindle emotional conflict. Also, impulse buying is prone to occur with diminished regard for its consequences. Therefore, there are three important aspects, i.e., emotional, or cognitive, or combined response to a sudden stimulus.

FACTORS INFLUENCING IMPULSIVE BUYING

Various aspects promote impulsive buying. Factors such as promotional factors, price offers, time-saving, store environment, product characteristics, personality traits, age, gender, culture, and socio-economic states trigger impulsive buying in-store shopping. Whereas in online shopping studies have shown that along with the above factors, various other factors such as internet knowledge, income, and education level, e-stores, supply chain, websites characteristics and quality in terms of information, agreement and settlement, convenience, risks, etc. have an impact on impulsive buying.

EXTERNAL STIMULI AND STORE ENVIRONMENT

Marketing cues or stimuli visible and used by the marketer to attract consumers into purchase behavior are termed External Factors. Various external factors such as Promotional factors, Store environment, and Product characteristics were analyzed influences on impulsive buying were studied. Factors such as point-of-purchase advertising, merchandising, and in-store promotions trigger consumers' impulsive buying (Youn and Faber, 2000). Promotion is a popular marketing strategy. It works as a catalyst to attract consumers and make buying decisions. Attractive promotional tools like coupons, free buys, and samples, buy one get one offers along with price reductions, have persuaded consumers to buy more than they expect (Vitor et al., 2013). Companies use this as a weapon to influence customers and induce buying in both online and offline environments and turn increase market share and long-term profit.

Another aspect that retails gave importance to is the store environment. In an online context, it is a virtual store environment. When visually encountering cues, consumers experience an urge to buy impulsively. In a brick and motor store layout like Point-of-purchase displays,



shelf arrangement placing, products in specific areas of the store, catchy tag lines, and signage on and around displays are used to create a sense of urgency. Point-of-purchase displays distract the buyer from planned buying and thereby increases the number of unplanned purchases (Quelch, 1983). Lighting like, spotlighting, or separate lighting for displays that differentiate it from the rest of the store's display grabbed customers' attention to induce impulsive buying. Store environments that are designed pleasantly and attractively lead to enhanced impulse buying (Hoyer and MacInnery, 1999). However, in the online context, it is slightly different customers who give importance to a different set of factors like product visuals and details, credibility and ease of routing or searching, store size, and the online store's reputation. (Beatty & Ferrell, 1998)

Product characteristics like Product appearance, Product price, and free shipping are other important external influences on the customer that prompt impulsive purchase (Verplanken and Herabadi, 2001). The risk involved is another factor that influenced impulsive buying. Risks associated with finance, product, delivery, etc., have reduced impulsive buying by 50% in the online market. (Abrar K, Naveed M, Ramay M (2017)). It is found that higher consumer trust has reduced the risk associated with online shopping.

According to the American Marketing Association, utility goods are purchased on impulse in a brick and mortar store. Whereas in an online setting, researched goods are purchased on impulse due to influential factors such as website characteristics, ease of information access, a greater variety of available goods, and effective marketing promotions. One of an impulse purchase's characteristics is that it occurs quickly; hence, websites should facilitate this (Beatty & Ferrell, 1995). Various strategies and techniques are used to influence customers and achieve long term success

INTERNAL STIMULI

Internal factors are those cues within the individual that makes him impulsive. (Youn and Faber, 2000) pointed out that consumer traits such as spontaneity and optimum stimulation level, shopping gratification, or lack of self-discipline are the basis for impulse buying. Personality traits, age, gender, culture, and socio-economic status are some of the internal factors affecting impulsive buying. Personality and impulse buying remain correlated. Individuals escape from negative psychological perceptions such as low self-esteem, negative feelings, or motives. (Verplanken and Herabadi, 2001). Hedonic shopping motivations affect unplanned buying behavior. Hedonism means pleasure associated with shopping. Six broad categories of hedonic traits such as Adventure Shopping, Social shopping, Gratification shopping, Idea shopping, Role shopping, Value shopping were identified. (Merirna Cinjaresic & Kasim Tatic, 2011). Gratification shopping, idea shopping, role shopping, and value shopping influence an online context of the above traits.

Next are gender differences, which certainly influence an impulsive online purchase. According to a study by Saarela, Stoorvogel, and Zingkweg (2008), the researchers indicated that females are more attracted to online sales promotions and fashion products and are bought on impulsive whereas males prefer electronic equipment are bought on impulsive. Furthermore, age influences both online and offline impulsive buying behavior. (Saarela et al., 2008). Youngsters are more likely to indulge in purchasing impulsively than the old age group. Youngsters are more likely to engage purchase impulsively both in online and offline settings than the older generation as they are influenced by external stimuli (the time they spend in online shopping) even though they give importance to information on goods. They also differ in preferences and buying patterns.



SITUATIONAL FACTORS

Situational stimulus, where a person is present, is a significant factor that leads to impulsive buying. This section looks into the studies which analyze the facet of situational factors in impulse buying behavior. Situational Factors are related to the existence of others while shopping, way of life, store layout, time available, local market conditions, self-service, and sales personnel in the store: time and money availability influence impulsive buying. (Beatty and Ferrell, 1998). Studies have also proved that family members' presence has reduced impulsive buying, but the presence of friends has induced impulsive buying. The online context showcases website features with an environmental functional convenience, attractiveness, and representational delight induce impulsive buying. Payment options like pay on delivery, Subscription to the sites of players like Amazon, Flipkart, eBay, etc., avoids the hazels of going through several stages before buying. This feature provided by these sites and platforms has prompted the impulsive buying

DEMOGRAPHICS AND SOCIO-CULTURAL FACTORS

Demographic factors such as family background, gender influence impulsive buying. Luo's (2005) search on the "influence of shopping with others on impulsive purchasing" revealed that the presence of friends increases the urge to purchase. However, the presence of family members decreases it. Yang et al. (2011) examined other demographic factors such as age, income, and education. They identified that demographic factors affect impulsive buying decisions. There are various Socio-Cultural Factors like independence and individualism which influence impulsive buying. Consumers from individualism culture are more impulsive as they are not much bothered about the consequences after purchase. Another aspect is collectivism, a cultural phenomenon of considering others' feelings, which also influences impulsive purchasing behavior. In this culture, people are trained to control their impulsiveness, therefore, reducing impulsive buying. Other cultural dimensions such as Power Distance, Uncertainty Avoidance, and Masculinity influence impulsive buying behavior both in an online and offline context.

MARKET CHANGES

Retail businesses around the world are experiencing a paradigm shift due to the aftermath of COVID-19. New trends have emerged through everything from a fast shift in customer behavior to logistics issues. Experts say that new patterns in consumer behavior had forced organizations to change their business model. For long term sustenance, the Omni-channel model is going to be the way forward for retailers. This model uses various channels of the firm to create one unified experience for customers. This includes combining both traditional and digital channels, point-of-sale, in-store, and online experiences to create a better experience. The impact of the pandemic has also changed the entire Indian retail industry. Customers are expected to move to shop online shopping for many categories and prefer digital and low-touch activities such as online streaming and digital payments. Therefore, retailers are trying to reach them where they are.

Moreover, this has increased the e-commerce sales to 25%/c. The latest market research by a survey conducted by IPSOS states that online shopping has become more frequent now. Statistics show that Vietnam tops the list with 57%/c of consumers shifting to online purchases. Moreover, when it comes to India, 55 percent of Indian consumers have shifted to purchases online. Therefore, online business scope is increasing, and the study of impulsive buying is relevant even in the pandemic situation. Furthermore, regardless of the complete closedown and financial setbacks, people engage in shopping activities to overcome the fear of the



uncertain, prolonged isolation, and anxiety. This has resulted in impulse buying to make them 'feel better.' As people are making buying choices based on new and ever-changing global and local circumstances, the product categories that are being purchased are also changing. Health and safety products, Shelf-stable goods, Food, and beverage has seen an increase, Luxury goods and online apparel sales are down as people buy daily essentials

Moreover, to avoid crowds at stores, many people prefer BOPIS (buy- online-pick-up-in-store) or delivery options. According to the US chamber of commerce, Stores are anticipated to invest in creating digital experiences like in-store demonstrations that can be viewed online or virtual salespeople who can engage with shoppers. Another changing trend is compared to offline stores; shopping using a mobile can better meet the customers' needs. Online shopping using mobile devices is seen among people as they consider it as entertainment to spend their leisure in daily life. Rare product assortments are easily found in online stores. Different technologies used by online stores help them in predicting the preferences of their customers.

The use of mobile devices and virtual mobile shopping environment has effectively stimulated consumers and activate their hedonic emotions.

The pandemic situation has forced consumers to adopt new technologies and their applications. When it comes to shopping, also it is no different. The transition from offline to online mode is evident in surveys conducted. Technology breakthroughs in recent years are smartphones, the internet, and e-commerce. This has boosted online search and online ordering, which in turn have impacted the way we shop and consumer products and services irrespective of age and gender. Therefore, organizations are moving to an omnichannel model to take advantage of this situation.

The pandemic situation has increased the time spent on various social media, with Facebook, Whatsapp, and Instagram topping the list. This has brought a tremendous change among users in the way of sharing information. Influencer marketers are gaining momentum as they have millions of followers, and their impact on suggestive buying can be researched. The impact of digital technology in general and social media, in particular, is pervasive in the buyer's daily life. Uncertainty prevails whether it will break old habits.

Reach customers where they are. Complete lockdown in various has restricted consumers to go to the store or the shopping malls. This has resulted in the store coming home. So is in the case of job and schooling. This alters our daily pattern in the respective areas, which in turn influences the buying and consumption patterns. The store coming home through personalized services has enhanced convenience. Further study on this trend will reveal consumer's impulse buying and planned vs. unplanned consumption.

To sum up, these are the following changes we see during the crisis: the impact of restricted demand as there is a tendency to postpone purchases of non-essentials. As mentioned above, the demand for luxury goods and apparel has decreased. As the situation brightens, what will be the scope of pent-up demand is a question to be answered. Moreover, the influence of digital technology and the transition to the online mode of purchase by consumers is an area that has to be explored by organizations to improve their sales.

DISCUSSIONS AND FUTURE RESEARCH DIRECTIONS

This article presented a comprehensive review of the literature and content analysis from various available literature in the field of in-shop to online impulse buying. After analyzing the various factors influencing impulsive buying in both online and offline scenarios, it is grouped



under four major categories. These are "External stimuli," "Internal stimuli," "Situational and product-related factors," and "Demographics and Socio-cultural factors." We have also observed the impact of economic changes on people's buying behavior in general and various factors influencing impulse buying. This study shows that impulse buying is a result of the interaction of various internal and external stimuli. The aspects such as personality traits and socio-cultural traits could be studied further in detail to understand the consumers' impulsiveness better. The review's base work will help the researcher conduct an empirical study on impulse buying about the four broad areas discussed. Further research in this area can analyze impulse buying in different retail settings and online settings.

CONCLUSION

Impulse buying has been a challenge for market researchers due to its complex nature. This aspect of buying behavior accounts for a huge volume of the products sold every year. Consumer researchers have mainly focused on identifying the different factors that induce impulse buying. External, internal, situational, and socio-cultural factors have made impulse buying a widespread phenomenon across the different retail formats. These influences are discussed in detail here. The Impulse buying concept, its various dimensions, and its relationship with the consumer were adequately presented through the review of the literature. Some research propositions for the development of knowledge in consumer behavior research were also introduced in this article. Based on the market's changing trends in the online scenario, it is impossible to infer that impulse buying may turn into a growing area of research and could be seen across the various forms of retailing. The impact of the omnichannel model on impulsive buying is another area that can be further studied. This article provided sufficient background information for a researcher to understand various aspects of impulsive buying and its rapidly changing nature in the present online scenario.



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THE HEALTHCARE SERVICES DELIVERY AND MEDICAL SUPPLY MANAGEMENT: THE CASE OF CANCER MANAGEMENT IN NORTH-EAST INDIA



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ABSTRACT

The Healthcare Services Delivery and Medical Supply Management involves developing and implementing techniques to ensure efficient and affordable healthcare goods and services including infrastructure, medicines, medical devices, equipment, mobile health units, healthcare workers and doctors are getting mobilized from one place to another, especially in hard-to-reach areas with poor road connectivity and limited facilities.

The Indian Healthcare Service Business (both public and private) has seen a drastic transformation in the past few years due to the emergence of innovative management policies and inclusive business models; but delivering healthcare service in India is still a complex process, because of diverse cultural, geographical and socio-economical differences. The North-East region of India has high cancer incidence and mortality as compared to the rest of the country. The difficult geographical terrain with tea garden areas, hilly, and forest areas spread across the region poses challenges in providing untroubled healthcare, particularly for cancer patients. The challenges like accessibility, medical transportation, and travel burden for patients can have a striking impact on healthcare service and business profitability by limiting the resources supply, infrastructure, poor association with stakeholders, and reduction in the number of patients. The healthcare service delivery and medical supply management can enhance healthcare delivery and facilities like road, drinking water, electricity, and e-communication. It forces healthcare marketers to look beyond the horizon as it can completely transform the healthcare scenario and market penetration in such rigid areas and helps both the payer and provider by reducing the cost and maximizing the profit.



Keywords	cancer care, healthcare business, healthcare service delivery, healthcare facilities, medical supply management
JEL Classification	I11, I18, O21, L21
Cite this Article	Thapliyal, Stuti., Raychaudhuri, P.S., (2020, December). Healthcare Services Delivery and Medical Supply Management: The Case of Cancer Management in North-East India. In Perspectives on Business Management & Economics (Vol. III, pp. 89-101). Retrieved from http://www.pbme.in/papers/67.pdf
Article History	Received: October 15, 2020; Accepted: October 30, 2020; Published: December 31, 2020

INTRODUCTION

The Indian Healthcare System has been hanging on an unbalanced scale of resources and facilities since its inception. On one side of the scale, we have flashy and top-shelf health infrastructure delivering the healthcare services to deep-pocketed urban Indians, while on the other side, small shabby structures in the name of health centers are bearing a load of patients. They have rock bottom medical facilities and nominal healthcare services, especially in hard to reach remote villages with poor road connectivity, rural and predominantly hilly areas like the North-East region of India, where 80 percent population lives in the rural areas and have higher cancer incidence and mortality as compared to the rest of the country. Lack of awareness, accessibility, affordability, absence of resources, poverty, travel burden for patients, and poor transportation and supply chain management are the main demons altering the delivery of quality care and adversely affecting the healthcare business in the region.

The Healthcare Services Delivery and Medical Supply Management is a process of developing and applying techniques to foster the delivery of healthcare services. It involves mobilization of all healthcare facilities including, infrastructure, medicines, medical devices, equipment, mobile health units, healthcare workers, doctors, and other medical supplies from one place to another to the needy patients at proximity. This can be a boon for both customers/consumers and service providers as patients will not travel outside the region to get treatment. Hence service demand, supply, and stakeholder connectivity will increase.

LITERATURE REVIEW

R B Smarta (2017) referred healthcare system as a group of individuals, resources, and organizations that provide healthcare benefits, including hospitals, emergency services, pharmaceuticals, medical insurance, and innovative healthcare technologies to the people.

According to WHO (2015), a health system comprises all organizations, individuals, and activities whose primary job is advancement, reestablishment, and health maintenance. This incorporates activities to impact the determinants of health and more direct health-improving exercises.

According to Y. Abdulsalam and E. Schneller (2017), medical supplies comprise laboratory materials, supplies for surgeries, testing kits, medicines, nutrition, and other pharmaceutical products.

According to Gurrit K Sethi (2017) to build a healthcare delivery is not an easy task; it is a complex process in which different enterprises and their various elements meet up, for example, the pharma company, the IT firm, the hospital — all meet up with clinical



administrations to make healthcare. They all work in coordination to provide a better healthcare

OBJECTIVES OF HEALTHCARE SERVICES DELIVERY AND MEDICAL SUPPLY MANAGEMENT

1. To understand the efficient and cost-effective delivery of healthcare services in difficult geographical terrain and hard to reach areas with poor road connectivity.
2. To explore integrated and consistent delivery of affordable quality care to every patient irrespective of cultural, economic, social, and geographical differences.
3. To strengthen the supply chain and service mobilization in rural and remote areas.
4. To maximize the healthcare business profitability by increasing the penetration in new potential markets.
5. To capture the previously untouched and underprivileged areas where medical services are poor, and resources are limited.

METHODOLOGY

In this paper, the researchers have done secondary research. Many databases (e.g., WHO Universal Health Coverage) on healthcare services delivery and supply have been consulted. Extensive subject literature, review articles, and research papers were reviewed. Experts in the field have been contacted during paper development.

RESEARCH DESIGN

The researchers have performed research on the exploratory and descriptive approach based on the healthcare industry and their consumers, especially in North-East India. The research has been used to identify the significant factors involved in the improvement of healthcare services delivery and medical supply management in the North-East; the companies can start generating a profit by providing quality care for cancer and medical supply to almost every patient on a feasible and affordable rate. This has been exploratory and descriptive research, as it used both the secondary sources as research papers and other relevant study material. For this research, majority of data is gathered from secondary sources.

THE DAUNTING HEIGHTS OF NORTH-EAST & NEED FOR BETTER CANCER CARE DELIVERY

Healthcare services delivery has always been a challenging task in Northeast India. The region is covered with dense forests, hilly land, char/ riverine, and hard to reach rural and remote areas with poor road connectivity, making it difficult for both providers and patients to deliver and access the care.

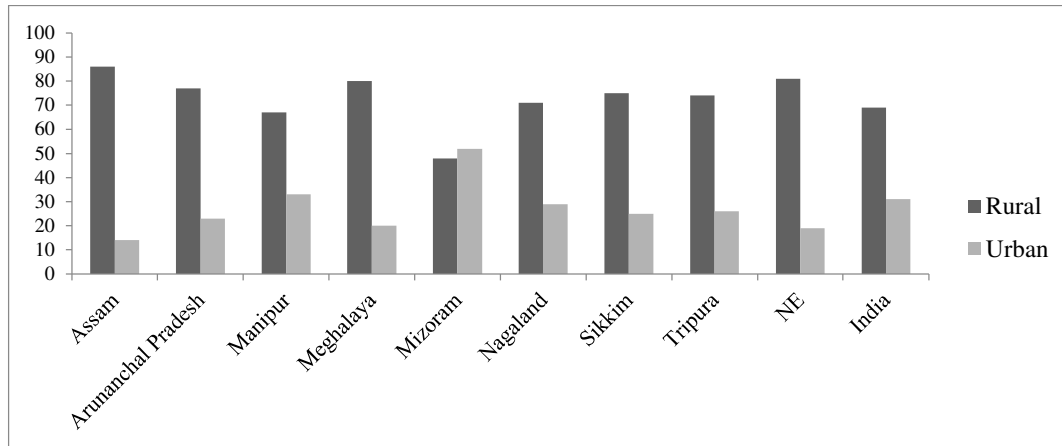
In the past few years, the Northeast has seen an unconventional growth in the incidence and mortality of all types of cancers. Consumption of tobacco, dietary habits, and hygiene habits is the leading risk factor for accelerating the region's incidence rate. Unfortunately, adequate cancer care facilities are not present in the region to deal with this fatal health catastrophe. Cancer awareness, screening/diagnostic facilities, chemotherapy, radiotherapy, palliative care facilities are most concentrated in the cities and have not reached remote and rural parts.



DEMOGRAPHIC AND SOCIO-ECONOMIC PROFILE OF NORTH-EAST REGION

The Northeast region is the eastern-most part of India, having 46 million populations, and comprises 3.76 percent of India's total population, having eight states commonly known as the "Seven Sisters"- Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura. Assam is the most populated state with 30.57 million populations and comprises nearly 70 percent of the entire region. Topographically 70 percent of the land of the region belongs to hills, which accommodates about 30 percent of the total population.

Figure 1: Rural-Urban Population (in Percent) (2011-12)



Source: Census of India, 2011

Figure 1 shows that the maximum population of the northeast is rural. Nearly 80 percent of the population lives in rural areas, and only 20 percent of the population lives in urban areas. Most of the cancer care infrastructure is situated in the region's urban areas, and patients have to travel a lot to get cancer care services.

