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# **Paradigm Shift in Marketing and Finance**

*Edited by*

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## **Section I   Marketing Management**

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## Understanding Ethnocentrism, Country-of-Origin and Protectionism: A Review of Concepts and the Impact on Customer Intentions

Srishti Nagarajan\* & Dr. Ekta Duggal\*\*

### ABSTRACT

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*Ethnocentrism, country-of-origin and protectionism are the constructs which have been found to affect customers' intentions, but these constructs are perceived divergently by consumers belonging to different countries and socio-demographic profiles. In this background, the purpose of this paper is to comprehend the meaning and significance of these constructs and understand their influence on customers' intentions towards purchase and international trade. This study is an initial attempt based on the extensive review of the aforesaid constructs and their inter-relationships. The sources of review include research articles, discussion papers and reports published in well-known journals of various publications. The study suggests that factors like animosity towards a nation, nationalistic attitudes of people, their patriotic feelings, and, love, affection and connect with their nation, influence their purchase intentions and also their sentiments about foreign trade. This paper contributes to the existing literature by exploring the possibility of inter-relationship between the constructs and also provides insights into some significant underlined factors which seem to impact the constructs of the study in varied measure. This study holds scope for empirical testing to provide a framework exclusively for understanding the impact of the three constructs on customer intentions.*

**Keywords:** Ethnocentrism, Country-of-Origin (COO), Protectionism, Customer intentions, International Trade

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## 1. INTRODUCTION

In international business, understanding customer intentions is the very essence of the business' survival and growth. Several critical factors influence customers' intentions. Consumers' ethnocentric feelings are affected by economic and political actions adopted by foreign countries (De Nisco et al., 2016). Shimp and Sharma (1987) came up with the concept of Consumer Ethnocentrism to illustrate the notion of consumers about the aptness rather correctness of purchasing foreign made products, which are disregarded by ethnocentric customers as they perceive it to be a wrongdoing towards the home country's economy while the non- ethnocentric customers perceive foreign products as a function of their attributes when deciding about purchasing them (Shimp & Sharma, 1987). The countries' foreign policy sees a protectionist colour especially during a financial or health crisis (Aggarwal & Evenett, 2013; Vitale, 2020). Protectionism is a trade policy which hinders free international trade causing road blocks in the form of tariff and non- tariff barriers. Several studies in the past have been undertaken about economic nationalism, protectionism and/or their impact on geo-economics or world trade (Akhter, 2007; Kühschelm, 2020; Vitale, 2020; Fossati, 2021). As the world became more integrated with increased globalisation, there seems to be more reliance on protectionist measures by countries to further and protect their own interests. Consumers' perception about country-of-origin throws a pale light on their intentions with respect to a product (Sharma, 2011). Country-of-origin (COO) refers to the country in which the product is manufactured and branded. Several studies in the past put forth the view of consumers' perception of products originating from developed countries to be of higher quality in comparison to products originating from their less developed counterparts (Pinkao & Speece, 2000; Kinra, 2006; Sharma, 2011; Clipa et al., 2017). Increased international trade and global competition allows COO to majorly transform consumer attitudes (in favour/ against) towards a product/brand which ultimately influences their preferences (Kinra, 2006).

The perceptions and motivations behind customers' intentions have far reaching implications for businesses (especially those operating globally), countries (in terms of their foreign trade policies) and different economies (be it developed or emerging

owing to the globalized and interconnected world) (Pinkaeo & Speece, 2000; Sharma, 2011; Karimov & Murad, 2019; Wu, 2019).

The main objective of this study is to identify the significance of the aforesaid constructs in the Indian scenario and look for inter-relationships between them as not many studies have explored and analysed the construct/s in the Indian context. The current study is an initial investigation of the constructs based on secondary data sources such as research articles, discussion papers and reports published in reputed journals. As the constructs of the study are constantly evolving owing to the dynamic nature of world trade and geo-political situations, it becomes imperative to examine the constructs and identify their inter-relationships using an appropriate model. This study presents the preliminary analysis of the constructs and is not exhaustive in nature. This study would provide a direction for future researches on the constructs and their association with customer intentions in the Indian context. It holds scope for empirical testing by providing the fundamental knowledge towards the development of a framework exclusively for understanding the impact of the three constructs on customer intentions.

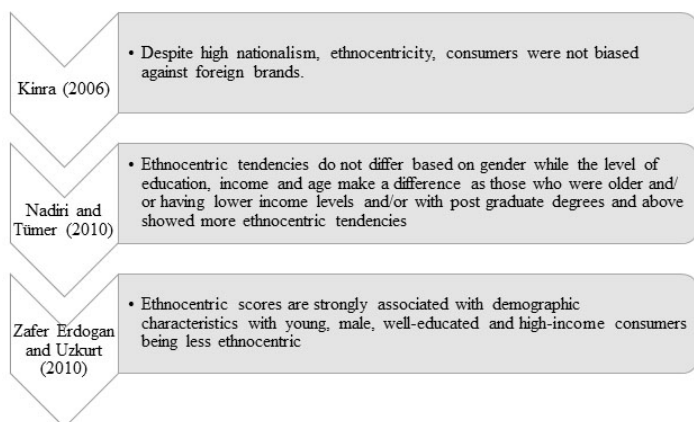
## **2. LITERATURE REVIEW/BACKGROUND**

A thorough understanding of the three critical constructs: ethnocentrism, country of origin, protectionism and their influence on customer intentions is essential for the businesses to ensure efficient operations and for countries around the world for foreign policy making.

### **2.1 Ethnocentrism**

Ethnocentrism is a sociological concept that refers to a disposition to consider one's own beliefs, principles and rules of conduct as predominant to those found in other societies (Nadiri & Tümer, 2010). Consumer Ethnocentrism is the depiction of consumers' patriotic or nationalistic feelings towards domestically produced goods and services (Shimp & Sharma, 1987). Thomas et al. (2020), in their study evaluated the effect of attitudes and ethnocentrism towards foreign brands on purchase decisions and concluded that attitude and not ethnocentrism strongly determines actual purchase of car- be it Indian or foreign.

Ethnocentric feelings of consumers often aid domestic businesses as they can capitalise on them by attaching a sense of cultural pride to their products and/or invoking nationalistic feelings of people like the swadeshi campaign of Patanjali and Hamara Bajaj ad of Bajaj scooters in India (Misra et al., 2018; Thomas et al., 2020). Liu et al. (2020), in their study suggest that national identity messages through advertising may invoke a positive feeling towards domestic brands and affect consumers' purchase intentions however, its translation into actual purchase is limited. Similarly, Good and Huddleston (1995), in their study found that Polish consumers were more ethnocentric than Russian consumers, however that didn't convert into purchase intention with respect to domestically produced shirts and sweaters over foreign ones, suggesting that consumers can be ethnocentric yet their purchase intentions may not be completely driven by it.



**Figure 1 Few Studies on Demographic Characteristics and/or Ethnocentric Tendencies of People**

Sharma (2015), in his study points out three dimensions – affective reaction (negative/positive feelings towards foreign/domestic products), cognitive bias (favouring domestic products when compared to foreign ones) and behavioural preference (discarding foreign and embracing domestic products) which explain consumer ethnocentrism as a multidimensional attitude construct unlike previous studies.

De Nisco et al. (2016), in their study find situational economic animosity as an important antecedent of consumer ethnocentrism and further conclude that economic animosity towards a foreign country enhances ethnocentric feelings and encourages inclination towards domestic products/services. Feurer et al. (2016), in their study introduced two dimensions of ethnocentric consumers based on the extent to which they supported consumer-controlled protectionism (CCP) and government-controlled protectionism (GCP) providing a broader outlook to the traditional consumer ethnocentrism literature.

Consumer ethnocentrism being derived from the sociological concept of ethnocentrism is quite complex and dynamic as it deals with perceptions of people which are subject to change according to situations. Level of ethnocentrism of consumers is also influenced by various economic, political and/or cultural factors (De Nisco et al., 2016; Kragulj et al., 2017; Ma et al., 2020).

## 2.2 Country of Origin

Country of origin effect by and large means the consumers' attitude towards the producing countries and their firms in general (Kandogan, 2020). Chattalas et al. (2008), in their study suggest that stereotypes attached to a country influences the country-of-origin effects and when perceived positively by consumers can help in nation branding like 'Incredible India campaign' to boost tourism, investment and trade in general.

Literature on COO provides evidence to believe that country-of-origin effects vary with the product/service, level of consumer involvement, their perception about the country in general and/or their ethnocentric tendencies (Pinkaeo & Speece, 2000; Chattalas et al., 2008; Adina et al., 2015). Khan and Bamber (2008), in their study found that well educated, professional and elite consumers who had better knowledge about the product seemed to show little positive country-of-origin effects on their perceptions about the products or purchase intention thus advocating the prominence of other product related information such as price, quality, etc. Karimov and Murad (2019), in their empirical study found that consumers placed higher weightage on country-of-origin cue when intending to purchase an expensive product in comparison to purchase of less expensive/cheap product.

Increased globalisation aids companies in tapping the advantage of location economies by setting up production facilities in the most efficient location, which reduces the relevance of country of origin thus shifting the focus to the concepts of country of manufacture (COM) and country of origin of brand (COB) which more aptly fits today's globalised era (Prendergast et al., 2010). Unlike goods, it is little difficult to directly associate country of origin effect with services as services aren't manufactured rather provided. However, Pinkaeo and Speece (2000), rightly point out that services may not have a country of manufacturer but do have a country of service provider which may influence customers' intentions about purchasing a foreign company's service.

In international business literature, country-of-origin has huge implications especially in Free Trade Areas of regional trading blocks to avoid trade deflection. This was seen in the recently changed terms of erstwhile NAFTA (North American Free Trade Agreement), now USMCA (United States-Mexico-Canada Agreement) mandating rule of origin for automobiles. Firms today operate in different countries due to increased integration thus making it difficult for consumers to name the product's country of origin as formulation of the products, its production, assembling, etc. doesn't necessarily take place in one country (Kinra, 2006).

Sharma (2011) points out that consumers from emerging and developed markets have different perspectives and habits, thus leading to differences in country-of-origin effects on their evaluation of the products, purchase intentions and actual purchase of foreign products and suggest that materialism and value consciousness may provide the rationale behind differences in country-of-origin effect between developed and emerging markets' consumers. Nevertheless, increased global competition owing to rise in international trade, makes it imperative to look at country-of-origin effect on customer's purchase intentions as it has huge bearings on the success of global corporations.

### **2.3 Protectionism**

Today's world order seems to be dictated by free trade and liberalism, but a closer look at the nuances suggest how misplaced this assumption seems to be. Every country-



developed/ developing/ transitioning indulges in some level and form of protectionism. Protectionism is a policy adopted by economies and governments when they fear for the domestic economy and industries to suffer from foreign competition due to opening up of trade barriers for a liberalized world trade order. When practiced as a policy purely for safety of domestic economy, protectionism doesn't seem to be a bad idea. However, more often than not, these protectionist measures are adopted to create trade barriers and disrupt the free flow of trade.

Protectionist policies such as import bans, tariff measures, duties, etc. reduce the efficiency of domestic producers as the domestic market is devoid of foreign competition (Vitale, 2020). Today countries resort to neo- protectionism policies which are different from the traditional form of protectionism and catastrophic as they restrain trade and/or hamper growth of emerging countries (Aggarwal & Evenett, 2013; Vitale, 2020). Akhter (2007), in his study pointed out that economic nationalism which is triggered by political, economic and security factors, mainly focuses on shielding the domestic economy from the stimulations of foreign firms and is reflected in an individual's expectations of various actors in the society (government, domestic firms and general public).

Kühnschelm (2010), in his study suggests that the "buy only" campaigns when backed by administrative policy changes are veiled boycotts of foreign products. Buy national campaigns are usually undertaken to make the consumers aware about the nationality of the products and to coax them into purchasing the same, every time based on such facts or specifications (Kühnschelm, 2020). Measurement of success of such campaigns is quite cumbersome.

Companies also build a patriotic brand image to achieve high sales in the domestic markets by attaching a sense of national pride to the local brands and so positioning themselves before the domestic consumers (Li et al., 2021). Domestic consumers thus are persuaded to look for country-of-origin label as they are constantly exposed to patriotic brand advertising by local brands. After the global financial crisis, countries have employed financial incentives, local content requirements, buy national patriotic campaigns, mega FTAs and dubious forms of protectionism leading to distorted form of globalization (Aggarwal & Evenett, 2013).

Wu (2019), through his study suggests that peoples' trade policy preferences are contingent upon their perception of the role of government and if the citizens expect the government to play a bigger role in enriching their welfare, then they are supportive of protectionism. Similarly, Kolev (2019) argues that support for protectionist policies by people doesn't necessarily mean rejection of the notion of free trade as study reveals many respondents provided same views on both protectionism and free trade suggesting that sometimes both co-exist.

Protectionism doesn't necessarily mean protection from foreign competition (goods and services) but also from foreign influence (culture, cuisine, way of life, films, videos, interaction of people, etc). Bekhuis et al. (2013), in their study have suggested that people support cultural protectionism when they feel exposure to foreign culture poses a threat to what they consider as their own national culture thus stirring up their nationalistic attitudes which can be extreme (Chauvinism) or more mellowed (Patriotism), due to increased globalisation and openness in economies. The literature has an expanse of evidence suggesting the presence of protectionism in every sphere and channel of international trade causing barriers to free and smooth trade which only worsens during an economic/financial/health crisis (like the pandemic of 2020) (Aggarwal & Evenett, 2013; Kühschelm, 2020; Vitale, 2020).

### **3. ETHNOCENTRISM, COUNTRY-OF-ORIGIN, PROTECTIONISM AND CUSTOMER INTENTIONS: THE INDIAN PERSPECTIVE**

Studies on ethnocentrism in the Indian context provide some insights into the Indian consumers' ethnocentric tendencies which are manifested through their support for swadeshi products like Patanjali (Misra et al., 2018). Upadhyay and Singh (2006), in their study, empirically tested the ethnocentric tendencies among school and college going students and found higher levels of ethnocentrism in school students compared to graduate and post graduate students but the difference was not statistically significant while the ethnocentric levels of people didn't vary with their age or gender. Banerji and Mishra (2018), in their study find young consumers with higher education levels, have low degree of consumer ethnocentrism towards foreign multi-brand retailers.

Misra et al. (2018), in their study suggest that people admire and revere Ayurveda- an ancient science practiced in India for centuries together which Indians are proud of and also abide by in their daily lives in some way or the other, is an important part of the rich Indian culture as people consume local ayurvedic products showing ethnocentric tendencies in their preference for such products. With most markets in developed nations approaching stagnation/ saturation, global companies are looking for alternative markets in emerging economies for successful operation of their business. Sharma (2011), suggests that materialism is increasing among consumers in emerging economies, nevertheless many consumers are still value conscious and price sensitive indicating different product preferences.

Kinra (2006), in her study found Indian consumers to be more aware of foreign brands for consumer durables, electronics, etc. however, same wasn't true for low technology products and non- durables while country of origin had a positive effect on foreign brands as consumers equated them with better/superior quality, prioritised it over domestic brands and preferred domestic brands when value for money was the deciding variable. Country-of-origin studies in Indian context are very significant as India being a fast-emerging country with a very young and large population is an excellent destination for all global corporations and, domestic companies would thus like to improve their image in terms of quality in the minds of consumers. Lack of enough research with respect to COO in various sectors of the Indian economy make it difficult for domestic companies to position themselves as producers of high-quality goods or services.

Protectionism as a trade policy is practiced by India as well. Whether it is to correct the trade deficit, for diplomatic positioning, to shield and push domestic industries, we see protectionist policies being adopted by the government just as rest of the world. In depth analysis of such policy measures and their impact on customer intentions are found wanting in the literature. Globalised world increases people's tryst with international trade. Thus, trade preferences of individuals and trade policies of the country may have some association that can be beneficial to understand the consumers' purchase intentions.

Despite the significance of these constructs, there seems to be lacuna which needs to be addressed. Instrument (Scale) used to measure the constructs in the studies have been adapted in the Indian context from the one developed and used in western researches (Kinra, 2006; Upadhyay & Singh, 2006; Banerji & Mishra, 2018). There is lot of scope of research on the desired constructs of the current study within the Indian scenario.

#### 4. FINDINGS AND DISCUSSION

Consumer ethnocentrism has evolved since first mentioned by Shimp and Sharma (1987), giving marketers and scholars deep insights into customer intentions and behavioural patterns. Various studies over the years suggest that different factors like animosity, national identity and/or patriotism influences ethnocentric tendencies and/or purchase intentions among consumers in varied measure (De Nisco et al., 2016; Thomas et al., 2020; Liu et al., 2020).

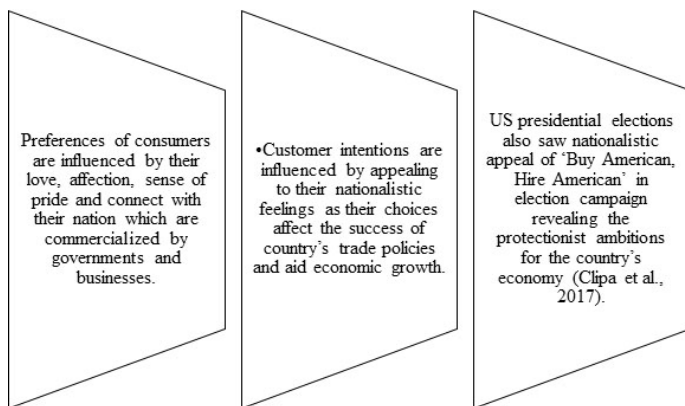
Literature on country-of-origin has come a long way as today's globalized set up makes it difficult to attribute a single country as the country-of-origin of a product, owing to the fact that manufacture, assembly and development of products may take place wholly in a different country or bunch of countries (Kinra, 2006; Khan & Bamber, 2008). Consumers who are acquainted with a particular product class with enough information on them, are less likely to lean on country-of-origin/made-in tags (Khan & Bamber, 2008; Clipa et al., 2017). Increased international trade among countries has made it possible for people to have access to products from all countries providing a plethora of options to choose from.

With increased access to technology, communication avenues and information, consumers' level of awareness are higher than ever before thus helping them make more informed choices. Consumers are essentially people with different aspirations, beliefs, attitudes and thus differ starkly in their preferences and behaviour with respect to various issues and situations. Studies on customer intentions are plenty, some suggesting how actual purchase may depend on more factors than one as Liu et al. (2020), found that consumers' actual purchase may be shaped by national identity but may not be entirely driven by it. Similarly, despite showing nationalistic or ethnocentric tendencies, consumers may not necessarily be averse to foreign

products (Kinra, 2006).

In times of crisis, it is normal for countries to adopt protectionist measures to protect the interest of its nationals and to support the indigenous businesses; studies show how national identity, patriotic feelings and/or nationalistic outlook of people motivate their support for protectionism and/or influence their purchase intentions (Akhter, 2007; Kühschelm, 2010; Castelló & Mihelj, 2018; Kühschelm, 2020; Liu et al., 2020; Li et al., 2021). Even before the great depression of the 1930s nations were seen to opt for nation branding subtly invoking patriotic feelings and nationalism among consumers and influencing their purchase intentions. Today, the world is more globalized and interconnected facilitating free trade but trade policies even today are laced with protectionism. Call by various governments to support local producers by purchasing local is an example of veiled protectionism. The developed and emerging economies are equal partners in following protectionism as a tool for global positioning and reaping electoral benefits.

Ethnocentrism, protectionism and country of origin influence purchase intentions of consumers by appealing to the nationalist in every consumer by invoking their nationalistic attitudes, patriotic feelings and/or strengthening their national identity by attaching a sense of pride/love to the purchases made by them from local producers and indigenous businesses (Akhter, 2007; Kühschelm, 2010; Castelló & Mihelj, 2018; Kühschelm, 2020; Thomas et al., 2020; Li et al., 2021).



**Figure 2** Customer Preferences and Nationalistic Feelings

It is also to be noted that people supporting protectionism are not necessarily averse to free trade as their preferences change according to situations and their immediate environment. Studies show consumers' purchase intentions vary with the products, their country-of-origin perceptions, general country image and/or consumers' personal-cultural values (Pinkaeo & Speece, 2000; Kinra, 2006; Khan & Bamber, 2008; De Nisco et al., 2016; Clipa, et al., 2017; Karimov & Murad, 2019; Ma et al., 2020) which need to be understood by businesses. Studies also show demographic characteristics of consumers have different levels of association with ethnocentrism, country of origin and protectionism (Good & Huddleston, 1995; Upadhyay & Singh, 2006; Zafer Erdogan & Uzkuurt, 2010; Banerji & Mishra, 2018; Karimov & Murad, 2019; Wu, 2019).

With increase in awareness levels of consumers owing to higher educational proficiency and sophisticated way of life, there is availability of sufficient facts to facilitate them in making more informed choices about different products and services (Khan & Bamber, 2008). This makes it all the more necessary to look at factors which influence the earlier mentioned construct/s together at the same time. Ethnocentrism, country of origin and protectionism from a preliminary analysis seem to be similar but are also different as their evolution and impact on customer intentions have changed over a period of time. Their interdependence is clearly evident from the similarities of the underlined factors they are based on.

Further deep investigation is required for gaining more meaningful insights on the relationship between the constructs, which have so far not been deduced to come up with reliable and valid conclusions.

## 5. CONCLUSION

The globalized world makes it necessary to understand trade policies, customer intentions and cultural differences better, so as to become a successful business enterprise. The motive of this study was to comprehend the meaning and significance of ethnocentrism, country of origin, protectionism, understand their influence on customers' intentions towards purchase and international trade and to explore the possibility of inter-relationship between them. The underlined factors like patriotism, nationalistic feelings, sense of national identity,

level of animosity towards a nation and general image of the country seem to impact the aforesaid constructs of the study in varied measure. The dynamic nature of consumers makes it imperative for businesses to strategize according to consumers' changing perceptions about ethnocentrism, country of origin and protectionism. Policymakers and businesses need to fathom how perceptions about the aforesaid constructs impact decision making process of consumers and business. The foreign companies operating in India may strive to project a localized image to increase their acceptability while domestic businesses can exploit their national pitch when catering to ethnocentric consumers. The governments can reduce protectionist policies to make the markets more competitive for catering the everchanging needs of consumers and also ensure cordial relations with other nations to negate any possible animosity that may erupt and impact trade as well.

## References

1. Adina, C., Gabriela, C., & Roxana-Denisa, S. (2015). Country-of-origin Effects on Perceived Brand Positioning. *Procedia Economics and Finance*, 23, 422-427.
2. Aggarwal, V.K., & Evenett, S.J. (2013). A Fragmenting Global Economy: A Weakened WTO, Mega FTAs, and Murky Protectionism. CEPR Discussion Paper No. DP9781, Available at SSRN: <https://ssrn.com/abstract=2365836>
3. Akhter, S.H. (2007). Globalisation, Expectations Model of Economic Nationalism, and Consumer Behaviour. *Journal of Consumer Marketing*, 24(3), 142-150.
4. Banerji, D., & Mishra, P. (2018). An Ethnocentric Perspective of Foreign multi-brand Retail in India. *International Journal of Retail & Distribution Management*, 46(3), 230-246.
5. Bekhuis, H., Meuleman, R., & Lubbers, M. (2013). Globalization and Support for National Cultural Protectionism from a Cross-national Perspective. *European Sociological Review*, 29(5), 1040-1052.
6. Castelló, E., & Mihelj, S. (2018). Selling and consuming the nation: Understanding consumer nationalism. *Journal of Consumer Culture*, 18(4), 558-576.
7. Chattalas, M., Kramer, T., & Takada, H. (2008). The Impact of National Stereotypes on the Country of Origin Effect: A Conceptual Framework. *International Marketing Review*, 25(1), 54-74.



8. Clipa, C.I., Danileț, M., & Clipa, A.M. (2017). Country of Origin Effect and Perception of Romanian Consumers. *Junior Scientific Researcher*, 3(1), 19-29.
9. De Nisco, A., Mainolfi, G., Marino, V., & Napolitano, M. R. (2016). Effect of Economic Animosity on Consumer Ethnocentrism and Product-country Images. A Binational Study on the Perception of Germany during the Euro Crisis. *European Management Journal*, 34(1), 59-68.
10. Feurer, S., Baumbach, E., & Woodside, A.G. (2016). Applying Configurational Theory to build a Typology of Ethnocentric Consumers. *International Marketing Review*, 33(3), 351-375.
11. Fossati, D. (2021). National Identity and Public Support for Economic Globalisation in Indonesia. *Bulletin of Indonesian Economic Studies*, 57(1), 61-84.
12. Good, L.K., & Huddleston, P. (1995). Ethnocentrism of Polish and Russian Consumers: Are feelings and Intentions Related. *International Marketing Review*, 12(5), 35-48.
13. Kandogan, Y. (2020). Using Macro Cross-border Trade Data to Better Understand Micro-level Country-of- Origin Effects. *Thunderbird International Business Review*, 62(2), 213-226.
14. Karimov, F., & El-Murad, J. (2019). Does Country-of-Origin Matter in the Era of Globalisation? Evidence from Cross Sectional Data in Uzbekistan. *International Journal of Retail & Distribution Management*, 47(3), 262-277.
15. Khan, H., & Bamber, D. (2008). Country of Origin Effects, Brand Image, and Social Status in an Emerging Market. *Human Factors and Ergonomics in Manufacturing & Service Industries*, 18(5), 580-588.
16. Kinra, N. (2006). The Effect of Country-of-Origin on Foreign Brand Names in the Indian Market. *Marketing Intelligence & Planning*, 24(1), 15-30.
17. Kolev, G. V. (2019). *Understanding Protectionism: Empirical Analysis of Protectionist Attitudes in the EU* (No. 9/2019). IW-Report.
18. Kragulj, D., Parežanin, M., & Miladinović, S. (2017). Consumer Ethnocentrism in Transitional Economies: Evidence from Serbia. *Sociološki pregled*, 51(1), 59-79.
19. Kühschelm, O. (2010). Implicit Boycott: The Call for Patriotic Consumption in Interwar Austria. *Management & Organizational History*, 5(2), 165-195.
20. Kühschelm, O. (2020). Buy National Campaigns: Patriotic Shopping and the Capitalist Nation State. *Journal of Modern European History*, 18(1), 79-95.



21. Li, Y., Teng, W., Liao, T.-T., & Lin, T.M.Y. (2021). Exploration of Patriotic Brand Image: Its Antecedents and Impacts on Purchase Intentions. *Asia Pacific Journal of Marketing and Logistics*, 33(6), 1455-1481.
22. Liu, Y. L., Karimi, S., & Yuen, T. W. (2020). Support your Country and Buy Chinese Brands'– Would Chinese Consumers Buy it?. *Journal of Marketing Communications*, 26(2), 130-144.
23. Ma, J., Yang, J., & Yoo, B. (2020). The Moderating Role of Personal Cultural Values on Consumer Ethnocentrism in Developing Countries: The Case of Brazil and Russia. *Journal of Business Research*, 108, 375-389.
24. Misra, R., Singh, S., & Singh, D. (2018). Analysing the Role of Consumer Ethnocentrism and Social Responsibility in the Preference of Ayurvedic Products. *Management and Labour Studies*, 43(4), 263-276.
25. Nadiri, H., & Tümer, M. (2010). Influence of Ethnocentrism on Consumers' Intention to buy Domestically Produced Goods: An Empirical Study in North Cyprus. *Journal of Business Economics and Management*, 11(3), 444-461.
26. Pinkaeo, K., & Speece, M. (2000). The Thai Life Insurance Market: Effects of Country-of-Origin perceptions on Consumer Expectations. *Journal of Financial Services Marketing*, 5(2), 99-117.
27. Prendergast, G.P., Tsang, A.S.L., & Chan, C.N.W. (2010). The Interactive Influence of Country-of- Origin of Brand and Product Involvement on Purchase Intention. *Journal of Consumer Marketing*, 27(2), 180-188.
28. Sharma, P. (2011). Country-of-Origin effects in Developed and Emerging Markets: Exploring the Contrasting Roles of Materialism and Value Consciousness. *Journal of International Business Studies*, 42(2), 285-306.
29. Sharma, P. (2015). Consumer Ethnocentrism: Reconceptualization and Cross-cultural Validation. *Journal of International Business Studies*, 46(3), 381-389.
30. Shimp, T. A., & Sharma, S. (1987). Consumer Ethnocentrism: Construction and Validation of the CETSCALE. *Journal of Marketing Research*, 24(3), 280-289.
31. Thomas, T., Singh, N., & Ambady, K. G. (2020). Effect of Ethnocentrism and Attitude towards Foreign Brands in Purchase Decision. *Vision*, 24(3), 320-329.
32. Upadhyay, Y., & Singh, S. K. (2006). Preference for Domestic Goods: A Study of Consumer Ethnocentrism. *Vision*, 10(3), 59-68.

33. Vitale, A. (2020). The Rebirth of Economic Nationalism- From Neo- Protectionism to the New World Geo- Economy. *Przegląd Geopolityczny*, 34, 36-51.
34. Wu, W. C. (2019). Big Government Sentiment and Support for Protectionism in East Asia. *International Political Science Review*, 40(1), 73-89.
35. Zafer Erdogan, B., & Uzkuřt, C. (2010). Effects of Ethnocentric Tendency on Consumers' Perception of Product Attitudes for Foreign and Domestic Products. *Cross Cultural Management: An International Journal*, 17(4), 393-406.

## E-CRM: A Tool for Customer Retention in the E-Commerce ERA

Abhimanyu Verma\* & Dr. Gurjeet Kaur\*\*

### ABSTRACT

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*Only traditional marketing strategies for acquiring a large customer base are no longer adequate. Therefore, today many companies are racing to re-establish their connections to new as well as existing customers to boost long-term customer loyalty. Companies are competing effectively and winning this race through the implementation of relationship marketing principles using strategic and technology-based Customer Relationship Management (CRM) applications. Against this backdrop, the present paper aims to explore the various aspects of the e-CRM strategy. In this process, the paper highlights e-Customer Relationship Management (e-CRM) help in aiding businesses to make use of technological and human capital to get an impactful insight about consumer behaviour and the customers' value. At the same time paper also discuss the implementation challenges of e-CRM. The Paper also suggests strategies for the successful implementation of e-CRM. This paper concludes that there should be a deliberated and calculative approach adopted by the company to understand e-CRM benefits with the precautionary measures that these investments will show quantifiable impacts over some time and not instantaneously. A healthy balance of hard and soft benefits is a sign of a well-thought-out justification for pursuing e-CRM.*

**Keywords:** e-CRM, E-Business, Customers, Relations, Marketing

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## I. INTRODUCTION

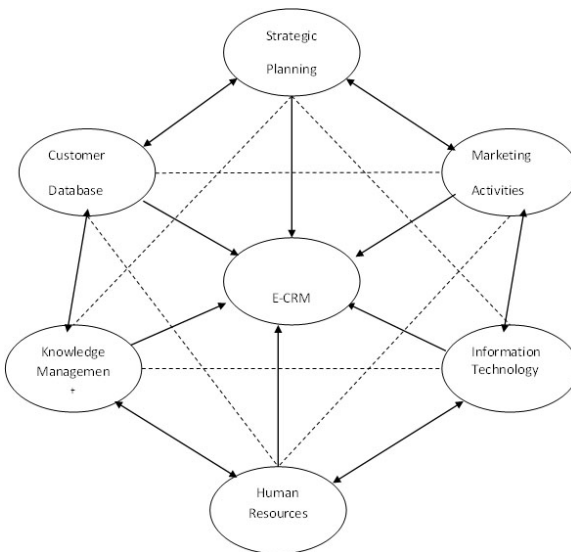
The relationship between a seller and buyer ought not to end as a sale is made (Levitt, 1983). Instead, the relationship needs to identify as it helps to shape or determine the buyers' choice the next time around. Further, Levitt termed the relationship between buyers and sellers as inextricable, inescapable, and profound. Today, companies have recognized that to survive the competition, the most important factor, which gives them the competitive edge, is the long-term relationship with customers. Traditional marketing activities that emphasize customer acquisition are no longer sufficient (Batra, 2001). Therefore, today many companies are racing to re-establish their connections to new as well as existing customers to boost long-term customer loyalty. Companies are competing effectively and winning this race through the implementation of relationship marketing principles using strategic and technology-based Customer Relationship Management (CRM) applications. The purpose of this study is to investigate the many features of an e-CRM approach. The paper emphasises how e-Customer Relationship Management (e-CRM) may assist firms in making effective use of technological and human capital to gain valuable insight into customer behaviour and value. Also the need to study the role of e-CRM is vital as it helps to facilitate the organisations to adopt corrective approach and techniques for effective and successful implementation of e-CRM. This study suggests that the organisation should take a careful and calculated approach to understanding the benefits of e-CRM, with the caveat that these investments will have quantifiable impacts over time, not immediately.

## II. CONCEPTUALIZATION OF E-CRM

Customer relationship management is a concept that evolved from sales automation (relationship marketing); sales automation evolved into customer assets management and then into CRM. CRM is a management approach or model that puts the customer at the core of a company's processes and practices. A CRM business strategy leverages cutting-edge technology, integrated strategic planning, personal marketing techniques, and organizational development tools to build internal and external relationships that increase profit margins and productivity within a company (Kable 2003). For customers,

CRM offers customization, simplicity, and convenience for completing transactions, regardless of the channel used for interaction (Gulati and Gario, 2000).

The evolution of e-CRM cannot be separated from CRM. CRM is the philosophy of interaction with customers and e-CRM is electronic Customer Relationship Management (CRM), which is conceptually the same as CRM, the only difference being that it is a new term where all integration in the purview of the customer takes place with the help of electronic media. The concept of e-CRM evolved with the emergence of Electronic Commerce (popularly known as E-Commerce). Electronic commerce coined by Kalakota and Whinston (1996) continues to be a significant and pervasive issue for both enterprises and customers. Furthermore, Kalakota and Whinston articulated e-commerce as being comprised of three relationship types: those between enterprise and customer (B2C); those between and among customers (C2C), and those within enterprises (B2B). E-CRM addresses the relationship between enterprise and customers (B2C) and within the enterprise (B2B).



**Figure 1 Framework of e-CRM**

Let us understand the relevance of these elements individually:

## **1. Customer Database**

The customer database is an important component that organisations should be concerned about. It is built to assist customer relationship management analysis, therefore the architecture of the e-CRM database has a direct impact on the organization's ability to analyse data (Colleen et al., 2004). A strong data warehouse can help organisations access information more accurately and quickly (Injazz & Karen, 2003). Furthermore, successful databases are tools for organisations to perform higher-level analysis in order to evaluate and estimate client needs (Injazz & Karen, 2003)

## **2. Strategic Planning**

According to Aileen (2006), researchers can find and investigate the role of e-CRM in the formulation and management of strategies. The Internet market, which employs customer-centric techniques, can play a role in e-CRM from an organisational standpoint (Bradway and Purchis, 2000 cited in Aileen, 2006). According to another study, the role of CRM or e-CRM strategy is to assist the firm in attracting new consumers and retaining existing ones. (Injazz and Karen, 2003).

## **3. Marketing Activities**

Internet connectivity and penetration allows companies to obtain client data simpler and faster therefore e-CRM promotes marketing activities, sales, and services more than CRM (Steinmueller, 2002). Furthermore, consumers can update their data themselves, allowing the company to evaluate customer information for pre-sales and post-sales support in order to achieve the highest level of satisfaction. (Steinmueller, 2002; Aileen, 2006)

## **4. Knowledge Management**

Knowledge management combined with technology can help companies make better decisions about their strategies, product offerings, and customer interactions (Colleen et al, 2004). Furthermore, it can improve customer relationships and help organisations achieve a competitive advantage by maximising the whole worth of their customer portfolio (Injazz & Karen, 2003).

## 5. Information Technology

Companies using modern information technology, according to Park and Kim (2003), can acquire a large amount of data on their customers and turn it into the information needed for strategic business purposes. It has been discovered that combining marketing and information technology for e-CRM is an effective technique.

## 6. Human Resource

Employees are a company's most valuable asset and the key advocates of profitable business. As a result, in addition to managing clients and customers for business purposes, an organization's primary obligation is to manage and meet the demands of its own personnel. It would be inaccurate to suggest that e-CRM systems are exclusively used to handle clients and customers; most HR heads and managers utilise e-CRM technologies to manage their companies' human capital.

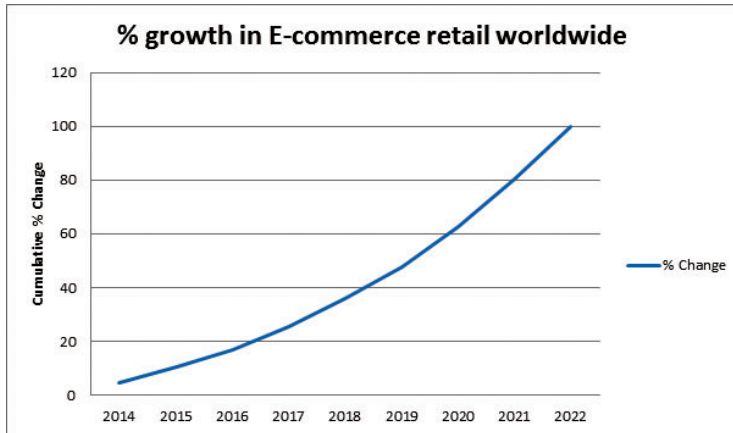
Presently, the internet is seen as primarily a direct selling medium, and online selling has grown exponentially (Figure 2). Across the world, the past year brought a continuation of the impressive growth of retail e-commerce. As internet usage continues to mature across the world, e-commerce growth is also pacing rapidly, with an average growth rate of around 19% (Table 1).

**Table 1 Retail e-commerce Sales Worldwide from 2014 to 2025 (in Billion U.S. Dollars)**

| Years | Retail E-Commerce Sales Worldwide<br>(in billion US\$) | % Change |
|-------|--|----------|
| 2015  | 1548   | 15.86%   |
| 2016  | 1845   | 19.18%   |
| 2017  | 2382   | 29.10%   |
| 2018  | 2982   | 25.18%   |
| 2019  | 3351   | 12.37%   |
| 2020  | 4248   | 26.76%   |
| 2021  | 4938   | 16.24%   |
| 2022  | 5542*  | 12.23%   |

Source: Statista 2022

*\*Note: Forecast includes products or services ordered using the internet via any device, regardless of the method of payment or fulfillment; excludes travel and event tickets. 2014 to 2019 data are from earlier reporting.*



**Figure 2 Graphical Presentation**

As more and more customers are shifting from traditional commerce to electronic commerce, the issues of generating new customers and protecting the existing customers, and more importantly retaining the customers are gaining importance in the age of electronic commerce. Modern organizations are therefore looking for ways to personalize online experiences (a process also referred to as mass customization) through tools such as help desk software, e-mail organizers, and web development applications. Fundamentally, like CRM, e-CRM takes into consideration “economically valuable” customers, while repelling and eliminating “economically invaluable” ones. It utilizes a complete view of the customer to make the decision about messaging, offers, and delivery channels. It synchronizes communications across a disjointed customer-facing system. Carin and Vita (2001) defined the scope of e-CRM and stated that it is about the three ‘e’s of customer relationship management: electronic, enterprises and extended. But the real scope of e-CRM is much bigger. It is about how it can interact with every part of your business supply chain and how it integrates with internal business processes, as well as customers and outside partners.



### III. BENEFITS FROM THE IMPLEMENTATION OF E-CRM

E-CRM has become the new buzzword across all e-commerce industries and the concept is catching up in a big way. Companies have learned that growing their business through the retention and expansion of an existing customer base is far less costly than acquiring new customers in the age of Electronic Commerce. Thus, e-businesses are finding that the only way to sustain growth is to shift their focus from customer acquisition to customer retention. As a result, almost every organization either implementing or planning to implement B2C or B2B e-commerce strategy, CRM will touch virtually every company. Apart from this, for e-business to achieve ROI (Return on Investment) from e-CRM, investment in the application domains and technologies of e-CRM must contribute to measurable business benefits in addition to non-measurable (intangible) benefits (i.e. customer loyalty). Some of the most important benefits from e-CRM implementation are:

- E-CRM enables companies to understand customer needs and buying habits better to leverage the new/better product/service offering to the customer.
- Managing customer relationships effectively and efficiently boost customer satisfaction and retention rates (Richheld, 1996; Jackson, 1994 Levine 1993).
- With E-CRM, many enterprises are establishing shared services (centralized) centers for handling prospect and customer inquiries to create economies of scale, reduce costs, and improve customer satisfaction. Further, the elimination of non-value-added activities can significantly reduce the cost of processing certain transactions.
- E-CRM is a low-cost alternative to leveraging partnerships with both suppliers and customers to improve effectiveness, reduce lead time, and provide inventory level visibility.
- Disregarding the number of customers and the transactions, the e-CRM approaches enable companies to have some clarity about their customers. E-businesses can also track the same customers anywhere in the world as has been happening in the case of airlines and logistic service providers (Ramachandaran, 2001).

- Internet is an integral part of e-CRM. It increasingly allows the concept of self-sales and self-service to be pushed outside the enterprise. Prospects can qualify themselves and customers can check their product shipment status and log their support issues.
- E-CRM provides enhanced customer care (through the web, call centers, and directly with field representatives), services, and customer information management across the organization, which automatically lead to improved customer satisfaction and customer loyalty.
- Track customer interest, demographics, and behaviour gathered from various sources including web sites activity such as click stream data, remote data store, surveys, and e-commerce transactions.
- It has been well known that retaining a customer is more profitable than building a new relationship. Reichheld (1996) found that a 5 percent increase in customer retention increased in average customer lifetime value of between 35 percent and 95 percent, leading to a significant improvement in company profitability. E-CRM assists this step by understanding customer drivers, preferences, buying behaviour, price sensitivity, and customer services. A recent Deloitte Consulting survey of more than 900 executives across different industries also revealed that manufacturers that set goals for improving customer loyalty are 60 percent more profitable than those without such a strategy (Saunders, 1999). Thus e-CRM strategy can help create new customers, and more importantly, develop and maintain existing customers.

Thus, e-CRM is a customer-centric business strategy to optimize an organization's relationship with its customers with the goal to achieve the highest levels of retention, satisfaction, and customer loyalty.

#### IV. IMPLEMENTATION CHALLENGES OF E-CRM

The need for e-CRM cannot be ignored because there cannot be a business without customers and customers of value can only be acquired and retained through relationships. But implementation of e-CRM is a major challenge, as it requires a variety of skills as well as calls for a strategic shift in its business

process and practice. It is less about managing technology and more about managing a cultural change in the organization. (Jaiswal and Kaushik, 2002) In the year 2001, Ramachandran explained the following major challenges in the successful implementation of e-CRM.

- Many organizations do not examine the cost of hardware and software required to have a strong CRM. They often get puzzled with offers of a new version of the same package and the long-term implications of recovering the investments made. Advocates of e-CRM often forget to emphasize the importance of analyzing the costs and benefits while following an e-CRM approach.

Not all employees may have the right attitude towards CRM if they are not convinced about the need to track customers and their buying patterns.

Add to these two, there are several challenges in the implementation of e-CRM. Some of the most important are:

- E-CRM has sweeping implications for a company's organizational structure, processes, and technology investments. And to change from a traditional product/service-focused model, a company must make significant changes to basic operational processes. Thus, a central challenge is synchronizing the process, data, and supporting technology for a company's sales, marketing, and customer support activities.
- Companies have to make a strategic choice between acquired growth and organic growth (Sabat 2001).
- The shift in focus from products to customers.
- Selecting a technical solution that meets business objectives is another challenge. All too often, technical solutions influence business directions. Companies are either too focused on the latest wave of technology (e.g., the Internet) or allow themselves to be constrained by their existing technology.
- Fully customized solutions have the advantage of providing integrated system architecture, but they have historically been characterized by high development costs, long deployment schedules and in a time of rapid technology changes – high maintenance costs.

- Significant initial and annual investments are required for the implementation of e-CRM, which is out of the capacity of a small and medium-sized business.

Last but not the least, the inherent problem with e-CRM is identified in its name by the words relationship and management (Dowling, 2002). It will be difficult for customers to have much influence in the relationship if the companies seek to manage it to their profitable advantage.

## V. SUGGESTIONS TOWARDS SUCCESSFUL IMPLEMENTATION OF E-CRM

There is a big difference between spending money on customers and products and making it all work. Implementation of e-CRM is still far short of the ideal. Everyone has his/her own stories about poor customer service and e-mails sent to companies without hearing a response (Twiner, 2001). Despite several years of experience, web-based companies still did not fulfill many requirements of the customers (i.e. order) and customers continue to have difficulties returning unwanted or defective products. Therefore, there is a strong need for the companies to redesign their e-CRM strategy or implement the existing one in a real sense. Frawley (2000) suggested that regardless of the companies' objectives, an e-CRM solution must possess certain key characteristics.

- Driven by the data warehouse.
- Focused on the multi-channel view of customer behavior.
- Structured to identify a customer's profitability or profit potential, and to determine effective investment allocation decisions accordingly.
- Based on consistent metrics to assess customer actions across channels.
- Scalable to meet growth and performance.
- Built to accommodate the new market dynamics that place the customer in control.

In addition to these, other suggestions for the successful implementation of e-CRM are:

- E-CRM is a process of high velocity and real-time. Therefore it succeeds only when it is a part of an overall business process, so Supply Chain Management (SCM) and other

business processes must be integrated seamlessly into the customer-facing process.

- Organizations today must focus on customers by delivering the highest value to customers through better communication, faster delivery, and personalized products and services. Since a large percentage of customer interaction will occur on the Internet rather than with employees (Buttema, 2000), technology must adapt to the changing and unpredictable market.
- While many e-CRM suites do contain a great deal of the needed functionality, almost non-certain everything that a company needs or will need in the future-meaning that additional software must be integrated with the existing application.
- There is a need to evaluate regularly the effectiveness of various channels of e-CRM.
- Integrate all data to establish a closed-loop that tracks all leads and prospects.
- There is an urgent need to build an attractive value proposition because if the product is in itself unappealing, any amount of e-CRM push will not yield desirable results.
- Developing the learning relationship (Pepper and Rogers, 1997). This means a continuous two-way dialogue, which allows the offering to be adapted to meet specific needs. It can be achieved by the means of online feedback forms, analysis of queries to customer service facilities, or through the use of increasingly sophisticated software that analysis customer site-searching behavior before purchase.

Last but not the least, search for a software package that embodies what e-CRM is for the firm. The e-CRM software must be able to communicate with customers across a range of electronic interaction channels, including e-mail, cell phones, etc. And to be fully effective, e-CRM also requires a holistic approach to selling and serving the customer that does not depend on separate front and back-office information islands but depends even more on fully integrated CRM solutions.