Table 1: A Comparative Socio-Economic Data of 8 NE States and India (2018-19)

State	Population	Per Capita GSDP	Health expenditure % of GSDP	Literacy rate (%)	% of child malnutrition	% of SC/ST Population	% of Population below BPL	Sex Ratio/1000 male
Assam	30.06 Million	\$1299	2.21	72.19	47% (stunted), 14% (wasted)	6.9/12.4	32	958
Arunachal Pradesh	1.7 Million	\$ 2129	3.29	65.38	28.4% (stunted), 17% (wasted)	0.6/64.2	35	938

Manipur	2.8 Million	\$1110	2.79	79.21	33.2% (stunted), 7.1% (wasted)	4/35.1	37	992
Meghalaya	3 Million	\$1376	2.40	74.43	42.9% (stunted), 13.1% (wasted)	0.58 /86.15	12	989
Mizoram	1.09 Million	\$2401	4.20	91.33	26.9% (stunted), 14.3% (wasted)	0/94.4	20.40	976
Nagaland	2.2 Million	\$1764	2.97	79.55	29% (stunted), 11.8% (wasted)	0/86.5	18.88	931
Sikkim	0.6 Million	\$5487	1.81	81.42	28% (stunted), 5.1% (wasted)	4.6/33.8	8.19	953
Tripura	4.5 Million	\$1,770	2.41	87.22	31% (stunted), 16.12% (wasted)	17.8/31.8	14.05	960
India	1.38 Billion	\$2170	1.6	74.04	35% (stunted) 19.8% (wasted)	16.6/8.6	22	933

Source: National Health Profile, 2019 Published by Central Bureau of Health Intelligence

The Northeast is blessed with an abundance of natural resources and prosperous land. However, due to the continuous negligence towards socio-economic development, the proper industrial utilization of the resources is not done. Table 1 shows that the region comprises eight different states having a common set of lifestyle patterns to some extent and has a dominance of tribal population, but they have sharp differences in the socio-economic conditions. The population living below the poverty line is high; most people are small farmers and tea garden workers, having low income and a difficult livelihood. Especially in the rural areas, the socio-economic conditions are pathetic as compared to the urban areas and all Indian figures. The region is struggling with poverty, malnutrition, and poor development strategies.

EPIDEMIOLOGY PROFILE

The region has poor screening programs to diagnose more cases at an early stage. Most of the cases are diagnosed at an advanced stage, and the cases diagnosed at a localized stage are lower as compared to the rest of India. The possibility of developing cancer is very high in North-East, ranging from 1 in 5 persons to 1 in 16 persons in the rest of India. The five-year



survival rate for head & neck, breast & cervix cancer is lower in the North East than India's. Most of the cases in the region are associated with the consumption of tobacco.

**Table 2: Relative Proportion (In Percentage)
(Age-Adjusted Incidence Rate) 2012-14**

Leading Sites of Cancer in Males	Relative Proportion (AAR) %	Leading Sites of Cancer in Females	Relative Proportion (AAR) %
Oesophagus	13.4 (14.7)	Breast	14.2 (11.3)
Lung	10.9 (13.3)	Cervix Uteri	12.3 (10.1)
Stomach	9.2 (10.5)	Oesophagus	7.3 (7.1)
Hypopharynx	6.7 (7.4)	Lung	7.0 (7.0)
Mouth	4.5 (4.9)	Gall Bladder	6.9 (6.3)

Source: National Center for Disease informatics and research, ICMR Bangalore (2012-14)

Table 2 shows that in 2012-14 in North East India, cancers of the esophagus, lungs, hypopharynx are most common in males and females, the breast, cervix, esophagus, and gall bladder cancers lead the list.

Table 3: All Sites: Age-Adjusted Incidence Rates (Aars) of Different PBCRS of North-East (2012-16) (Based on the Latest Population-Based Cancer Registry)

DISTRICT	(AARs) Males	(AARs) Females
Aizwal district	269.4 (206.2)	214.1(171.4)
East Khasi Hills district	227.7 (131.0)	118.6(76.9)
Kamrup Urban	213.0 (190.5)	169.6(150.8)
Mizoram State	207.0 (146.1)	172.3(127.5)
Papumpare district	201.2 (94.8)	219.8(105.1)
Meghalaya district	176.8 (92.6)	96.5(55.7)
Cachar district	129.0 (99.2)	104.8(87.33)
Nagaland	124.5 (74.5)	88.2(56.3)
Pasighat district	120.4 (99.7)	116.2(88.1)
West Arunanchal	101.0 (83.3)	96.3(56.3)
Imphal West district	95.3(85.1)	110.9(107.9)
Dibrugarh district	91.9(72.5)	76.8(66.0)
Sikkim State	88.7(69.9)	97.0(75.3)

Tripura State	80.9(67.0)	58.3(57.57)
Manipur State	62.8(47.0)	71.1(57.6)

Source: Report of National Cancer Registry Programme (2012-2016)

Table 3 shows the cancer pattern and incidence of PBCRs for different sites of cancer. In the Aizawl district, the incidence is highest (AAR, 269.4) in males, and in females, Papumpare district (AAR, 219.8) has the highest incidence for all sites of cancer.

HEALTH SYSTEM PROFILE

Regardless of its abundance of natural resources and the high centralization of business and business activities among the North-eastern states, the region still has not achieved the desired healthcare results. Low per capita income, illiteracy, high population density, disparities in rural areas, poor water, and hygiene facilities all have added somewhat in some form to the poor healthcare system.

Table 4: Number and Proportion of Cancer Patients taking Treatment within and outside Northeast (2012-14)

State of Residence	Within NE		Outside NE		Total
	Number	%	Number	%	Number
Arunachal Pradesh	149	84.2	28	15.8	177
Assam	8305	93.4	590	6.6	8895
Manipur	103	37.6	171	62.4	274
Meghalaya	157	80.9	37	19.1	194
Mizoram	51	41.8	71	58.2	122
Nagaland	111	21.3	411	78.7	522
Sikkim	1	1.7	59	98.3	60
Tripura	224	63.5	129	36.5	353

Source: National Center for Disease informatics and research, ICMR Bangalore (2012-14)

Table 4 shows that in states like Sikkim, Nagaland, Manipur, and Mizoram, most cancer patients are traveling outside the region to get treatment due to the non-availability of healthcare facilities cancer care infrastructure.

Table 5: Average Medical Expenses (Rs.) during Hospital Stay Per Case of Hospitalization (2017-18)

State	Average medical expenses (Rs.) during hospital stay per case of hospitalization in			
	Public hospitals		Private hospitals	
	Rural	Urban	Rural	Urban
Assam	4545	7842	28785	71657
Arunachal Pradesh	3793	4810	13966	23497
Manipur	5932	9051	60361	39541

Meghalaya	1894	7668	14870	35687
Mizoram	5622	7528	19558	47740
Nagaland	4648	5089	13098	19699
Sikkim	3339	2915	24805	19168
Tripura	3314	6077	64017	67139
All-India	4290	4837	27347	38822

Source: Key Indicators of Social Consumption in India: Health; NSS 75th Round July 2017-June 2018, released in November 2019

Table 4 shows that in Assam, Manipur, Mizoram, and Tripura average medical expense is high in public and private hospitals as compared to India's average medical expense

HEALTHCARE SERVICES DELIVERY MANAGEMENT

Medical organizations and other health care firms need to manage the complex structure of the system to create and develop procedures that will prompt positive changes in the delivery of healthcare services in the Northeast. An organization's performance comprises three factors: the strategies, how they implement them, and the environment. Before executing the strategies, it becomes necessary to know the root cause of the problem. Administrators can develop better health outcomes by implementing strategies at various different levels, starting from their own organization's system. Diminishing the patient's waiting time at health centers will save each individual's time engaged in the process. Applying innovative technologies to improve service delivery, such as new network-based organizations, a firm's self-sufficiency, value-based pricing, and new technologies, will help manage the healthcare system.

ROLE OF PUBLIC & PRIVATE HEALTHCARE BUSINESSES IN STRENGTHENING THE HEALTHCARE SERVICES DELIVERY IN NORTH-EAST

Despite the abundance of natural resources, the region has poor resource management strategies to use these assets completely. Private healthcare investors have stayed away from the region due to the area's geographical challenges and insurgency-infested nature. The local businesses also avoid big ventures because of the vulnerability and the danger involved with such uncertain conditions of the region.

The absence of medical facilities and health care professionals is one of the biggest issues to deal with. There is a lack of well-equipped medical, paramedic, and nursing organizations to treat fatal diseases like cancer. The need for medical professionals goes beyond the posts approved by the government. In Sikkim and Assam, the available Community Health Centres (CHCs) are not enough in numbers to bear the load of patients. Aside from the absence of top-notch medical Infrastructure, there is also a deficiency of medical administrators, specialists, female health workers, and supervisors. Other basic needs like power supply, connectivity, and clean drinking water required for proper medical care also fall behind.

To remove these healthcare disparities, setting up more PHCs, involving more PPP models, providing training to healthcare professionals, and promoting cancer literacy among the region's population, providing end to end palliative care, awareness on early warning signs of cancer is required.

Establishing a more acceptable climate for the entry of private firms in the medical care area in the region and welcoming good investment from them for setting up top-notch



infrastructure, healthcare organizations, and other medical services could be a boon for the region.

With the contribution of private players in the field, the point of accomplishing the desired healthcare infrastructure would be achieved more sooner.

The entry of private organizations will improve the healthcare facilities to serve the needy patients along with making a profit for the organization.

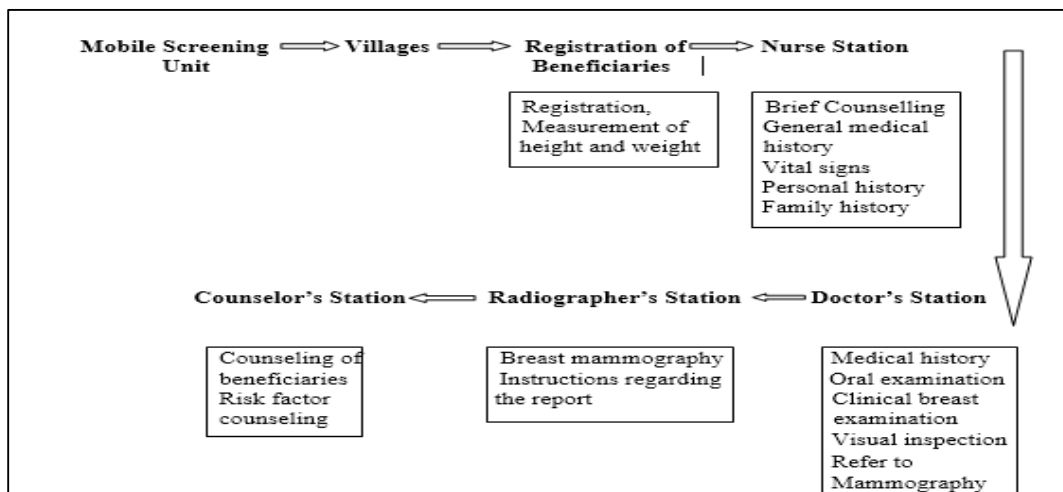
EXAMPLE CASES OF HEALTHCARE BUSINESS MODELS IN INDIA WITH ADVANCED DELIVERY AND SUPPLY SERVICES

1. D.E.S.H PROGRAMME BY PIRAMAL SWASTHYA

It is a community based mobile screening unit by Piramal Swasthya, which gives services like direct counseling to positive detected patients, the arrangement of transport for patients to Dr. B. Borooah Cancer Institute, safe and secure Electronic Medical Record for each patient with a novel recipient ID for checking and tracking, referral and development of positive patients and guaranteeing end-to-end quality care. Patients should be enlisted with the current Atal Amrit Yojana program. This program covers a populace of 15 lakh in far off villages of the Kamrup region.

The people, especially in villages of the region, do not have access and awareness for cancer care services. To remove these disparities, (Piramal Swasthya Management and Research Institute-PSMRI) in a joint effort with semi govt organization (Dr. Bhubaneswar Borooah Cancer Institute, Guwahati-BBCI), dispatched an inventive program known as D.E.S.H (Detect Early, Save Her and Him) in the rustic Kamrup region (Figure 2). The program intends to diminish the extent of late-stage finding and mortality from the oral, bosom, and cervical malignancies through network-based mindfulness, screening, and reference program.

Figure 2: The Operation Flow Chart of D.E.S.H



Source: Piramal Swasthya Website (2019)

2. ASSAM CANCER CARE FOUNDATION (ACCF)

ACCF is a joint association between the Government of Assam and Tata Trust, tending to reduce the cancer burden in Assam. At present, one apex hospital handles end-to-end patient care and is more focused on various small centers interlinked with the annexed body. These small centers are proposed to be set up to deal with diagnosis and care and to shift load away from annexed hospitals. This PPP Partnership is removing cost-related burden in the state alongside medical advancement. They are additionally conducting education and awareness programs. It is an innovative program to convey care and due consideration to the patients. A state-of-art cancer research institute is also being set up in Guwahati to study local cancer types by the Assam Cancer Care Foundation.

ACCF DISTRIBUTED CARE MODEL

Their cancer care model was designed to create patient-centric cancer care to deliver standardized and affordable care at patient's proximity. They have divided cancer treatment into three layers consisting of L1, L2, and L3 hospitals.

- L1 hospitals situated in Guwahati functions as the apex body, and it is the referral unit providing extensive treatment and diagnostic services along with research.
- L2 hospitals have the facility to conduct surgeries apart from providing radiation. They will be annexed to Government Medical Colleges providing comprehensive cancer care services other than research, situated in Barpeta, Dibrugarh, Diphu, Silchar districts of Assam
- L3 hospitals in Darrang, Jorhat, Kokrajhar, Lakhimpur, Tezpur are annexed to District Hospitals (DH), providing diagnostics and cancer daycare services like chemotherapy and radiation therapy.

KEY FUNCTIONS

ACCF has been effectively conducting community outreach programs in far-off zones with lesser admittance to medical services like screening non-communicable diseases (NCDs) and reaching into distant locations; a joint effort with local associations has been an additional bonus. A versatile team of dental specialists, nurses, doctors, and data managers are working with Community Health Officers (CHOs) and female multipurpose workers (MPs) for cancer screening.

3. GLOCAL HEALTHCARE SYSTEMS

Glocal Healthcare model provides acute care in small cities and villages with a population of 1,00,000 through its chain of hospitals in more than 11 such focussed radius areas in different parts of India. When a stroke or cardiovascular attack, or a tragic accident happens, shipping a patient to a major city is generally not feasible and excessively costly. Thus, providing emergency care and ICU to save lives in such cases becomes their main priority. They have surgery and diagnosis facilities in cardiology, neurosurgery, muscular health, injury, respiratory diseases, and nephrology.

People come to them in critical conditions. Hence, Glocal Healthcare clinics have more than 100 beds, with many ICU beds, advanced and well-prepared machines, diagnostic offices, drug stores, clinical staff, young and dedicated specialists. They have situated themselves between secondary and tertiary emergency care hospitals in small cities.

The traffic is excellent, and business is sustainable alongside giving successful medical care in a society where very few major healthcare organizations serve. The Government-run



hospitals for secondary care in distant towns are generally underprepared, understaffed, crowded, and insufficient and capable enough to deal with the crisis.

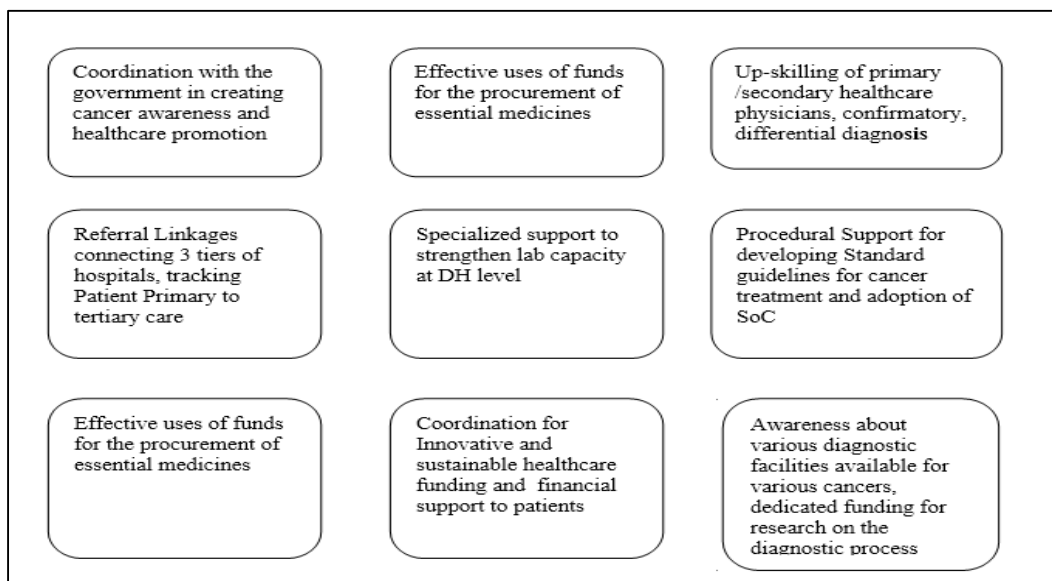
In the previous ten years, Glocal has built up well-prepared hospitals and put medical teams in place at such small towns as Bhagalpur, Muzaffarpur, Behrampur, Begusarai, Amroha, Medinipur, Krishnagar, and Jeypore. They are situated in highway groups close to those towns and smaller cities where doctors can travel. Different facilities and infrastructures can be shared and moved between the clinics without any problem. Glocal has additionally started digital dispensaries for primary medical services. It is an electronic unit in far off area, overseen by a certified nurse. It can perform 25 specific tests with two drops of blood quickly; ECGs and ultrasound can be done; the nurse can likewise use the electronic stethoscope to produce the specialist's pulses to see far away areas through the internet teleconsultation/video conferencing. The specialist can likewise observe the skin rash of patients through a derma scope utilized by the nurse. The nurse takes care of the information, tests report, and symptoms to the computer, which creates possible disease conditions from its information base and is imparted to the doctor in far areas. The doctor gives a prescription, and it goes to the dispenser, which gives the prescribed medicine in required doses for the rural patients. This is a great innovation for providing reasonable and comprehensive medical care for individuals in distant regions. It is a significant outreach strategy of Glocal since it connects its hospitals in small cities to the village for the mounted cases to be managed in hospitals.

ANALYSIS AND DISCUSSION

TRANSFORMATION STRATEGY FRAMEWORK FOR THE DELIVERY OF CANCER CARE SERVICES IN NORTH-EAST

Although much has to be done in North-East at the ground level and it will take a little longer to achieve the desired transformation strategy framework for cancer care, the concept solutions mentioned below (Figure 3) for the development of a scalable end to end cancer care framework, that will help to improve the patient outcomes.

Figure 3: Desired Transformation in the delivery of Cancer Care Services in North-East



Source: Author compilation

According to our study findings, NE India is arising as the hub for cancer. Considerable attention must be given to the region with a multidimensional and layered approach to reduce the region's cancer burden. Due to the lack of cancer-specific infrastructure and absence of treatment guidelines, "a multidisciplinary approach" to handle the issue is required. There is a severe need for transformation in cancer care facilities in the Northeast Region. Cancer care services like palliative care, radiotherapy, chemotherapy, etc., should be set up and fortified. These solutions will also help in diminishing the load at the tertiary-level and specialized centers.

CONCLUSION

Each healthcare system is battling with increasing expenses and decreasing quality worldwide, despite putting all the hard work and good intentions by much-prepared healthcare professionals. Healthcare professionals and policymakers have attempted to fix the issues by capturing fraud, diminishing errors, implementing guidelines for practice, improving patients to be better consumers, and executing electronic medical records. However, none have had many effects. Now, it is an ideal time to propose new strategies by the service providers.

The business's focus should be on amplifying value for patients; that is, accomplishing the best results at the least expense, especially in a region like the Northeast where delivering medical care is not an easy task due to its geographical location and socio-economical challenges. The Northeast service providers should shift themselves from a delivery-based health care system that revolves around what healthcare professionals demand and towards a more focused system on what patients need. The healthcare organizations should replace the present fragmented system of delivering cancer care in the Northeast with a layered approach and remote locations to deliver high-value care. In this way, healthcare providing companies, including hospitals, pharmaceutical companies, and other medical organizations, can generate licit revenue by serving needy patients at a reasonable cost.

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NEW TRENDS IN LEADERSHIP PRACTICES FOR THE EFFECTIVE ORGANISATIONAL SUCCESS



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ABSTRACT

Leadership refers to the process of guiding, directing and encouraging people to a common objective. It is the process of influencing the behavior of others in an organized activity. Leadership qualities are important in the sense it helps to induce subordinates to work with confidence. So, the new trends in leadership practices help the organization practices help the organization to work more effectively. This paper is an effort to explain the new trends in leadership for the preparation of current and future leaders. Leadership qualities are important in the sense it helps to induce subordinates to work with confidence. So, the new trends in leadership practices help the organization to work more effectively. This paper tries to explain the benefits in adopting new trends in leadership. Leadership styles are the mirror image of leader's behavior. It is the way in which a leader behaves to his subordinates. It is based on leader's philosophy, personality, experience and value system. The existing leadership practices should be changed according to the day-to-day competitive environment. The best leadership practices recommended are transparency, building solid relationship, creating a collaborating working environment, promotion of training and learning, disruption of norms as and when required and confidence in leading any employee. Effective management of human resources helps in sound employer employee relationship. New trends in leadership practices should be adopted in order to avoid work conflict. These new trends surely help in enhancing job satisfaction and thereby reduces labor turnover.