## VI. CONCLUDING REMARKS

As many businesses are shifting their marketing battle from traditional commerce to electronic commerce, certain issues of creating satisfied customers, retaining the customers, and more importantly building loyal customers are also emerging. Therefore, every business, B2B or B2C must focus on the needs of its customers and practice effective customer relationship management. The e-CRM is just what e-businesses need. E-CRM is premised on the belief that developing a relationship with the customers is the best way to get them to become loyal and that loyal customers are more profitable than non-loyal customers. E-CRM is an excellent concept; if implemented successfully. But, the implementation of e-CRM as a business strategy is not an easy task. Companies have so far failed to exploit the potential of e-CRM and vendors face many incredible challenges in a market that has yet to fully prove itself. Perhaps the biggest reason is that many organizations launch into this initiative without a roadmap or clear set of objectives; the result is always disillusionment and frustration. In reality, e-CRM is all about business strategy and therefore requires the direction and engagement of the senior management to be successful. Senior management must have a broad understanding of the capabilities of these technologies and then translate them into specific opportunities that leverage the competitive advantage. Further, e-CRM cannot be operated in an institutional vacuum; it requires the development of a set of integrated software applications with all aspects of customer interaction i.e., e-mail management, interactive voice response, and knowledge management, instant online querying through chat, call centers, etc. This paper concludes that there should be a deliberated and calculative approach adopted by the company to understand e-CRM benefits with the precautionary measures that these investments will show quantifiable impacts over some time and not instantaneously. A healthy balance of hard and soft benefits is a sign of a well-thought-out justification for pursuing e-CRM. As far as the future of e-CRM is concerned, it seems to be very bright. The future of e-business will largely depend on the successful strategy of e-CRM and the success of the e-CRM strategy will be largely determined by the successful implementation of e-CRM.

## References

1. Allan, Asher (2000), Asia-Pacific Co-operation Electronic Commerce Steering Group Workshop on Consumer Protection in Electronic Commerce.
2. Ashish, Sadh and Sonyia Chitable (2001), "Customer Relationship Management and The Banking Industry", *Productivity*, Vol. 42, No. 1., pp. 65-92.
3. Batra, S. P. (2001), "Marrying the Customers: A CRM Approach", *Productivity*, Vol. 42, No. 1. (April-June), pp. 39-45.
4. Bickerton, Pauline; Bickerton, Matthew, and Pradesi, Upkar (2002), *Cyber Marketing*, Butterworth and Heinemann (BN) Publication, IInd Edition, pp.241-252.
5. Buttema, P. (2000), "Getting the Big Picture on Operational CRM", *Proceeding of the DCI Customer Relationship Management Conference*, Boston: M. A.
6. Dennis, Charles, and Harris, Lisa (2003), *Marketing the E-Business*, Routledge: London and New York.
7. Dowling, Grahame (2002), "Customer Relationship Management: in B2C Markets, Often Less is More", *California Management Review*, Vol. 44, No. 3, pp. 87-104.
8. E-CRM: Building the Lasting Relationship (2001), *Information Technology (Cover Story)*, December 12-21.
9. Frawley, Andy (2002), "Evolving to e-CRM: How to Optimize Interactive Relationship Between You and Your Customers", August, at [http://www.eai.ebiz.net/crm/frawley\\_la.html](http://www.eai.ebiz.net/crm/frawley_la.html).
10. Gandhi, Meenakshi (2004), CRM: The Road Ahead, *Proceedings of the National Seminar on Management and Technology: Vision 2010*, Amity Business School, April 4-5<sup>th</sup>, pp.108-117.
11. Garneau, Paul; Baines, Paul, and Brennan, Ross (2003), *Contemporary Strategic Marketing*, Palgrave Macmillan.
12. Gulati, R. and Garino, J. (2000), "Get the Right Mix of Bricks and Clicks", *Harvard Business Review*, Vol. 78, No. 3, pp. 107-114.
13. Jackson, D. (1994), "Relationship Selling: The Personalization of Relationship Marketing", *Asia-Australia Marketing Journal*, August, pp. 45-54.
14. Jaiswal, M. P., and Kaushik, Anjali (2002), *e-CRM: Business and System Frontiers*, Asian Books Private Limited (AB), New Delhi, pp.127.
15. Kalakota, R. and Whinston, A. B. (1996), *Frontiers of Electronic Commerce*, Addison Wesley Publication Company,

16. Kamble, S. Sachin (2003), "Issues in Implementing Customer Relationship Management (CRM) in State Government Departments", *Management and Labour Studies*, Vol. 28, No. 1. (February), pp. 31-36.
17. Lara, Carim and Vita, De. Emma (2001), "e-CRM: Putting the Customer First", EPS Focus Report accessed on: <http://www.epsltd.com.com/clients/viewbriefingreport.asp?report1D=18>.
18. Levine, J. (1993), "Relationship Marketing", *Forbes*, 20<sup>th</sup> December, pp. 232-234.
19. Levitt, Theodore (1983), "After the Sale is Over", *Harvard Business Review*, Vol. 83, No. 5 (September-October), pp. 87-93.
20. Matoo, Aditya et al, *Electronic Commerce and Role of WTO*, 5<sup>th</sup> World Trade Organisation.
21. Mohamed, H. and Sagadevan, A. (2004), *Customer Relationship Management: A Step by Step Approach*, Vikas Publication House, pp.69-90.
22. Peppers, D. and Rogers, M. (1997), *Enterprise One to One*, London: Piatkus.
23. Ramachandaran, K. (2001), "How CRM Can Be Strengthened", *Productivity*, Vol. 42, No.1, pp.19-25.
24. Reichheld, F.F. (1996), "Learning From Customer Defections", *Harvard Business Review*, March-April, pp. 56-69.
25. Reichheld, F.F. (1996), *The Loyalty Effects*, Harvard Business School Press, Boston: M.A.
26. Sabat, K. Hament (2001), "Managing Customer Relationship Through Modern Marketing Strategies", *Productivity*, Vol. 42, No. 1, pp.81-93.
27. Saunders, J. (1999), "Manufacturers Build on CRM", *Computing Canada*, Vol. 125, No. 32, pp. 17-18.
28. Special Report on Internet and Online Shopping (2002), *Information Technology*, Special Issue, pp.58-65.
29. Stewart, McKie (2001), *E-Business- Leveraging Technology for Business Advantage: Best Practice*, John Wiley & Sons, Inc., pp 86.
30. Winer, S. Russell (2002), "A framework for Customer Relationship Management", *California Management Review*, Vol. 43, No. 4, pp 89-106.
31. Colleen et al, 2004. Data warehouse design to support customer relationship management analyses. [online] Available at: <http://delivery.acm.org/10.1145/1040000/1031767/p14-cunningham.pdf?key1=1031767&key2=3253416031&coll=DL&dl=ACM&ip=130.243.90.170&C FID=24698983&CFTOKEN=17132526>



32. Injazz J. Chen, Karen Popovich (2003), "Understanding customer relationship management (CRM): People, process and technology", *Business Process Management Journal*.
33. Aileen K., 2006. Electronic customer relationship management (eCRM): Opportunities and challenges in a digital world. *Irish Marketing Review*, Vol.18, No.1&2, p.58-68.
34. Bradway, B., Purchia, R., 2000. Top 10 strategic IT initiatives in e-CRM for the new millennium. [online]
35. Steinmueller, W.E., 2002. Settling the e-CRM frontier: the experience of innovating European firms. *Socio-Economic Trends Assessment for the Digital Revolution (STAR)*, No.23, p. 1-34
36. Park, C.H., Kim, Y.G., 2003. A framework of dynamic CRM: Linking marketing with information strategy. *Business Process Management Journal*, Vol. 9, No. 5, p. 652-71

## Ramification of Unlearning in Crisis and Its Management in An Organisation

Rashika Shukla\* & Dr. Amit Kumar Sinha\*\*

### ABSTRACT

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*Crises cause both internal and external learning and unlearning inside and across organisations. To effectively handle a crisis, we must be able to promote unlearning, and this essay demonstrates how we may do just that via the practice of mindfulness. Researchers in this research offer a framework for thinking about unlearning during times of crisis that incorporates a variety of strategies to encourage unlearning at various phases of crisis (pre-crisis, during-crisis, and post-crisis). Mindfulness of impermanence and sensual processing pre-crisis, interdependence and correct intention during crisis management, and post-crisis mindfulness of transiency and past experiences post-crisis.*

**Keywords:** Management, Crisis management, Unlearning Mindfulness

### INTRODUCTION

The epidemic of COVID-19 has impacted all spheres of life (Verma and Gustafsson, 2020). It precipitated a worldwide sociotechnical crisis, upending economic institutions and established corporate practices (Huynh, 2020). COVID-19 has wreaked havoc on numerous firms, resulting in major shop

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closures and generating organisational problems in a variety of sectors. Additionally, it has compelled many businesses to examine alternate futures or a 'new normal' mode of operation, necessitating the use of competent organisational crisis management strategies. In an organisation crisis and its management is defined as a systematic effort by company's members in collaboration with external stakeholders to avoid or successfully handle crises says (Pearson and Clair, 1998: 61). A crisis destabilises an organization's relationship structures, impairing its cohesiveness, adaptability, and communication (Kahn et al., 2013). As a result, it is crucial to create relationships with stakeholders during times of crisis, to minimise misinterpretation, and to get elusive critical information (Mitroff and Pearson, 1993). Effective crisis communication and response need a process of transformation, unlearning, and relearning at all organisational levels (Wang, 2008). Despite its prominence in organisational learning research (Easterby-Smith et al., 2004), the concept of unlearning has recently gained renewed attention in the field of organisational studies (Becker, 2010; Brook et al., 2016; Cegarra-Navarro and Arcas-Lario, 2011; Hislop et al., 2014; Tsang and Zahra, 2008). There has been a lot of emphasis on the need for organisational unlearning to get rid of outmoded routines, beliefs, knowledge, and values to create a place for new ones when they are required. The definition of unlearning is still a subject to dispute and discuss believes (Howells and Scholderer, 2016; Lyu et al., 2020; Tsang, 2017). Organizational resilience in the face of a crisis may be enhanced by unlearning. This has yet to be investigated. In particular, the research does not discuss how unlearning relates to mindfulness. In the meanwhile, there are components of mindfulness that may be used to cope with externally imposed crises, such as aspects of unlearning. Researchers named Kabat-Zinn (2006), Capurso et al. (2014), Vu and Burton (2020), says that the capacity to enhance attentional processes rather than passive control conditions via instructions to interact with unexpected situations are all examples of non-conceptual looking into the world (Schofield et al., 2015). Additionally, Weick et al. (1999) discovered and created collective awareness to deal with unexpected occurrences and threats. Individual and communal traits (ease with uncertainty and chaos, positive attitude toward failure) of mindfulness may promote learning from mistake

experience, according to Fraher et al. (2017). In response to a crisis like the COVID-19 epidemic, we employ the paradigm of unlearning as part of the organisational transformation process (Tsang, 2008). Pearson and Clair outlined several critical reactions and responses that need to be implemented in crisis management, and we claim that mindfulness practises may help assist unlearning and contribute to these reactions and responses (1998). Buddhist right mindfulness practises are used to conceptualise and present distinct processes of mindful unlearning at different phases of crisis management (Bundy et al., 2017) and give implications for managers and organisations (Bundy et al., 2017).

An overview of the extensive review literature on organisational unlearning and crisis management follows.

Using the idea of conscious unlearning at various phases of crisis management in an organisational environment, we next examine the consequences of managerial learning as well as the opportunities for further study.

## MANAGEMENT AND UNLEARNING IN CRISES

Nature-caused catastrophe, technical catastrophes, conflict, malice in organisations and workplace violence are only a few examples of the many different forms of crises that might occur (Lerbinger, 1997). The factors for determining whether an occurrence qualifies as a crisis include the extent and kind of damage, hazards to public health and safety, and the effect on vital facilities (FEMA, 2011). (Coombs, 2010). As a result of an unintentional catastrophe, organisations have responded with a flurry of frenzy (Wade and Bjerkan, 2020). Reacting to an externally created crisis such as COVID-19 requires a shift in viewpoint to effectively handle the crisis or, failing that, to just accept it and go on (Yawson, 2020). The pandemic's severity and spread were also influenced by human behaviour example, fear leading to ethnocentrism, panic buying, optimism bias in ignoring public health warnings and communication, the spread of fake news and harmful social behaviours through social media says (Schaller & Neuberg, 2012; Van Bavel et al., 2020).

The initiation of crises and the subsequent progression through the stages of reaction and recovery are common divisions in crisis management (Smith and Elliott, 2007). Researcher (Bundy et al.,

2017) quoted Typically, there are three stages involved in crisis management: pre-crisis, the crisis in progress, and post-crisis. To avoid a crisis and preserve healthy interpersonal relationships, organisations must take proactive measures during the pre-crisis period. As a result of these efforts, a crisis is less likely to occur or be triggered by a breakdown in the system (Pauchant et al., 1991). These efforts are critical because, in many situations, the execution of these strategic, technological, and structural changes leads to a shift in previous habits, beliefs, and values. When an organization responds to any crisis or manages it that is known nothing but managing the crisis. Earlier research on crisis response management focused on crisis communication (Coombs, 2010), crisis leadership (Bavik et al., 2021), attempts to quantify and manage crisis effects (Bundy and Pfarrer, 2015), and stakeholder relationship management (Bundy and Pfarrer, 2015) (Zavyalova et al., 2016). Organizational goodwill, legitimacy, and trust are assessed at this phase. Unlearning (Nystrom and Starbuck, 1984) and learning processes are also included in this category (Bundy et al., 2017). Organizational learning in crisis has been stressed as a result of crises in the literature (i.e., learning from crisis). Only a few research (Smith and Elliott, 2007) look at organisational learning in all three stages of crisis management, much alone unlearning. When businesses strive to adjust to a new environment, they must unlearn what they've learned. Unlearning is triggered by external environmental disturbance, such as the COVID-19 epidemic (Lyu et al., 2020). Behaviours were commonly misinterpreted during a crisis. It was a fertile environment for unlearning since long-held habits and ideals were questioned (Starbuck, 1989). As an effective reaction to external crises and changes, businesses may use organisational unlearning (Lyu et al., 2020; McKeown, 2012), which can help them respond to crises quickly by deleting old rules, facilitating problem-solving, and finding a solution quickly (Peschl, 2019; Turc and Baumard, 2007). As a result of the coronavirus outbreak, Fujitsu reduced its office space in Japan by half (BBC, 2020). Traditional and hierarchical working practises were replaced with a more cross-functional and project-based approach at Telenor Group (World Economic Forum, 2020). Many automakers, including GM and Ford, have adapted parts of their manufacturing lines to accommodate the creation of ventilation systems (Wade and

Bjerkan, 2020). In times of situations, unlearning is important to effect organisational transformation or change.

## UNLEARNING IN THE WORKPLACE ORGANISATION

Unlearning has been addressed in the literature without a precise description (Barkema and Vermeulen, 1998; Tsang and Zahra, 2008, for example). It's still debatable, and it's the topic of academic debate (e.g., Howells and Scholderer, 2016; Tsang, 2017). According to Howells and Scholderer (2016), the idea of unlearning should be abandoned since it was intentionally imported from the psychological literature, and theory-change should be used instead.

Tsang (2017: 44) contends, however, that organisational practises such as unlearning do not explain phenomena, that phenomena may be seen but not learned, and that the replacement of one organisational practise with another is not required. Unlearning is still a contentious topic since it includes causal inferences rather than merely abandoning procedures (Howells and Scholderer, 2016). (Tsang, 2017). Most unlearning definitions, however, reflect Hedberg's (1981) description of unlearning as a cycle in which information increases, becomes outmoded, and is ultimately abandoned. Unlearning as per Nystrom and Starbuck (1984) is a requirement for organisational learning. Unlearning is a portion of removing outdated information and habits to make room for new and desired learning.

Organizational unlearning, according to Author Levitt and March's (1988) is a routine-based approach, refers to the abandonment of old routines in favour of new ones and is considered a type of organisational change process in addition to organisational learning, which emphasises the acquisition of new knowledge (Tsang, 2008). Unlearning is also a process of posing new questions to embrace the unknown (Antonacopoulou, 2009) and free organisational members from dominant and accepted notions to investigate many alternative factors (Hsu, 2013). It is a voluntary endeavour (Lee and Sukoco, 2011) to eradicate outmoded information, values, and habits (Cegarra-Navarro and Wensley, 2019; Hislop et al., 2014; Tsang and Zahra, 2008). Because not all organisational information is lost due to unlearning, the intentionality of unlearning is critical. Without corporate knowledge, some data

is lost or forgotten. Organizations may pave the way for new informational data and knowledge structures by consciously deciding to give up, relinquish, or cease employing knowledge, values, or behaviours (Cegarra-Navarro et al., 2019).

## **PATHS OF UNLEARNING**

There has been a lot of attention lately given to the idea of unlearning, but it hasn't been tied to mindfulness (e.g., Becker, 2010; Brook et al., 2016; Cegarra-Navarro and Arcas-Lario, 2011; Hislop et al., 2014; Tsang and Zahra, 2008). However, a number of mindfulness techniques may assist in the process of unlearning (Vu and Burton, 2020). Weick and Sutcliffe (2001) emphasised the importance of organisational mindfulness in high-performing companies that are able to deal with complexity and the unexpected. In this paper, the author attempts to provide a theoretical foundation for how mindfulness can facilitate unlearning at different stages of pre-crisis, crisis, and post-crisis management at both inter and intra-organizational levels to foster learning and knowledge sharing in achieving resilience to crises. Mindfulness is one of the Paths (Pali: ariyo ahagiko maggo; Sanskrit: rygamrga) are eight essential principles, often known as appropriate mindfulness (Pali: sati; Sanskrit: smrti). Correct mindfulness is a state of awareness that is ethical in character (Purser and Milillo, 2015; Vu and Burton, 2020), taking into account the impermanence and dependent-arising nature of internal and external interactions. It is also governed by the other principles of the Noble Path's (right action, right intention, right view, right effort, right livelihood, right concentration, right speech). Proper mindfulness is non-conceptual awareness (Gunaratana, 2002:140), which includes both clear knowledges of the current moment and awareness of previous events. It entails the continual application of such consciousness to each life event from an ethical standpoint (Bodhi, 2011).

The purpose of this study is to extend the conceptualization of organisational mindfulness by introducing the concept of right mindfulness. Organizational mindfulness is defined as an organisational characteristic that assists in identifying emerging threats and enabling capabilities to respond to these all are based on the effects of concentration and insight says researchers (Weick et al., 1999; Weick and Putnam, 2006). We are using a non-conceptual mindfulness approach (Weick and

Putnam, 2006) to examine how ‘appropriate mindfulness’ can facilitate unlearning that goes beyond processing information through rules and perceptions that are situation-specific or constrained by organisational agendas (Dreyfus, 1986) because not all concepts or practices can be equally fine-grained, and not all conceptualizations are context-relevant (Tsoukas, 2005). This technique enables us to investigate unlearning with more intuition, less adherence to rules, and with know-how (Weick and Putnam, 2006). Additionally, it facilitates the incorporation of concepts such as impermanence, dependent-arising, knowledge of prior experiences, ethics, and prosocial behaviours into organisational practise that encompass collaborative responses to COVID-19-like crises at the intra- and inter-organizational levels.

## DISMANTLING THE STATIC

In order to prepare for anticipated strategic and structural changes, organisations must develop dynamic skills and foster organisational flexibility (Bundy et al., 2017; Kahn et al., 2013). It is critical to unlearn static organisational norms, routines, structure, or strategy and to explore the possibilities for any necessary adjustments during times of crisis. The majority of organisations embrace specific routines or structures as primary means of achieving their objectives (March and Simon, 1958; Nelson and Winter, 1982), or as sources of accountability and political protection necessary to assist organisations in operating effectively and efficiently (March and Simon, 1958; Nelson and Winter, 1982). (Feldman and Pentland, 2003). However, these inflexible corporate structures and routines may result in stagnation, inflexibility, and mindlessness (Gersick and Hackman, 1990; Langer, 1989; Vu et al., 2018). Routines and structures based on experience may develop into an automatic performance that lacks vigilance and critical thinking, resulting in skewed or oversimplified analyses, blind spots, and unintended consequences for organisational transformation (Becke, 2014). As a result, there must be a readiness to reject unproductive and static habits during interruptions and crises and continually relearn new ones. The pandemic of COVID-19 has compelled enterprises to investigate ‘new normal’ states in order to boost operational resilience, accept remote work, or reimagine alternative models of sustainable operation in



order to generate new competitive advantages (Verma and Gustafsson, 2020). At various organisational levels, mindfulness may offer the following strategies for unlearning the static.

**Mindful awareness of impermanence:** A crucial facilitator of desire to change and unlearn is an understanding of impermanence. The consciousness of impermanence teaches individuals and organisations that things are in a permanent state of change and do not last eternally (Van Gordon et al., 2016). Impermanence teaches us that change is inevitable. Individuals are more inclined to be aware of obsolete routines and procedures at the intra-organizational level when they are aware of the feeling of urgency inside organisations to assist the necessary purposeful unlearning (Cegarra-Navarro and Wensley, 2019). Additionally, it assists people in accepting any scenario, especially a crisis one, by shifting their focus from passively coping to proactive situation management (Weick and Putnam, 2006). As a consequence, they may more rapidly establish collective sensemaking and rebalance the disordered intra-organizational relationships that occur during a crisis. An impermanent mindset promotes unlearning and increases corporate adaptability and cohesiveness.

**Sensorial processing with awareness:** In tough times of crisis, it is critical to be able to filter out irrelevant knowledge related information which can be fruitful in near future. Through bare awareness (moment experiences), protective awareness (discernment to assist moral judgement), introspective awareness, and inspirational notions, mindfulness promotes sensory, emotional, and cognitive processing (Kuan, 2008; Vu and Burton, 2020). At the intra-organizational level, a conscious sensory processing method is critical for organisational members to filter out any damaging or inaccurate information that might cause disturbances. This technique expands non-judgmental present-centred awareness by requiring attention to and retention of experience in order to build a clear understanding of the phenomena, most notably in the COVID-19-like pandemic. Additionally, it enables organisational members to communicate ideas, make sense of information, save important knowledge, and integrate it into meaningful patterns for future purposeful operations (Dreyfus, 2011). Mindful sensory processing includes the capacity for retention, cognitive changes, and the capacity to examine the nature of mental states and information processing.

Via mindfulness, information is processed by comparing it against memories of previous experiences and deconstructing the information context through non-simplified interpretations. This approach shows a shift away from the constraints of learning just via cognitive methods to information processing and toward an acceptance of the necessity for knowledge to be placed through a constructionist and processual perspective (Marshall, 2008). Sensorial processing enables the interaction of cognitive and practice-based unlearning and information processing by filtering out unhelpful information and identifying what has to be modified to unlearn the static. At the inter-organizational level, the mindful sensory process tends to strengthen network links between companies via unprejudiced information sharing, trust-building, and reciprocity (Diani, 2003), facilitating more effective idea exchange between firms. At the pre-crisis stage, conscious sensory processing contributes to the reduction of disinformation that results in unproductive actions, overreactions, or underreactions (Pennycook et al., 2020). Being pragmatic and vigilant may help increase the efficacy of risk communication at the inter-organizational level since companies that are cognizant of people's risk perceptions can better understand how individuals assess risks and receive information (Aven and Boudier, 2020). COVID-19 risk perceptions are influenced by several elements, including social, cultural, and psychological factors, and they have an effect on readiness and planning (Nygren and Olofsson, 2020). The conscious sensory process aids in filtering out interruptions such as the COVID-19 infodemic. The infodemic, which is characterised by rumours, stigma, and conspiracy theories, makes it difficult to locate reputable sources of advice and updates during a crisis (Pulido et al., 2020).

## DE-BIASING AND ERADICATING

COVID-19 is a difficult problem since it has altered business models and needs enterprises to continually monitor and adapt, as well as take a proactive stance in response to changes and unprecedented demands to shift strategies, services, and even goods (Verma and Gustafsson, 2020). To support such efforts throughout the crisis management stage, companies may need to revise existing knowledge and abilities, increase capacity, and upgrade workers' technical skills (Kuckertz et al., 2020).

(Carnevale and Hatak, 2020). Through the following methods, mindfulness may promote and lead such unlearning processes. Conscious awareness of dependent emergence. All phenomena are tightly interrelated and emerge as a result of one another (Thich, 1999). In other words, since everything in the universe is interconnected, people must relate to one another (Hibbert and Cunliffe, 2015) and engage with the world (Segal, 2011), a process that requires communication to share knowledge and connection with the external environment. Inside companies, mindful communication is required during a crisis to ascertain people's risk perceptions and to convey (Aven and Boudier, 2020) crisis management techniques and correct any inaccurate information within the company. During a crisis, information and knowledge must be communicated openly since they impact all organisational members, much more so during the COVID-19 pandemic when one individual's health state might affect other organisational members and overall organisational performance. COVID-19 emphasises the interdependence of many facets of one's life and those of others in an organisation. The connection between work and life is becoming stronger. Recognizing dependent-arising may assist persons in being more receptive to sharing and being shared. Many persons who have kept their private and professional life separate have been compelled to reconsider this assumption by the COVID19. The understanding of dependent-arising may aid these persons in unlearning the work-life separation tradition and adapting more swiftly to the pandemic's new modes of working and living. Lee et al(2020). 's research of 490 full-time workers across sectors in the United States during the COVID-19 epidemic discovered that open internal communication boosts employees' intrinsic requirements for happiness, promoting workplace engagement and information exchange throughout the crisis. Such open communication among workers makes it easier to gain agreement on collective unlearning (Lyu et al., 2020) in response to crisis-induced changes. In bigger businesses, communication methods might be more sophisticated; as a result, workers' voices may be muffled, erecting further hurdles to organisational unlearning (Lyu et al., 2020). Recognizing the importance of collective communication during times of crisis is critical for overcoming rigid, constricted, closed, self-protective, and defensive communication (Minuchin, 1974; Staw et al.,

1981) that can result in negative consequences or even chaotic responses to crises (Minuchin, 1974; Staw et al., 1981). (Kahn et al., 2013). Facilitating inter-organizational communication is critical because it enables companies to obtain fresh knowledge via continual contact with external stakeholders in order to react to possible risks and damage caused by crises (Sellnow and Seeger, 2013). Direct communication is hampered during a crisis, as as the COVID-19 epidemic, hurting company operations (Bofinger et al., 2020). The dependent-arising nature of actors is more prevalent during the COVID-19 crisis and can help organisations identify the necessary new knowledge and competencies, as innovation is impossible without unlearning (Assink, 2006), necessitating competence-destroying and creative construction processes (Lawlor and Kavanagh, 2015). During the COVID-19 epidemic, the education sector has emphasised the need of technology capabilities in order to continue distance learning and communication (Zhang et al., 2020). Economic and societal functioning have increasingly dependent on digital technology (Huynh, 2020). Artificial intelligence systems have significantly aided in the analysis of data (Panigutti et al., 2020). Apart from these newly acquired abilities, unlearning must be actively enacted via a rigorous investigation of socio-technical systems. Without an agreement on rational governance, these developing technologies may readily be linked to concerns about privacy, disinformation, and security (Huynh, 2020; Panigutti et al., 2020). As a result, mindful awareness of dependent-arising encompasses collaborative communication that is founded on conscious collective agreement.

Risk communication is critical at the inter-organizational level during the COVID-19 pandemic, stressing the significance of establishing a prosocial mentality while interacting with authorities and other stakeholders (Aven and Boudier, 2020). For example, COVID-19 had a significant impact on the tourist and hospitality sectors. In India, industry organisations have offered ideas to the government to assist the sector in surviving (Kumar, 2020). These suggestions would not be possible without information exchange and trust between organisations. Additionally, the pandemic placed extraordinary strain on the organization's alliances, necessitating rapid confidence in these relationships. Casady and Baxter (2020) emphasised the danger of failure in public-private partnerships in building

projects and the need of trustful risk communication between interested entities in promoting information exchange and collaborative efforts to overcome the tribulation (Casady and Baxter, 2020). Additionally, Cheng et al. (2020) discovered that developing trust and long-term capability of community-based organisations is critical for limiting the COVID19 pandemic. It is necessary to set aside and relearn organisational routines, beliefs, instrumental agendas and practises that are no longer applicable in the relational setting of a pandemic. This method would foster trust and reciprocity in communication, therefore facilitating information sharing for group activities and learning in crisis management (Diani, 2003).

### **GET RID OF THE KNOWLEDGE YOU'VE ACCUMULATED.**

There is no such thing as a typical crisis. Although the financial crisis of 2008 was a natural disaster, COVID-19 is quite different. COVID-19, on the other hand, is a human social and economic catastrophe that directly threatens human life and health. Lockdowns and social distance have resulted in serious damage to enterprises in a wide range of sectors (Donthu and Gustafsson, 2020; Leite and colleagues, 2020). Because of this, it is important to keep in mind that the lessons learnt in dealing with one crisis may have to be unlearned in a different situation at some time. We propose the following two strategies to help foster post-crisis awareness.

1. Mindful awareness of emptiness and transiency
2. Mindful awareness of past and moment.

Mindful awareness of emptiness and transiency: The concept of emptiness (Pli: *suat*, Sanskrit: *nyat*) stresses that all experienced things are devoid of intrinsic existence and that emptiness is the fundamental essence and fabric of the universe in which we find ourselves. The mind may develop to its fullest potential when it stops clinging to certain phenomena, knowledge, or even the 'self' (Khyentse) Learning may be unlearned in the same way that it can be learned again. (, 2007). to face a crisis by collecting new information to allow innovation (Wang et al.) is a normal reaction at the intra-organizational level, so bracing. Organizations and its members must be careful not to become unduly enamoured or haughty with their newly acquired wisdom and institutional par Attachment to the routines of the organisation may lead

to more internal unlearning or learning, or it may impede a company's ability to be conscious of impermanence and the future. in a fast-paced manner (Johannessen and Hauan, 1994) in order to unlearn inappropriate behaviours in response to various contexts (Akgün et al., 2014). Emptiness and transiency stress a continuous process rather than an outcome to facilitate behavioural unlearning accompanied by cognitive unlearning (Hislop et al., 2014). (2007)

Mindful awareness of past and moment: Focused attention on where you've been and where you are now. To be fair, not all information and abilities must be unlearned in order to acquire a new set of knowledge and skills that are necessary for the new position. It's important for organisations to keep in mind what they've learnt from the past since knowledge is derived from prior experiences (Bodhi, 2011; Gethin, 2011). An easier way to unlearn at the level of an organisation is to eliminate communication or system networks that haven't been useful or complementary in the past. The process of unlearning what you've learnt is selective, taking into account the specifics of the present problem and only retaining the most relevant and beneficial lessons from the past. When a pandemic like the COVID-19 pandemic occurs, organisations must be ready to relearn old organisational structures. Revaluating and revising supply chains, laws, and regulations, as well as a rising digital footprint, should serve as a means of unlearning (Verma and Gustafsson, 2020). As a result, organisations need to be aware of the changing situation in order to be able to respond more quickly and effectively to a crisis.

In each new crisis, moment awareness is critical to unlearning context and identifying and adapting to the new conditions. When a crisis occurs, inter-organizational collaborations must be actively increased via coordinated efforts to recognise the dependent emerging character of phenomena. Researchers Orth and Schuldis (2021) observed that during the pandemic of COVID-19, businesses are more likely to embrace an open system culture that helps them to better cope with hardship. To establish a thoughtful basis for the future, such an approach would foster resilient ecological systems to jointly and more effectively cope with ecological problems (Ivanov, 2020). In doing so, it would inspire firms to go-ahead to transition into agile organisations that embrace both the impermanent

and dependent-arising concepts implicit in organisational mindfulness practises.

Consequences for managerial education : Because organisations learn and unlearn from their own and others' crises experiences (Akgün et al., 2007; Smith and Elliott, 2007), we focused on the many factors that assist the unlearning process at both the intra- and inter-organizational levels in this research. We stress the attentive unlearning journey as a means of addressing present and preoccupied behaviours that might create rhetorical obstacles (Heath and Millar, 2004), preventing companies from seeing warning signs in time for crisis management. We emphasise the following implications for management learning based on our definition of attentive unlearning. To begin, managers and organisations must unblock and unlearn any static states that may hamper the process of learning to deal with unanticipated crises. The manner in which information is distributed and understood has a considerable influence on how companies adapt their culture in preparation for and response to a crisis (Smith and Elliott, 2007). We have a tendency to perceive the environment and classify information in order to achieve a certain level of comfort by putting things in their proper places (Langer, 1989). However, there is a risk of being thoughtless and restricted by a single viewpoint and habitual behaviour for categorising and limiting data from our environment (Langer, 1989). Crisis incubation periods often develop when signals are undetected without sensory processing as a result of accepted ideas and conventions, or as a result of flawed rationalisations based on distracted management beliefs (Mitroff and Pearson, 1993; Nystrom and Starbuck, 1984). To overcome these obstacles, conscious awareness of the transitory nature of context and sensory processing enables managers and organisations to unlearn classified information and obsessed behaviours, promoting proactiveness and flexibility rather than reactiveness in crisis response (Yawson, 2020). For example, several small restaurants renowned for their outstanding dine-in service faced existential crisis during the epidemic. They retained their core workers, though, and quickly transitioned to rapid services (drive-thru, pick-up, and mobile ordering) in order to stay afloat during tough times. Following their closure during the COVID-19 shutdown, some local taverns and distilleries rapidly transitioned to creating hand sanitizer



to supplement the local shortage (McKeon, 2020). Scientific museums have reimagined their programmes to engage the public outside its walls, such as by delivering virtual science seminars to schools and establishing distant learning centres for youngsters (Anthes, 2021). When the pandemic occurred, higher education institutions with solid technology systems were able to organise and distribute resources and capacities flexibly in order to react to and prepare for dynamic changes and student needs, delivering online and blended delivery.

Second, during the crisis management stage, awareness of dependent emergence and appropriate intention may assist managers and organisations with the appropriate attitudes and tactics in unlearning ineffective skills and knowledge and replacing them with more relevant ones. The pandemic of COVID-19 has a worldwide effect, impacting everyone. As a result, the pandemic itself entails a dependent emerging consequence. In such a world, it is critical to recognise the interconnectedness of interactions and networks. While collaborative efforts are vital, they must also be carried out with the 'correct aim.' For example, some organisations have attempted to benefit from the crisis by shifting their focus to short-term advantages and even indulging in fraud and misbehaviour on the pretext of few resources and survival pressures (He and Harris, 2020). However, unethical and opportunistic commercial activities may have long-term ramifications and destroy a brand. Competitiveness knowledge may be secondary to increasing sustainability, proactiveness, and resilience during times of crisis. With the 'correct purpose,' managers and organisations may forge deeper relationships inside and among stakeholders, promoting collective learning to mitigate the pandemic's effects. While some shops were forced to lay off personnel as a result of store closures during the epidemic, some have discovered methods to repurpose them to boost online sales (Wade and Bjerkan, 2020). Numerous manufacturers have converted their facilities, repurposing and upgrading their expertise and abilities to manufacture ventilators and personal protective equipment, with some giving rather than selling (He and Harris, 2020). Supermarkets in the United Kingdom and the United States have designated hours for senior citizens, those at high risk of contracting COVID, and national health service (NHS) employees (Lindsay, 2020). Scandinavian Airlines



provided expedited training to laid-off employees in order to assist the country's health care system (Wade and Bjerkan, 2020). Right intention and dependent emergence also address concerns about how unlearning might result in the loss of value judgement (Tsang and Zahra, 2008). Right intention enables managers and organisations to be cognizant of and acknowledge the judgement and communication of stakeholders, rather than being tempted to manipulate stakeholder judgements to advance one's own interests above the welfare of stakeholders (Lankoski et al., 2016). In other words, proper mindfulness encompasses renunciation, benevolence, and harmlessness (Bodhi, 1994). All of these goals have the potential to advance more durable bonding ties across companies and a persuasive adaptation of skills and knowledge in learning to adapt to a new reality in terms of how organisations might function ethically and sustainably during times of crisis. We observed how attentive unlearning of individualistic organisational techniques occurred during the COVID-19 epidemic, with an awareness of dependent emergence. This method has facilitated the formation of cooperation between several organisations in order to effectively distribute emergency ventilator expansion devices (De Smet et al., 2020). Proper purpose incorporated in mindful unlearning facilitated more responsible management practises. In contrast to 2019, when boards were primarily focused on innovation and expansion, company resilience has grown to become an equal priority during the COVID-19 pandemic (Huber et al., 2021). Thirdly, after any crisis's experiences, exposures, and lessons learned, managers and organisations should consider unlearning some skills and knowledge in the post-pandemic environment, in light of workforce transitions and the need for reskilling (Yawson, 2020). Additionally, they must examine and build a 'new normal' mode of operation, as well as prepare for any future unanticipated emergencies. For example, managers should consider training and equipping themselves with new skills to deal with uncertainty, which often entails redefinition of new leadership capabilities and ways to deal with complicated issues during and after crises (D'Auria & De Smet, 2020). It is critical for managers to be able to overcome their habitual reactions and unconscious biases when confronted with novel challenges (Brassey and Kruyt, 2020). Managers must set aside their 'ego'

and recognise the transient and 'empty' nature of their jobs as leaders or managers in order to capture workers' sentiments and needs during difficult times (Vu and Burton, 2021; Vu, 2021). This strategy may foster reflexivity and flexibility in order to gain new skills necessary for the 'distance economy' and the need for digitization and flexible workforce strategies to reinvent work (Yawson, 2020). Additionally, managers and organisations must be conscious of prior experiences in order to develop resilience in the face of crises, particularly unsuccessful experiences. Sitkin (1996) contends that failure is a necessary condition for efficient organisational learning and adaptation. Thus, it is critical to the value prior unsuccessful experiences since they may contribute to small dosages of experience to detect uncertainty in advance' (Wildavsky, 1988: 26). When failure is acknowledged and considered, it initiates a learning cycle. Conscious knowledge of unsuccessful experiences and transience also adds to management's temporal character (Hernes and Irgens, 2013). Managers demonstrate a willingness to study and evaluate the larger consequences of actions (Weick and Roberts, 1993), as well as re-interpret and learn from prior experiences, via the continuation of the unlearning or learning process in businesses. Crises are both obstacles and opportunities for constant unlearning and reflexive learning.

After the COVID-19 pandemic, it is probable that a fresh cycle of unlearning or learning will occur, as recent research anticipated workforce transitions and concluded that one in every sixteen employees would need to change occupations by 2030 in a post-COVID-19 scenario (Lund et al., 2021). Managers are also advised to practise conscious unlearning in order to promote automation and artificial intelligence in high-density settings, hence enhancing organisational resilience. Such methods will definitely require both inter-and intra-organizational efforts to foster the development of resilient ecological systems capable of coping with future crises.

## CONCLUSION

In an organisational crisis management setting, we established and conceived the idea of conscious unlearning. To support a cycle of unlearning or learning, mindful unlearning is a continual practise of interacting and disengaging with information context-sensitively. Through several mechanisms,

mindful unlearning enables the dynamic interaction of learning and unlearning at various stages of crisis management (Bundy et al., 2017): mindful awareness of impermanent and sensual processing (pre-crisis stage), mindful awareness of interdependence and right intention (crisis management stage), and mindful awareness of transiency and previous experiences (crisis management stage) (post-crisis stage). The notion of mindful unlearning adds to the temporal character of management and the organisational level of learning continuity (Hernes and Irgens, 2013) via a critical reflective approach (Matsuo, 2019) guided by the Noble Eightfold Path's principle of good intention. Unlearning with mindfulness disassociates itself from inflexible conceptualizations of phenomena, static structures, routines, inflexibility, and mindlessness (Gersick and Hackman, 1990; Langer, 1989; Vu et al., 2018). It adds to a non-conceptual conscious approach to releasing organisational habits, structures, and conceptions (Weick and Putnam, 2006; Weick and Sutcliffe, 2001) that incorporates context-sensitive and temporal management, both of which are required in unprecedented crisis management. However, our method of conscious unlearning is not without limits. Without empirical data, our approach is limited in examining the continuity of unlearning or learning the cycle of mindful unlearning, in which failures and painful lessons are a natural part of the process and are sometimes beyond the control of individuals and organisations due to the impermanent nature of the crisis or context. Future research may examine these dynamic interactions and conflicts inside and across agencies, organisations, and institutions engaged in the process of conscious unlearning in more detail. Different sorts of crises may also activate distinct conscious unlearning processes, which are outside the scope of this essay. We urge future research to investigate and characterise these pathways. Additionally, we propose the following interplays for future research in various organisational contexts that have undergone various crisis management processes or that have dealt with various crises such as the COVID-19 pandemic in order to accumulate additional meaningful lessons and new mechanisms for mindful unlearning in crisis management: (1) mindfulness of impermanence and organisational adaptability; (2) mindfulness of sensory processing and cognitive and practice-based unlearning; (3) mindfulness of dependent

arising and collective unlearning;(4) Conscious knowledge of appropriate intention and prosocial attitude in unlearning; (5) Conscious awareness of transience and emptiness and organisational temporal unlearning practises; and (6)Conscious past and present awareness and organisational unlearning environment.

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## Notes:

1. The preservation of positive adjustment in the face of adversity (e.g., external shocks, disturbances of routines), such that the corporate institutions emerge stronger and more resourceful as an outcome (Vogus and Sutcliffe, 2007: 3418).
2. Acquiring new facts or occurrences may provide a challenge to current theory, prompting it to be abandoned in favour of an alternative with perceived higher explanatory power (Howells and Scholderer, 2016: 455).
3. Pli: anicca; Sanskrit: anitya—the cosmos is always changing, regardless of human aspirations.
4. Sanskrit: Pratyasamutpda; Pali: Paiccasamuppda—nothing exists independently of the universe.
5. Agility is the capacity to quickly redeploy or divert resources in response to changing demands and conditions. (Teece et al., 2016).

## References

1. Akgün AE, Byrne JC, Lynn GS, et al. (2007) New product development in turbulent environments: Impact of improvisation and unlearning on new product performance. *Journal of Engineering and Technology Management* 24(3): 203–230
2. Anthes E (2021) Science museums in a pandemic. *Science News*, 5 June, 16–21
3. Antonacopoulou EP (2009) Impact and scholarship: Unlearning and practising to co-create actionable knowledge. *Management Learning* 40(4): 421–430.

4. Assink M (2006) Inhibitors of disruptive innovation capability: A conceptual model. *European Journal of Innovation Management* 9(2): 215–233.
5. Aven T and Boudier F (2020) The COVID-19 pandemic: How can risk science help? *Journal of Risk Research* 23(7–8): 849–854.
6. Barkema HG and Vermeulen F (1998) International expansion through start-up or acquisition: A learning perspective. *Academy of Management Journal* 41(1): 7–26.
7. Bavik YL, Shao B, Newman A, et al. (2021) Crisis leadership: A review and future research agenda. *The Leadership Quarterly* 32(5): 101518.
8. BBC (2020) Coronavirus: Fujitsu announces permanent work-from-home plan. Available at: <https://www.bbc.co.uk/news/business-53303364> (accessed 14 December 2020).
9. Becke G (2014) Human-resources mindfulness. In: Ehnert I, Harry W and Zink KJ (eds) *Sustainability and Human Resource Management*. Berlin; Heidelberg: Springer, 83–103.
10. Becker K (2010) Facilitating unlearning during implementation of new technology. *Journal of Organizational Change Management* 23(3): 251–268.
11. Bell DN and Blanchflower DG (2020) US and UK labour markets before and during the Covid-19 crash. *National Institute Economic Review* 252: R52–R69.
12. Berry DR and Brown KW (2017) Reducing separateness with presence: How mindfulness catalyzes intergroup prosociality. In: Karremans JC and Papies EK (Eds) *Mindfulness in Social Psychology*. Abingdon: Routledge/Taylor & Francis Group, 153–166.
13. Bodhi B (1994) *The Noble Eightfold Path: The Way to the End of Suffering*. Kandy, Sri Lanka: Buddhist Publication Society. Bodhi B (2011) What does mindfulness really mean? A canonical perspective. *Contemporary Buddhism* 12(1): 19–39.
14. Bofinger P, Dullien S, Felbermayr G, et al. (2020) Economic Implications of the Corona Crisis and Economic Policy Measures. *Wirtschaftsdienst* 100(4): 259–265.
15. Brassey J and Kruyt M (2020) How to Demonstrate Calm and Optimism in a Crisis. McKinsey & Company. Available at : <https://www.mckinsey.com/business-functions/people-and-organizational-performance/our-insights/how-to-demonstrate-calm-and-optimism-in-a-crisis>

16. Brook C, Pedler M, Abbott C, et al. (2016) On stopping doing those things that are not getting us to where we want to be: Unlearning, wicked problems and critical action learning. *Human Relations* 69(2): 369–389.
17. Bundy J and Pfarrer MD (2015) A burden of responsibility: The role of social approval at the onset of a crisis. *Academy of Management Review* 40(3): 345–369.
18. Bundy J, Pfarrer MD, Short CE, et al. (2017) Crises and crisis management: Integration, interpretation, and research development. *Journal of Management* 43(6): 1661–1692.
19. Bodhi B (1994) *The Noble Eightfold Path: The Way to the End of Suffering*. Kandy, Sri Lanka: Buddhist Publication Society.
20. Bodhi B (2011) What does mindfulness really mean? A canonical perspective. *Contemporary Buddhism* 12(1): 19–39.
21. Bofinger P, Dullien S, Felbermayr G, et al. (2020) Economic Implications of the Corona Crisis and Economic Policy Measures. *Wirtschaftsdienst* 100(4): 259–265
22. Brassey J and Kruyt M (2020) How to Demonstrate Calm and Optimism in a Crisis. McKinsey & Company. Available at: <https://www.mckinsey.com/business-functions/people-and-organizational-performance/our-insights/how-to-demonstrate-calm-and-optimism-in-a-crisis>
23. Brook C, Pedler M, Abbott C, et al. (2016) On stopping doing those things that are not getting us to where we want to be: Unlearning, wicked problems and critical action learning. *Human Relations* 69(2): 369–389.
24. Bundy J and Pfarrer MD (2015) A burden of responsibility: The role of social approval at the onset of a crisis. *Academy of Management Review* 40(3): 345–369.
25. Bundy J, Pfarrer MD, Short CE, et al. (2017) Crises and crisis management: Integration, interpretation, and research development. *Journal of Management* 43(6): 1661–1692.
26. Cacciatore J, Thieleman K, Osborn J, et al. (2014) Of the soul and suffering: Mindfulness-based interventions and bereavement. *Clinical Social Work Journal* 42(3): 269–281.
27. Capurso V, Fabbro F and Crescentini C (2014) Mindful creativity: The influence of mindfulness meditation on creative thinking. *Frontiers in Psychology* 4(1): 1020.
28. Carnevale JB and Hatak I (2020) Employee adjustment and well-being in the era of COVID-19: Implications for human resource management. *Journal of Business Research* 116(1): 183–187.