Keywords	Leadership, leadership qualities, leadership styles, leadership practices, new trends
JEL Classification	O15
Cite this Article	Krishnan, Vidhu., Nithya, U.S. (2020, December). New Trends in Leadership Practices for the Effective Organisational Success. In Perspectives on Business Management & Economics (Vol. III, pp. 102-107). Retrieved from http://www.pbme.in/papers/83.pdf
Article History	Received: October 15, 2020; Accepted: October 30, 2020; Published: December 31, 2020



INTRODUCTION

Leadership is the most important weapon in the hands of an organization to accomplish its objectives and goals. It is the process of stimulating subordinates through guiding, directing, and motivating. A firm cannot succeed in its future without effective leadership as the implementation of tasks, and their achievements are impossible.

ESSENTIAL QUALITIES OF A LEADER

The main aim of leadership is to influence others. An efficient leader is said to possess the following qualities.

- 1. SELF CONFIDENCE:** A good leader should have confidence in himself. This helps in winning confidence from his team members. It enables motivating his fellow team member.
- 2. INTELLIGENCE:** He should possess intelligence in such a way that it helps in clearing the problems faced by his team.
- 3. COMMUNICATION:** He should possess good communication skills. He should have efficient reading, writing, and speaking skills since a leader has to communicate the instruction from management to his subordinates.
- 4. LISTENING SKILLS:** He should possess good listening skills. A leader should be a good listener. Then only he can solve the team's problem.
- 5. VISION & FORESIGHT:** It is important to have the quality of vision and foresight for a leader to foresee the future and respond to it.
- 6. ABILITY TO INSPIRE PEOPLE:** People give high value to the ability to inspire their emotions.

FUNCTIONS OF LEADERSHIP

- 1. FIXATION OF GOALS:** A leader should fix goals or targets for subordinates. He should stimulate the subordinates to do their work.
- 2. ORGANIZATION OF ACTIVITIES:** Activities should be assigned systematically for the achievement of organizational objectives. It will avoid work conflict
- 3. COORDINATION:** He should coordinate the work effectively done by the subordinates.
- 4. REPRESENTATIVE OF GROUP:** He should present new idea originated in group discussion; in the sense, he is the representator of the group
- 5. MOTIVATION:** Motivation means inspiring people to do work. He should motivate the subordinates, which will lead to their efficient performance.
- 6. CREATION OF EMPLOYEE MORALE:** He should facilitate interaction between his group members. Another matter is to maintain good human relations between the group members.
- 7. FACILITATING CHANGE:** A leader can convince facts to his subordinates. This will enable the subordinates to understand the need for change



LEADERSHIP STYLE

It refers to the manner in which a leader behaves within a group. It is the reflection of a leader's philosophy, personality, experience, and value system. The various classification of leadership style is as follows:

I) STYLE BASED ON AUTHORITY OR POWER RETAINED BY LEADER

i) AUTOCRATIC LEADERSHIP STYLE

In this type of leadership style, the leader only directs his subordinates without considering their opinion. Here the decisions are totally taken by the leader. Subordinates obey him only because of fear of punishment. An autocratic leader is classified into three:

- **Strict autocrat:** He only gives orders to subordinates to follow him due to fear of punishment and penalty. Due to this, they feel insecure in the job. They lack job satisfaction.
- **Benevolent Autocrat:** He uses a reward system to induce employees to do work. This will ultimately help in increasing the productivity and efficiency of employees.
- **Manipulative Autocrat:** He makes a feel in the employee's mind that they are taking part in decision making. Actually, he had decided discussing it with them

ii) PARTICIPATIVE OR DEMOCRATIC LEADER

The leader is liberal and has sympathy towards his group members. He permits group members to express their ideas and opinion. It is treated as the best leadership practices in the world

iii) FREE REIGN OR LAISSEZ-FAIRE LEADERSHIP

In this style, the leader does not guide or encourages the subordinates. He gives total freedom to perform their work

iv) PATERNALISTIC

Here the leader's relationship with his group is like a father's relationship with his family.

II) STYLE BASED ON TASK VERSUS PEOPLE

i) TASK ORIENTED STYLE

Here the full importance is focused on the task. There is no value in human relations.

ii) PEOPLE ORIENTED STYLE

In this style, more attention is toward people. It is focused on subordinate willingness, interest, desire, etc.

III LIKERT'S FOUR STYLE

i) EXPLOITATIVE AUTHORITATIVE STYLE



In this style, the leader does not have belief in his subordinates and does not allow them to take part in decision making.

ii) BENEVOLENT AUTHORITATIVE STYLE

The leader uses rewards to encourage his subordinates to perform their work. Subordinates are permitted to take part in decision making only to a certain limit.

iii) PARTICIPATIVE AUTHORITATIVE STYLE

Here the leader permits subordinates to take part in decision making.

iv) CONSULTATIVE AUTHORITATIVE STYLE

In this style, the leader has a belief in subordinates to a certain extent. He discusses with them before making decisions.

REVIEW OF LITERATURE

1. Li-Ren Yang, Chung-Fah Huang, and Kun-Shan Wu, in their studies, indicate that an increase in leadership level influences team members' relationships.
2. In their studies, Amir Sadeghi and Zaidatol Akmaliah Lope Pihie explain that contingent reward has significant effects on leadership effectiveness.
3. In their studies, Rose Ngozi Amanchukwu, Gloria Jones Stanley, Nwachukwu Prince Ololube reviewed leadership theories, principles, and styles and their impact on educational management.

RESEARCH GAP

A review of the previous studies indicates that leadership practices are different for different firms. A common leadership style is not at all practical. This paper is an attempt to explain the new trends in leadership practices. Every firm should adopt the new trends for maintaining good relationships among employees.

METHODOLOGY

The data for the study is collected through secondary sources like books, journals, publications, etc.

ANALYSIS AND DISCUSSIONS

A leader must behave in such a way as to lead and promote his subordinates. Without thinking whom they are he should understand the feelings and interest of his subordinates. This will help subordinates to think that someone is viewing their work. As a result of this, they will be very cautious in their work. There arises the importance of leadership practices. The following are the best practices to become a capable leader.

1. BUILDING SOLID RELATIONSHIP

First of all, a leader should have a friendly relationship with his subordinates. He should take an interest in knowing their hobbies, family, attitude, and anything related to his life outside the working environment. This will help a leader in building a healthy relationship with his



subordinates. Finally, this relationship helps in gaining their trust, respect, and loyalty towards a leader.

2. CREATING A COLLABORATIVE WORKING ENVIRONMENT

A leader should encourage his subordinate to work together. Collaboration helps in learning new things within a group. When each subordinate contributes and helps each other in their work, it will contribute to the work towards mutual goals.

3. TRANSPARENCY

A leader should be open and honest in directing his subordinates. This will lead to gain trust and respect from them. He should maintain open communication with the subordinates and should consider their opinion and views. Open communication often helps in developing new ideas. If they feel more comfortable in their working environment, it will promote their creativity and innovation.

4. CONFIDENCE IN LEADING ANY EMPLOYEE

Sometimes a leader should lead younger professionals or senior professionals. Do not be tensed at that time. A leader is a person appointed to lead the team members. He has the authority to do it. Move ahead with confidence during those times.

5. PROMOTE TRAINING AND LEARNING

None is perfect. It is very important to provide training not only to subordinates but also to leaders. Training encourages professional development. It enables the accomplishment of the team's goals

6. DISRUPTION OF NORMS

Sometimes we want to take risks-avoiding existing norms. Make the subordinates capable of accepting challenges without considering the norms. Mistakes may occur. However, consider each mistake as an opportunity for the next step. This will promote innovation.

7. BEING COMPASSIONATE AND RESPECTFUL

One of the good qualities of a leader is being empathetic. He should understand the feelings of his subordinates. Give respect to their feelings, then only he gets respect. A leader who has the charge does not mean he can be disrespectful to his fellow subordinates. Misunderstanding between a leader and his team members leads to a work conflict.

8. ACCOMMODATION OF CHANGE

Life is full of uncertainty. Nobody knows what will happen. The team members capable of facing uncertainty. Give them full support as they wish. This will encourage a smooth relationship between a leader and his subordinates.

9. AVOIDING MICRO MANAGEMENT

Each employee has their duties. No men like micromanaged. Allow them to do their jobs.



CONCLUSION

Leadership not only means leading the team members but also considering the human values inside an organization. One of the challenges faced by an organization is the proper management of human resources. Effective management of human resources advocates a sound employer-employee relationship. A democratic leader is always better than an autocratic leader. He is a person who considers the feelings of his group members. Change is inevitable for every organization. Nowadays, there are so many changes in leadership practices. It is better to adopt these new trends for organizational success. By adopting the aforesaid new trends, a firm can increase employee efficiency and job satisfaction. Fully satisfied employees are the real wealth of every organization. So the firm should satisfy the expectations of every employee. The application of these new trends of leadership surely meets the expectations of employees.

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UNDERSTANDING THE EMERGING DEMAND OF MEDICAL DEVICES DURING COVID-19 IN INDIAN HEALTHCARE SYSTEM AND THEIR STRATEGIC BUSINESS OPPORTUNITIES



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ABSTRACT

All over the world, the demand for medical devices is increased due to the Covid-19 pandemic. For the treatment of diseases such as COVID-19, various medical devices and diagnostic kits play a vital role in the healthcare system. This pandemic situation created a significant demand for Infrared thermometers, portable pulse oximeters, ventilators, video laryngoscope, Nasal cannula and various other medical devices that created unprecedented and unpredictable demand for these devices (USFDA, Public Health Emergency, Emergency situation, 2020). As per WHO, 63 percent of global deaths occur due to diseases like chronic respiratory disease, diabetes, cancer, cardiovascular diseases (WHO, 2020). According to the Business research company, the global medical device market has an expected value of USD 456.9 billion in 2019, with a compound annual growth rate (CAGR) of 4.4 percent since 2015 (The Business Research Company, 2020). In India, the Medical device industry was estimated to be valued at USD 4.9 billion (AdvaMed, 2018). Currently, India is the 4th largest medical device market in Asia and comes under the top 20 global medical devices market (NDA, 2020). The Indian government has taken various initiatives to promote foreign direct investment inflow, Technology up-gradation, Special Economic Zones for manufacturing units, decreasing medical devices taxation and promoting start-up culture in India. So that, development of the Indian economy and healthcare system can take place and improve.

This article discusses the medical device requirement before and after COVID-19 pandemic; and what are the possible strategies for delivering the medical device at an affordable price in rural areas, so that treatment cost reduces as well as the quality of care also increase. It also helps to understand how innovative business strategies helps business to grow in this pandemic.



Keywords	medical devices, ventilator, diabetes, oximeters, startups, demand, special economic zone
JEL Classification	I19, J11, O10
Cite this Article	Shukla, Shivam., Raychaudhuri, P.S., (2020, December). Understanding the emerging demand of Medical Devices during COVID-19 in Indian Healthcare System and their Strategic Business Opportunities. In Perspectives on Business Management & Economics (Vol. III, pp. 108-118). Retrieved from http://www.pbme.in/papers/73.pdf
Article History	Received: October 15, 2020; Accepted: October 30, 2020; Published: December 31, 2020

INTRODUCTION

The whole world faced a pandemic situation during 2020. The first COVID-19 case was detected in India in January 2020, and the infection rate increased day by day. Currently, India shows some positive results by a decline in the COVID-19 infection cases with faster recovery rates (IBEF, Knowledge Center, November 2020). The COVID-19 pandemic is responsible for health emergency all over the world, but it also created a strategic opportunity for healthcare industries; before the pandemic, people were not taking care of their own health or lifestyle, and now, people are more aware, and they acquire and adopt provisions which make them healthy and fit (IBEF, Knowledge Center, October 2020). In this scenario, various innovations done by different healthcare and medical device companies that provide affordable and effective medical devices and equipment or services have become very helpful for the consumers, such as telemedicine services, home delivery, teleworking, contact tracing, etc. These innovations identified the need of the customer for different activities. Some other industries like the insurance sector also show growth of 17.16 percent year over year to Rs. 51,637.84 crores in the fiscal year 2020 (IBEF, Indian Healthcare Industry Report, 2020). It is a good indication for the healthcare and medical device industries because it played a vital role in reducing medical expenses. According to the Department for Promotion of Industry and Internal Trade, around USD 6.72 billion Foreign Direct Investment occurred between April 2000 to March 2020 in hospitals and diagnostic centers that show the Indian healthcare and Medical device market (IBEF, Indian Healthcare Industry Report, 2020). By 2025, the Government will increase public health spending up to 2.5 percent of India's Gross Domestic Product (IBEF, Indian Healthcare Industry Report, 2020).

OBJECTIVES

As we have seen in this pandemic situation, the COVID-19 infection spreads very fast in the population. As per WHO, there is no specific drug or vaccine available for the treatment (WHO, 2020). For prevention and the diagnosis of the COVID-19, different medical devices are used, and in critical cases, ventilator demand increased (USFDA, COVID-19, Medical device, 2020). To understand the emerging demand for medical devices in the Indian healthcare system and their strategic business opportunities for the business, some objectives have to be identified.

1. To understand the overview of the Indian medical device industry.
2. To explore and understand the factors responsible for the rising demand for medical devices before and after COVID-19.
3. To identify the opportunities for medical device industries in India.
4. With the help of a case study, understand the possible strategies to deliver medical device facilities at an affordable price.



LITERATURE REVIEW

As per the World Health Organization, COVID-19 affects the infected person's upper respiratory tract and leads to various complications such as pneumonia. In this situation, patients may require medical support system through ventilators (WHO, Coronavirus, 2020).

The Food and Drug Administration issued guidelines and policies for medical devices such as ventilators, anaesthesia, and other respiratory devices. So, the continuous availability of safe and effective medical device supply should be maintained in the COVID-19 situation (Food and Drug Administration, Medical Device, 2020). According to Jeff Shuren, Director at Centre for Devices and Radiological Health, unprecedented urgent demand for medical devices and diagnostic kits for COVID-19, etc., has been created in terms of volume. (FDI, News, 2020)

Thomas Ritler and Carsten Lund Pedersen explain six types of crisis impact on the business model and a five-step approach for analyzing the conciseness and forecast of the impact of crises like COVID-19 on the organizational business model, and this will help in structured analysis and making strategic decisions (Thomas Ritler and Carsten Lund Pedersen, 2020), Chesbrough et al., (2020) explain how an open innovation mechanism will play a significant role in recovery from the COVID-19 financial crisis for business. They explained the open innovation mechanism and suggested that managerial implication and managing innovation will help recover from this pandemic situation and boost business growth. (Chesbrough H., Elsevier, 2020)

DATA COLLECTION & METHODOLOGY

The data collection begins with an extensive review of published articles, news, reports of Deloitte, press release reports of Ministry of Health and Family Welfare, Government of India, Indian Brand Equity Foundation (IBEF), report and news of United States Food and Drug Administration, reports of WHO (World Health Organization), and IQVIA report. An exploratory and descriptive study has been performed.

DISCUSSION

A) OVERVIEW OF INDIAN MEDICAL DEVICE INDUSTRY

The Indian Medical device industry has the fourth rank in Asia after China, Japan, and South Korea and holds 20th rank all over the world. In India, the medical device has the lowest per capita spend at USD 3 among countries like Brazil, Russia, and China (Singh G., Pratt A., AdvaMed, 2017). In healthcare, the medical device plays a crucial role in the diagnosis, screening, monitoring, and more that helps in the treatment of the disease (WHO, Coronavirus, Medical devices, 2020). As we see in this pandemic situation, ventilators become a life savior for the patients (USFDA, Coronavirus and Medical Device, 2020). The consumables, implants, diagnostic imaging, instruments, electronic appliances, patient aids, and medical accessories are the segments that form India's core medical device industry (AdvaMed, 2018). The instruments and appliances represent the largest segment of India's medical devices industry, constituting 34% (USD 1.26 billion) of the total industry size in 2014(Singh G., Pratt A., AdvaMed, 2017). It is expected to grow at a rate of 15% over 2014-2020(Singh G., Pratt A., AdvaMed, 2017). In India, the medical device has the lowest per capita spend at USD 3 billion among countries like Brazil, Russia, and China (Singh G., Pratt A., AdvaMed, 2017). In 2014, the Indian Diagnostic imaging held the second largest segment in the world, having a 31 percent total industry size and growth with a rate of 13 % between 2014-2020, while



therapeutic appliances are expected to grow at a CAGR of 19% (Singh G., Pratt A., AdvaMed, 2017). The consumables and implants were estimated at USD 0.72 billion, i.e., 19 percent of the total medical device industry, and are predicted to grow at the rate of 14 percent between 2014-2020 (Singh G., Pratt A., AdvaMed, 2017). The patient aids segment is the fastest-growing segment at the rate of 19% between 2014-2020 and was estimated at USD 0.59 billion in 2014. (Singh G., Pratt A., AdvaMed, 2017)

B) UNDERSTANDING THE FACTORS RESPONSIBLE FOR THE EMERGING DEMAND FOR MEDICAL DEVICES BEFORE AND AFTER COVID-19

1. EMERGING DEMAND FOR MEDICAL DEVICES DUE TO COVID-19

According to the WHO (2020), these are few medical devices or respective components that are essential for the treatment of critical COVID-19 patients. (WHO, 2020)

Table 1: Priority Medical Devices in the context of COVID-19

Serial Number	Type	Medical Purpose	Medical Device Generic Name		
1	Medical Equipment	Monitoring	Infrared thermometer		
			Pulse oximeter –Fingertip, portable handheld, with cables and sensor		
2		Oxygen Therapy	Medical gas cylinder, portable, for oxygen, fitted with a valve and a pressure and flow regulator		
3		Air Management and Intubation	Mechanical Ventilation	Laryngoscope, FO, diameter 28 mm, with blades or Video laryngoscope, with blades and accessories	
4				Patient-ventilator, intensive care, for adult and pediatric, with breathing circuits and patient interface	
5				IV- Infusion	Electronic drop counter, IV fluids
6				Blood Chemistry	Blood Gas Analyzer, portable, with cartridges and control solutions
7	Imaging	Ultrasound, portable, w/linear and phased array cardiac transducer, w/trolley, etc.			
8	Accessories and Consumables Associated with Medical Equipment	Oxygen therapy	Bubble humidifier, Connector, biconical, symmetric, etc.		
9	Consumables (Single Use Device)	Air Management and Intubation	Catheter, nasal, 40 cm, with lateral eyes, sterile, single use and Endotracheal tube introducer, Stylet, sterile, single use, etc.		

Source: World Health Organisation, Medical Device, 2020

2. INCREASED PER CAPITA EXPENDING OF MEDICAL DEVICES IN INDIA

During the next few decades, the Indian medical devices market is expected to rise at an enormous rate of nearly 15 %. The growth rate is supported by a few other healthcare benefits and policies; one is the Make in India initiative, which is further expanded by private healthcare



firms in India (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). Even though the growth rate of medical devices in India was nearly 10 percent during the past few decades, the per capita consumption of medical devices was significantly low as USD 3.0 (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). It is significantly lower when compared to developed nations like the USA and Germany, whose per capita consumption is USD 415 and USD 313, respectively (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). The per capita consumption of medical devices is even lower when compared to the global consumption rate of medical devices, which is USD 47 (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). One of the main challenges for lower per capita consumption of medical devices in India is the affordability of medical devices by a huge population section. India's medical device manufacturing industry focuses on a cost-effective model for lower-income and middle-class income segments in India. This segment has great potential to generate high demand and growth rate of medical devices in India.

3. HIGH MARKET ACCESSIBILITY BASED ON NOVELTY AND INNOVATION

India nearly imports around 75 percent of medical devices from the world (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). This is due to the limited manufacturing base in India. Few of the domestic companies and healthcare MNC's have contributed significantly in developing cost-effective medical devices in India and are at par in terms of affordability, quality, and operations when compared with existing products that require a lot of technical and instrumental knowledge and know-how in terms of processing and manufacturing. The cost-effective model has a greater reach across different segments and holds a firm growth in India's medical devices over the past few decades. India nearly exports USD 1.17 Billion (2014) of consumables and implants across the world (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). The top destination for exports of medical devices in India in terms of value is in the USA (USD 171 million), Singapore (USD 81 million), and China (USD 72 million). (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016)

4. HIGH SERVICEABILITY AND SHORTENING OF LEAD TIME

The Indian medical devices have much potential in generating high domestic demand, as a global hub for manufacturing facilities, and thus shifting of consumption pattern. A shorter lead time and an enhanced service level have increased the opportunity to penetrate and expand the medical devices segment in India. For most of the MNC's, the Indian healthcare market serves as a de-risking opportunity for its regional and global business and serves for the growing domestic market.

For most investors, India is the major market in terms of the high demand for medical devices and can become an export-oriented country. On the other hand, China serves as a low-cost manufacturing industry. The countries such as Puerto Rico, Ireland, and Singapore have high export sales compared to domestic sales (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). The Government of India has implemented several policies and measures to overcome the medical devices industry's challenges.

Some of these include:

1. Draft Drugs & Cosmetics Amendments Bill (2015).
2. 100 percent Foreign Direct Investment (FDI) in the medical devices industry under the automatic route.
3. 'Make in India' initiative for promoting domestic manufacturing.

4. Enhanced quality and better framework model in India to meet International Standards in terms of quality, safety, operations, and performance of the medical device industry in India.