29. Casady CB and Baxter D (2020) Pandemics, public-private partnerships (PPPs), and force majeure COVID19 expectations and implications. *Construction Management and Economics* 38(12): 1077–1085
30. Cegarra-Navarro JG and Arcas-Lario N (2011) Building co-operative knowledge through an unlearning context. *Management Research Review* 34(5): 609–623.
31. Cegarra-Navarro JG and Wensley A (2019) Promoting intentional unlearning through an unlearning cycle. *Journal of Organizational Change Management* 32(1): 67–79.
32. Cheng Y, Yu J, Shen Y, et al. (2020) Coproducing responses to COVID-19 with community-based organizations: lessons from Zhejiang province, China. *Public Administration Review* 80(5): 866–873.
33. Cohen WM and Levinthal DA (1990) Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly* 35(1): 128–152.
34. Condon P (2017) Mindfulness, compassion, and prosocial behaviour. In: Karremans JC and Papies EK (eds) *Mindfulness in Social Psychology*. Abingdon: Routledge, 132–146.
35. Coombs WT (2010) Parameters for crisis communication. In: Coombs WT and Holladay SJ (Eds) *The Handbook of Crisis Communication*. Chichester: Blackwell, 17–53.
36. Cotter RJ and Cullen JG (2012) Reflexive management learning: An integrative review and a conceptual typology. *Human Resource Development Review* 11(2): 227–253
37. Dance FE and Larson C (1985) The functions of human communication. *Information and Behaviour* 1(1): 62–75.
38. D’Auria G and De Smet A (2020) Leadership in a crisis: Responding to the coronavirus outbreak and future challenges. McKinsey & Company. Available at: <https://www.mckinsey.com/business-functions/people-and-organizational-performance/our-insights/leadership-in-a-crisis-responding-to-the-coronavirus-outbreak-and-future-challenges>
39. De Smet A, Patchod D, Relyea C, et al. (2020) Ready, set, go: Reinventing the organization for speed in the post COVID-19 era. McKinsey & Company. Available at: *Organizational speed in the post-COVID-19 era | McKinsey*
40. Diani M (2003) Social movements, contentious actions, and social networks: From metaphor to substance. In: Diani M and McAdam D (eds) *Social Movements and Networks: Relational Approaches to Collective Action*. New York: Oxford University Press, 1–20.

41. Dirani KM, Abadi M, Alizadeh A, et al. (2020) Leadership competencies and the essential role of human resource development in times of crisis: A response to Covid-19 pandemic. *Human Resource Development International* 23(4): 380–394
42. Donald JN, Sahdra BK, Van Zanden B, et al. (2019) Does your mindfulness benefit others? A systematic review and meta-analysis of the link between mindfulness and prosocial behaviour. *British Journal of Psychology* 110(1): 101–125.
43. Donthu N and Gustafsson A (2020) Effects of COVID-19 on business and research. *Journal of Business Research* 117(1): 284–289
44. Feldman MS and Pentland BT (2003) Reconceptualizing organizational routines as a source of flexibility and change. *Administrative Science Quarterly* 48(1): 94–118.
45. FEMA (2011) Unit 2: Hazard Vulnerability Analysis and Risk Assessment in Facilitator Guide. Washington, DC: US Federal Emergency Management Agency.
46. Fraher AL, Branicki LJ and Grint K (2017) Mindfulness in action: Discovering how US Navy Seals build capacity for mindfulness in high-reliability organizations (HROs). *Academy of Management Discoveries* 3(3): 239–261.
47. Gersick CJ and Hackman JR (1990) Habitual routines in task-performing groups. *Organizational Behavior and Human Decision Processes* 47(1): 65–97.
48. Gethin R (2011) On some definitions of mindfulness. *Contemporary Buddhism* 12(1): 263–279.
49. Gino F and Pisano G (2011) Why leaders don't learn from success. *Harvard Business Review* 89(4): 68–74.
50. Hamel G (1991) Competition for competence and inter partner learning within international strategic alliances. *Strategic Management Journal* 12(S1): 83–103.
51. Handscomb C, Mahadevan D, Schor L, et al. (2020) An operating model for the next normal: Lessons from agile organizations in the crisis. McKinsey & Company. Available at: <https://www.mckinsey.com/business-functions/people-and-organizational-performance/our-insights/an-operating-model-for-the-nextnormal-lessons-from-agile-organizations-in-the-crisis>
52. He H and Harris L (2020) The impact of Covid-19 pandemic on corporate social responsibility and marketing philosophy. *Journal of Business Research* 116(1): 176–182.
53. Johannessen JA and Hauan A (1994) Organizational unlearning. *Creativity and Innovation Management* 3(1): 43–53.



54. Kabat-Zinn J (2006) *Mindfulness for Beginners*. Louisville, CO: Sounds True.
55. Levitt B and March JG (1988) Organizational learning. *Annual Review of Sociology* 14: 319–338.
56. Lindsay J (2020) Aldi donates Easter eggs to food banks and local charities. Available at: <https://metro.co.uk/2020/04/04/aldi-donates-easter-eggs-food-banks-local-charities-12507475/> (accessed 14 December 2020).
57. Nelson RR and Winter SG (1982) The Schumpeterian tradeoff revisited. *The American Economic Review* 72(1): 114–132.
58. Neubert MJ, Bradley SW, Ardianti R, et al. (2017) The role of spiritual capital in innovation and performance: Evidence from developing economies. *Entrepreneurship Theory and Practice* 41(4): 621–640.
59. Nygren KG and Olofsson A (2020) Managing the Covid-19 pandemic through individual responsibility: The consequences of a world risk society and enhanced ethnopoltics. *Journal of Risk Research* 23(7–8): 1031–1035.
60. Nystrom PC and Starbuck WH (1984) To avoid organizational crises, unlearn. *Organizational Dynamics* 12(4): 53–65.
61. Orth D and Schuldis PM (2021) Organizational learning and unlearning capabilities for resilience during COVID-19. *The Learning Organization*. Epub ahead of print 1 February. DOI: 10.1108/TLO-07-2020- 0130.
62. Pearson CM and Clair JA (1998) Reframing crisis management. *Academy of Management Review* 23(1): 59–76.
63. Pennycook G, McPhetres J, Zhang Y, et al. (2020) Fighting COVID-19 misinformation on social media: Experimental evidence for a scalable accuracy-nudge intervention. *Psychological Science* 31(7): 770– 780
64. Sellnow TL and Seeger MW (2013) *Theorizing Crisis Communication*, vol. 5. Chichester: John Wiley & Sons.
65. Sinkula JM (2002) Market-based success, organizational routines, and unlearning. *Journal of Business & Industrial Marketing* 17(4): 253–269.
66. Sitkin SB (1996) Learning through failure. *Organizational Learning* 14(1): 231–266
67. Tsoukas H (2005) *Complex Knowledge: Studies in Organizational Epistemology*. Oxford: Oxford University Press.
68. Turc E and Baumard P (2007) Can organizations really unlearn? In: McInerney CR and Day RE (eds) *Rethinking Knowledge Management*. Berlin; Heidelberg: Springer, 125–146.

69. Turner BA (1976) The organizational and inter-organizational development of disasters. *Administrative Science Quarterly* 21(3): 378–397.
70. Van Gordon W, Shonin E, Lomas T, et al. (2016) Corporate use of mindfulness and authentic spiritual transmission: Competing or compatible ideals? *Mindfulness & Compassion* 1(2): 75–83.
71. Verma S and Gustafsson A (2020) Investigating the emerging COVID-19 research trends in the field of business and management: A bibliometric analysis approach. *Journal of Business Research* 118(1): 253–261.
72. Visser M (2017) Learning and unlearning: A conceptual note. *The Learning Organization* 24(1): 49–57.
73. Vogus TJ and Sutcliffe KM (2007) Organizational resilience: Towards a theory and research agenda. In: 2007
74. Wade M and Bjerkan H (2020) Three proactive response strategies to Covid-19 business challenges. *MIT Sloan Management Review*, 17 April. Available at: <https://sloanreview.mit.edu/article/three-proactive-response-strategies-to-covid-19-business-challenges/>
75. Wang J (2008) Developing organizational learning capacity in crisis management. *Advances in Developing Human Resources* 10(3): 425–445.
76. Wang X, Lu Y, Zhao Y, et al. (2013) Organisational unlearning, organisational flexibility and innovation capability: An empirical study of SMEs in China. *International Journal of Technology Management* 61(2): 132–155.
77. Weick KE, Sutcliffe KM and Obstfeld D (1999) Organizing for high reliability: Processes of collective mindfulness. In: Sutton RI and Staw BM (eds) *Research in Organizational Behaviour*, vol. 21. Amsterdam: Elsevier Science, 81–123.
78. Yawson R (2020) Strategic flexibility analysis of HRD research and practice post-COVID-19 pandemic. *Human Resource Development International* 23(4): 406–417
79. Zavyalova A, Pfarrer MD, Reger RK, et al. (2016) Reputation as a benefit and a burden? How stakeholders' organizational identification affects the role of reputation following a negative event. *Academy of Management Journal* 59(1): 253–276.
80. Zhang W, Wang Y, Yang L, et al. (2020) Suspending classes without stopping learning: China's education emergency management policy in the COVID-19 Outbreak. *Journal of Risk and Financial Management* 13(3): 55

## Spirituality and Tourism: An Analysis of its Glowing Spiritualism Market in India

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### ABSTRACT

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*India is a large market for travel and tourism. It has been documented as a destination for spiritual tourism for domestic and international tourists. India is projected to become the biggest religion and spirituality market due to followers of different religions in the country. Prime Minister Mr. Narendra Modi urged people to visit 15 domestic tourist destinations in India by 2022 to promote tourism in his independence speech. India ranked 34 in the Travel & Tourism Competitiveness Report 2019 published by the World Economic Forum. In WTTC's Economic Impact 2019 report, India's Travel & Tourism GDP contribution grew by 4.9%, which was the third highest after China and Philippines. India witnessed the strongest growth in the number of jobs created 6.36 million in 2014 to 2019. In 2020, the travel & tourism industry's contribution to the GDP was US\$ 121.9 billion; this is expected to reach US\$ 512 billion by 2028. In India, the industry's direct contribution to the GDP is expected to record an annual growth rate of 10.35% between 2019 and 2028. Under this backdrop, the present paper will focus on the growth and patterns of spiritualism in India. The whole paper has been structured in the following manner: The first section presents an overall picture of the spirituality and tourism in present scenario. The section II analyzes the connection between spirituality and tourism market in India. Emerging issues and concerns in spiritualism in India has been explained in third section of the paper. Finally, the paper ends with a brief conclusion of the authors which is almost a*

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*summary of the whole paper and the issue we are talking about. The main objective of the paper is to focus on emerging trends and other aspects of Spiritual tourism and to highlight the trends and connection of spirituality, religion and tourism in competitive era.*

*This study is based on secondary data available from published reports and research articles. The limitation of this paper is inadequacy of the data and variance in the data available from different sources.*

**Keywords:** *Tourism, spirituality, marketing, growth rate*

## SECTION I: AN INTRODUCTION OF SPIRITUALITY AND TOURISM

### Background

Spirituality is derived from “Spiritus”, means ‘breathe of life’. Religion can be defined as an organized belief system consisting of practices related to the worship of a single or multiple supernatural forces. Some of the commonly practiced religious and spiritual beliefs in India include Hinduism, Islam, Sikhism, Buddhism and Christianity. They involve various beliefs, worldviews, texts, revelations, morals and prophecies that portray sacred significance to the members of a particular faith. Individuals also practice rituals, prayers, meditation and feasts as per their devotion to religious faith. Individuals indulge in religious and spiritual tourism, donation drives, books and literature tools, flowers, garlands, candles and incense sticks to practice and propagate their beliefs. ). Religion and pilgrimage have been significant issues for persons from the beginning, and also now they are the most effective tools for inclusive and sustainable development in society (Griffin & Raj, 2018).

This has given birth to a new dimension to the tourism industry, called ‘Spiritual tourism’. It has been observed that there has been an increase in the awareness and research interest in the field of spiritual tourism. The India religious and spiritual market is primarily driven by the increasing pilgrimage tourism across the country. The Government of India is launching various initiatives and projects, such as pilgrimage rejuvenation and spirituality, heritage augmentation drive (PRASHAD) and heritage city development and augmentation yojana, for promoting the infrastructural development at various heritage sites. These policies aim

to provide adequate resources for effective rail, road and water transport systems, network connectivity, information centers, drinking water and renewable power for the enhanced convenience of pilgrims and tourists. In line with this, the increasing consumer preference for incense-based products for religious, spiritual and meditational purposes is also contributing to the growth of the market. Temples, churches and other religious establishments widely use products, such as agarbatti, dhoop and candles, for their daily spiritual and religious regimes. Other factors, including the advent of virtual reality (VR) kiosks to provide an immersive and interactive experience of religious sites to the devotees, are anticipated to drive the market toward growth. India with an ambience of omnipresent religiousness and spirituality, it is crucial to identify what makes the country attractive and enhance its marketability.

## **SECTION I: CONNECTION BETWEEN SPIRITUALITY AND TOURISM MARKET**

India is known as the land of temples and religions and packed of religious places with temples that attract pilgrims and religion foreign tourist throughout the year. Tourism is considered as one of the major industries in the world. A Based on the forms, nature, preferences, purposes, etc., tourism can be divided in many categories such as Ethnic Tourism, Cultural Tourism, Historical Tourism, EcoTourism, Environmental Tourism, Recreational Tourism, Rural Tourism, Wellness Tourism, Pilgrim Tourism, Medical Tourism, Spiritual Tourism, Health tourism, Nature tourism, Adventure tourism, Agro-tourism and many more. Tourism act as a leading economic medium for many countries, due to the income generated by the consumption of goods and hospitality services by tourists, the taxes levied on businesses in the tourism industry, and the opportunity for employment in the service industries associated with tourism. Concept of Spiritual tourism has been recently developed in marketing. Spirituality is an overlapping concept that involves practices and beliefs around the value, connection and meaning of the existence of an individual. It is usually practiced to achieve a positive state of mind with contentment, acceptance and gratitude. India is the place

of many religions, customs and traditions. Religious events are regularly an exceptional tourist opportunity, and there are several religious events that take place in India throughout the year. These dealings not only focus on the importance of people engaging in religious events and having spiritual experience but also act as a promotional opportunity for any country's tourism industry. With changing times, these religious places have become a site for tourism. Spirituality, belief, and religion have always been and will be the major factors for travelling. The tourism industry can build on the incentive of spirituality. Spiritual tourism is referred to the type of tourism where tourists travel to destinations associated with spiritual events, land, and people; for their spiritual development regardless of their religion. Pilgrimages, religious visits, and sacred tourism are recognized as the subsets of the spiritual tourism structure.

The numbers of people that visit religious places such as Puri, Haridwar, Varanasi, Mathura, Ajmer, Kadirgama etc. Cities, not only for a traditional experience but also make possible them to rejuvenate at yoga retreats and Ayurveda spas. The reason for this has been its marketing as a self-actualization product, as a social phenomenon, and personal well-being. There are two different aspects of this kind of tourism: One being the trust, beliefs, and motivations of domestic tourists who have a spiritual attachment. Second is the group of foreign religious tourists who belong to a different religion, region or country but are exploring their spiritual extent. This cultural shift of people towards spirituality has impacted tourism. With this viewpoint, by the advent of spirituality, the growth of tourism is beyond thought. Thomas (2005) discussed three broad approaches for exploring religion and tourism in a modern world - spatial, historical, and cultural. A number of articles have been published on spiritual tourists. In particular, a number of ethnographic studies (Carol, 2013; Heelas & Woodhead, 2005) have been conducted in various geographies which focus on spiritual pilgrims, their destinations, and intentions to travel for spiritual tourism. The tangible items of spiritual tourism include churches, mosques, temples, shrines, and other centers and the intangible services of spiritual tourism include organized spiritual events, festivals and gatherings with spiritual and religion motives.

## LITERATURE REVIEW

Spiritual Tourism is one of the dimensions of tourism very few researchers have worked on in a systematic way. It has been acknowledged that spiritual tourism is a wider form of religious tourism whereby the visitors experience more than satisfying their beliefs (Dr. V.Sharma, Dr. R Agrawal, P Chandra, (2016). A multidimensional concept of spirituality has been researched in varied field such as management, psychology, administration, hospitality, and tourism by an assortment of researchers. (Bandyopadhyay & Nair, 2019). A lot of initial discussion regarding spirituality is prominent in the scholarly works searching for the meaning of spirituality in religion and in marketing. The path of spirituality can be embarked upon through various encounters ranging from religious traditions (Agrawal et al., 2010; Sharpley & Sundaram, 2005), taking up pilgrimage (Haq & Jackson, 2009; Raj, 2012), and can even be experienced in activities considered far away from religion or spirituality such as relaxing in the desert (Moufakkir & Selmi, 2017) , attending a carnival (Matheson et al., 2014), engaging in wellness leaves and retreat (Bandyopadhyay & Nair, 2019) or even through adventure sports (Bidder, 2018). Spiritual tourism, as a result, is any activity that benefits the spiritual desires of any individual. Though much has been written, work on spiritual tourism has yet to generate any sustained interdisciplinary vital analysis in tourism studies. Various studies offer a new dimension in wellness and spiritual tourism. There is lot of hope that future tourism, management and psychology scholars will share such an interest in this area that will encourage conducting similar, much-needed analyses. Customer perceptions will change due to the frequency and importance of popular events at destinations. Griffin and Raj (2018) discussed the motivations of a variety of pilgrimage types and Himadri et al. (2012) presented an analysis of spiritual tourism with special emphasis on the Uttarakhand state of India, an important location for events.

Different writers have tried to find the roots of spiritual tourism in different dimensions. Shinde and Rizello (2014) explained the peculiarities, significance, and universality of religious tourism using a comparative analysis of destinations in India (Vrindavan) and Italy (Shrine of Santimissi Medici). Cerutti and Piva (2015).

### SECTION III: EMERGING ISSUES AND CONCERNS IN SPIRITUALISM IN INDIA

#### **New trends/schemes for boosting tourism industry:**

The Government is making serious efforts to boost investment in the tourism sector. The launch of several branding and marketing initiatives by the Government of India such as 'Incredible India' and 'Athiti Devo Bhava' has provided a focused momentum to growth. The Indian Government has also released a fresh category of visa- the medical visa or M-visa, to encourage medical tourism in the country.

Ministry of Tourism has introduced the Incredible India Tourist Facilitator (IITF) and Incredible India Tourist Guide (IITG) Certification Programme, aimed at creating an online learning platform of well-trained tourist facilitators and guides across the country. The IITF concept is aimed to promote micro-tourism, i.e., tourism in less explored areas of the country.

The Ministry of Tourism developed an initiative called SAATHI (System for Assessment, Awareness & Training for Hospitality Industry) by partnering with the Quality Council of India (QCI) in October 2020. The initiative will effectively implement guidelines/SOPs issued with reference to COVID-19 for safe operations of hotels, restaurants, B&Bs and other units.

- The Ministry of Road Transport and Highways has introduced a new scheme called 'All India Tourist Vehicles Authorisation and Permit Rules, 2021', in which a tourist vehicle operator can register online for All India Tourist Authorisation/Permit. This permit will be issued within 30 days of submitting the application.
- In the hotel and tourism sector, 100% FDI (Foreign Direct Investment) is allowed through the automatic route. A five-year tax holiday has been offered for 2-, 3- and 4-star category hotels located around UNESCO World Heritage sites (except Delhi and Mumbai).
- 71 lighthouses have been identified in India which will be developed as tourist spots. The lighthouses will feature museums, amphi-theatres, open air theatres, cafeterias, children's parks, eco-friendly cottages and landscaping according to its capacity.



- India is often termed as the hotspot for bio-diversity and its rich natural heritage is unparalleled in many ways.
- The Government of India also announced to develop 17 iconic tourist sites in India into world-class destinations.
- Ministry of Tourism launched Dekho Apna Desh webinar series in April 2020 to provide information on the many destinations and the sheer depth and expanse of the culture and heritage of Incredible India.
- In October 2021, launched the Kushinagar International Airport in Uttar Pradesh to boost tourism.
- On November 4, 2020, the Union Minister of State (IC) for Tourism & Culture inaugurated the “Tourist Facilitation Centre” facility constructed under the project “Development of Guruvayur, Kerala” (under the PRASHAD Scheme of the Ministry of Tourism).
- In July 2021, the ministry drafted a proposal titled ‘National Strategy and Roadmap for Medical and Wellness Tourism’ and has requested recommendations and feedback from several Central Ministries,
- In May 2021, the Union Minister of State (IC) for Tourism & Culture Mr. Prahlad Singh Patel participated in the G20 tourism ministers’ meeting to collaborate with member countries in protecting tourism businesses, jobs and taking initiatives to frame policy guidelines to support the sustainable and resilient recovery of travel and tourism.
- The Government is working to achieve 2% share in the world’s international tourist arrivals by 2025
- The Indian Railway Catering and Tourism Corporation (IRCTC) runs a series of Bharat Darshan tourist trains aimed at taking people to various pilgrimages across the country.
- India introduced a graded relaxation of its visa and travel restrictions for more categories of foreign nationals and Indian nationals.
- Under the Swadesh Darshan scheme, 77 projects have been sanctioned of worth Rs. 6,035.70 crore and, the Government has allotted Rs. 1,200 crore for the development of tourist circuits under Swadesh Darshan for Northeast.

- The Ministry of Tourism launched the NIDHI portal to understand the geographical spread of the hospitality sector, its size, structure and existing capacity in the country. NIDHI is serving as a common data repository for the Ministry of Tourism, State Departments of Tourism and Industry. As of December 31, 2020, 34,399 accommodation units have been registered on the portal.
- Several programmes initiated by the Indian government are also driving the growth of the market further. These programmes include the Pilgrimage Rejuvenation and Spirituality Augmentation Drive, also known as the PRASAD Scheme. PRASAD offers resources for road, rail, and water transport, network connectivity, information centres, the exchange of currency and automated machines (ATM), storage, parking, drinking water, toilet facilities, waiting rooms, first aid facilities, and renewable power.
- Cultural diversity is a major factor responsible for the expansion of the spiritual & devotional products market. Young entrepreneurs and start-ups are introducing innovative ideas and concepts, and offering various devotional products and services across the globe.
- Places like Himachal Pradesh, Uttar Pradesh, Uttarakhand and Rajasthan are hubs of spiritual ecstasy.
- Other programmes include the HRIDAY Programme (Heritage City Development and Augmentation Yojana) and the Swadesh Darshan Yojana.
- Kumbh Mela: a mass pilgrimage is an important religious event that takes place every year. The high number of tourists attracted by the event provides a further impulsion in the growth of the Indian religious and spiritual market.

## ANALYSIS OF MARKET SEGMENTATION

In India, tourism is a promising service industry in which about 20% of the revenue is generated from the movement of domestic tourists who visit spiritual places. More than 70% of these domestic tourists pay a yearly visit to spiritual places. Not to mention, the tourism industry plays a significant role in GDP contribution and foreign exchange. It is the second largest industry to generate foreign currency. There is an analysis of the key trends in sub-segment of the India spiritual market.

## **MANY TRUST AND MANAGING BODIES IN THE INDUSTRY ARE**

- Sree Padmanabha Swamy Temple Trust (SPST)
- Shri Saibaba Sansthan Trust (Shirdi, Mumbai)
- Tirumala Tirupati Devasthanams (TTD)
- Shri Mata Vaishno Devi Shrine Board
- Shree Siddhivinayak Ganapati Temple Trust
- Akal Takht Sahib (Amritsar)

### **Media Company in this Industry**

- T-Series Pvt. Ltd.
- Kamadhenu Tele Films Private Limited
- Vedic Broadcasting Limited

### **Merchandise Companies in this Industry**

- Moksh Agarbatti
- ITC Ltd (Mangal deep)
- NR Group (Cycle Pure)

## **MARKET SEGMENTATION BASED ON SECTOR, INCOME SOURCE, DISTRIBUTION CHANNEL AND RELIGION**

### **Sector**

- Organized
- Unorganized

### **Income Source**

- Religious Tourism
- Donations
- Media and Music
- Religious Items and Merchandise
- Construction and Infrastructure

### **Distribution Channel**

- Direct from Religious Places
- Retail
- Online

## Religion

- Hinduism
- Islam
- Sikhism
- Buddhism
- Christianity

### Indian Religious and Spiritual Market

Market Share by Religion (%)



## Region

- East India
- North India
- West and Central India
- South India

## SECTION IV: SUGGESTION AND RECOMMENDATION

The biggest strength of India is that it can provide guidance to help achieve inner peace. Tourism is considered as one of the largest industries in the world. Spiritual tourism is playing a major role in socio-economic development of any county or region. Spiritualism related interventions can play a role in lift the standard of living and in reducing the rate of unemployment in local communities. In the case of Kerala in India, explores how any destination is marketing itself as “God’s Own Country” for tourist’s spiritual transformation, renovation and well-being. Kerala emphasizes the term ‘wellness tourism’ to differentiate itself from the hectic and chaotic tourism destination image of India. The unique experiences promised to tourists at kerala destination like: the opportunity to “cleanse one’s mind, body and soul” – have been incorporated into a broader strategy of

wholeness or wellness. So India has observed the importance of spiritual tourism for overall marketing purpose. Spiritual destinations should be well exploited in order to uplift the revenue and business generated through tourism. Now Tourism has opened new doors of opportunities in the region and in marketing field, as it led to employment opportunities, entrepreneurship, better living standards, and overall eco-socio growth of the region. Marketing of Spiritual tourism should be much more systematic and intense that will come handy to attract tourist from different part of the world. Tourism industry should focus on improvement and application of marketing strategies, as per marketing mix elements, which can lead to satisfaction of tourists and more visits to tourist destinations. This paper has addressed different piece of spiritualism in common. There must be good Coordination between Tourism Department and other direct tourism promotion agencies such as Culture, State Archaeology, ASI, and Forests and Horticulture for better results. . There are also scope for Marketers in Categorization and improvement in niche tourism products.

## CONCLUSION

The COVID-19 crisis has caused an unprecedented collapse in economic activities and is having a deep impact on the tourism sector. COVID-19 has hit the Indian tourism industry very badly which has resulted in job losses and socio-psychological imbalances. Social distancing and other safety measures have made people more suspicious, anxiety-ridden and looking for safety. Families too are affected leading to societal tensions. Due to COVID-19, there are major changes in organizations, especially technology-enabled changes- these have significant impacts on job outcomes as discussed by Bariso (2020).

The rising pilgrimage tourism in India is driving the growth of the Indian religious and spiritual market. The tourism, highway, and railway sectors are now working on improving the connectivity between the pilgrimage sites. A large amount of visitors can now become pilgrims with the improved road, rail, and tourism infrastructure. Nearly 60% of the overall domestic tourists fall into the category of religious or spiritual tourism. In India, spiritualism has two distinct dimensions. One of these is a belief of the tourist who has a spiritual connection to the god/destination in accordance with their personal religious

thinking and belief. Another is the fresh tourist, from a different culture, area, or nation, who has the dimension of novelty as a place of destination and religious practices. The growth of these two groups of religious tourists is adding the expansion in the Indian spiritual market. The larger connectivity to remote religious and spiritual sites is also totting up the development of the spiritualism market. In the coming years, with government initiatives the market is also expected to be driven by the expansion of online retail channels in the industry. Various online service providers like: Rgyan, Kalpnik Technologies, Online Prasad, Temple folks, My Mandir are booming in this industry. the growing market of spiritual goods, services, events, places and even people directed to competitive consumers has been proven to be feasible and lucrative market.

## IMPLICATION OF RESEARCH

Researches in the spiritual tourism are increasing notably in the recent years. There has been a extensive increase in research interest in the area of spiritual and pilgrimage tourism, especially, in the existing decade. Spiritual tourism as a subject of scientific research is still in its formative years like many aspects as infrastructural development, destination analysis requirement, segmentation of destination, demographic segmentation of tourists are yet to be explored brightly. Marketing plays a major role in the promotion of the sacred sites. The promotion of the old religious sites can attract a large number of tourist inflows and it can become one of the key players to promote any spiritual destination (Singh 2012). If we take into consideration spiritual tourism people wishes to travel on the sacred sites and want to enjoy the peacefulness of the destination. India is one of the countries, which are having a rich culture and a great history and a better opportunity for strong tourism structure. Spiritual tourism has emerged as a major source of business in India.

## References

1. Aggarwal, A. K., Guglani, M. and Goel, R. K. (2008), Spiritual & Yoga Tourism: A case study on experience of Foreign Tourists visiting Rishikesh, India, Proceedings of the Conference on Tourism in India – Challenges Ahead, Kozhikode, May 15-17, 457–463. Beerli, A. and Marti'n, J. D. (2004), Factors Influencing Destination Image, Annals of Tourism Research, 31(3), 657–681.

2. Chaudhary, M. (2000), India's image as a tourist destination- a perspective of foreign tourists, *Tourism Management*, 21, 293–297.
3. Delberg, A. L. (2009), Spirituality and business: one scholar's perspective, *Journal of Management, Spirituality & Religion*, 6(1), 3–13.
4. Dwyer, L., Edwards, D., Mistilis, N., Roman, C. and Scott, N. (2009), Destination and enterprise management for a tourism future, *Tourism Management*, 30, 63–74
5. Griffin, K. and Raj, R. (2018) The importance of religious tourism and pilgrimage: Reflecting on definitions, motives and data. *The international journal of religious tourism and pilgrimage*, 5(3):2-9.
6. Phukan, H. (2014).A study on tourism logistics in the spiritual sites of Haridwar and Rishikesh in Uttarakhand, *International Journal of Emerging Technology and Advanced Engineering*.
7. Raj, R. and Morpeth, N.D. (2007) Religious tourism and pilgrimage festivals management, *An International Perspective*. Cab International. Cambridge
8. Sharma,V., Agrawal, R., & Chandra, P. Religious to spiritual tourism transformation journey of Uttarakhand A hill state in India. *Proceedings of the International Conference on Tourism, Hospitality and Marketing*. Mauritius.
9. Shaw, D. and Thomson, J. (2013) Consuming spirituality: the pleasure of uncertainty. *European Journal of Marketing*, 47(3-4):557-573.
10. Singh, H. (2012). an empirical study on effectiveness of marketing practices of state tourism corporations—a comparative study of Haryana tourism corporation, Punjab tourism development corporation and Himachal Pradesh tourism development corporation, *International Journal of Peace and Conflict Studies (IJPCS)*, 1(1), 17-35.
11. <https://www.imarcgroup.com/india-religious-spiritual-market>.
12. <https://doi.org/10.1016/j.jdmm.2019.100369>
13. <https://www.expertmarketresearch.com/reports/indian-religious-and-spiritual-market>.
14. <http://www.business-standard.com/article/current-affairs/up-foreign-tourist-arrivalmay-cross-2-8-mn>.

## Ascertaining Factors Crucial For Successful Social Media Marketing (SMM) Campaign

Aashish Garg\*, Amarjit Kaur\*\* & Muskan Sachdeva\*\*\*

### ABSTRACT

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*Regardless of how much money is invested in social media marketing, the efficiency of social media marketing tactics is determined by a number of factors. Hence, the authors' goal in this study was to determine and prioritize the key factors of social media marketing strategies. The multi-criteria decision-making technique, Analytical hierarchy process was used to identify the ranking of factors among marketing experts. The results of the study identified the content of the campaign to be the highest prioritised factor, while strategic process was found to be the least important factor.*

**Keyword:** Social Media; Campaign; Critical Success Factors; AHP

### 1. INTRODUCTION

The rise of social media has ushered in a new era for businesses and brands, driving them to look for new interactive methods to contact and engage their customers (Godey et al., 2016). Use of social networking sites has resulted in the creation

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of sophisticated, multifaceted, and amplified relationships between businesses and consumers during the last decade (Li and Leonidou, 2021). Social media (SM) is continually growing and gaining significant attention in how businesses communicate with other businesses, communities, and individuals. Because of its interactive character, social media is becoming an important part of marketing strategy (Valos et al., 2016). In past years, the use of social networking sites in the field of marketing has grown to publicise content about the brand and connect with consumers and their discussions (Iankova et al., 2019). Unlike conventional communication methods, social media allows businesses to engage effectively with customers in a quick, low-cost, and elevated manner (Kaplan and Haenlein, 2010). The most commonly used forms of social media are "Social networks, blogs, Wikis, podcasts, Forums, content communities, and microblogging" (Mayfield, 2010). Social media marketing is a new discipline and a new commercial strategy that involves promoting goods, services, knowledge, and views using social media websites. Various social networking sites are used in social media marketing as an extension to traditional marketing. (Dahnil et al., 2014) Companies gain from social media because it attracts new consumers, raises brand recognition, and builds brand equity (Valos et al., 2016). Given that social networking platform is becoming an essential component of users' online activity, digital promotion has emerged as a prominent tactic in virtual marketing efforts. It includes any type of direct or indirect marketing that helps in "building awareness", "recognition for a brand, product, company, individual or any other entity". It is accomplished through the use of social online applications such as blogging, microblogging, social bookmarking, content sharing, and social networking (Gunelius, 2011). Because of advancements in communication and digital technology, social media marketing is increasingly focusing on the creation of user-generated content. As a result, good social media marketing material should be able to inspire more interactions among the stakeholders (Li, 2016). Incorporating social media marketing may also provide countless opportunities and may alter the structure and character of a company's operations across the globe.

As per a Smartinsights (2020) analysis, approximately sixty percent of the planet's residents are currently digitally present, and movements indicate that over half of entire people will be having social networking account within this year. As a result, it remains the marketer's top goal to use social networking sites to successfully communicate with consumers, to gain customer information and feedback on the company and its offerings, to develop an image, and to improve sales (Jami Pour and Jafari, 2019; Schaupp and Be'linger, 2019). The term "social media marketing" refers to the use of social networking sites, as well as attached devices and facilities, to aid in the achievement of marketing goals (Dahnil et al., 2014). SMM stands for social media marketing, which is defined as commercial conduct that is instigated and carried out using social media. Social media, which is an indispensable part of SMM, was created with the intention of fostering interpersonal relationships among one's social network (Yang and Che, 2020). Market analysis, promotion, and customer support are the three core sectors of social media marketing (Turban et al., 2018). Yang and Che (2020) distinguish two forms of SMM: "user-generated content-based social media marketing" and "social-based social media marketing". Scholars have been paying close attention to the growth of SMM in recent years (Yang and Che, 2020).

To flourish in this recently established sector of social media marketing, marketers must first identify crucial success criteria in order to design a plan focused on the most significant aspects while neglecting the less critical things. Despite the relevance of crucial success criteria that enable marketers to effectively execute social media marketing initiatives in many researches, little study has been undertaken in this field as some researches have concentrated on the SMM approach (Chaffey and Smith, 2013). Others, on the other hand, have recognised social media marketing events or domains (Li et al., 2021; Godey et al., 2016). The crucial success elements, as described by Freund (1988), must not be mistaken with the strategic planning or tasks. There are just a few crucial success criteria underlying social media campaign that must be appropriately handled if a campaign is to be successful. As a result, the current literature has highlighted factors and their criteria, which will be ranked

as per their relative value utilising the Analytical Hierarchy Process technique (AHP). The goal of this study is to look at the impact of social media marketing on customer responses in a systematic and comprehensive way.

## 2. REVIEW OF LITERATURE

Social media is a cluster of web packages established on the foundation of Web 2.0, where information and apps are regularly upgraded by users, and it promotes the development and sharing of user generated information (Kaplan and Haenlein, 2010). With the advancement of digital technology and the introduction of Web 2.0, new frontiers in the way organisations generate utility for their consumers have developed, increasing the prevalence of social media in the workplace (Li et al., 2018; Zhang and Vos, 2014).

Various research has been conducted in order to effectively manage digital marketing tactics, as evidenced by the literature. End-users, technology, managerial, organisational, and business environment are some of the variables mentioned by Dahnili et al. (2014) in SME settings. According to Mohammadian and Mohammadreza (2012), social media success is based on five primary criteria: communication, security, content, reputation, and design-related variables. Li (2016) identified six essential success factors: “exclusivity of user image”, “celebrity endorsement”, “high-arousal”, “useful information”, “ontological comedy”, and “flirting information”. On the other hand, Heckadon (2010) in his study identified ten critical success criteria. Orij et al. (2020) identified the key CSFs such as “organisational context”, “human aspects”, “technological and environmental dimensions”.

With extensive literature review the factors entitled as performance evaluation, communication, security, strategic process and content have been selected for our study which tries to give a inclusive picture of social media marketing. Security is among the most critical issues in this platform. According to previous research, enhancing facilities and elements (Security mechanisms) that produce a favourable feeling in individuals would lead to an increase in social media users (Dwyer and Hiltz, 2009). The most of professionals say that the most significant platform of creating appealing content

is social media, therefore information content on social media is one of the most crucial factors. As a result, if a business does not pay special attention to creating an appealing online content, employees will lose perspective of their aims. Appealing information and online conversations are beneficial to people (Gunelius, 2011). Participation feeling, as well as the ability to create communication and connection, are frequent elements of social media profiles. This social media platform is incredibly effective in terms of this contact and communication (Gunelius, 2011). Strategy is very important in the effectiveness of social media promotion. A solid social media campaign tends to instil a yearning for a brand in the human consciousness who transmits the company's message to his connections or social networks, enables advertisers to engage with a larger network of prospective consumers (Provost, et al., 2009). The last significant factor in shaping a SMM strategy's success is to regularly evaluate the results of the activity. The other crucial component in evaluating the success of an SMM strategy is to assess and measure the plan's performance. The first stage in assessing SMM effectiveness is to accurately distinguish the strategy's aims, whether concrete or abstract (Warren, 2009). Marketers must know the position of their brand in relation to the desired goal. Marketers may also use website analytics tools to track and analyse "internet data from users, such as time spent on site, number of visits, search results, and geographical location, among other things

### **3. RESEARCH METHODOLOGY**

#### **3.1 Analytical Hierarchy Process (AHP)**

Saaty (1980) established the Analytical Hierarchy Process (AHP), which allows for the examination and breakdown of a complicated decision-making problems into numerous different structures. According to Garg et al. (2021), the AHP is a technique that is frequently employed to investigate complicated decisions by assigning priorities to several criteria and sub criteria. The data in this technique is collected on a Nine-point preference scale developed by Saaty (See Table 1). After collecting the data, the weights are collected for both criteria and sub-criteria to assign priorities.

**Table 1** Nine-Point Preference Scale according to Saaty's

| Saaty's Scale | Reciprocal         | Compare Criteria/Sub-Criteria of 'i' and 'j' |
|---------------|--------------------|--|
| 1             | 1                  | "Equally Significant"                        |
| 3             | 1/3                | "Weakly Significant"                         |
| 5             | 1/5                | "Strongly Significant"                       |
| 7             | 1/7                | "Very Strongly Significant"                  |
| 9             | 1/9                | "Extremely Significant"                      |
| 2,4,6,8       | 1/2, 1/4, 1/6, 1/8 | "Intermediate Value Between Adjacent"        |

### 3.2 Sampling Design and Data Collection

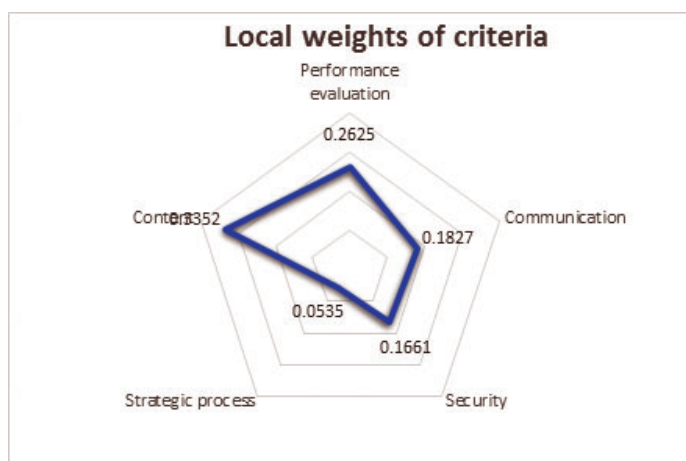
Data were collected using convenience sampling technique to gather the data from marketing experts of the business residing in Delhi and NCR. All the experts of social media platforms were initially informed of the study's aims before being requested to provide their responses. In total, 310 replies were collected, with 273 being brought forward for further analysis and the other responses being excluded from further study owing to disengaged responses. There were 163 men among the 273 respondents, with the remainder being women. Respondents ranged in age between 20 to 60 years.

## 4. RESULTS

Post collection of the data, a pair wise comparison matrix was created using the previously described scale. Table II shows the retrieved local and global weights. The value of sub-criteria inside a specific category is indicated by local weights (LW), whilst the importance of sub-criteria overall is given by global weights (GW). As per the results (Figure 1 and Table 2), The final order of the components (criteria) arrived at is content (CNT; Weight: 38.52%) > performance evaluation (PE; Weight: 21.25%) > Communication (COM; Weight: 18.27%) > Security (SEC; Weight: 16.61%) > strategic process (SP; Weight: 5.35%). Thus, the content published by the marketers is the most prioritised factor for the experts using social media platforms which according to them makes social media marketing campaign more successful.

On the other hand, strategic process adopted by the marketers is the least prioritised factor for the experts using social media platforms. In case of local weights of sub criteria, Identifying the effectiveness indicators (Sales, comments etc) (PE2; Weight: 76.5%), User Friendly communication (COM2; Weight: 68.3%), Transparency (SEC1; Weight: 71.3%), Selecting the appropriate channel (SP2; Weight: 38.97%), Proper search keywords (CNT3; Weight: 44.85%) were the highest prioritised sub-criteria among their respective categories.

In terms of global weights (Figure 2), Identifying the effectiveness indicators (Sales, comments etc) (PE2; Weight: 17.3%), Proper search keywords (CNT3; Weight: 16.3%) were the top two highest prioritised criteria according to the experts using social media platforms for their marketing campaigns. While, Selecting the target market (SP1) (SP1; Weight: 1.7%) appropriate method for advertising (SP3) (SP3; Weight: 1.5%) were the least prioritised criteria among all of them. The results clearly indicates that marketing experts believe Identifying of effectiveness indicators of successful campaign and use of proper search keywords are very crucial for the efficacious marketing campaign of digital platforms. While, conferring to them target market selection and modes of advertising doesn't matter at all.



**Figure 1 Local Weights of Criteria**

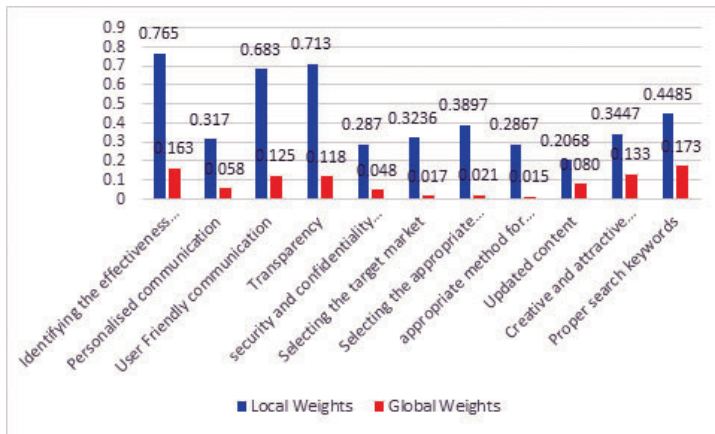


Figure 2 Local and Global Weights of Sub-Criteria

Table 2 Local and global weights of criteria and sub-criteria

| Criteria                    | Local Weights of Criteria | Sub-Criteria   | Local Weights of Sub-Criteria | Global Weights | Global Rank |
|-----------------------------|---------------------------|--|-------------------------------|----------------|-------------|
| Performance evaluation (PE) | 0.2125                    | Usage of web-based analytics (PE1)                                   | 0.235                         | 0.050          | 8           |
|                             |                           | Identifying the effectiveness indicators (Sales, comments etc) (PE2) | 0.765                         | 0.163          | 2           |
| Communication (COM)         | 0.1827                    | Personalised communication (COM1)                                    | 0.317                         | 0.058          | 7           |
|                             |                           | User Friendly communication (COM2)                                   | 0.683                         | 0.125          | 4           |
| Security (SEC)              | 0.1661                    | Transparency (SEC1)  | 0.713                         | 0.118          | 5           |
|                             |                           | security and confidentiality of customer data (SEC2)                 | 0.287                         | 0.048          | 9           |

|                        |        |  |        |       |    |
|------------------------|--------|--|--------|-------|----|
| Strategic process (SP) | 0.0535 | Selecting the target market (SP1)        | 0.3236 | 0.017 | 11 |
|                        |        | Selecting the appropriate channel (SP2)  | 0.3897 | 0.021 | 10 |
|                        |        | appropriate method for advertising (SP3) | 0.2867 | 0.015 | 12 |
| Content (CNT)          | 0.3852 | Updated content (CNT1)                   | 0.2068 | 0.080 | 6  |
|                        |        | Creative and attractive content (CNT2)   | 0.3447 | 0.133 | 3  |
|                        |        | Proper search keywords (CNT3)            | 0.4485 | 0.173 | 1  |

## 5. DISCUSSION AND IMPLICATIONS

Social media has evolved into a significant marketing tool, allowing various firms to connect with their consumers and understand about their customers' demands, key segments, and profiles. The use of social media technologies to perform a company's marketing operations is referred to as social media marketing. Irrespective of the massive expenditure in social media marketing, the effectiveness of techniques is dependent on a variety of criteria". The ability to form the image of a business has shifted from marketers to users' online relationships and content, thanks to social media (Godey et al., 2016). Even though several academics have attempted to contribute to the body of knowledge in social media marketing in various domains and sectors, past literature has not provided a clear stance on the factors that influence social media marketing. Hence, the authors aimed at determining and ranking the key factors of campaigns in this study. Firstly, several factors driving the achievement of digital campaigns were determined with thorough literature review. Afterwards, the multicriteria decision making technique AHP was applied to rank the identified factors. Results of the study showed the content to be displayed as the most decisive factor for the achievement of the social media marketing, while strategic process followed by the companies was not at all crucial. The findings are consistent with the results of several previous studies (Mohammadian and Mohammadreza, 2012, Li, 2016, Orij et al., 2020). Although previous studies have primarily attentive on the expertise and actions needed to handle social



media marketing, and only a few researchers have analysed the critical success factors most focused on the technology related factors. The results of this study go further and suggest that consumer and content related factors should be considered concurrently in the strategy execution process in a holistic manner. The following are the most important contributions from a managerial point of view. Business organisations may utilise social media to create relationships with current and potential consumers, as well as uncover issues and solutions via collaborative engagement across virtual communities. The expansion, growth and development of social networking sites represents opportunities for the business world based on knowledge and information exchange. On the other hand, it makes the job of marketing executives more difficult since they must be prepared to deal with current woes in the industry. Companies must be aware of the various purposes for utilising social media and design plans and develop strategies appropriately, by researching consumer motives for using social media and successfully deploying the required resources to engage customers while executing marketing strategies. The exponential growth of internet and social media over the last decade has highlighted necessity for assistance and guidelines on how to create social media marketing strategies that nurture client relationships and improve market position. Managers must define goals from the start to ensure that social media marketing tactics are developed, implemented, and controlled effectively. Rapidly evolving digital technology and a growing number of knowledgeable internet users necessitate the use of increasingly sophisticated marketing strategies that make greater use of rich, interactive digital media. As communication technology develops, social media marketing is becoming increasingly focused on the creation of user-generated content, and therefore good social media marketing contents should be able to inspire more business and consumer interactions.