5. FUNDS/INVESTMENTS AND CHANGING BUSINESS MODELS

Earlier, India authorized 100 percent FDI (Foreign Direct Investment) in India's medical devices under the automatic route. Nearly USD 90 million has been invested between December 2014 to August 2015 (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). Most of the MNC's in India are focusing on increasing the manufacturing bases and industries and various research centers to meet the demands of domestic and global markets. The increased funding and investments have also reflected in other supply-side changes in healthcare delivery in India, such as:

1. The number of hospitals and hospital beds has increased significantly in India. Earlier the total consumption of hospital beds in India was 0.8 million in 2002, which significantly increased to 1.6 million in 2012 (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). In the future, it is expected to increase to nearly 2.9 million by 2025 (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). The increase in the number of beds in hospitals was supported and driven by corporate chains of Hospitals in India, MNC's and other local service providers are entering tier 2 and tier 3 cities.
2. Various diagnostic centers and laboratories have increased significantly and are primarily focused on imaging and pathology. In the future, it is expected that there would be an increase in domestic laboratory chains. It is estimated that more than 1,00,000 diagnostic laboratories will prevail shortly, having a growth rate of 15 – 20 percent. (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016)
3. The healthcare industry in India is going through a lot of changes and modifications in terms of medical device manufacturing and incorporation of various formats such as multispecialty outpatient clinics, IVF centers, short stay surgery centers, mother care hospitals, and child care hospitals (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). The industry is heavily dependent on imports from local manufacturers producing products at the lower end of the technology value chain.

C) IDENTIFYING THE OPPORTUNITIES FOR MEDICAL DEVICE INDUSTRIES IN INDIA

These are some initiatives and factors that promote the medical device industry in India:

1. **Under the 'Making in India' campaign:** States like Andhra Pradesh, Maharashtra, Gujarat have decided to build industrial parks dedicated to medical devices where facilitation of domestic manufacturing of medical devices will be provided at a low cost (AdvaMed, 2018).
2. **Setting new R&D labs and Infrastructure:** As we have seen in this pandemic situation, the Government has set up new clinical trial labs and labs to test COVID-19, promoting private sector companies by giving some grants and quick approvals for the new lab. So, that maximum number of testing occurs in tier 1, 2, 3 cities, and even village areas (AdvaMed, 2018). The government-funded various projects to develop the testing kits and also dedicated funds for innovation, R&D, and product development for electronic, medical devices, Information Technology, etc.
3. **Skilled India Initiatives:** Under Pradhan Mantri Kausal Vikas Yojana (PMKVY) scheme, the Ministry of Skill Development and Entrepreneurship (MSDE) helps in the development



of industry-relevant skills in students and the young population by giving training to them so that skilled workforce could be made available for the industries.

4. **Establishment of indigenous quality assurance system:** India's government established a separated medical device quality assurance system named ICMD scheme (Indian Certification of Medical Devices). In this system, identification of high-risk medical devices and low-risk medical devices would be made, and on that basis, certification would be granted. (AdvaMed, 2018).
5. **Medical Tourism:** According to the Ministry of Tourism, the Indian medical tourism industry is expected to reach USD 9 billion by 2020. India is the third most popular place for medical tourism. In 2015, the Indian medical tourism industry was worth USD 3 billion (India Healthcare, 2019). This is due to low-cost surgeries with high efficiency and high quality, involving various medical devices and accessories. The presence of 21 Joint Commission International-accredited/ approved hospitals in India encourage the foreign resident patients about the assurance and quality of healthcare services available in those centers. More hospitals are getting accredited. (India Healthcare, 2019)
6. **Digital Transformation:** In this pandemic situation, people prefer to get in-home advice for the treatment with the help of telemedicine; this mode of treatment and teleconsultation industry is also supporting the usage of medical devices in self-diagnostic kits, such as oximeters, blood pressure monitoring devices and glucometers, etc. (India Healthcare, 2019)

D) CASE STUDIES: UNDERSTANDING THE POSSIBLE STRATEGIES FOR DELIVERING MEDICAL DEVICE FACILITIES AT AN AFFORDABLE PRICE

1. ABBOTT

With the critical shortages of trained professionals in modern diagnosis and treatment protocols, India lacks the required healthcare infrastructure besides inadequate facilities and healthcare services. According to India's Registrar General (2003) report, coronary heart disease was responsible for 17 percent of India's total death between 2001-2003. Coronary heart disease is also responsible for 26 percent of adult death between 2001-2003, while between 2010 to 2013, coronary heart disease patients have increased by 23 percent and 32 percent, respectively (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). The treatment of coronary heart disease was rare and new with the help of medical devices in the year 2000 (Abbott, Annual Report, 2020). Then Abbott identifies the opportunities and the challenges of the medical device market in the coronary heart disease segment. They started to form an ecosystem by holistic strategy. Abbott started to train the healthcare professionals regarding the handling and safe use of medical devices and diagnostics kits (Abbott, Annual Report, 2020).

Abbott collaborated with various medical colleges and gives training to the young and fresh medical graduates, paramedic staff, and nurses. Abbott also understands the importance of awareness, so they also started to spread awareness among patients and the public through different methods. The methods include word of mouth through doctors, paramedics, and other healthcare staff. All the programs become very successful. Abbott trained more than 2000 cardiologists all over the globe and reached up to 1000 healthcare centers (Abbott, Annual Report, 2020). This initiative helps in the medical device industry's growth because people are more aware of procedures, technology, safe use of medical devices and promote research and development among stakeholders (Abbott, Annual Report, 2020). Abbott also provides the facility to the cardiologist to learn new interventions for the treatment of disease, and for that, they connected the doctors to the world's best cardiologists (Abbott, Annual



Report, 2020). The medical devices are used in both the situation, first are the diagnosis, and second is for treatment.

Adaptability: With the strong relationship between doctors and Abbott, the new technology's transfer becomes easier. Due to this, the usage of new medical device technology was increased for complex surgeries and cases.

Market growth: Abbott takes various initiatives to create awareness about the disease, medical devices, technology, and interventions. Abbott has successfully reached to the population, and they also able to expand the market share in cardiology segment containing medical device and drugs product both.

Strong Brand Image: Abbott having a good amount of experience in this segment, and they have in-depth knowledge of the pro and cons of medical devices. So, they conducted extensive clinical trials of the medical devices and disease treatment. As a result, they easily get approvals from medical device regulators in the United States of America, that is, USFDA (Abbott, Annual Report, 2020). This will help make a strong brand image in the doctor's mind and place their product into the market.

These are a few examples of the awareness campaign:

1. Thyroid Awareness Program: Company spotted a few areas with a high prevalence of thyroid disease and limited and low availability of the medical device for the diagnosis. In such places, they set up camps for clinical diagnosis through doctors and free consultations. (Abbott, Annual Report, 2020)
2. Abbott also did various collaboration programs with associations like Indian Orthopaedic Association. (Abbott, Annual Report, 2020)
3. Abbott also contacted medical service providers and retailers. In special programs, Abbott representatives of Maharashtra, Madhya Pradesh, Bihar, and Uttar Pradesh have participated, expanding their reachability in the country, especially in villages. (Abbott, Annual Report, 2020)

Conclusion: In this case study, Abbott creates an ecosystem by connecting with all the stakeholders with the company and sharing their knowledge with them. It creates a brand image among their target customers. Creating awareness of medical devices, diseases, medical interventions, etc., helps establish the market with sustainable growth.

2. NARAYANA HEALTH

In 2001, Dr. Devi Shetty founded Narayana Health in Bangalore. Narayana Health has 30 specialties who worked on 5,600 operational beds (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). This is also known as Henry Ford of heart surgeries. This title is used because Narayana health has managed its operation to achieve economies of scale and reduce healthcare costs. Due to economies of scale, the cost of bypass surgery is only INR 90,000, which is lower than countries like the United States of America, Mexico, and Colombia. By increasing the volume of surgeries in the Narayan Hospitals, the cost of the surgeries' expenditure becomes lower (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). In Narayan Health, the average doctor performed 400 to 600 surgeries in a year, while comparing to the doctors who worked in the United States of America is very low, that is, 100 to 200. Narayan Health's strategy is to provide affordable treatment, and for that medical team of Narayana Hospitals performed a maximum number of surgeries and catheterization (medical device accessories) procedures on a daily basis. As with any industry, doctors perform



surgeries systematically like people working on the assembly line. Medical professionals also worked in the shifts so that maximum amount of facilities or expensive cardiac medical device/equipment utilization can be possible (Narayana health, 2020). Narayana health calculates its profits and losses on their daily basis and shares them with the doctors. By this method, the cost-cutting measurement becomes more manageable, and the burden of the cost of healthcare on the patient can be reduced. Narayana Health has an excellent record on the coronary artery bypass procedure; that is one percent, which is equal to the United States of America hospitals. They have zero incidences of bedsores after surgeries. They also focus on their medical staff's skilling, and for that, proper training is provided to them from the various specialist and super specialists. Narayana Health is one of the best examples in India that provide affordable healthcare service with consistent quality. Their innovative model of providing healthcare services revolutionizing the healthcare system of India. (Narayana Health, 2020)

3. GENERAL ELECTRIC HEALTHCARE

General Electric's Healthcare is one of the most famous medical device companies that include ultrasound and Computed Tomography scanners, cardiology centric medical devices, high voltage tanks, ventilators, and many more. Their strategy is focusing on organic growth in the Indian medical device market. It is done by providing the customized healthcare facilities, creating awareness and availability of healthcare in every area. General electric healthcare always followed international compliance and standards. They focus on research and development so that the technology they deliver should be innovative, effective, and affordable for the customer. In India, 650 employees are working in software development, components of medical devices, etc. For the company, General Electric Healthcare, located in Bangalore, tries to make healthcare affordable by providing sustainable healthcare solutions (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). It is a strategy to acquire or expand in the Indian market by promoting the domestic R&D on Healthcare technology. The manufacturing of medical devices by developing and procuring resources locally and also reach the village and small cities.

General Electric Healthcare is always focusing on the development of those products into their portfolio that is economically affordable. In this way, General Electric launched 28 products that are effective and economical for the Indian population. In making their product affordable, General Electric Healthcare collaborated with the two domestic manufacturers, utilizing their skills and knowledge and distributing them into the market (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). General Electric Healthcare also organized various educational programs under the skill India initiative in 5 years. Around 1,00,000 healthcare professionals have been trained under this program all over the world. (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016)

RECOMMENDATIONS

For the promotion of the medical device industry in India, these few recommendations may be followed:

1. To establish technological advancement, infrastructure and provide better safety standards for the medical devices industry so that maximum investment happens.
2. A separate authority ensures the quality and authenticity of medical devices and promotes the export of medical devices.
3. This authority should also be responsible for giving grants and hasten the patent procedure so that the new technology is easily introduced in the country.



4. Promotion of health insurance program in India by collaborating with government and private sector organization under PPP model, so that cost of treatment could be reduced.
5. Awareness programs for new medical technologies and devices for lifestyle activities.

CONCLUSION

As we have discussed, the medical device requirements after the COVID-19 pandemic has increased for the treatment of the patients. The various organizations have used possible strategies for delivering the medical devices at an affordable price in rural areas so that treatment cost reduces as well as the quality of care also increases. With reference of Abbott and General Electric healthcare company case studies, we understand that using innovative business strategies help the business to grow in this pandemic and also become more accessible in rural areas. The Indian government is taking various initiatives to promote foreign direct investment inflow, technology up-gradation, special economic zones for manufacturing units, decreasing medical devices taxation, and promoting start-up culture in India. So, the development of the Indian economy and healthcare system can be augmented and expedited. The medical device market has vast opportunities for startups, as we have seen in Narayan healthcare; innovative model and business strategy helps deliver affordable treatment with high efficiency and quality.

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INCLINATIONS AND CHALLENGES OF GLOBAL RUBBER PRODUCTION



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ABSTRACT

The world trend of rubber production is on the increase with Thailand, Indonesia and Malaysia as the leading world producers. The general increase in rubber production in the world is in agrees with its demand growth. This may be due to an increase in world technology especially the automobile industries which require more of rubber as raw material. But the production and consumption of natural rubber show a declining trend than that of synthetic rubber. The price of natural rubber, once a major driving force in the exploitation of rubber has now become the disincentive to tapping turnout. With price sustaining at a low level, the livelihood of rubber farmers had been hard hit for a long period and makes their future uncertain. Many of the rubber farmers have left the industry looking for greener pastures. Those who stayed back demand a solution for the predicament they are facing.

Secondary data was used for analysing the trend of Rubber production. The study is based on secondary data collected from various sources such as articles published in journals, websites. Data regarding the quantity of rubber produced annually by 35 rubber producing countries in the world for 56 years from 1961 to 2017 is taken. CAGR and percentage share of each rubber producing countries were determined. For analyzing the price movements of natural rubber, price of rubber in the global market from 1990 to 2019 is taken and analyzed. For analysing the growth and consumption of synthetic rubber data's were taken from the period between 2000-2017.

The global production of natural rubber shows an increasing trend in the early period and declined over time. The production and consumption of synthetic rubber show an increasing trend than that of natural rubber which accounts to only 46 percent of the world consumption as compared to synthetic rubber consumption which is 54 percent of global consumption. Price of natural rubber in the global market is always fluctuating. Since 2012 there is a decreasing trend in the price of natural rubber in the global market that is US\$3.93 in 2012 decreased to US\$1.72 in the year 2019.

The outcome of this study has the potential to influence natural rubber production in the world. The low demand and price for natural rubber hit the livelihood of rubber farmers for a long period and makes their future uncertain and they demand a solution for the predicament they are facing.



Keywords	rubber, production, price, synthetic rubber
JEL Classification	R14, Q1
Cite this Article	Mathew, Aparna Merin. (2020, December). Inclinations and Challenges of Global Rubber Production. In Perspectives on Business Management & Economics (Vol. III, pp. 119-127). Retrieved from http://www.pbme.in/papers/88.pdf
Article History	Received: October 15, 2020; Accepted: October 30, 2020 Published: December 31, 2020

INTRODUCTION

Christopher Columbus first discovered natural rubber during his visit to South America in about 1493. It is an environmentally friendly cash crop grown in Africa and Asian Continents. The product is mostly consumed by Europe and America and was believed to have been domesticated in about 1876. It gained global awareness in 1913. Currently, Thailand, Indonesia, and Malaysia are the leading producers of natural rubber in the world. The global demand growth rate is about 3.4 percent annually. Natural rubber comes from various sources, the most common being the Pará rubber tree (*Hevea brasiliensis*), which grows in tropical regions. They typically reach 20-30 meters in height on rubber plantations and can produce commercial quantities of latex at about seven years of age, depending on climate and location. The economic life span of a rubber tree is between 10 to 20 years but may extend to 25 years in the hands of a skilled tapper and bark consumption.

Natural rubber is used for making products such as Tyres, Toys, Shoes, Gloves, Balloons, Some medical tubing, Elastic thread, and Glue. At the end of the rubber trees' useful life, the wood is used to make furniture. Once a major driving force in the exploitation of rubber, the price of natural rubber has now become the disincentive to tapping turnout. With price sustaining at a low level, rubber farmers' livelihood had been hard hit for a long period and made their future uncertain. Many of the rubber farmers have left the industry looking for greener pastures. Those who stayed back demand a solution for the predicament they are facing.

REVIEW OF LITERATURE

Chandry, George, and Raj (2010) indicated that in the pre-liberalization period (1976-1990) higher growth rate in the area, production, and productivity of rubber was recorded than that in the post-liberalization period (1991-2007) and is accompanied by relative instability. The factors that have explicitly contributed to the rubber sector's sustained growth are comparatively stable and remunerative price and a higher net farm income vis-à-vis other crops in Kerala. Raju (2016) discusses the factors behind the instability in Natural Rubber's price in both international and domestic markets. Instability analysis revealed that several factors like global recession and decline in crude prices have contributed to the volatility in prices during these periods also decline in oil prices and the subsequent decline in the prices of synthetic rubber were some of the factors that have contributed to the volatility and instability in natural rubber prices. Ramalingam and Vinitha (2017) inferred from the study that India is the sixth-largest producer of natural rubber in 2015 with a share of 4.7 percent of world production, and it is the second-largest consumer in the world. The annual growth rate of natural rubber production is the highest during the year 2008-09, and the annual growth rate for consumption is high in the 2009-10 year.



Regarding import and export, the computed CAGR for imports is 20.20 percent. However, the export shows a negative CAGR of 32.81 percent. Ziegler, A.D., M.F. Jefferson, and J. Xu (2009) reported the conversion of natural forests into rubber plantation and associated environmental issues in mainland southeast Asia, where rubber plantation covers five lakh hectares at present, and by 2050 it may be tripled. Romprasert (2009) examined the factors for monthly RSS3 future prices by taking crude oil prices as one of the variables. The obtained result showed that crude oil price is the significant variable in determining the future price. An increase of 1 percent petroleum prices will increase the RSS3 price to 0.0227 percent.

RESULTS AND DISCUSSION

WORLD PRODUCTION OF NATURAL RUBBER

In one form or another, Rubber has been used since the times of old, evidence of its use going back 2,000,000 years or more. In those days, the substance was derived naturally from the rubber tree. Individuals would then use it to make balls and to waterproof handmade buckets, pails, and more. Every year approximately 4 million tons of natural rubber are produced to make more than 50,000 different products that we use daily worldwide. In 2018, world production of natural rubber (NR) accounted for 13.960 million tonnes, an increase of 4.6 percent from 13.350 million tonnes on a year-to-year basis.

Meanwhile, the world demand recorded an increase of 5.2 percent, year-to-year, amounting to 14.017 million tonnes in 2018 (Association of Natural Rubber Producing Countries). The study is based on secondary data collected from various sources such as articles published in journals, websites. This paper discusses the trends in the production of natural rubber in the world with the help of data collected from websitefactfish.com. Analyzing the trend of Rubber production data regarding the quantity of rubber produced annually by 35 rubber producing countries in the world from 1961 to 2017 is taken. CAGR and percentage share of each rubber producing countries were determined. For analyzing the price movements of natural rubber from 1990 to 2019, data were collected from the website indexmundi.com.



Table 1: Natural Rubber Production in the World (in tonnes)

Year	Thailand	Indonesia	Vietnam	India	China	Malaysia	Ivory Coast	Philippines	Guatemala	Burma	Others	Total
1961	186,100 (9)	693,200 (33)	78,100 (4)	26,992 (1)	3,900 (0)	789,679 (38)	82 (0)	3,700 (0)	3,500 (0)	13,209 (1)	298,872 (14)	2,097,334 (100)
1971	316,300 (11)	780,946 (26)	37,500 (1)	92,200 (3)	52,400 (2)	1,318,610 (44)	13,493 (0)	7,000 (0)	5,000 (0)	13,417 (0)	375,304 (12)	3,012,170 (100)
1981	507,700 (14)	963,238 (26)	43,578 (1)	153,100 (4)	127,700 (3)	1,510,221 (41)	23,464 (1)	23,800 (1)	11,900 (0)	15,835 (0)	343,947 (9)	3,724,483 (100)
1991	1,162,242 (23)	1,328,172 (26)	64,563 (1)	329,600 (6)	296,353 (6)	1,257,200 (24)	71,482 (1)	180,705 (4)	18,488 (0)	14,900 (0)	409,645 (8)	5,133,350 (100)
2001	2,522,508 (34)	1,607,460 (22)	312,600 (4)	631,000 (9)	477,437 (6)	882,000 (12)	127,923 (2)	264,042 (4)	59,407 (1)	36,200 (0)	474,531 (6)	7,395,108 (100)
2011	3,348,897 (29)	2,990,200 (26)	789,635 (7)	800,000 (7)	750,852 (7)	996,337 (9)	238,717 (2)	425,705 (4)	339,233 (3)	147,300 (1)	602,149 (5)	11,429,025 (100)
2015	4,466,063 (34)	3,145,398 (24)	1,012,750 (8)	950,696 (7)	816,103 (6)	722,122 (6)	350,000 (3)	398,137 (3)	359,349 (3)	208,741 (2)	651,884 (5)	13,081,243 (100)
2016	4,490,549 (34)	3,307,142 (25)	1,035,333 (8)	954,986 (7)	815,938 (6)	673,513 (5)	453,000 (3)	362,626 (3)	332,755 (3)	221,670 (2)	659,396 (5)	13,306,908 (100)
2017	4,600,000 (33)	3,629,544 (26)	1,094,519 (8)	964,733 (7)	817,366 (6)	740,138 (5)	580,000 (4)	406,984 (3)	318,447 (2)	236,748 (2)	672,908 (5)	14,061,387 (100)
CAGR (%)	6	3	5	7	10	-	17	9	8	5	1	3

Source: Consolidated from www.factfish.com

Note: Other countries include Sri Lanka, Nigeria, Liberia, Mexico, Cameroon, Gabon, Ghana, Ecuador, Guinea, Bolivia, Cambodia, Congo de, Peru, Central Africa, Papua, Bangladesh, Congo, Colombia, Brunei, Timor-Leste, Guinea-Bissau, Costa Rica, Singapore, Dominican.