## **6. LIMITATIONS AND FUTURE SCOPE**

This research, like many others, has certain limitations in terms of generalisability, limited number of factors and the technique used. The future studies may be incorporated in other parts of India to validate the generalisability of the results. Sex, gender, income, and profession are socio-demographic factors that

may have a substantial influence, or a moderating effect, on the conceptual model and might be added in future papers for a better view and understanding of the concepts. Additionally, the studies in future should explore more factors which are outside the scope of this study. Different management and organisational variables should be considered by small and medium-sized businesses. Because issues such as the corporate climate and the global economy are crucial, including them as external determinants is also vital for future studies. Lastly, authors can apply several other multi-criteria decision-making techniques like Fuzzy-AHP, ISM etc to add more valuable insights in the current literature.

## References

1. Chaffey, D. and Smith, P.R. (2013), *eMarketing eXcellence: Planning and Optimizing Your Digital Marketing*, Fourth edition, Routledge, New York, NY
2. Dahnili, M.I., Marzuki, K.M., Langgat, J. and Fabeil, N.F. (2014), "Factors influencing SMEs adoption of social media marketing", *Procedia - Social and Behavioral Sciences*, Vol. 148, pp. 119-126.
3. Dwyer, C., & Hiltz, S. (2007). Trust and Privacy Concern Within Social Networking Sites: A Comparison of Facebook and MySpace. *Proceedings from the Thirteenth Americas Conference on Information Systems*. Keystone. Colorado.
4. Freund, Y.P. (1988), "Critical success factors", *Planning Review*, Vol. 16 No. 4, pp. 20 -23.
5. Godey, B., Manthiou, A., Pederzoli, D., Rokka, J., Aiello, G., Donvito, R. and Singh, R. (2016), "Social media marketing efforts of luxury brands: influence on brand equity and consumer behavior", *Journal of Business Research*, Vol. 69 No. 12, pp. 5833-5841.
6. Gunelius, S. (2011). *30 - Minute Social Media Marketing*. New York: McGraw Hill
7. Heckadon, D. (2010), "Critical success factors for creating and implementing effective social media marketing campaigns", SSRN 1734586
8. Iankova, S., Davies, I., Archer-Brown, C., Marder, B. and Yau, A. (2019), "A comparison of social media marketing between B2B, B2C and mixed business models", *Industrial Marketing Management*, Vol. 81, pp. 169-179.
9. Jami Pour, M.J. and Jafari, S.M. (2019), "Toward a maturity model for the application of social media in healthcare", *Online Information Review*, Vol. 43 No. 3, pp. 404-425.

10. Kaplan, A.M. and Haenlein, M. (2010), "Users of the world, unite! the challenges and opportunities of social media", *Business Horizons*, Vol. 53 No. 1, pp. 59-68.
11. Li, F., Larimo, J. and Leonidou, L.C. (2021), "Social media marketing strategy: definition, conceptualization, taxonomy, validation, and future agenda", *Journal of the Academy of Marketing Science*, Vol. 49 No. 1, pp. 51-70.
12. Li, Y., Wang, X., Lin, X. and Hajli, M. (2018), "Seeking and sharing health information on social media: a net valence model and cross-cultural comparison", *Technological Forecasting and Social Change*, Vol. 126, pp. 28-40.
13. Li, Z. (2016), "The critical success factors of social media marketing contents in China", University of London
14. Mayfield, A. (2010, August 8). *What is Social Media*, iCrossing Company. From [http://www.icrossing.co.uk/fileadmin/uploads/eBooks/What\\_is\\_Social\\_Media\\_iCrossing\\_ebook.pdf](http://www.icrossing.co.uk/fileadmin/uploads/eBooks/What_is_Social_Media_iCrossing_ebook.pdf)
15. Mohammadian, M. and Mohammadreza, M. (2012), "Identify the success factors of social media (marketing perspective)", *International Business and Management*, Vol. 4 No. 2, pp. 58-66.
16. Orji, I.J., Kusi-Sarpong, S. and Gupta, H. (2020), "The critical success factors of using social media for supply chain social sustainability in the freight logistics industry", *International Journal of Production Research*, Vol. 58 No. 5, pp. 1522-1539.
17. Provost, F., Dalessandro, B., Hook, R., Zhang, X., & Murray, A. (2009). Audience selection for on-line brand advertising: Privacy-friendly social network targeting. Proceedings of the 15th ACM SIGKDD international conference on knowledge discovery and data mining. Retrieved from <http://portal.acm.org/citation.cfm?id=1557098>
18. Smartinsights (2020), "Global social media research summary", available at: [www.smartinsights.com/social-media-marketing/social-media-strategy/new-global-social-media-research/](http://www.smartinsights.com/social-media-marketing/social-media-strategy/new-global-social-media-research/)
19. Turban, E., Outland, J., King, D., Lee, J.K., Liang, T.P. and Turban, D.C. (2018), "Social commerce: Foundations, social marketing, and advertising", in *Electronic Commerce 2018*, pp. 285-324, Springer, Cham.
20. Valos, M.J., Habibi, F.H., Casidy, R., Driesener, C.B. and Maplestone, V.L. (2016), "Exploring the integration of social media within integrated marketing communication frameworks", *Marketing Intelligence & Planning*, Vol. 34 No. 1, pp. 19-40.
21. Warren, C. (2009). *How to: Measure social media ROI*. Mashable. Retrieved from <http://mashable.com/2009/10/27/social-media-roi>

22. Yang, R., & Che, T. (2020). Do social ties matter for purchase frequency? The role of buyers' attitude towards social media marketing. *Computers in Human Behavior*, 110, 106376.
23. Zhang, B. and Vos, M. (2014), "Social media monitoring: aims, methods, and challenges for international companies", *Corporate Communications: An International Journal*, Vol. 19 No. 4, pp. 371-383.
24. Saaty, T. (1980). The analytic hierarchy process (AHP) for decision making. In *Kobe, Japan* (pp. 1-69).
25. Garg, A., Misra, P., Gupta, S., Goel, P., & Saleem, M. (2021). Prioritizing motivators influencing intentions to visit spiritual destinations in India: an application of analytical hierarchical process (AHP) approach. *Journal of Tourism Futures*.

## Examining the Reverse Consumer Socialization of Parents During The Covid-19 Pandemic

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### ABSTRACT

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*Family is an important buying and consuming unit where all the family members actively interact, communicate, participate, discuss, and decide about what, when, where, and how a product/service will be purchased or consumed. Buying decisions in a family passes through an interaction process whereby different family members contribute and continuously learn from each other. Consumer learning within a family had always been an area of great interest amongst the researchers since the start of industrialization era and is well documented in literature. This paper aims to further the understanding about how the consumption learning transit from children to parents in Indian families during the Covid-19 pandemic. In-depth semi-structured interviews carried out with parents and children show that children actively participate throughout the decision process and their parents not only learn from them about the new gadgets, products, apps, web-sites, e-commerce platforms, and payment methods but appreciate and seek their help. The study results will provide more accurate inputs to the marketers, manufacturers, service providers, policy makers, and regulators for better decision making.*

**Keywords:** Reverse Socialization, Consumer Learning, Covid-19, Grounded Theory, India

## INTRODUCTION

A large number of family buying decisions pertain to the buying and consuming of different goods and services involve the active interaction amongst family members (Ghouse et al., 2020; Chaudhary et al., 2018). This inter-familial interaction makes these decisions an important research segment for the researchers, policymakers, and marketers (Rao, 2020). Continuous inter-familial interaction also makes it possible that all those who are involved in this process to learn from each other in terms of consumer socialization, the “processes by which young people acquire skills, knowledge and attitudes relevant to their functioning as consumers in the marketplace” (Ward, 1974, p.2). Except few researchers who have explored the area of parental consumption related learning from children (Kerrane and Hogg, 2013; Carlson et al., 2011; Ekstrom, 2007), the rest of them mainly focused on the consumer socialization of children (Punch, 2008; Karos et al., 2007; Edwards et al., 2005).

Studies of familial consumer socialization are almost entirely children-centric in terms of children learning from parents (Ekstrom, 2007). These studies assume a simple one-way causality model whereby only parents shape children (Kerrane et al., 2015), however, parental learning from children during the socialization process has not been properly acknowledged (Karos et al., 2007; Edwards et al., 2005). This study is an attempt to bridge this gap.

The significant changes that are redefining the formulation of contemporary Indian families with growing prosperity and decreasing family sizes resulting in the buying decisions within families becoming more participative and open (Joshi, 2019) whereby each family member is actively involved (Mittal et al., 2020; Tinson and Nuttall, 2007, p. 186). This involvement provides sufficient ground for this study at the time of ongoing Covid-19 pandemic. More specifically, this study, in present scenario is very relevant in Indian context for several reasons: (i) the size of Indian population of 1401 million people (Worldometers, 2022); (ii) emergence of India as the sixth biggest and one of the fastest growing economies; (iii) Covid-19 induced successive lockdowns resulting in higher and intensive inter-familial consumption based interactions. Accordingly, in Indian context, the following objectives were formulated to provide the necessary structure to this study:

1. To examine the extent of reverse consumer socialization of parents.
2. To examine the impact of parents', children's, and families' characteristics on reverse consumer socialization of parents.
3. To draw implications for the stakeholders including consumer-activists, researchers, marketers, and policy makers.

## LITERATURE REVIEW

Researchers have established that children are influencing, guiding, participating, and contributing significantly in the buying decisions of their families (Ghouse et al., 2020) to an extent that their families are becoming child-led. The evolution in children's position in family consumer decisions is well documented in literature (Chaudhary et al., 2018), government policies, marketing and advertising efforts. Over a period of time certain socio-economic factors such as increase in education, better medical facilities, better nutrition, increase in dual-income-nuclear families, late marriages, late child bearing, lesser number of children per family, and active social media have facilitated the transition of children from almost non-existent level to becoming the focal point of their families. As the average family size is decreasing, parent-children relations are becoming more open and democratic whereby parents themselves encourage their children to be more participative in decisions even at a very young age (Rao, 2020). Children nowadays are "trophy children" widely supported by cash-rich but time-poor parents who try to compensate the paucity of their time by over-indulgence in terms of giving them full importance and making them part of almost every buying decision (Pratap, 2019; Gram, 2007).

Parents are also becoming "doting parents", who try not to displease their children and pay proper heed to the inputs given by children even for the products which were considered out of their ambit in previous generations (Bisht, 2008). Thaichon (2017) carried out a Template analysis on the data obtained from 35 children and 28 parents in Australia and asserted that children use social media at an early age than their parents which not only is resulting in reverse-socialization of parents but also grant more power to children in family affairs. The extent of parents' socialization depends on various factors including

the parenting styles as proposed by Mikeska et al. (2017). They did a meta-analysis across 73 studies by examining child outcomes in order to offer an overall estimate of the parental style in relation to consumer socialization relationship(s) and confirmed that different parenting styles lead to differences in children's thinking, doing, believing and consequently how they will influence their parents.

Similarly, Harrison et al. (2021) examined the consumer socialization processes in single-father households by interviewing fathers as well as children and identified household resources and fathers' gender identity as factors instrumental in explaining the socialization processes as followed in the families. Al-Zu'bi (2016) collected data from 400 children aged between 8 to 12 years and studied the impact locus of control on Jordanian Muslim parents' communication pattern that directly influences their children's consumption behaviour.

Perez et al. (2019) explored inverse consumer socialization processes when technology is consumed by obtaining data from six focus groups of parents aged between 50 to 75 years and their children aged between 18 to 35 years. They acknowledged parents model their technology consumption on the basis of inputs made available to them by their children. Jiao and Wei (2020) also investigated various issues pertaining to reverse socialization of Chinese parents by using interpretive content analysis. They found a positive relationship between the reverse socialization and parents' adoption of the socialized brand.

## **REVERSE SOCIALIZATION: THEORETICAL FRAMEWORK**

Baumrind (1980, p. 640) defined socialization as "an adult-initiated process of developing children through insight, training, and imitation acquire the habits and values congruent with adaptation to their culture". Socialization is a lifelong process of learning impacting the behaviour, beliefs, and actions of every individual (Cromdal, 2006) and lead to some desirable outcomes known as "moral" (Carlson, 2005). Contrary to this, reverse socialization is a process whereby parents learn and acquire information about new products/services/skills/expertise from their children (Jiao and Wei, 2020). Accordingly, this study also conceptualizes reverse socialization as the parental consumption learning from their children.



## METHOD

### Sample and Procedures

This study makes use of qualitative data obtained from a sample of 27 families residing in different areas of National Capital Region (NCR), Delhi, India. Due to Covid-19 pandemic restrictions, a snowball sampling technique was adopted for the selection of surveyed families to ensure the collection of data in the shortest possible time (Davis et al., 2021). Semi-structured interviews were conducted during January 2022 with parents (mother/father) and children at their residence. The respondents were made aware of the study objectives in the beginning of the interview itself. Each interview took approximately one hour to complete. One parent and one child from each selected family was interviewed separately to obtain deeper and more accurate insights about how the and to what extent the reverse socialization is taking place in Indian families.

Mothers (81%) formed the majority of the respondents from parents' side because of their easy approachability and availability. Surveyed parents belonged to three age categories, i.e., 30-40 (44%), 40-50 (30%), and 50-60 (26%). More than half of the parents (56%) were graduates and above, and two-third of the families were nuclear (67%). Female children constituted more than half (59%) of the surveyed children spread across three age categories, i.e., below 10 (15 %), 10-20 (59%), and 20 and above (26%). Except 11% of the families, rest had one (33 %) or two (56 %) children. About two-third of the children were from public/private schools (37 %). Table 1 provides a brief sample profile.

**Table 1 Families' Socio-Economic Demographics**

| Parents         |        |    | Children        |        |    |
|-----------------|--------|----|-----------------|--------|----|
| Characteristics | N = 27 | %  | Characteristics | N = 27 | %  |
| Parent          |        |    | Gender          |        |    |
| Mothers         | 22     | 81 | Male            | 11     | 41 |
| Fathers         | 05     | 19 | Female          | 16     | 59 |
| Age (Years)     |        |    | Age (Years)     |        |    |
| 30-40           | 12     | 44 | Below 10        | 4      | 15 |
| 40-50           | 08     | 30 | 10-20           | 16     | 59 |
| 50-60           | 07     | 26 | 20 and above    | 7      | 26 |

| Education                |    |    | No of children |    |    |
|--------------------------|----|----|----------------|----|----|
| Not-educated             | 00 | 00 | One            | 9  | 33 |
| Upto class XII           | 12 | 44 | Two            | 15 | 56 |
| Graduates & above        | 10 | 56 | More than two  | 3  | 11 |
| F a m i l y<br>Structure |    |    | Schooling      |    |    |
| Joint                    | 9  | 33 | Private/public | 10 | 37 |
| Nuclear                  | 18 | 67 | Government     | 17 | 63 |

## DATA ANALYSIS

Supported by the existing literature (Corbin and Strauss, 2015; Ralph et al., 2015), this study makes use of the Grounded Theory for obtaining the results from interviewed data. By using the Grounded Theory, the main aim was to conceptualize the intricacies of reverse socialization that has taken place in respondents' families. Grounded Theory is a non-mathematical process of analyzing the qualitative data to organize, interpret, and explain the inherent concepts and relationships existing within the raw data (Ralph et al., 2015).

Thick description strategy (Carrillo and Bermudez, 2016) was adopted during the interview process itself whereby different questions were asked by the researcher to the participants to delve deeper into the information as provided by the participants in order to ensure the trustworthiness of the collected qualitative data (Tracy, 2010). The analysis process started with assigning codes to each interview followed by identification and segregation of information under a separate category (Cho and Lee, 2014), and finally the survey results were enumerated in accordance with the results of past studies.

## Results

Study results are spelled out in the succeeding paragraphs as per the themes emerged and identified during the analysis process supported by a discussion on familial and children characteristics.

## Introduction of New Products

The interviews indicated that irrespective of the age, gender, and type of school, most of the time the children have informed their

parents about the new products, apps, trends, uses, technical features, latest fashion, usage and usability of a product. The children not only introduce new things but also provide proper information in this regard and pursue their parents to buy these products for them as well as for the children. A mother said:

My college going daughter every now and then keep me updated about the latest hair and clothing styles and like going shopping with me which keep me confident, and younger. She helps me in identifying the websites which offer latest fashion clothes and accessories. Without her, I don't think, I would have bought the kind of clothes I am buying now.

In many families, parents were introduced to smart phones, smart watches, online shopping platforms, online payments through paytm, banking cards, UPI, mobile wallets, Internet banking, online food shopping through zomato and swiggy. In few of the families, children also introduced their parents to gymnasium, fast-food, and pop-music. In most of the cases, parents are learning, enjoying, and empowering themselves while using these new things. A father said about learning to cook new dishes from his son:

My son tries to cook new dishes by watching you-tube videos and inspires me also to cook and experiment in cooking. Together we try many new dishes. This has reduced the tension between us and now we communicate more on regular bases on a variety of topics.

### EXPERT ADVICE

Children also provided expert advice to their parents in cases whenever expensive durable products such as washing machines, cars, televisions, refrigerators, smart phones, laptops, and desktops are being purchased in their families. Children emerged as an important source of information especially in case of family entertainment such as family tours, picnics, movies, eating joints, hotels, fine-dine restaurants, best place and season to visit, and travel bookings etc. For example, a mother of an eleven year old boy said:

My son in most cases searches the web-sites and let us knows the places where we can visit during vacations. He watches movie trailers and in general we watch the movie suggested by

him. I think he is more knowledgeable to his age and many a times we seek his advice before taking a final decision.

Children in most families also taught their parents to use new appliances, download new apps by going through the manual, asking friends or watching videos on Google/you-tube. As compared to their parents, children are not hesitant to use new things especially when it comes to complicated technological goods as reported by a fifteen year old boy:

In our family, a laptop is purchased for the first time for my online-classes. My parents do not use this laptop as they think that they may cause some problem in the laptop as they are not expert to use it even after I assured them that it would not. Whenever, they want to know about anything they ask me to search and let them know.

Few of the parents learn about new product themselves from media, colleagues, and web-browsing but still they seek inputs from their children. Parents perceive children's participation in buying decisions important as they consider them to be more tech savvy. A mother of a twelve year old girl said:

Although I knew the kind of smart phone I need to buy, still my daughter discussed this with her friends and informed the same to me as well. This information helped me a lot in buying the right phone finally.

## **BOOMERANG EFFECT**

Sometimes the parents get irritated also by the continuous interruptions by their children as they consider it as assault on their authority; therefore, they sometimes tend to ignore the suggestions made by their children. Wilke coined the term "boomerang effect" in 1986 for this phenomenon, "..... people resist the influence more than they would have, had they not felt their freedom to be threatened" (Ekstrom, 2007) as acknowledged by most of the study participant.

## **CHILDREN AS EQUALS**

Surveyed parents have reported that as compared to them (when they were young), their children enjoy more freedom and respect today and are frank enough to put forth their views on almost everything. Some of the parents indicated that now when their children are grown ups, every product purchase is

extensively discussed and finalized to the extent that children are also assuming parental roles in few purchases (Ekstrom, 2007). In case of disagreements, parents also form coalitions with children to arrive at a particular decision. In case of spousal conflict, children play a significant role by supporting the other parent as corroborated by one mother:

My husband does not like travelling and exploring, hence, whenever I ask or suggest in this regard, he simply refuses but he did not do so when me and kids together propose the same.

Majority of the female respondents (mothers) have indicated that they did not enjoy shopping with their husbands as they, in general, indulge in arguments even on trivial issues, hence, they like going with their children who also carry the shopping bags for them.

## **PARENTAL SOCIALIZATION: MODERATING FACTORS**

Parental, children, and familial characteristics moderate children's contribution in parental socialization (Moschis et al., 1986) as proposed by past researchers. For example, children become more influential with age (Nancarrow et al., 2011) in comparatively rich (Shoham and Dalakas, 2006) and nuclear families (Foxman et al., 1989) where both the parents are educated and in full time employment (Geuens et al., 2003). However, the impact of children's gender on their influence has been mixed (Flurry, 2007). These results were amply validated by the inferences derived from the participants' interviews.

## **CONCLUSIONS, LIMITATIONS AND FUTURE RESEARCH**

The conclusions inferred from the in-depth interviews with parents and children confirm that parents do learn various things about consumption from their children and the extent of this learning is increasing exponentially across generations even in India. Children start contributing even before the purchase of the product by introducing new products in families and then convincing parents to buy these products. During the purchase also they contribute in terms of searching for and providing the needed information, co-shopping, suggesting new brands and uses of the products/services. Children also help their parents to learn to use these products. Parents

are also supportive, encouraging, and seek children's help. Needless to say, Covid-19 has only elevated children's position in their families. These results are important for marketers to maximize the acceptance of brands by families in India through by adopting the concepts of reverse socialization in their marketing strategies for advertising, product development, and segmentation. This study proposes certain social implications for child-right activists in terms of the advertising-content to be shown to children.

The major limitation of this study are: (i) the small sample size; (ii) the chosen sample is region specific (Delhi); and (iii) inbuilt limitations of qualitative methodology. These limitations may pose restrictions on the generalizability of the study results. However, the results of this study may be considered as indicative and researchers in future may extend these results by taking bigger random samples with more variables.

## References

1. Al-Zu'bi, A. (2016), «The direct and indirect influences of locus of control on Jordanian parents' communication patterns: Consumer socialization and cultural perspectives», *Journal of Islamic Marketing*, 7(2), pp. 167-186. <https://doi.org/10.1108/JIMA-05-2014-0038>
2. Baumrind, D. (1980), "New directions in socialization research", *Psychological Bulletin*, Vol. 35, pp. 639-652.
3. Bisht, S. (2008), *Notions of Child and Childhood in India: A Study on Teachers' Perspective*, Unpublished M.Phil Dissertation, Jawaharlal Nehru University, Delhi.
4. Carlson, N.R. (2005). *Psychology: the science of behavior*. Pearson (3rd Canadian edition). ISBN 0-205-45769-X.
5. Carrillo, S. and Bermudez, M. (2016), "Father's perceptions of their role and involvement in the family: A qualitative Study in a Colombian Sample", *Costa Rican Journal of Psychology*, 35 (2), pp. 101-118.
6. Chaudhary, M., Ghouse, S.M. and Durrah, O. (2018), "Young Arab consumers: an analysis of familybuying process in Oman", *Young Consumers*, 19 (1), pp. 1-18.
7. Cho, J. Y. and Lee, E. (2014), "Reducing confusion about grounded theory and qualitative content analysis: similarities and differences," *Qualitative Report*, 19, pp. 1-20.
8. Corbin, J. and Strauss, A. (2015). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. 4<sup>th</sup> Edition, New York: Sage Publication.

9. Cromdal, J. (2006), "Socialization". In K. Brown (ed.). *Encyclopedia of language and linguistics*. North-Holland: Elsevier. pp. 462–66. doi:10.1016/B0-08-044854-2/00353-9. ISBN 978-0080448541.
10. Davis, F., Francis Gnanasekar, M.B. and Parayitam, S. (2021), "Trust and product as moderators in online shopping behavior: evidence from India", *South Asian Journal of Marketing*, 2 (1), pp. 28–50, doi: 10.1108/SAJM-02-2021-0017.
11. Edwards, R., Hadfield, L. and Mauthner, M. (2005), *Children's understanding of their sibling relationships*, National Children's Bureau, London.
12. Ekström, K. M. (2007), "Parental consumer learning or 'keeping up with the children?'", *Journal of Consumer Behaviour*, 6, pp. 203–217.
13. Flurry, L.A. (2007), "Children's Influence in Family Decision Making: Examining the Impact of the Changing American Family", *Journal of Business Research*, 60 (4), 322–330.
14. Foxman, E.R, Tansuhaj, P.S. and Ekstrom, K.M. (1989), "Family Members' Perceptions of Adolescents' Influence in Family Decision Making", *The Journal of Consumer Research*, 15 (4), 482–491.
15. Geuens, M., Pelsmacker, D.P. and Mast, G. (2003), "How Family Structure Affects Parent-Child Communication about Consumption", *Young Consumers*, 8 (1), 7–18.
16. Ghouse, S.M., Chaudhary, M. and Durrah, O. (2020), "Arab's children's influence on the buying process: comparing parent and child perceptions", *Journal of Islamic Marketing*, ahead-of-print. doi: 10.1108/JIMA-08-2019-0160 (accessed 18 January 2022).
17. Gram, M. (2007), "Children as co-decision makers in the family? the case of family holidays", *Young Consumers: Insight and Ideas for Responsible Marketers*, 8 (1), pp. 19–28.
18. Harrison, R., Moisio, R., Gentry, J. and Commuri, S. (2021), «Processes of consumer socialization: study of single-father households», *European Journal of Marketing*, 55 (10), pp. 2649–2673. <https://doi.org/10.1108/EJM-11-2018-0753>
19. Jiao, R. and Wei, J. (2020), «Brand expansion through reverse socialization: an example of iPhone in China», *Qualitative Market Research*, 23 (1), pp. 1–20. <https://doi.org/10.1108/QMR-08-2018-0089>
20. Karos, L. K., Howe, N. and Aquan-Assee, J. (2007), "Reciprocal and complementary sibling interactions, relationship quality and socio-emotional problem solving", *Infant and Child Development*, 16 (6), pp. 577–596.