The figures shown in the brackets represents the percentage share of each country towards the global production of natural rubber.



The Global Production of natural rubber has increased considerably in the last 56 years, from 1961 to 2017. It is found from Table 1 that Thailand, Indonesia, Vietnam, India, China, Malaysia, Ivory Coast, Philippines, Guatemala, and Burma are the top ten rubber producing countries in the World. These countries alone contribute 95 percent of the total Natural rubber production in the world. Among these nations, Thailand contributes 33 percent of world production, followed by Indonesia 26 percent, Vietnam 8 percent and India 7 percent, etc. In the year 1961, Thailand contributed 9 percent to global production, which is increased to 33 percent in 2017. Indonesia's contribution was 33 percent to the global production in 1961, which decreased to 26 percent in the year. Ivory Coast stood first with a 17 percent growth rate from 1961 to 2017 and Malaysia shows a negative growth rate in CAGR terms. The global production of natural rubber shows a CAGR of 3 percent from the year 1961 to 2017.

WORLD PRODUCTION OF SYNTHETIC RUBBER

Synthetic Rubber has come of use for less than a hundred years. Synthetic rubber plants were built worldwide after 1945, primarily in North America, Japan, and Europe. In 1960, synthetic rubber was more than that natural rubber for the first time. Synthetic rubber has maintained this lead since then. Table 2 shows the production and consumption of synthetic rubber from 2000-2017.

Table 2: Global Production and Consumption of Synthetic Rubber

Year	Production in thousand metric tons (TMT)	Consumption in thousand metric tons (TMT)
2000	10,870	10,830
2001	10,483	10,253
2002	10,906	10,679
2003	11,414	11,117
2004	11,979	11,693
2005	12,025	11,731
2006	12,700	12,434
2007	12,829	12,576
2008	12,285	12,173
2009	11,488	11,228
2010	13,277	13,225
2011	14,091	13,856
2012	14,081	13,964
2013	14,201	14,164
2014	14,083	14,267
2015	14,507	14,564
2016	14,845	14,834
2017	15,051	15,189
CAGR (%)	2	2

Source: www.statista.com

Production of synthetic rubber shows an increasing trend that is from 10,870(TMT) in 2000; 13,277(TMT) in 2010 and 14,460 (TMT)in 2015 it reaches 15,051(TMT) in the year 2017. The Production of synthetic rubber shows a compounded annual growth rate of 2 percent from



2000 to 2017. In the case of consumption also there is an upward trend. In the year 2000, the consumption of synthetic rubber was 10,830 (TMT), which moves to 13,225(TMT)in the year 2010 and reaches 15,189 (TMT) in the year 2017. The CAGR of consumptions shows an increase of 2 percent.

NATURAL RUBBER VS. SYNTHETIC RUBBER

Comparing natural rubber and synthetic rubber is not necessarily apples to apples. Each has its own uses based upon its specific properties. Some may prefer the natural rubber properties over those of synthetic rubbers; it has been agreed upon that overall, natural gum rubber outperforms synthetic rubber in a majority of applications. However, natural rubber cannot be particularized for specific functions in the ways that synthetic rubber can be, meaning that each product has its benefits over the other. As compared to natural rubber, synthetic rubber is costlier than natural rubber that is natural Rubber / Synthetic Rubber Price Ratio is 68.1per cent. The production and consumption of synthetic rubber show an increasing trend than that of natural rubber, which accounts for only 46 percent of the world consumption compared to synthetic rubber consumption, which is 54 percent of global consumption.

Natural rubber is harvested from trees that are grown on plantations. This makes it a natural product and ecologically friendly, benefitting the environment in many ways. The latex is obtained from the trees and then processed into natural rubber sheets. It has high tensile strength, meaning its ability to be stretched and then return to form is very high. It is resistant to wear from chipping, cutting, and tearing. It has only moderate resistance to damage from heat, light, and the O-Zone. At other times, it can be very susceptible to these things. It can be known to degrade rapidly, especially under extreme conditions. The natural rubber has a quality known as “tack,” meaning that it adheres well to itself and to other materials. Natural rubber is used in such products as adhesives, contraceptives, and latex balloons.

Synthetic rubber is produced using petroleum-based materials. This means that it is not a natural product, and its production can have some detrimental effects on the environment, including the depletion of the Earth’s natural resources. The trade-off is that it is a longer-lasting material, thus decreasing its necessity to be reproduced. The percentage of synthetic rubber consumption is 54 percent of the global rubber consumption. Despite this, the demand for synthetic rubber is very high, which keeps production rates high. It is higher resistance to abrasion—superior resistance to heat and the effects of aging. Resistant to flame grease and oil is possible. It is flexible at low temperatures. As it is produced artificially, it is easier to produce, though this does not mean it is cheap. It need not be produced in a particular region or at a particular time of year and does not rely on the weather. Resistant to electricity is another possibility. There is variation between synthetic rubbers. Different kinds of synthetic rubbers are produced using different materials and are used for more specific applications. Synthetic rubber, which is more challenging, less elastic, and more durable, is extensively used for various purposes, such as for making vehicle tyres and hose pipes and even artificial hearts to waterproof gaskets. USA, China, EU, and Japan are the primary producers of synthetic rubber in the world.

PRICE OF NATURAL RUBBER IN THE GLOBAL MARKET

Natural Rubber is a vital agricultural commodity, which is used for manufacturing a wide range of products. It is used in automotive, consumer goods, manufacturing, and medical industries. The supply of natural rubber in the international market control is in few countries like Thailand, Malaysia, and Indonesia. Natural rubber and synthetic rubber are substitutes to use in certain



products, so when the tight supply of natural rubber price trend up, the amount of synthetic rubber is increased, the market position of the two are complementary. Table 3 shows the price of natural rubber in the global market from 1990 to 2019.

Table 3: Price of Natural Rubber in the Global Market

Year	Price (US\$/Kg)	AAGR (%)	Year	Price (US\$/Kg)	AAGR (%)
1990	0.83	-23.85	2005	1.32	-0.75
1991	0.83	0	2006	2.07	56.82
1992	0.83	0	2007	2.23	7.73
1993	0.85	2.41	2008	2.79	25.11
1994	0.91	7.06	2009	1.43	-48.75
1995	1.8	97.8	2010	3.34	133.57
1996	1.48	-17.78	2011	5.42	62.28
1997	1.23	-16.89	2012	3.93	-27.49
1998	0.74	-39.84	2013	2.98	-24.17
1999	0.64	-13.51	2014	2.29	-23.15
2000	0.68	6.25	2015	1.74	-24.02
2001	0.57	-16.18	2016	1.46	-16.09
2002	0.67	17.54	2017	2.35	60.96
2003	1.06	58.21	2018	1.76	-25.11
2004	1.33	25.47	2019	1.72	-2.27

Source: www.indexmundi.com

Table 3 shows that the price of natural rubber in the global market is always fluctuating. In 1990, the price of rubber was US\$ 0.83, which increased to US\$2.07 in the year 2006. From 2006 there was an increasing trend up to 2011 except in the year 2009. From 2012 there is a decreasing trend in the price of natural rubber in the global market that is US\$3.93 in 2012 decreased to US\$1.72 in the year 2019.

CHALLENGES IN NATURAL RUBBER PRODUCTION

The global rubber industry has always been concerned over the fluctuating supply and spiralling prices of natural rubber (NR). Natural rubber is a highly valuable biomaterial in contrast with other bio-polymers. It cannot be replaced by other synthetic materials for many vital applications like heavy-duty truck or bus and aircraft tyres, as well as many latex products. As such, it is the first choice for heavy-duty radial truck tyre manufacturers, primarily because of its physical, mechanical properties and excellent adhesion to steel cord. Production of natural rubber in the last couple of years especially was affected by unfavorable prices. The decrease in prices coupled with high labor costs and shortage of skilled laborers compelled farmers to minimize harvesting days, reduce the application of fertilizers and other inputs and stay away from proper maintenance of trees and increased imports due to inverted duty structure are harming the industry, which needs to be addressed.

Natural rubber prices have declined significantly in the last year, both in the domestic market and the international market. During the period 2014-15, domestic natural rubber prices for RSS 4 came down to an average of Rs.132.6 per/Kg. It is to be mentioned that the average



price in 2013-14 was Rs.166.0 per kilogram. Global production of synthetic rubber fell by 1.5 percent during the 12 months ended December 2014. A variety of factors have contributed to the instability in prices. The economic slowdown in the developed and developing countries, a sharp fall in crude oil prices and subsequent decline in synthetic rubber prices, and depreciation in the currencies in natural rubber exporting countries have all contributed to the decline in natural rubber prices in the producing countries.

The shift towards palm oil in some of the Southeast Asian countries had its tell-tale effects on NR supply. It was about two decades ago, palm oil emerged as the cheapest source of edible oil and has been garnering much attention since then. Today, it is the largest produced, consumed, and traded edible oil in the global markets. Land-use change associated with the expansion of industrial-scale oil palm plantations in three regions of Indonesia (Sumatra, Kalimantan, and Papua), in Malaysia, and in Papua New Guinea, was documented using Landsat images that were visually interpreted to create a region-wide map of 22 different land cover types spanning three temporal periods (1990 to 2000, 2001 to 2005 and 2006 to 2009/2010). In 1990, there were approximately 3.5 Mha of industrial oil palm plantations in the three countries, which had expanded to 13.1 Mha hectares by 2010. This direct conversion of plantation crops such as rubber to oil palm was more common, affecting the production of natural rubber.

A severe fall of the productivity per hectare of rubber is due to a constant fall in natural rubber prices, coupled with high labor cost, which has forced many of the growers (75 percent small and marginal farmers) to keep away from tapping. Production of natural rubber in India and Malaysia has declined significantly during the last couple of years because of rubber prices' uncertainty. The contribution of natural rubber production by Malaysia in 1961 was 38 percent of the world rubber production, which declined to 5 percent in the year 2017. Synthetic rubber is a close substitute for natural rubber. Both products are used to produce the desired properties needed in rubber end products and tyres. The decline in oil prices has boosted the production of synthetic rubber. World consumption of Synthetic rubber also has increased substantially in the last 15 years. From 108.30 lakh tones in 2000, Synthetic rubber consumption increased to 142.52 lakh tones in 2014. The share of synthetic rubber in the total consumption in 2014 stood at 54 percent. Synthetic rubber is a by-product of the oil industry. The producing and consuming industries are in general closely related and dominated by large and global enterprises. Synthetic rubber is a petroleum-derived product and manufactured by the polymerization process in chemical plants. Prices of synthetic rubber are influenced by the prices of crude oil. Lack of availability of skilled labor is also a serious problem faced by rubber cultivators.

CONCLUSION

This paper attempt to analyze the trend of world rubber production from the year 1961 to 2017. The global production of natural rubber shows an increasing trend in the early period and declined over time. The major ten countries producing rubber are Thailand, Indonesia, Vietnam, India, China, Malaysia, Ivory Coast, Philippines, Guatemala, and Burma. Among these nations, Thailand contributes 33 percent of world production, followed by Indonesia 26 percent, Vietnam 8 percent and India 7 percent, etc. In the year 1961, Thailand contributed 9 percent to global production, which is increased to 33 percent in 2017. Indonesia's contribution was 33 percent to the global production in 1961, which decreased to 26 percent in the year. In CAGR terms, Ivory Coast stood first with a 17 percent growth rate from 1961 to 2017, and Malaysia shows a negative growth rate. Production of natural rubber in the last couple of years especially was affected by unfavorable prices. From 2012 there is a decreasing



trend in the price of natural rubber in the global market that is US\$3.93 in 2012 decreased to US\$1.72 in the year 2019. As compared to natural rubber, synthetic rubber is costlier than natural rubber that NR/SR Price Ratio is 68. 1 percent. The production and consumption of synthetic rubber show an increasing trend than that of natural rubber, which accounts for only 46 percent of the world's consumption compared to synthetic rubber consumption, which is 54 percent of global consumption. The decrease in prices coupled with high labor costs and shortage of skilled laborers compelled farmers to minimize harvesting days, reduce the application of fertilizers and other inputs and stay away from proper maintenance of trees and increased imports due to inverted duty structure harming the sector which needs to be addressed.

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THE EFFECTIVENESS OF MANAGEMENT INFORMATION SYSTEM IN PHARMACEUTICAL SECTOR



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ABSTRACT

The pharmaceutical industry is one of the quickest developing areas of the economy and is well – known as the information serious industry. The reception of Management Information System (MIS) in medical care, including drugs, isn't less significant than in some other association. The advancement of fitting, coordinated and adaptable Information framework in the pharmaceutical industry of creating nations has not been anything but difficult to accomplish and is probably going to stay slippery on account of proceeded with divided subsidizing of wellbeing programs and the record keeping. India is currently one among the main five emerging pharmaceutical markets worldwide. The Indian pharmaceutical sector is profoundly information based and data based which is developing consistently. In the administration of contemporary association, dynamic is one of the most significant administrative capacities. To this end, suitable, right and precise data is needed to be conveyed in an opportune way for legitimate administrative thought. In the current time a considerable lot of the pharmaceutical organizations are confronting serious issues for record saving for the assortment of information for dynamic reason. So as to achieve this, proficient and viable Management Information System (MIS) turns into a fundamental part for the association. In this paper, the analyst examines the cause of Pharmaceutical Management Information System (PMIS) in India and the working example of PMIS. It likewise attempts to understand both the upsides and downsides in PMIS framework.

Keywords	PMIS, MIS, intensive industry, managerial functions
JEL Classification	I10, M49, M20, M00
Cite this Article	Sasidharan, Saranya., Devarajan, Monisha., (2020, December). The Effectiveness of Management Information System in Pharmaceutical Sector. In Perspectives on Business Management & Economics (Vol. III, pp. 128-136). Retrieved from http://www.pbme.in/papers/76.pdf
Article History	Received: October 15, 2020; Accepted: October 30, 2020; Published: December 31, 2020



INTRODUCTION

India is now one of the top five emerging pharmaceutical markets globally. The Indian pharmaceutical sector is highly knowledge-based and information based which is growing steadily. In the management of a contemporary organization, decision making is one of the most important managerial functions. To this end, appropriate, correct, and accurate information is required to be delivered in a timely manner for proper managerial consideration. In the present era, many pharmaceutical organizations are facing severe problems for record-keeping for the collection of data for decision-making purposes. In order to accomplish this, an efficient and effective Management Information System (MIS) becomes a vital part of the organization. In the management of contemporary organizations, decision – making is one of the most important managerial function. To this end, appropriate, correct, and accurate information is required to be delivered promptly for proper managerial consideration. In order to accomplish this, an efficient and effective MIS becomes a vital part of the organization. In addition to facilitating decision–making, organizations adopt a sophisticated and comprehensive Management Information System to provide managers with a broad range of information to achieve multiple performances. In contrast, the management practice, including information system management, also affects the MIS organization. Any inefficiency or ineffectiveness issues within management then cause the MIS of that organization to be inefficient or ineffective. The pharmaceutical industry is one of the fastest-growing sectors of the economy and is well – known as the knowledge-intensive industry. The adoption of the Management Information System (MIS) in healthcare, including pharmaceuticals, is not less important than in any other organization. The development of an appropriate, integrated, and scalable Information system in the pharmaceutical sector of developing countries has not been easy to achieve and is likely to remain elusive in the case of continued fragmented funding of health programs and record keeping. The effectiveness of the organization is dependent on the quality of decisions that informs its operations. If the decisions are right, it translates into positive organizational outcomes as the organizations will execute the available information properly, which will determine the success and failure of the organization in its workings in the future.

REVIEW OF EXISTING LITERATURE

The Indian pharmaceutical sector is highly knowledge-based and information based which is growing steadily. The research literature is still evolving. Therefore, this paper aims to address the gap of understanding of the subject and thus add to the foundations of knowledge on the topic.

OBJECTIVES

1. To understand the concept and working pattern of PMIS
2. To exhibit the pros and cons of PMIS system
3. To showcase the role of management information systems in business

RESEARCH METHODOLOGY

The study uses the descriptive research method to collect data from secondary data sources from various journals, internet sources, and newspapers.



DISCUSSION

THE CONCEPT OF MIS

Information is a set of classified and interpreted data used in decision making, and it has also been defined as “some tangible or intangible entity which serves to reduce uncertainty about future state or events”. There are different levels of decision making, for which information can be described as:

People: These are the users who use information systems to record day-to-day business transactions.

Source: This is the place from where the data or information will be collected.

Data: It is the recorded day to day business transactions.

Software: These are programs that run on the hardware. The software is broken down into two major categories, namely system software, and applications software.

Hardware: It is made up of computers, printers, networking devices, etc. The hardware provides the computing power for processing data. It also provides networking and printing capabilities. The hardware speeds up the processing of data into information.

1. Inferences and Predictions are drawn from data
2. Value and Choices
3. Action, which involves a course of action.

The management information system has the purpose of meeting the general information needs of all the managers in an organization or in some subunits of the organization. A subunit can be based on functional areas or can be viewed at management levels.

Considering the definition for Management Information System (MIS), one of the popular definitions describes Management Information System (MIS) as "an organizational method of providing past, present and projected information related to internal operations and external intelligence. It supports the planning, control and operation functions of an organization by furnishing uniform information in the proper time frame to assist the decision-makers". The information in Management Information System (MIS) describes the firm or one of its major systems in terms of what has happened in the past, what is happening now, and what is likely to happen in the future. The information is provided in the form of reports and outputs of mathematical simulations. There are two types of reports, namely, periodic and special reports. All managers use the information output as they make decisions to solve the firm's problems.

A Management Information System (MIS) has also been defined as "an integrated user-machine system for providing information to support operations, management, and decision-making functions in an organization. The system utilizes computers, manual procedures, models for analysis, planning, control and decision making, and a database". All these definitions give a concise understanding of the Management Information System as a whole.

Management Information System (MIS) plays three vital roles for business organizations:

1. Supports the business processes and operations of an organization.
2. Supports decision making by the employees of an organization.



3. Supports the strategies of an organization for competitive advantage.

THE WORKING PATTERN OF PMIS

Installing management information system

The installation of a Management Information System requires the following steps:

1. **Preliminaries:** The introduction of the Management Information System (MIS) requires a proper study of business objectives, plans, policies, etc.... It will enable in deciding the type of data required, its sources, and the levels at which required. The organizational structure should be able to supply the required information. The organizational levels, authorities, responsibilities, etc., should be studied for this purpose. The success of the MIS will depend upon the support of top-level management. The management should be able to supply the requisite finances.
2. **Planning:** The information needs of top, middle and lower levels of management should be studied so that the system is planned accordingly. The functions of each level of management should also be studied. The questions like, What data is needed? When is it needed? Who needs it, and in What form is it needed? It should be studied to make the system effective.
3. **Implementation:** Management Information System (MIS) can effectively be applied only when every person in the organization is involved in it. The persons should also be given training for implementing this system. Information System manuals should be prepared to devise a procedure for it. The manual and mechanical devices necessary for processing data should also be selected. Standard proformas, etc., should also be decided for collecting information. The main emphasis should be on the involvement of all persons in the organization.
4. **Review:** The review of the system is essential. The problems and difficulties faced in the system and additional requirements should be pointed out. The MIS review will enable to spot the weak spots, and corrective action will make the system more effective. It should be determined whether the information supplied was sufficient or not? Was the information relevant and critical? Was the frequency of reporting justified? The answers to these questions will help in making changes in the system. Without a proper review, the system will cease to be effective and useful after some time. It should continuously be reviewed with the change in the situation in the business.

MIS must be designed in an organization in such a way as the nervous system works in a human body. The foremost task of the MIS is to provide information to the management, but the scope of MIS covers several functions to be performed simultaneously;

1. MIS has to aim at identifying the management's informational needs.
2. MIS has to aim at satisfying the informational needs of management.
3. MIS has to help the management in processing information for the decision-making process.
4. MIS has to aim at providing regular formal information gathered from routine commercial data.
5. MIS has to be flexible enough to help management to incorporate informal and unstructured information into the process of decision-making.



6. MIS may grow up in an informal or unplanned way, which are not designed but can be helpful to the management in the decision-making process.

THE PROS AND CONS IN PMIS SYSTEM

ADVANTAGES OF MIS

1. Facilitates planning: MIS improves the quality of plans by providing relevant information for sound decision making. Due to the increase in organizations' size and complexity, managers have lost personal contact with the scene of operations.
2. Minimizes information overload: MIS changes the larger amount of data into a summary form and thereby avoids the confusion which may arise when managers are flooded with detailed facts.
3. Encourages Decentralization: Decentralization of authority is possible when there is a system for monitoring operations at lower levels. MIS is successfully used for measuring performance and making necessary changes in the organizational plans and procedures.
4. Coordination: MIS facilitates the integration of specialized activities by keeping each department aware of other departments' problem and requirements. It connects all decision centers in the organization.
5. Easy Control: MIS serves as a link between managerial planning and control. It improves the ability of management to evaluate and improve performance. The used computers have increased the data processing and storage capabilities and reduced cost. This will help the management to evaluate and improve performance.
6. MIS assembles, processes, stores, retrieves, evaluates, and disseminates the information.
7. Improves quality of an organization or an information content by providing relevant information for sound decision making.
8. MIS changes a large amount of data into a summarized form and thereby avoids confusion.

DISADVANTAGES OF MIS

1. Cost of Equipment: For a big company to successfully incorporate a Management Information system, there is a need to purchase devices that the employees and management executives will be using to interact with the system. These devices include servers, tablets, laptops, and desktop computers. In addition, the company needs to invest in a good network that will connect these devices in order for the system to work effectively.
2. Training of the workforce: This can also become a problem when applying Management Information Systems in a company. Without a proper understanding of how the system works, it can be hard to reap the full benefits of using it. This, therefore, makes it necessary for the company to ensure that employees and their managers are well trained on how to use the system. This can be an expensive and time-consuming exercise.
3. The systems are expensive to purchase: Owing to the unique needs of each organization, Management Information Systems have to be customized for each company. This means that there has to be brainstorming sessions where the vendors sit with management officials seeking to understand the needs before they can develop the system. As a result, the cost of the system goes up, thus taking it out of reach for small and medium companies.
4. Many companies end up purchasing systems that lack the features they need most: As mentioned earlier, each company has its own unique needs when it comes to Management Information Systems. When you purchase a system that is not meant for your company, you will have better access to data that does not help improve your operations. As a result, you will not be able to get the best return on investment.



5. There is also a need for trained personnel to keep the system in good working order at all times: Like any other system, management information systems need proper maintenance in order for them to produce the best results. This means that you will need to add specialized personnel for system maintenance in your company. Without these people, using the system will be a challenge since errors will go unresolved, and this will result in inefficiencies in the operations.
6. Management Information Systems are heavily affected by large changes in the company: This means that before you make any change in the way you run the company, there will be a need to consider the impact of the changes on the information system. Sometimes, it becomes impossible to make some changes without changing the Management Information Systems; hence having the system in place ends up being a limitation. However, most small changes should easily be incorporated into a good MIS.
7. It is highly sensitive, which requires constant monitoring.
8. Budgeting of Management Information System (MIS) is extremely difficult.
9. Quality of outputs governed by quality of inputs.
10. Lack of flexibility to update itself.
11. Effectiveness decreases due to frequent changes in top management.
12. Too difficult to adapt.

ROLE OF MANAGEMENT INFORMATION SYSTEMS IN BUSINESS

The main role of MIS is to report on business operations with the purpose of supporting decision making. This is to ensure that the organization is managed in a better and more efficient way so that it can be able to achieve full potential thus gain a competitive advantage. Let us look at some of the other roles played by Management Information Systems in an organization.

1. To provide information readily to company decision-makers:

Regardless of whether it is a marketing, financial or operational issue, managers need quick access to information so that they can make good decisions that will have a positive impact on the company's performance. Management Information Systems enhance this by strategically storing vast amounts of information about the company in a central location that can be easily accessed by managers over a network. This means that managers from different departments have access to the same information hence they will be able to make decisions that collectively help solve the company's problems in the quickest way.

2. Management Information Systems also help in data collection:

Data from everyday operations in the company is collected and brought together with data from sources outside the organization. This enables a healthy and functional relationship between distributors, retail outlets and any other members of the supply chain. It also helps keep good track of performance since production and sales numbers will be recorded and stored in a central database that can be accessed by all members of the MIS. Access to this information also helps ensure that problems are detected early and decisions are made quickly using the latest information.

3. To promote collaboration in the workplace:

In any large company, there are many situations that call for input from several individuals or departments before decisions can be made. Without an efficient communication channel,



these decisions can take a very long time. Even with good communication channels, if the different stakeholders don't have access to all the available data, the process would hit a number of snags before it's complete. Management Information Systems ensure that all the members of the decision-making group have access to all the data that's required to make the decision even if they are working from different physical locations.

4. To run possible scenarios in different business environments:

Before making a decision that will affect the overall standing of the business, a lot of precaution must be taken. There is a need to check and verify that the company will not suffer after making a decision. Management Information Systems enable executives to run what-if scenarios so that they can see how some of the important metrics in the business will be affected by a given decision. The data is presented in easy-to-understand reports and graphs that make interpretation easy.

5. Management Information systems give accurate projections of the company's standing in the short and long term:

Most of the decisions made by top executives in companies have an effect on the company strategies. As a result, some of them may need some modifications done on the company goals or strategies. Most Management Information Systems come with trend analysis features that will enable you to project the performance of a business with the current configuration and how they will be affected once you have implemented any changes that you are considering. The Management Information Systems that don't have the trend analysis feature will still provide you with enough information to accurately carry out the analysis using external tools.

6. Management Information Systems help track the implementation of particular decision in a company:

Before making a decision, executives use these systems to make projections of the expectations from the particular decision. If they decide to go ahead with the changes, there will be a need to keep monitoring the performance to see if you are on track to achieving the desired results. Management Information Systems give detailed reports and recommendations so that the evaluation of the goals moves smoothly and effectively. You get data that shows if your decisions have had the desired effect. If not, you will be able to take the necessary corrective measures early so that you can get back on track.

7. To improve on the company's reporting:

One of the reasons why Management Information Systems are favored by large companies is the effectiveness of the reporting features. The decisions can be made quickly because the information is presented in an easy-to-understand format. The fact that the system is accessible by people from different parts of the organization makes it an effective reporting and communication tool. Findings can be shared among colleagues with all the necessary supplementary data. It is also possible to create brief executive summaries that sum up the whole situation for review by senior company executives in situations that need their approval.



CONCLUSION

Management Information System provides accurate, timely, relevant, and complete information necessary to facilitate decision making in an organization. It helps in planning, control, and operational functions to be carried out effectively and efficiently. It provides a wide range of decision alternatives for the decision-makers, enabling them to make their choice depending on the system and situation. These are the major reasons why MIS is chosen by renowned organizations for decision making, record keeping, and management of information.

By its very nature, MIS is designed to meet the unique needs of pharmaceutical organizations. However, basic information needs or requirements are similar in all organizations regardless of size. The complexity of the operations and/or activities, together with institution size, point to the need for MIS of varying degrees of complexity to support the decision-making processes. Management Information System provides management with the information necessary to guide operations, support timely decision-making, record accurate information, and help management monitor progress toward reaching its goals and objectives. At the time of development of a pharmaceutical information system, the developer requires to have a significant commitment of resources and a clear idea of benefits that will acquire from the system.

To conclude the study, it was very useful to get the knowledge of Management Information System as well as whole aspects of the pharmaceutical sector, how Management Information System influence the entire sector and deals with the challenges that need to be overcome and opportunities that they possess for the growth and development of Management Information System strategies that should be adopted as per the requirements and should aim to achieve organizational goal.



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POST-GST IMPACT ON DIFFERENT INDUSTRIAL SECTORS



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ABSTRACT

The Goods and Services Tax (GST), implemented on July 1, 2017, is known as a major taxation reform till date implemented in India since independence in 1947. GST was planned to be implemented in April 2010, but was postponed due to political issues and conflicting interest of stakeholders. However, there is a huge voice against its implementation. GST, which embodies the principle of "one nation, one tax, one market" is aimed at unifying the country's \$2 trillion economy and 1.3 billion people into a common market. The objective of this research paper is to find out the impact of GST implication in different sector in Indian economy. GST obviously makes indirect taxation system transparent but all sectors in our economy are not affected positively through the implementation of GST, some of them are affected adversely. Initially, GST has increased the tax burden of common people as well as over the small businessman, some commodity and services make costlier with GST.

Keywords	GST, Indian Economy, Positive Impact, Negative Impact, taxation, economic sector
JEL Classification	C22, G01, G1
Cite this Article	Das, Gourab. (2020, December). Post-GST Impact on different Industrial Sectors. In Perspectives on Business Management & Economics (Vol. III, pp. 137-146). Retrieved from http://www.pbme.in/papers/94.pdf
Article History	Received: October 15, 2020; Accepted: October 30, 2020; Published: December 31, 2020



INTRODUCTION

It was a long pending issue to introduce a “single taxation” system in India – the largest democracy in the world. The existing indirect tax structure is really full of complexities. Goods and Services Tax (GST) is such a type of indirect tax merging most of the existing indirect taxes into a single system of taxation. Around ten years ago, the Indian Government moved one step forward about implementation towards GST.

GST is levied on the supply of goods or services or both. GST is a destination-based tax on the consumption of goods and services means that as the goods or services are moving from origin to destination, taxes are also moving from origin to destination, i.e., the tax will be accrued at the place of supply. Under GST, only the value addition will be taxed, and the burden of the tax will be borne by the final consumer. The GST was applicable in India effective July 1, 2017.

The introduction of GST is a very welcome step in the area of indirect tax reforms in India. GST will ensure the amalgamation of a large number of indirect taxes into a single tax. Thus, it will help to remove the cascading effect. Thus, it will pave the way for a unified national market.

The need to introduce GST was the need of the hour because of the deficiencies in the earlier taxation system. Some of the shortcomings of the earlier indirect tax system are:

1. No benefit of an input tax credit for VAT dealers who have paid excise duty or service tax. Thus, the cost of the product or services was used to be high.
2. No benefit of an input tax credit for Central Sales Tax.
3. No credit of VAT was available to Service Providers.

Thus, GST is said to be the perfect medicine for curing the indirect tax regime.

In India, the dual GST model is followed, i.e., GST is levied by Central Government on the intra-state supply of goods or services known as Central GST (CGST), and that levied by States / UT is called State GST or UTGST. In India, the dual model is followed because India is a federal country. So by virtue of this, both the Central and State government have the power to levy and collect taxes through appropriate channels.

The Central GST and State GST are levied simultaneously on every transaction which is under the purview of GST.

The goods under GST are classified on the basis of HSN (Harmonized System of Nomenclature), and the services under GST are classified on the basis of SAC (Services Accounting Code).

The input tax credit of CGST and SGST / UTGST is available throughout the supply chain, but cross utilization of credit of CGST and SGST / UTGST is not permissible.

Finally, at last, GST came into force with effect from July 1, 2017. Probably it is the biggest reform in the indirect tax structure since independence.



OBJECTIVES OF THE STUDY

Our objectives of the study are:

1. To throw light on the concept of GST.
2. To give a brief idea of the features of GST.
3. To analyze the impact of GST on the different industrial sectors, i.e., the impact of GST from the macro-economic aspects.

REVIEW OF LITERATURE

Mukherjee (2015) stated that reform in indirect taxation is an important measure for collecting revenue. This harmonized taxation system may affect the individual government to make the necessary changes from the formal tax structure. As per the study, the success of GST depends upon terms of compliance and revenue mobilization.

Raghuram & Deepa (2015) throws light on the introduction process of GST, the viewpoint of different stakeholders. GST simplifies the indirect taxation system though subsuming the various indirect taxes in it. The initial deadline of GST keeps getting deferred due to challenging issues. Finally, in December 2014, it was introduced in the Parliament as the 122nd Constitutional Amendment Bill (CAB).

Adhana (2015) stated the working mechanism of GST. It also highlighted the impact of GST on the Indian economy. It focused on the silent features, challenges, and implementation procedure of GST and the overcoming mechanism.

Kasinth (2016) stated that an increasing trend had been found between direct tax and GDP ratio during the study period. This paper shows light to the government on behalf of taxpayers. The fiscal policy enclosed the direct and indirect taxes.

Thowseaf, M. Ayisha Millath (2016) studied “A study on GST implementation and its Impact on Indian Industrial Sectors” that GST will make sure uniformity of taxes in different states in India. GST environment leads to an improved tax structure disclosure, which has a positive impact on the Indian tax regime.

Dr. R. Vasanthagopal (2011) studied in “GST in India: A Big leap in the indirect taxation system” and found different conflicting interests of various stakeholders with the constitutional amendment implication.

RESEARCH METHODOLOGY

The research paper is based on explanatory research based on different journals, annual reports, newspapers, and magazines covering a wide collection of academic literature on Goods and Service Tax. Available secondary data are extensively used for the study. The research design was adopted for the detailed analysis and greater analysis for the purpose of the study.



CONCEPTUAL FRAMEWORK

CONCEPT OF GST:

In the segment of indirect taxation, GST is a single tax on the supply of goods and services, right from the manufacturer to the ultimate consumer. A credit of input tax, which is paid at each stage, is to be available in the subsequent stage of value addition. That is why GST is considered as a tax only on value addition at each stage.

More than 140 countries have been under the regime of GST. But our nation is following dual GST systems like Canada and Brazil.

TAXES TO BE SUBSUMED TO CGST

1. Excise Duty
2. Service Tax
3. Additional Excise Duty on Medicinal preparations
4. Countervailing Duty (CVD)
5. Cesses
6. Surcharges
7. Special Additional Duty (SAD)

Petroleum products shall be outside the GST ambit.

TAXES TO BE SUBSUMED TO SGST

1. VAT/Sales Tax
2. Luxury Tax
3. Entertainment Tax
4. State Cesses & Surcharges
5. Purchase Tax
6. Entry Tax/Octroi
7. Taxes on lottery, betting, gambling

However, tax on liquor, electricity, and stamp duty would remain outside the GST ambit.

ANALYSIS AND PRESENTATIONS

Our study analyses how GST has significantly influenced the different industrial sectors of our nation. And in order to do so, we have taken into consideration different industries as much as possible. Moreover, we have considered those industries regarding which relevant information is available. Those are discussed in the following manner,

IMPACT ON LOGISTICS SECTOR

Basically, the Indian economy is too much dependent on the performance of the logistics sector. According to the World Bank's Logistics Performance Index, around 45 million people earn their livelihood through this sector. India was placed in 35th rank in 2016. The logistic sector can be classified into three categories, namely,

1. Road Transport Sector.



2. Storage and Warehousing Sector.
3. Third Party Logistics

Industrial database, it is very clear that the performance of the firms rendering logistics services had been volatile since 2010. It happened because of the existence of multiple taxes, which made this service a costly item. Besides that, logistics firms used to follow a practice of establishing hubs and transit points in many states in order to avoid state vat (Goods that were directly supplied to dealers used to come under the purview of state vat). Again they took advantage of escaping taxes by showing that most of the transfers occurred from warehouses (since branch transfer was exempt). This was a leading stage of tax evasion. Here in the following, we are showing the impact of GST on this valuable sector:

PARTICULARS	PREVIOUS INDIRECT TAX REGIME	CURRENT GST SYSTEM
1. Registration	Centralized Registration in case of Service Tax with respect to PAN India contracts. (No requirement for obtaining State wise registration)	Decentralized Registration – all the delivery hubs or pick up centers must be registered. (Separate registration is necessary for each state for each legal entity)
2. Presence of Entry Tax	Yes	No
3. Rate of taxes	All the services were subject to service tax at 15 percent.	Services are subject to CGST, SGST, or IGST (18 percent) depending on the location of the contractual recipient.
4. CENVAT credit in case of capital goods	A service provider was not eligible to avail credit of CST paid on procurement of capital goods.	Credit is available against the taxes paid, and thereby, it helps to reduce the overall cost burden of the client.
5. CENVAT credit against 'Rent a cab' service	Not Available	Available
6. Invoicing	No requirement of state-wise issuance of invoice + details of the invoice.	State-wise issuance of an invoice for each supply + details of the invoice like registration no., tax amount, tax rate, HSN codes for goods, SAC code for services, place of supply, client's address, etc. are required
7. Record Keeping	No requirement for maintaining separate state wise records.	Separate accounts for each state or business verticals having separate GSTIN are required.
8. Audit	No requirements for the assessee to get his accounts audited.	Here audit is compulsory for the assessee and a separate audit is needed for each registration.

From the above explanation, it is quite clear that GST helps to make the logistic sector profitable as well as transparent to a large extent.



IMPACT ON CONSTRUCTION AND REAL ESTATE SECTOR

Real estate is undoubtedly an important part of the economy, and it backs the advancement of the nation's infrastructure stand. The real estate sector is estimated to contribute around 5% of India's GDP and is considered the second largest contributor in the country as per the report of "Earnst and Young." Naturally, this sector should be of prime importance by the Government.

The impact of GST on this sector is discussed in the following:

1. Under the previous condition, works contract in relation to civil construction was covered by both service tax and VAT act. Therefore registration under both acts was compulsory. Besides that, the person having business in more than one state had to take registration for different states.

But now, every supplier shall be liable to be registered under this act in the state from where he makes a taxable supply of goods and/or services provided his aggregate turnover in a financial year exceeds Rs. 20 lakhs.

It may again follow multiple registration procedures, same as in the previous law.

2. Another new provision is "Casual Taxable Person," referring to a person who occasionally undertakes transactions involving supply of goods and/or services in the course or furtherance of business whether as a principal, agent, or in any other capacity in a taxable territory where he has no fixed place of business.

3. Under GST, the sale of under-construction real estate properties can be classified as the supply of services and is liable for GST payment. Moreover, the GST regime does not subsume Stamp Duty and Registration charges.

4. On February 7, 2018, The Government ordered builders not to charge any GST from home buyers, as the effective GST rate on almost all affordable housing projects is 8 percent, against which Input Tax Credit (ITC) is available. Moreover, builders can levy GST on buyers of affordable housing projects only if they reduce the apartment prices after factoring in the credit claimed on inputs.

TABLE 1: GST RATE FOR REAL ESTATE INPUT MATERIALS

SL NO.	HSN	DESCRIPTION OF MATERIALS	RATE
1.	Chapter 72	Steel	18%
2.	2523	Cement	28%
3.	6802	Marble and Granite	28%
4.	2515	Blocks of Marble and Granite	12%
5.	Chapter 68	Sand lime bricks and fly ash bricks	12%
6.	2505 and 2517	Natural sand, pebbles, gravel	5%
7.	8428	Lifts and Elevators	28%

Source: Author compilation

Based on the above data, maximum inputs lie within the tax bracket of 18 percent to 28 percent. Steel products bear 18 percent, and Cement and Prefabricated Structural Components for building and civil engineering carry a 28 percent tax burden. Since ITC is



available on products utilized for construction, the overall tax incidence should remain neutralized. Little change in the GST regime does not have much impact on the Construction and Real Estate sector.

IMPACT ON AUTOMOBILE SECTOR

The Indian automobile industry is considered one of the largest industries in the world. This industry contributes 7.1 percent of the country's total GDP. Before GST, this sector had been suffering from high tax rates while Central Excise Duty is ranging between 12.5 percent to 30 percent coupled with multiple cesses. To remove this burden, the Government should have necessarily taken some steps, and thereby, GST was introduced. The impact is as follows:

- a. It is customary that advance is to be taken by the dealer at the time of booking the vehicles. Earlier, VAT was not charged on such advance as the same was payable at the time of sale of such vehicle. But now, GST is to be payable on such advances. The point of taxation is the receipt of advances.
- b. In the case of Inter-state trade, GST is payable on the transfer of vehicles to other premises. It may block the working capital as the taxes is to be paid from own funds, and tax will be collected at a later date only when such goods are sold.
- c. In the pre-GST era, automobile dealers cannot avail of ITC on the following items:
 1. CST paid on the purchase of vehicles, spares, accessories, etc.
 2. CVD paid on imported spares, accessories, etc.
 3. (C) SBC paid on input services
 4. Reversal of proportionate CENVAT Credit of Service tax due to trading activity etc.

But now, all the above duties or taxes are subsumed to GST, and hence the dealer can get the advantage of availing ITC.

Due to the application of GST, the overall cost gets reduced, but the working capital requirement gets increased from the viewpoint of the dealer. Moreover, Automobile dealers charge amounts for the sale of vehicles and also for different ancillary services such as insurance, logistics, accessories, registration, etc. It is imperative for the industry to realize whether this transaction is to be classified as "Composite Supply" or as a "Mixed Supply" so that GST can be charged accordingly. Besides that, GST brings an easy credit mechanism so that all the taxes on input services or taxes on capital goods, or taxes on manufactured products can be set off against the output liability of GST.

IMPACT ON AGRICULTURE SECTOR

As of now, the Agricultural sector is the largest contributing sector towards the overall Indian GDP (around 16 percent). GST affected this sector also. The impact is as follows:

1. In the GST regime, fertilizer is taxed at 12 percent [Earlier, it was 6 percent (1 percent Excise and 5 percent VAT)]. The impact is negative as it would increase the cost of the product.



2. Improvement in the logistics sector due to GST helps in easy transportation of Agricultural goods and thereby improving the market growth.
3. Dairy farming, Poultry farming are kept out of the definition of agriculture. So these are taxed under GST. Earlier 2 percent VAT was charged on milk and certain milk products. Now, the GST rate of fresh milk is nil, skimmed milk at 5 percent, and Condensed milk at 18 percent.

GST does have an average impact on this sector. An increase in tax rate might increase the overall cost, but continuous availing ITC, ease of transportation may have a positive impact on this sector.

BANKING AND OTHER FINANCIAL SERVICE SECTOR

Under GST, Banks / NBFCs are required to undergo separate registration. So the compliance burden is increasing significantly. Most financial services like banking, insurance, etc., would attract a higher tax rate of 18% as against 15 percent. Thus these become more expensive than earlier.

TEXTILE SECTOR

It is one of the top contributors to the development of the Indian economy consists of two segments organized and unorganized. Spinning, garment, and apparel, which uses modern machinery and techniques, including in the organized sector. On the other hand, the unorganized sector consists of handicrafts, handlooms, and small and medium-scale mills. Under the GST regime, the tax rate is decided 5 percent for cotton fiber and 18 percent for manmade synthetic fiber. On the other hand, silk and jute items are totally exempted from GST.

FMCG SECTOR

Fast-moving consumer goods are the fourth largest sector in the Indian economy consisting of three main segments: food and beverage, healthcare, household, and personal care. “The FMCG sector has grown from \$ 31.6 billion in 2011 to \$ 49 billion in 2016. The sector is further expected to grow at a Compound Annual Growth Rate of 20.6 percent to reach US\$ 103.7 billion by 2020. FMCG revenue grew 14.8 percent during October-December 2017. FMCG sector is expected to register net revenue growth of 11.8 percent in Q4 March 2018., as per The Economic Times, June 8, 2018.

TRANSPORTATION SECTOR

Airline tickets: Suppose a person travels in economy class on a flight. Under the previous taxation system, 6 percent service tax was levied, but economy class is taxable at 5 percent under the GST regime. Thus, the economy class becomes cheaper. Whereas for a business class passenger has to bear 12 percent GST instead of 9 percent service tax, so the business class becomes cost worthy/expensive.

Cab rides: Now, traveling in a cab has become cheaper than earlier as the tax rate has come down to 5 percent from 6 percent.



Train fare: People who travel by local train or sleeper class will not be affected so much as the tax rate has slightly increased from 4.5 percent to 5 percent, whereas first-class and AC coaches now become expensive.

Hospitality Sector

Hotel expenditure: Hotels having a room tariff of more than Rs. 7,500 comes under the tax brackets of 28 percent, whereas the hotels have room tariff from Rs. 1,000 to Rs. 2,500 falls under 12 percent tax brackets followed by 18 percent tax brackets for hotels having room tariff from Rs. 2,501 to Rs. 7,500, and if the room tariff is less than Rs.1,000, there will be no GST. Thus, the higher-tier hotels become more expensive, and the lower-tier hotels become cheaper under GST.

Restaurants bills: In the earlier tax regime, if a customer goes to an Ac restaurant and purchases a meal, he had to pay 12 percent VAT and 6 percent service tax, but under the GST regime, the customer needs to pay only 5 percent GST irrespective of AC or Non-AC restaurant. Thus, the restaurants become cheaper nowadays, but the restaurants will not be able to take the benefit of the input tax credit.

Amusement park and ballet: Admission to an amusement park and ballet nowadays becomes expensive as the GST rate imposed upon is 18 percent instead of 15 percent service tax.

CONCLUSION

Prior to the implementation of GST, the Government's perception was that it would have undoubtedly had a favorable impact on all the sectors from the viewpoint of Govt. as well as consumers. And another motto was to establish the transparency of the overall system. But based on the above analysis, we can conclude that GST does not have a positive impact on all the sectors from the viewpoint of the consumers. However, for sure, it will help to make the system clear, transparent and thereby generate more revenue to the Government as compared to the earlier taxation system. As per the above discussion, it obviously makes the indirect taxation system transparent, but all sectors in our economy are not affected positively through the implementation of GST; some of them are affected adversely. Initially, GST has increased the tax burden of common people as well as over the small businessman. Some commodities and services became costlier with GST.

RECOMMENDATIONS

The Government should look after the following matter:

1. Improvement of proper infrastructure.
2. Reduction of the tax rate in necessary commodities.
3. Easy compliance.
4. Proper training of the GST practitioners.
5. Provision of proper time facilities.
6. Transparency in availing ITC etc.

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POVERTY IN INDIA – A STUDY OF RURAL POVERTY



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ABSTRACT

A large portion of the destitute individuals in India are situated in provincial territories. Destitution stays a constant condition for right around 30% of India's provincial populace. The occurrence of rustic destitution has declined to some degree in the course of recent a very long time because of country to metropolitan movement however the circumstance actually keeps on staying troubling. Destitution is a financial state where individuals are encountering shortage or the absence of specific items that are required for the lives of people like cash and material things. In this way, neediness is a multifaceted idea comprehensive of social, financial and political components. India, if not totally however is practically inseparable from the word defilement. Various tricks in the ongoing years clarify the adventure of debasement. Practically all the administration divisions are influenced from it. Debasement is viewed as probably the most compelling motivation of neediness in India. India's development model for sure has profited the financial specialists yet bombed when we see that close around 213 million Indians go hungry consistently. Privileges of sorted out just as disorderly laborers are being abused. They are come up short on and not paid by the modern development and consistently rising swelling. With the goal that reason there is a need to contemplate the reasons for rustic destitution and hostile to neediness program and to inspect why India is as yet a helpless nation.

Keywords	poverty in india, rural poverty
JEL Classification	P46
Cite this Article	Sharath, A.M., (2020, December). Poverty in India – A Study of Rural Poverty. In Perspectives on Business Management & Economics (Vol. III, pp. 147-152). Retrieved from http://www.pbme.in/papers/65.pdf
Article History	Received: October 15, 2020; Accepted: October 30, 2020; Published: December 31, 2020



INTRODUCTION

Destitution is a state or condition wherein an individual or network does not have the monetary assets and fundamentals for a base way of life. Destitution implies that the salary level from the business is low to such an extent that fundamental human needs cannot be met. Destitution stricken individuals and families may abandon appropriate lodging, clean water, solid food, and clinical consideration. Every country may have its own limit that decides the numbers of its kin are living in destitution.

OBJECTIVES

1. To Study the Causes of Rural Poverty and Anti-Poverty Program
2. To Examine why India is still a poor country

METHODOLOGY

The methodology is incredibly needed to construct the analysis work equally in qualitative and quantitative ways used within the study. This text has required secondary data, and secondary data has been collected from the written offer, like various periodicals, articles, reports, books, journals, and literature, on the subject. For the aim of gathering the most recent updated information's on the topic, e-sources to boot sharp-eyed.

CAUSES OF RURAL POVERTY

GEOGRAPHICAL FACTOR

In certain rustic zones, topographical components make conditions that lead to neediness. One of India's most unmistakable geological components is capricious storms and climate, which sway the harvest creation and yield. Normal disasters like floods, dry season, tornadoes, and so forth incur significant damage and harm the yield, domesticated animals, and land. These outcomes bring about hefty misfortune in neediness. For a model, the late Cyclone Phailin has caused extraordinary harm in Odisha and Andhra Pradesh. This has prompted a much-discussed onion value rise.

PERSONAL FACTORS

In all honesty, however, your monetary status is characterized by what you do and what you are resolved to do. There are numerous individual factors that lead to neediness. One of these is an ailment. Because of neediness families don't get enough food to eat and, in this manner, need insusceptibility. They become inclined to numerous maladies. So, at all they acquire is used in the treatment of the equivalent. Disorder thus prompts more destitution. It is appropriately said that "Destitution and affliction structure a horrendous organization each encouraging the other to add to the torments of generally shocking of humankind." Laziness and not ready to work is another significant explanation of neediness in India. Individuals simply don't have any desire to work. Indeed, even in metropolitan zones, you may have run over bums who are healthy however are not ready to work regardless of whether given a few. They need pain free income. Dependence on drinking, drugs, and other social indecencies add to country destitution. These are sufficient to make the whole family poor.



BIOLOGICAL FACTORS

Quick development in the populace likewise prompts destitution in country India. Much created clinical and medical services offices in India have diminished the general passing rate, yet birth-rate has not been adequately controlled. Enormous families and restricted assets bring about neediness.

ECONOMIC FACTORS

Rustic India relies on farming for everything. Yet, the more significant part of the ranchers actually depends on crude techniques for farming. With this, the yearly produce is frequently extremely less. Besides, the farming segment in India is as yet immature to give enough positions.

Broken flexible chain and botch cause the ranchers to endure the most. Individuals at the head of the flexible chain procure the greatest advantage of the rancher's difficult work. Be that as it may, it ought to be another path to inspire rustic India and eradicate rural neediness.

MAJOR ANTI POVERTY PROGRAMMES

1. **Integrated Rural Development Programme/Swarnajayanti Gram Swarozgar Yojna** was started in 1980 to ensure the all-round development of rural poor. Self-employment was emphasized through IRDP.
2. **Sampoorna Gramin Rozgar Yojana (SGRY)** was started in 2001 with the objective of providing employment for the rural poor.
3. **Pradhanmantri Gramodaya Yojana (PMGY)** was started in 2000, and its main focus was village level development, especially in five areas, including primary health, primary education, housing, rural roads, and drinking water and nutrition.
4. **National Rural Employment Guarantee Scheme (NREGS)** was initiated in 2006 to provide a legal guarantee for 100 days of wage employment. Providing employment and creating assets were the main objective of this scheme.
5. **Antidaya Anna Yojana** was initiated in 2000 to provide food securities to poor families.
6. **National Housing Bank Voluntary Deposit Scheme** started in 1991 to make use of black money for constructing low-cost housing for the poor.
7. **Development of Women and Children in Rural Areas (DWCRA)** started in 1982 for providing appropriate opportunities for self-employment to the rural women living below the poverty line.
8. **Jan Shree Bima Yojana** was initiated in 2000 for providing insurance security to people living below the poverty line.
9. **Shiksha Sahyog Yojana** started in 2001 to provide education to children living below the poverty line.

REASONS WHY INDIA IS STILL A POOR COUNTRY

CORRUPTION

India, if not totally, however, is practically inseparable from the word debasement. Various tricks in the ongoing years clarify the adventure of debasement. Practically all the administrative divisions are influenced by it. Defilement is viewed as probably the most compelling motivation for destitution in India.



Defilement in the Public Distribution System (PDS) is the most exceedingly terrible of its sort. The main wellspring of debasement in India is privilege projects and social spending plans that are intended for the government assistance of our general public. For a model – Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA), a \$9 billion program intended to offer 100 days of the business year for the country poor. However, MNREGA fizzled due to defilement and bungle. Much the same as MNREGA, the National Rural Livelihood Mission met a similar destiny. It was wanted to engage.

Even though the administration invests amounts of energy in having a "comprehensive development," however, defilement is assuming its job. So, all such projects intended for the poor and penniless neglected to dazzle and help them. Rather poor are even denied of their essential right and needs. Defilement is much the same as an endemic in India. It prompts social disparities and hit the economy of our country. Assets conceded to inspire the poor are abused. Neediness is a further decline by the regulatory debasement. Indeed, even the least difficult of the assignment is not performed without a payoff. Debasement likewise delays and redirects the financial development.

According to the information aggregated by Bloomberg, close to about \$14.5 billion in food was pillaged by the degenerate government officials in the province of Uttar Pradesh. The plunder came about poor to get by without the necessary amount of food and kids to experience the ill effects of unhealthiness. There are numerous different instances of authoritative debasement, further weakening the circumstance and making the poor less fortunate.

ECONOMIC POLICIES

It is accepted that monetary changes that began in the mid-1990s are answerable for the tumbledown of India's rustic economy. It likewise prompted the agrarian emergency. On account of high obligation, helpless ranchers are left with no other decision than to end it all. As indicated by legitimate measurements, the number of ranchers submitting suicides has additionally expanded since 1997. The new arrangements by the legislature urge ranchers to change to trade crops out of customary harvests. Be that as it may, this has prompted a complex increment in ranch input cost, which extreme brought about the monetary weight and subsequently destitution.

Additionally, towns in India are not independent like they used to be. The provincial youth is generally not accomplished, needs expertise, and even not keen on cultivating. All these are sufficient for a terrible and helpless future. The government should think of plans to make towns confident. Expertise based instruction must be given to the young.

MISMANAGEMENT AND FAULTY DEVELOPMENT MODEL

A great part of the raised to support or assigned to the counter destitution plans is expended in authoritative expense. So, the whole chain that is shaped to help the poor does not permit this to occur.

HIGH POPULATION GROWTH RATE

A consistently expanding populace is definitely not an immediate reason for neediness. However, it is an impact. It is appropriately said that the overabundance of everything is terrible. This is valid for this situation also. More individuals mean the need for more assets,



food, and so forth. Be that as it may, in the event that this overflow is prepared in a correct manner, at that point, it can participate in the monetary advancement of the nation.

EVER INCREASING ECONOMIC INEQUALITY

For sure, India's development model has profited the financial specialists however bombed when we see that close around 213 million Indians go hungry consistently. Privileges of sorted out just as chaotic specialists are being disregarded. They are come up short on and not paid by the mechanical development and regularly rising swelling. Because of such a noticeable disparity every year, a great many young ladies are explicitly misused and dealt for cash. Simultaneously kid work has likewise expanded. Affluent is securing more riches. In such an unequal situation, the top 5 percent of families have 38 percent of India's all-out resources while the base 60 percent has only 13 percent of the benefits.

LACK OF SMALL-SCALE SECTORS

The majority of economic policies and reforms are not friendly towards small-scale industries. So these policies are making and creating bureaucrats but suppressing entrepreneurs.

MENTALITY OF POOR

External factors and the inside will of needy individuals to stay poor is an obstruction. It is probably observed solid homeless people at the red light. On the off chance that they are solicited to do a task rather than asking, at that point, their basic answer is no. Indeed, even their children do not go to class yet ask. They can never emerge from this enthusiastic pattern of asking and neediness. To emerge from destitution, one needs to adjust one perspective. Poor must comprehend the significance of training and its long-lasting advantages. There is no lack of occupations in India. Regardless of whether or not instructed, we have enough positions like wrapping the shading, adding catches to the effectively sewed garments and sweaters, making sheets for electronic products, and so forth. I have seen individuals procuring from these sorts of occupations and sending their children to class to have a superior future.

India needs incredible political pioneers to push the country forward. Efficiency and how to utilize human assets for profitability must be engaged. India must teach every youngster with the goal that an asset can be included. India must have an unmistakable financial vision, and an incredible framework is a spot to execute this. Confounded philosophies must be isolated from the obvious and result situated ones. India must be liberated from defilement to get rich.

CONCLUSION

The vast majority of the needy individuals in India are situated in provincial territories. Neediness stays a persistent condition for right around 30 percent of India's rustic populace. The rate of provincial neediness has declined fairly in the course of recent a long time because of rustic to the metropolitan movement; however, the circumstance actually keeps on staying troubling. Therefore, we have had the option to discovered that neediness is one of the significant issues on the planet that should be address rapidly in the least fortunate towns wherein a great many individuals are biting the dust. A large portion of these individuals are children. We have discovered that neediness alludes to the state of not having the way to manage the cost of fundamental human needs, for example, clean water, nourishment, medical services, apparel, food, and a spot to live, destitution is a savage issue that is slaughtering our



populace moderate and that we as the influenced ones need to take activities against it. We have additionally discovered that neediness generally influences needy individuals due to the little assets they have. This implies destitution is an issue that is hurting needy individuals who need to escape neediness; however, they cannot get it because they do not have rich individuals' help. Despite the fact that there are many individuals attempting to stop neediness, it is difficult to stop it without the help of rich nations. This is on the grounds that to battle destitution, we need to battle it with a great deal of cash and their solitary a couple of nations that could uphold us with this need.

Something different that we have learned is that neediness today is looking most noticeably awful than when it previously began; a great many children are living on heaps of rubbish passing on of starvation. The explanation there are endless individuals living in neediness is on the grounds that a large number of others are going through cash in things they need not bother with. (Articlewave) this leads us to the impacts of this issue: dangerous diseases that make individuals fall and abandon their lives. We discovered that neediness leads individuals to maltreatment of medications or to maltreatment of others. What's more, despite the fact that numerous individuals uphold helping those individuals who live in destitution, others don't uphold individuals who are attempting to stop neediness. Furthermore, the most significant thing that we have all gained from this examination is that neediness can be stopped, yet to have the option to stop it, we should all help one another, with no disdain or anything that could hurt us. So for those that are eager to help, do not help since you feel pressure, do it since you need to, and your heart is instructing you to do it.

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FINANCIAL INCLUSION THROUGH PRADHAN MANTRI MUDRA YOJANA (PMMY) IN RURAL DEVELOPMENT OF HIMACHAL PRADESH

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ABSTRACT

The importance of financial inclusion (FI) in the social and economic growth of the nation cannot be overlook. It is a step towards provide access to affordable and useful financial services to the deprive section and less income group of economy. Indian Government has started some important steps to provide finance to micro enterprises through a new FI initiative like Mudra Yojana. It was launched on April 8, 2015 and mainly concerned with the non – farming micro enterprises, with credit needs are less than Rs. 10 lakhs. Purpose of the research article is to study the conception of Pradhan Mantri MUDRA Yojana and analyse its current progress & performance in the state of Himachal Pradesh.

The present study is based on secondary data. Secondary data have been accumulated from published previous research articles, annually reports of SLBC, and annual economic survey of Himachal Pradesh Government and from official website of MUDRA. It has covered the period during April 2015 to March 2019. For statistical description, average, percentage, comparative tables have been used. The present study has provided the new insights, that how financial inclusion initiatives through MUDRA Yojana are beneficial to the financial & economic growth of rural people of Himachal Pradesh. The research study has also contributed to the balanced growth of the state economy through improvement in financial literacy, income & employment generation activities, health, road connectivity and education system. The research study has certain limitations. First one is, the research study has restricted to Himachal Pradesh only due to resources and time constraint, the second one is, research study has limited to the financial inclusion initiatives through MUDRA Yojana for rural development and the last one is, only four years data has been taken for research study.

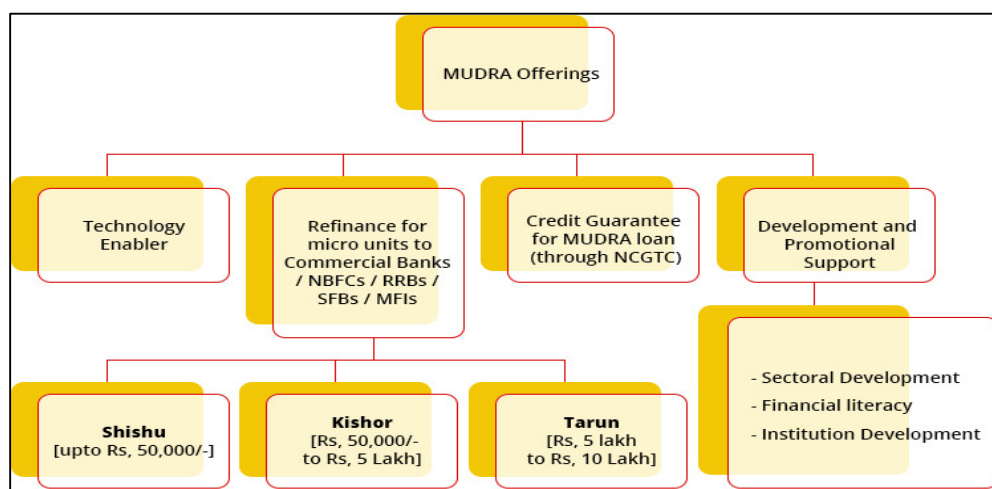


Keywords	Financial Inclusion, Pradhan Mantri Mudra Yojana, Refinance, Micro Units Development, and Refinance Agency, MUDRA
JEL Classification	O16, G21
Cite this Article	Singh, Vijay Pal, (2020, December). Financial Inclusion Through Pradhan Mantri Mudra Yojana (PMMY) in Rural Development of Himachal Pradesh. In Perspectives on Business Management & Economics (Vol. III, pp. 153-160). Retrieved from http://www.pbme.in/papers/108.pdf
Article History	Received: December 1, 2020; Accepted: December 25, 2020; Published: December 31, 2020

INTRODUCTION

MUDRA in India has been started as an NBFC to support the development of the micro enterprise sector. It provides refinance facility to MFIs, Banks, and NBFCs for providing loan up to 10 lakhs to micro-units. It works as a refinance agency under the Scheme of Pradhan Mantri MUDRA Yojana. The scheme was launched in the country on April 8, 2015. It is mainly concerned to provide loans up to Rs. 10 lakhs to the micro-enterprises consisting of non-farm enterprises, and all the loans given to these segments for income generation activities will be known as MUDRA loans. The products offered by MUDRA are given below.

Figure 1: Products offered through MUDRA



Source: <https://www.mudra.org.in>

LITERATURE REVIEW

Vijay Kelkar (2010) described that the Indian economy had been significantly influenced by finance. Increment in FI initiatives will decrease farmers' indebtedness, and it will lead to the modernization of agriculture in India. Enhancement in FI provides better management of risk to the farmers. It would encourage them to accept new techniques at a higher rate and make a positive impact to boost innovation and entrepreneurship. Savitha, B. and Jyothi, P. (2011) discussed women empowerment in their research paper, "Financial Access and Women Empowerment." The author focused on accessing the financial knowledge among females towards banks' services in urban and rural areas and describes how FI initiatives can improve

women's access to finance. The study also revealed that access to finance is majorly influenced by the awareness of females towards financial services. Possession of a bank account develops a sense of empowerment in women.

Bharat, M. Kher (2013), stated that the Government of India established RRB to develop the rural economy. The main objective of establishing RRB is to provide finance to the rural public who are financially weak, especially farmers, laborers, artisans etc. Another article related to the financial inclusion through rural banking was published by Pooja (2014). The study explored that finance in the rural area has been considered as an input for institutional finance and rural development. It is an important condition for rural development. RRB is a financial institution; that provides financial help to small farmers, artisans, laborers, micro industries to develop productive activities and banking habits among the rural peoples. Gwalani Hema & Parkhi Shilpa (2014), in their article, described the four models of FI in India, i.e., Lead bank scheme, banking through correspondent, Mobile banking, and Microfinance model. They have further included that adopting any model is not sufficient until proper regulatory and policy changes are not made to implement financial inclusion schemes.

Further, in the field of financial inclusion in rural areas, Varun Saini (2015) conducted a study and concluded that the lead bank scheme started by Apex Bank of India to decrease the sectorial imbalances that exist in the rural economy. After analyzing the relevant data, the study explored that financial inclusion under the lead bank scheme positively affects the financial status of rural households. Dola Singh (2018) publishes the article titled "Financial performance appraisal of The Himachal Pradesh State Co-operative Bank." The study shows that bank has performed in a well systematic manner in the rural market of Himachal Pradesh. Bank has obtained tremendous growth over the past few years and has adequate liquidity to meet its short-term as well as long-term obligations. Moreover, banks are playing an important role in the economic growth of the state by their different financial inclusion schemes.

Peterson K. Ozili (2018), in his article, defined the relation between FI and digital finance. FI & digital finance are providing many benefits to finance providers, the government, and the economy, such as decreasing the financial cost of transactions for financial institutions & increase the access to finance among poor individuals. Digital finance provided by finance technology companies has spread a positive impact on financial inclusion in emerging/developing economies. Digital finance is valuable to an individual due to its low operation cost as compare to traditional regulated banking. Inoue T. (2019), through her paper titled "Financial inclusion and poverty reduction in India" put forward a step towards rural development and try to analysed the impact of FI through commercial banks in development. In her study results shows that FI initiatives are helpful in poverty reduction. To analyse the fact, it has been concluded that government banks as compare to private banks have larger estimated values of FI. This implies that, government banks in India have made a greater contribution in poverty reduction as compare to other banks. In India Public sector banks have seventy per cent share of Indian banking sector and providing major contribution in the rural development.

OBJECTIVES

1. To analyse the current status of Pradhan Mantri MUDRA Yojana in Himachal Pradesh.
2. To study the key challenges in effective implementation of Pradhan Mantri MUDRA Yojana in rural development of the state and offer possible suggestions for their improvement.



METHODOLOGY

Present study is based on secondary data. Which have been accumulated through published previous research articles, annual reports of SLBC, and annual economic survey of Himachal Pradesh Government and the official website of MUDRA. It has covered the period from April 2015 to March 2019. For statistical description, average, percentage, comparative tables have been used.

DISCUSSION & FINDINGS

FINANCIAL INCLUSION INITIATIVES IN INDIA

This concept had started in India when inclusive banking began with the nationalization of banks in July 1969 and April 1980. The term 'FI' in India was started in 2004 by the Governor of RBI (Dr. Yaga Venugopal Reddy). This concept's real thrust comes in the year 2005 when Apex Bank of India highlighted its yearly policy statement. In the year 2008 Indian Government appointed a committee under the chairmanship of Dr. Chakravarthi Rangarajan (19th Governor of RBI) about financial inclusion. Indian Government has introduced many schemes to increase financial inclusion. These initiatives provide a solid base for the growth of poor rural peoples. The Government of India has started various financial inclusion schemes over different years, as shown in Table 1.

Table 1: Major Financial Inclusion Initiatives in India

Years	Name of Initiatives
1969	Nationalization of fourteen banks.
1975	Formation of RRB's.
1980	Nationalization of six banks.
1982	Formation of National Bank for Agriculture and Rural Development.
2000	Formation of SIDBI for Micro Credit.
2006	Formation of committee on FI under the chairmanship of Dr. C. Rangarajan.
2008	Final report on FI submitted by Rangarajan committee to the Finance Minister.
2011	Reserve Bank of India launches Swabhiman Campaign.
2013	DBT (Direct Benefit Transfer) & AADHAR (Unique Identification Number) Scheme.
2014	Pradhan Mantri Jan Dhan Yojana (PMJDY).
2015	Launching of Suknya Samridhi Yojana, Stand up India Scheme, PMMY, Pradhan Mantri Surksha Bima Yojana (PMSBY), Pradhan Mantri Jeewan Jyoti Bima Yojana (PMJJBY).
2016	Demonetization, RBI approval to setup Small Finance Banks, Payments Banks.
2017	Launching of Indian Post Payment Bank.

Source: Author compilation



Table 2: Current performances of MUDRA Yojana in India as of March 31, 2019

(Amount in Rupees Crores)

Category	SHISHU (Loan up to Rs. 50,000/-)		KISHOR (Loan from Rs. 50,000 to Rs. 5.00 lakhs)		TARUN (Loan from Rs. 5.00 to Rs. 10.00 lakhs)		TOTAL	
	No. of A/Cs	Amount Disbursed	No. of A/Cs	Amount Disbursed	No. of A/Cs	Amount Disbursed	No. of A/Cs	Amount Disbursed
General	5993019	73985.06	4439825	75818.02	1302379	63984.62	31735223	213787.70
SC	8767153	22556.66	552277	5069.80	133089	1362.91	9452519	28989.37
ST	3012074	7421.42	200315	2195.75	128940	973.10	3341329	10590.27
OBC	13735192	35688.40	1413592	16784.42	192463	5971.21	5341247	58444.04
Total	51507438	139651.54	6606009	99868.00	756871	72291.84	59870318	311811.38
Woman Entrepre neurs	34403578	93977.00	2875392	25666.77	783591	9509.46	37062562	129153.23
New Loan Accounts	10935180	28768.86	2016546	40195.47	442076	31961.25	13393802	100925.58
Minority	5455596	14604.17	725905	9244.44	70139	5180.85	6251640	29029.47

Source: <https://www.mudra.org.in>.

FINANCIAL INCLUSION THROUGH FINTECH

It refers to the use of modern technology in the financial sector. FI is extensively improving across the world with the usage of modern technology. Fintech companies are very useful to the customers due to their low-cost services. These companies motivate rural people to obtain a loan and open a bank account using mobile phones. Some people have started usage of advanced fintech options, i.e., digital payments system, crowdfunding, electronic wallets, etc. They are making payments through e-commerce for the products and services from their residential regions. The Indian government has also started many e-wallet systems with the help of smartphone apps such as BHIM, GooglePay, PayTM etc. The e-wallet refers to the pocket which can be used with the help of mobile phones. With the help of this app, users can make online as well as offline cashless transactions. These electronic means (e-wallets) can be used to pay utility bills, recharge the mobile phone, and shopping. Many attractive offers and discounts are provided to the peoples who make digital transactions. These new initiatives are very useful to the financially deprived and weaker society of the Indian economy.



FINANCIAL INCLUSION IN HIMACHAL PRADESH

Himachal Pradesh is situated in the Western Himalayas and northern part of India. It makes boundary with J & K, Punjab, Haryana, Uttarakhand, and Tibet. Acharya Diwakar Dutt Sharma is the founder of the state. Before India's independence, Himachal comprised the hilly region of Punjab province of British India. After independence, many of the hilly territories were organized, and it became the Chief Commissioner's province on April 15, 1948. On January 26, 1950, it became a part C state. On July 1, 1954, some lower Himachal parts got combined and transformed into a single entity, i.e., Bilaspur. On November 1, 1956, the state got the status of U.T. After the partition of Punjab & Haryana, some parts of Punjab amalgamated with H.P. on November 1, 1966. After the long battle to become a state, the Parliament of India passed the state of Himachal Pradesh Act on December 18, 1970, and we get a new state on January 25, 1971, with an area of 55,673 square km (www.himachal.nic.in). As per the census 2011, the state has recorded a total population of 68,64,602, including 90 percent rural population. Himachal Pradesh is becoming a rising economy in the country due to its hardworking people and its progressive policies.

The state comprises twelve districts, and lead banking responsibility has been allotted to three banks: UCO, PNB, and SBI. The UCO bank is designated as the convenor bank of the state. As of March 2019, 21 government banks, 01 RRB, 11 private banks, 04 cooperative banks, and 05 urban cooperative banks are operating in the state (state-level banking committee reports, 2019). The state has a network of 42 banks with 2175 branches, including 1724 rural branches along with 2034 ATMs, briefly shown in Table 3.

Table 3: Banking network in Himachal Pradesh as of March 31, 2019

Name of District	Number of Bank Branches				Total
	PSBs	RRBs	Pvt. Sector Bank	Cooperative Sector Banks	
Kangra	217	51	23	126	417
Shimla	198	26	37	81	342
Solan	167	12	32	49	260
Mandi	120	56	10	62	248
Hamirpur	90	24	7	51	172
Una	92	11	10	42	155
Sirmour	87	9	11	35	142
Kullu	67	19	11	30	127
Bilaspur	63	14	4	39	120
Chamba	45	38	5	31	119
Kinnaur	28	3	1	18	50
Lahul & Spiti	14	2	0	7	23
Total	1188	265	151	571	2175

Source: SLBC Report 2018-19

The state has an average population coverage per branch of about 3156 compared to the national level population, which is about 11,000. There are 1188 branches of PSB's in the state. They have a branch network of approximately 55 percent. Punjab National Bank has 339 branches, the largest in the state, followed by SBI with 324 branches. The state has 151 branches of private sector banks, and HDFC is the leading bank in this race, having 67 branches. We are also having RRB's in the state with a total branch network of 265 branches. The cooperative banks in the state have also contributed to the branch network of 545. State apex cooperative bank (HPSCB) and KCCB have individually equal branch share of 217. In the district-wise statistics, the branch network in Kangra district has the highest number of 417 branches, and Lahul – Spiti is the least number of bank branches - 23. (State Level Bankers Committee Report).

Banks in the state provide technology-based banking services, i.e., ATM, debit/ credit/ RuPay/Kisan credit cards, telebanking, electronic fund transfer, mobile banking, online bill payments, online shopping facility to their rural and urban customers. According to the SLBC report, as of March 2019, approximately 96 percent of bank branches in the state are on core banking solutions platform. For the upliftment of depriving and weaker section of the society in the state, banks are actively participating in Government financial inclusion schemes, i.e., PMJDY, PMMY, APY, Mukhya Mantri Swavlamban Yojana, Mukhya Mantri Ajivika Yojana, National Rural Livelihood Mission (NRLM), etc. (State Level Bankers Committee Report).

FINDINGS

Mudra Yojana was launched in the country on April 8, 2015, including Himachal Pradesh. The scheme is mainly concerned with the micro-enterprises of non-farm enterprises whose credit needs are below Rs. 10 lakhs & all the credits provided for income & employment activities are known as MUDRA loans. Banks in Himachal Pradesh have disbursed the loans under this scheme amount to Rs. 2,900.07 crores and are covering 1,72,864 micro and small entrepreneurs; it includes Rs. 1220.91 crores to 66,346 new micro-entrepreneurs. The MUDRA scheme aims to provide financial support for small businesses that generate employment for most of the Indian working population and create an inclusive, sustainable and value-based entrepreneurial culture. The status of these financial inclusion initiatives in H.P. shown as a rising trend.

Table 4: Current status of PMMY in Himachal Pradesh as of March 31, 2019

S. No.	Years	No. of disbursements	Amount in Lakhs
1	2015-16	70,054	94,060
2	2016-17	45,860	78,158
3	2017-18	51,382	1,35,201
4	2018-19	66,346	1,22,090

Source: State-level banking committee reports

CONCLUSION

The result shows that most people in the rural area of the state are out of reach from the financial services. Due to that, they are not included in the social & economic growth of the state. GOI and state governments have started various FI schemes to uplift the poor people in the state. These efforts have achieved their targets up to some extent. As of March 31, 2019, banks have more than 10.99 lakh BSBDA's under the PMJDY scheme in Himachal Pradesh. In the case of universal social security initiatives, i.e., PMSBY, PMJJY, APY, the banking sector in the state has put forward a step with the state Government. In the field of rural development, MUDRA Scheme has proved a milestone in employment generation. To increase rural people's awareness level about financial services and access, banks are conducting Financial Literacy camps continuously once a month, focusing on digital literacy.

Financial inclusion initiative through MUDRA Yojana in the state has to face many obstacles in its implementations, i.e., geographical, health, educational barriers, gender issues, caste and religion, family discouragement, fewer female enrolments under these schemes as compared to male. As per the ground realities still, there is a gap in growth expected in rural development. For proper financial access in rural areas, banks should provide affordable and uncomplicated products and mobilize rural people's savings into the formal economic system.

In changing scenarios, to increase the reach of inclusion initiatives among the poor, vulnerable sections of the society, it is suggested that there should be proper coordination between bank officials and the state as well as central government officials for effective implementations of the MUDRA Yojana. It is also suggested that to improve the financial services in the remote area, and digital/technology-based/internet banking should be promoted.

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THE RISE OF ARTIFICIAL INTELLIGENCE IN TALENT ACQUISITION



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ABSTRACT

Artificial Intelligence wins over the complexity of the hiring process and exists as an integral part of human resources function. The AI tool streamline the hiring process, enhances the candidate engagement and better experience through the proper communication. This in turn, keeps the organization in a tight talent landscape in attracting and hiring the pool of candidates. Apparently, it is important to understand the applications of AI tools in talent acquisition and retaining them in the organization. This chapter outlines the AI in talent acquisition, the most frequently used AI tools, the changing role of HR and the challenges in implementation of AI in the hiring process.

Keywords	talent acquisition, talent hiring, recruitment software, hiring process
JEL Classification	O15, O33
Cite this Article	Seetha Lakshmi, R., Sowdamini, T., Biswas, Ashish Kumar, (2020, December). The Rise of Artificial Intelligence in Talent Acquisition. In Perspectives on Business Management & Economics (Vol. III, pp. 161-164). Retrieved from http://www.pbme.in/papers/114.pdf
Article History	Received: December 1, 2020; Accepted: December 25, 2020; Published: December 31, 2020

INTRODUCTION

The digital era transformed the business models and placing themselves into the competitive environment with a competitive advantage. This can be finely tuned with the productive



workforce. Identifying productive employees and getting them on-board is the challenging task of an HR professional in an organization. With the rapid changes and advent of technology, pooling the employees and finding out the right talent becomes an effortless job for HR. Talent acquisition is leveraged by artificial intelligence, thereby finding and connecting the right candidate enhances the recruitment efficiency. Artificial intelligence is a replacement for human cognition where it allows the computer to do the task and articulates the decision-making. Besides these advancements, a few issues remain unresolved, and only 22 percent of the firm has adopted analytics in HR (Tambe et al., 2019). This chapter outlines the Implementation of AI in the Hiring process, and top AI recruiting Software tools, AI's role in enhancing the candidate's experience, on-boarding, the changing role of HR, and their challenges with AI in recruitment.

IMPLEMENTATION OF AI IN HIRING THE TALENTS

The hiring process is revolutionized at an alarming rate with the help of Artificial Intelligence. AI has the ability to process a high volume of data at a higher speed. The work is based on the algorithm and predicts whom to hire by finding a causal relationship between the employees' attributes and the job description to bring forth the applicant and identify the candidates for the specified job. The process starts with the screening of candidates. The job applications are screened or reviewed at this stage. It entails the shortlisting of candidates from the cumulated resumes. Social media plays an important role and serves as a main source of the database to select candidates. The AI tool selects the candidate from the database who meet the specific requirements. It matches the candidate's profile to the job description and ranks the candidate based on their profiles. The administrative task of HR is reduced to a certain extent and also saves time in processing the voluminous data. This enables the recruiter to leverage AI's power through the various tools and helps in an unbiased screening of candidates and place them on-board.

TOP AI RECRUITING SOFTWARE PLATFORMS

The unbiased hunting and screening of candidates are leveraged through various top AI recruiting software. Hiretual Review, XOR, Paradox review, Humanly, Textio, Pymetrics, LOXO, Eightfold, Allyo, seekout, Talkpush, Myinterview are some tools to seek out the right applicant. TurboHire is a platform by which an employee is taken from HI to Hired. With TurboHire, HR can schedule and conduct high quality live and one-way interviews to understand candidates before making hiring decisions, with the help of human-machine interaction. This AI-based candidate ranking and automatically identifies skill-sets from resumes to duplicate detection. Through this tool's entire hiring process and assessments can be done quickly (Turbohire, 2018).

This platform is built around to accumulate and aggregate the data from a resume across all the websites to reach the top talents and predict every individual's requirements. AI software can screen candidates, schedule interviews, and responds to all the posted questions over mail or text messages. They are thereby increasing the conversation rate, engaging the candidates, and motivating them to apply for the job. It helps to recruit and retain the talents. The AI platforms act as a robust system for the hiring process.

ROLE OF AI IN ENHANCING THE CANDIDATE'S EXPERIENCE

The use of AI in talent acquisition assists in the hiring process and enhances the candidate's experience. Providing real-time answers to the candidates' questions, offering quick feedback,



and suggesting the steps for further proceedings develop a good rapport between the organization and candidate. Also, it builds a brand image for the organization. The experience of the candidate will further be enhanced if they get frequent updates on their application. This technology saves both time and effort of the candidates. It thereby stimulates them to sustain their interest in the organization, which builds the organization's brand image.

ON-BOARDING

AI turns the onboarding procedure in the most comfortable and organized way for HR professionals. For instance, AI tools' application improves the tasks' efficiency like conducting the background checks, cumulating the documents about the benefits, and creating the offer letter templates. It also assists the HR professionals in focusing on the employees once they on-board to the job, receives the documents that spell out the companies' policies and procedures, tracks the documents that have been read, and prompts an electronic signature.

CHANGING ROLE OF HR PROFESSIONALS IN THE HIRING PROCESS

In a competitive world, every business wants to get the best out of its employees. To achieve these, companies are attracting candidates in various ways that add value to the company. For this, the role of HR in employee branding is equally important to achieve the organization's goal. (Bev 2019). One of the best ways to retain employees is to make them happy always. So, HR is responsible for setting up and managing social relations, encouraging workers to engage them productively.

In recent years there is a dynamic shift in the role of HR from traditional function to digital transformation, making them be a strategic partner in the decision-making process. According to the recent KPMG report survey taken for 1200 global HRs of 64 countries, more than 39% responded that organizations are looking for analytics and digital applications and AI (Rao 2019) in all HR applications. Hence, modern HR needs to be accustomed to the latest digital tools to perform varied tasks in the business world. So with the technology, we are reshaping the business with various devices. AI is a computer science branch that mainly uses algorithms and other cognitive functions, more like humans, to leverage HR managers in the hiring process (Raviprolu, A. 2017).

CHALLENGES WITH AI IN RECRUITMENT

Technology is always a double-edged sword, and One should be aware of the negative outcomes of technology usage. So, HR managers need to be tech-savvy while using various HR tools like AI. Otherwise, many challenges need to be faced.

Following are the challenges with AI in recruitment (Raviprolu, A. 2017)

1. **Understanding Human Mindset:** Dealing with people is different from dealing with data or variables. So, much data is required to understand people's psychology and mindset is always complicated.
2. **Human emotions:** It is always critical to deal with or motivate employees physically rather than technically with AI dealing with employee emotions not equal with direct interaction.
3. **Reliability:** Majority of the cases, the AI tools are in a nascent stage, so the data which the company is relying on and the conclusions deriving out of that sometimes leads to inconsistency



4. Human lingo: With the help of ROBOTS and chatbots, sometimes they may not understand the human language and feelings and expressions, leading to negative conclusions.

CONCLUSION

The companies are looking for an automation process starting from the Hiring to exit function. Thereby both the companies and HR should get ready to identify the right tool and platform for completing the hassle-free hiring process. The voluminous data demand AI to find the suitable candidate (Upadhyay, A. K 2018). Using social media as a platform, an unbiased filtration process can be done in the hiring process and giving equal weight to all applied candidates. The effective implementation of AI tools transforms the role of HR from manual, repetitive process activities to conventional methods with the help of technology, thereby gaining more efficient results, which saves both time and cost for the organization. It also improves the quality of hires. AI thus redefines the HR process. The role of HR becomes more proactive in identifying the candidate's culture fit and improving their relationships using various data available for measuring the Key Performance Indicators (KPIs). Hence, adapting the AI-based tools improves hiring a suitable candidate and helps develop stronger employee relationships and engagement (Kane Partners, 2019).

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PBME

**PERSPECTIVES ON
BUSINESS
MANAGEMENT &
ECONOMICS**
Volume III • December 2020

Published by

Viswamitra Foundation

Visakhapatnam
Andhra Pradesh
India

www.PBME.in

Rs. 600

ISBN 978-81-951151-1-2



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