21. Kerrane, B, Bettany, S. and Kerrane, K. (2015), "Siblings as socialization agents: Exploring the role of 'sibship' in the consumer socialization of children", *European Journal of Marketing*, 49 (5/6), pp. 713-735. ISSN 0309-0566
22. Kerrane, B. and Hogg, M. K. (2013), "Shared or non-shared? Children's different consumer socialization experiences within the family environment", *European Journal of Marketing*, 47 (3/4), pp. 506-524.
23. Mikeska, J, Robert L. H. and Carlson, L. (2017), "A meta-analysis of parental style and consumer socialization of children", *Journal of Consumer Psychology*, 27 (2), pp. 245-256.
24. Mittal, M., Chaudhary, M. and Garg, S. (2020), "An evaluative framework for the most suitable theory of mobile learning", *Journal of Marketing and Retail Management*, 1 (1), pp. 141-155.
25. Moschis, G.P., Prahato, A.E. and Mitchell, L.G. (1986), "Family Communication Influences on the Development of Consumer Behavior: Some Additional Findings", *Advances in Consumer Research*, 13 (1), pp. 365-369.
26. Nancarrow, C., Tinson, J. and Brace, I. (2011), "Profiling Key Purchase Influencers: Those Perceived as Consumer Savvy", *Journal of Consumer Behaviour*, 10 (2), pp. 102-110.
27. Perez, M.E., Quintanilla, C., Castaño, R. and Penaloza, L. (2019), «Inverse socialization with technology: understanding intergenerational family dynamics», *Journal of Consumer Marketing*, 36 (6), pp. 818-826. <https://doi.org/10.1108/JCM-12-2017-2474>
28. Pratap, A. (2019), "What role does family play in consumer behavior?", available at: <https://notesmatic.com/2019/7/what-role-does-family-play-in-consumer-behavior/> (accessed 9 January 2022).
29. Punch, S. (2008), "'You can do nasty things to your brothers and sisters without a reason': siblings' backstage behaviour", *Children and Society*, 22, pp. 333-344.
30. Ralph, N., Birks, M., and Chapman, Y. (2015), "The methodological dynamism of grounded theory" (PDF). *International Journal of Qualitative Methods*, 14 (4). 160940691561157. doi:10.1177/1609406915611576
31. Rao, P.S. (2020), "No kidding. Children do influence what families are buying", *The Hindu Business Line*, available at: <https://www.thehindubusinessline.com/catalyst/no-kidding-children-do-influence-what-families-are-buying/> (accessed 18 January 2022).
32. Shoham, A. and Dalakas, V. (2006), "How Our Adolescent Children Influence Us as Parents to Yield to Their Purchase Requests", *Journal of Consumer Marketing*, 23 (6), 344-350.



33. Thaichon, P. (2017), "Consumer socialization process: The role of age in children's online shopping behaviour", *Journal of Retailing and Consumer Services*, 34 (1), pp. 38-47.
34. Tinson, J. and Nuttall, P. (2007), "Insider trading? Exploring familial intra-generational borrowing and sharing", *The Marketing Review*, 7 (2), pp. 185-200.
35. Tracy, S. J. (2010), "Qualitative Quality: Eight "Big-Tent" criteria for excellent qualitative research", *Qualitative Enquiry*, 16 (10), pp. 837-851.
36. Ward, S. (1974), "Consumer socialization", *Journal of Consumer Research*, 1, pp. 1-14.
37. Worldometers (2022), "Indian pollution live", available at: [https://www.worldometers.info/world-population/india-population/#:~:text=India population is equivalent to 17.7%25 of the total world population \(assessed 4 February 2022\).](https://www.worldometers.info/world-population/india-population/#:~:text=India population is equivalent to 17.7%25 of the total world population (assessed 4 February 2022).)

## Understanding the Perspectives of Customers and Retailers Towards Impulse Buying Behaviour

Dr. Sonia\*, Dr. Garima Dalal\* & Priya Chugh\*\*

### ABSTRACT

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*Nowadays, consumers spend a large amount of money on purchasing apparel, footwear, and many other items on the spot without planning or thinking about the consequences. This behavior doesn't come in the category of usual buying. Such kind of purchase is termed as an Impulse purchase. There are a variety of reasons consumers think to buy things impulsively. They often get confused about whether to purchase or leave the product. Besides, Retailers constantly search for different tactics to bring customers to their stores and make them buy products out of their list. So, it has become essential to understand this tendency in consumers, what makes them behave in such a way, how they can stop themselves, and what retailers can do for stimulating the consumers to shop impulsively. This article is conceptual in nature based on secondary data i.e. magazines, research articles, websites etc. It aims to understand the concept of Impulse buying from the perspectives of both retailers and consumers. The chapter came to the conclusion that mood and emotions of consumers, their shopping love, discount offers and their habits of money management etc. make them shop impulsively. There might be a number of situations after impulse purchase. Consumers may feel either happy or disappointed and retailers sometimes get customers for long but many times they lose them after one purchase.*

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The image above depicts a scenario in which two consumers were supposed to purchase bread before entering the store. However, they returned with additional products, along with bread, which they had not intended to buy. This buying is out of the scope of ordinary buying and spontaneous in nature.

## 1. INTRODUCTION

For several years, the relevance of impulse purchases in consumption patterns has been obvious. Earlier research, both academic and professional, has indicated that, depending upon the nature of products, impulsive buying accounts for 40 to 80% of all the purchases (Amos et al., 2014). The psychological roots of impulse buying, as well as “impulse pleasures,” have attracted the attentions of researchers and businesses who have attempt to discover the psychological aspects of this behavior in order to enhance sales (Kacen et al., 2012; Amos et al., 2014).

Impulse buying is a reality of life; everyone has made an impulsive purchase at some point in their lives, and nine out of 10 buyers do so regularly (Jelenc, 2013). China, India, and Indonesia were at the top of the list for impulsive spending and early adoption. It is an unavoidable part of western consumer life, spreading without a clear eastward boundary (Jelenc, 2013).

Cambridge Dictionary defined Impulse buying the act of purchasing something you hadn't considered buying because you immediately desire it once you see it.

Impulse purchases occur when customers leave stores with items they had not planned to possess before entering. Is impulse buying only haphazard shopping or something more?

Impulsive purchasing is a multifaceted phenomenon with a variety of distinct aspects. Each impulsive buying activity has three main elements: the purchase is unplanned, difficult to regulate, and associated with an emotional experience (Jelenc, 2013).

It is grounded on irrational reasoning. Marketers try to boost on this customer behaviour in order to increase sales. Customers are very likely to make a purchase after entering the store, even if they had no intention to do so.

## 2. RESEARCH METHODOLOGY

This article is descriptive, focusing on the numerous motivations for impulse purchases, as well as consumer and marketing experiences following such purchases. The study relied on secondary data from many academic publications, websites, and other sources.

## 3. WHY DO WE KEEP BUYING ON IMPULSE (CRUZE, 2021)?

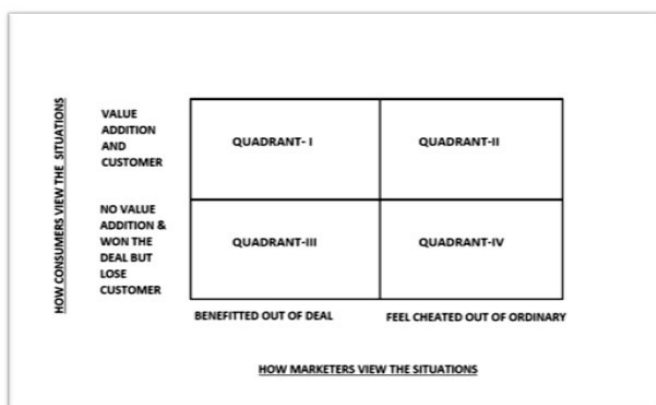
Would you wonder what happens when you buy something on impulse? There are four fundamental reasons why individuals purchase things on impulse. They are as follows:

- Our feelings
- Our previous encounters
- We believe we have gotten a terrific deal.
- We adore shopping.
- **We buy on impulse because of our emotions:** Emotions have a big influence on what we purchase. Does a little shopping sound like the solution if you're having a bad day? Maybe it's nothing out of the ordinary. Perhaps it's as simple as picking up a new hat or a pair of socks. You say to yourself it's not a huge deal; you want to treat yourself with something nice. Making decisions based on emotion is a certain way to give impulsive buying the upper hand. Marketers are well aware of this. They'll utilise your emotions in their commercials in the hopes of striking a nerve and causing you to buy impulsively.

- **Because of our history, we tend to buy things on impulse:** If you struggle with impulse purchases and overspending, it's possible that you were rarely taught proper money management. Consider how finance was handled in your household as a child to understand the foundations for your money beliefs better. If you're married, this can also help you get to the bottom of any money conflicts you and your spouse might be having. Their experience was most likely different from yours, implying that you both view the situation from two separate angles.
- **When we think there's a reasonable price, we buy on impulse:** Who wants to pay the entire shipping and handling cost? Thanks to Amazon Prime, anything less than free two-day shipping now feels like a crime. According to a Slickdeals poll, more than 50% of buyers make impulse purchases due to a massive sale. However, this is purely a marketing strategy. You're much more likely to make an impulse purchase when you believe you're receiving a good price or free shipping.
- **We buy on impulse because we adore shopping:** In the short term, shopping does make you feel better. Dopamine, the brain's happy drug, is released when we shop. When we go shopping, it's simple to imagine the dinners we'll have on that dinner table, the vacation we'll take in that new dress, or the game our team will win on that flatscreen. "As people buy, they're naturally imagining how they'll utilise goods selected by them, but by doing so, they're also visualising their future life," Psychology Today adds. As a result, it's easy to enjoy shopping on the spur of the moment.

#### 4. CONSUMER AND MARKETER RELATIVITY IN DIFFERENT IMPULSE BUYING SITUATIONS (IRAM & CHACHARKAR, 2017)

As indicated in the image, different impulse buying circumstances emerge from a mix of two viewpoints: first, how does the buyer see the situation? Second, what are marketers' perspectives on the situation? Four scenarios can arise from either a positive or negative viewpoint:



**Iram & Chacharkar, 2017**

### **Situation 1: Quadrant I**

Marketers present a value proposition equally valued by customers throughout the transaction.

### **Situation-2: Quadrant-II**

Marketers present a value proposition, but the customer does not recognise or value it, and they feel betrayed. This could be due to the marketer's lack of awareness of customer needs and knowledge of consumer behaviour.

### **Situation-3: Quadrant-III**

In this sale, the marketer is not presenting a value proposal, but the customer praises it. Sensing rewards may be in terms of cost savings, chasing the opportunity to close the deal, and not missing out on a chance to gain something from the deal. However, it is possible that the marketer will lose buyers since the customer's true needs are not appropriately handled. Also, a customer's perception of a product, brand, or organisation may be skewed, which might not be in the marketer's best interests in the long run.

### **Situation-4: Quadrant-IV**

In this circumstance, both the marketer and the buyer are regretful. Customers may believe that the marketer pushed an excessive or substandard product with no added value. In his

hands, the customer had acquired a useless item. Marketers are thrilled to close a transaction, but they are concerned about losing customers in the long run. As shown in the diagram, the real need is not satisfied, and the consumer is taken for a ride by the marketer, maybe for the same reasons as in situation-3. Also, a customer's perception of a product, brand, or organisation may be skewed, which is not in the marketer's best interests.

Only deals in the quadrant –I result in a win-win situation; in all other cases, either the customer or the marketer, or both, lose. The goal of this study is to propagate /support the impulse buying phenomenon, as long as the deal of quadrant –I.

Marketers should use caution while dealing with customers, particularly if the transaction falls within quadrants II, III, or IV of the figure.

## 5. HOW CAN YOU INCREASE THE INTENSITY AND VALUE OF IMPULSIVE PURCHASES (MALHOTRA, 2020)?

Retailers make every attempt to sell out their stock as quickly as possible. Customers' impulsivity in buying decisions can be boosted in several different ways.

- **Guide the Customer, Create a Path:** The store's interiors should be designed so that the most popular products are immediately visible and accessible to customers, allowing the store owner to lead the customer indirectly.
- **Keep lower-priced, impulse-purchasing items near checkout lines:** Putting lower-priced, impulse-buying items on front racks and discounted items near checkout process and billing counters boost customer impulse buying.
- **Place items adjacent to or near high-demand items to encourage impulsive purchases:** Low-cost, complementary articles might be positioned near high-demand items to facilitate impulse purchases.
- **Use the Correct Call to Action:** Use quotes to encourage customers to purchase the goods.
- **Anticipate Your Consumers' Needs:** Display things relevant to the customers' needs, as this will encourage impulse purchases.

- **Bring Attention to Impulse Purchases:** Lighting effects on the goods or the use of bright and vivid colors can be used to draw attention to impulse purchases.
- **Select Products that demands Little Thought:** Products that require little thought should be exhibited so that clients are not confused. Providing a large number of options may confuse shoppers and reduce impulse purchases.
- **Provide Product Sample or Demo:** Offering a product sample or demo may persuade customers to purchase a product they had not planned. Customers, for example, don't always buy perfumes, but if they smell a sample, they may go for its purchase.
- **Display Seasonal Items:** Locating seasonal items near checkout lines increases impulse purchases because buyers feel compelled to buy.
- **Teach Staff to Enhance Impulsive Buying:** The consumers' brain initiates impulse buying in many cases. As a result, floor workers need to be trained to offer complementary products to consumers in order to encourage impulsive purchases.

## 6. HOW TO AVOID IMPULSE PURCHASES (CRUZE, 2021)?

Consumers usually express regret after making unplanned purchases. The following suggestions are made to help them regulate their spending impulsivity:

- **Create and stick to a budget:** First and foremost, you must create a budget and stick to it. Budgeting isn't a wand that will magically transform your finances. It's up to you to direct your income where it should go each month and then stick to your plan. Don't spend the money if it hasn't been budgeted.
- **Allow yourself to spend money:** Make a budget line item for yourself, with your name on it, for extra leisure spending. This may be 30,000 or 3,00,000 every month, depending on your circumstances. Simply ensure that the sum is appropriate and within your budget. You just have to check your fund the next time you're walking through the store, and something captures your interest.



You can now shop without feeling guilty. It's no longer an impulse buy because you've already planned a little percentage of your spending money for it.

- **When an impulse purchase gets you excited, take time to calm down:** When an impulse purchase gets you excited, take a day or two to calm down. Once you've regained your fresh viewpoint, ask yourself if you'll actually use this product, and if you are willing to spend for it right now. That's a straightforward approach to looking at the purchase with fresh eyes. Deals only valid for 24 hours should be avoided. Allowing a countdown to compel you purchase anything is not a good idea because a sale will roll around again.
- **Go shopping with a strategy in mind:** One of the most common techniques to avoid impulse spending is to plan out what you really want to shop for as well as how much you'll spend before you go shopping. You'll be less prone to overspend if you've a clear plan.
- **Don't go shopping when you're in the hold of your emotions:** Allowing your emotions to control your purchasing habits is a bad idea! You might be having a terrific day and, in the excitement of the moment, make an impulse purchase. Maybe you had a bad day and convinced yourself that you deserve something pleasant or that this article may cheer you up. When you're too much emotional, don't shop anything.
- **When you go shopping, bring somebody with you:** Accountability makes a huge difference in this situation. Bring a brother or friend with you on your store visit who is likely to advise you not to grab something. Tell him what you're going to purchase and urge them to ask why you wish to deviate from the plan.
- **Take just what you'll need in cash:** Calculate how much money you'll need for the products you wish to buy and only bring that much cash. You may even take it a step even further. Forget about your debit card. You won't be able to make an impulse purchase if you stay on your shopping list and don't bring any additional cash with you.

- **Say goodbye to comparisons:** You'll never be pleased if you constantly compare your possessions to those of others. We're playing a game we'll ever win if we keep comparing us to others. Instead of focusing on what others have, learn to appreciate what you already have. This practice will keep you away from purchasing goods you don't need on the spur of the moment.
- **Participate in a zero spend challenge:** Don't waste money on things that aren't necessary. You still have to pay rent or mortgage, normal bills, electricity, food, and other expenses. However, it would be best if you stop spending money on items such as dining out, having your hair trimmed, buying shoes, or purchasing a kitchen equipment. Basically, don't enter a store unless you buy items on your shopping list.
- **Stay focused on your goals:** Buying something on impulse will not help you reach your targets, i.e., to get out of debt, pay off the mortgage, or save for the future. Buying on the spur of the moment and overspending may deplete whatever funds you had set up for those fantastic goals.

## 7. CONCLUSION

It can be concluded that emotions, promotional strategies, and love for shopping encourage consumers to make impulsive purchases. Increasing impulse purchases on the part of marketers and regulating impulse purchases by customers is an art. Different post-purchase situations may arise. Sometimes both consumers and retailers are happy after impulse purchase, sometimes both are disappointed, and many times one party gets satisfied. Impulse purchase should not be a matter of chance. Retailers should embrace the opportunity to make it a habit by providing customer-focused and high-quality products, as well as discounts and courteous service. Customers may be dissatisfied with their purchases after they have been made. Controlling their emotions and overspending, as well as establishing goals and budgets, may thus assist them in reducing their impulsive purchase tendencies.

## References

1. Amos, C., Holmes, G. R. and Keneson, W.C. (2014), "A meta-analysis of consumer impulsive buying", *Journal of Retailing and Consumer Services*, 21(2), 86-97.
2. Aragoncillo, L., & Orús, C. (2018). Impulse buying behaviour: An online-offline comparative and the impact of social media. *Spanish Journal of Marketing - ESIC*, 22(1), 42-62.
3. Iram, M., & Chacharkar, D. D. Y. (2017). Model of Impulse Buying Behavior. *BVIMSR's Journal of Management Research*, 9(1), 45-53.
4. Jelenc, L. (2013). The Pulse of the Impulsive Buying Behaviour: New Strategic Perspective. *3rd CROMAR Congress Marketing in A Dynamic Environment - Academic and Practical Insights, Congress Proceedings*, Grbac, B., Lončar, January 2013.
5. Kacen, J.J., Hess, J.D. and Walker, D. (2012), "Spontaneous selection: the influence of product and retailing factors on consumer impulse purchases", *Journal of Retailing & Consumer Services*, 19(6), 578-588.
6. Malhotra, J. S. (2020). Study of Factors effecting the Impulse Buying Behaviour of Customers in Textile / Apparel Industry. *International Journal of Management*, 11(10), 1550-1560.
7. <https://dictionary.cambridge.org/dictionary/english/impulse-buying>
8. <https://economictimes.indiatimes.com/definition/impulsive-buying>
9. <https://www.ramseysolutions.com/budgeting/stop-impulse-buys>

## A Paradigm Shift in Pharmaceutical Marketing

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### ABSTRACT

*India has a Broddingnagian pharmaceutical market that caters to its domestic requirements which is valued at US \$ 42 billion while also exports pharmaceutical products to more than 200 countries around the globe and is hence regarded as 'Pharmacy of the World'. The Department of Pharmaceuticals has announced a wide range of initiatives to further strengthen the existing stronghold. Pharmaceutical marketing in India is conventionally done to healthcare practitioners by pharmaceutical companies which engage sales representatives to brief the Healthcare Professionals (HCP) via visual aids and other promotional material. India does not permit direct-to-consumer advertising for prescription drugs but over-the-counter medicines can be promoted directly to consumers. Companies also try to maintain good public relations as part of holistic marketing. Pharma companies had to spend above 40% of their marketing budget on conventional marketing techniques which*

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*reduces the overall profitability. Companies have also tried to create awareness through opinion leaders, social marketing, patient centric approach and multi-disciplinary approach. Increasing penetration of the internet has made it possible to digitally brief the physicians through e-detailing. Omnichannel marketing, phygital marketing, digital-first Customer Relationship Management Systems (CRMS), Artificial Intelligence (AI), Machine Learning (ML), social media have all evolved through technology and the internet and have substantially reduced the overall marketing cost while increasing effectiveness. The modern era pharmaceutical marketing will not replace medical representatives but will empower them to perform their task more effectively and increase productivity by achieving synergy.*

## BACKGROUND

McKinsey Indian Pharma report 2020 says that “companies improving on customer focus will enable higher growth. The industry needs to move away from its ‘one size fits all’ approach to providing more customised messages. Marketing teams will need to play a big role in understanding the different segments of physicians, chemists and patients.”

With the integration of technology and digital media the pharmaceutical sector is going through a paradigm change, i.e., from the traditional & conventional approaches of medical representatives and medical conventions, to now e-detailing, e-conferences and more tech-driven, digital means.

The shift to electronic detailing is unrushed but is definitely changing the way conventional pharmaceutical marketing used to take place. Technology has made it convenient and effective for the sales workforce to study the existing patterns and accordingly brief the physicians. Such is the change that is witnessed by the industry due to a digital revolution, especially after the pandemic hit the world.

Not more than 2 years ago, when the world witnessed a devastating pandemic surging among masses, never had it felt the need of communication without personal contact, or for that matter, to interact without interacting. From education for children to working for adult, digitization spread like a chemotherapy drug in a cancer patients’ blood, & Pharma Marketing were no exception, or perhaps much tougher, considering the existing system of marketing via medical representatives (med reps) in an indoor environment – was no longer the choice for them.

Today, the pharma marketers have shifted focus on consumers who are at the core of pharma marketing as opposed to products in the past.

In this chapter, authors have explained this very shift in the way pharma industry is marketing, how it changed in this 21<sup>st</sup> century and how it evolved after a devastating pandemic that left it nothing as it was before.

## INTRODUCTION

### Indian Pharmaceutical Market

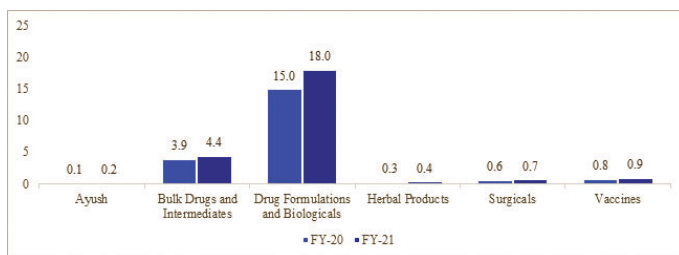
India has been rightly titled 'Pharmacy of the World' as the pharmaceutical industry in India is made up of more than 3,000 companies backed by around 10,500 manufacturing facilities which contribute to over 50% of vaccine demand globally, 40% requirement for generics in US and 25% demand of all medicines in the UK. India having a population of 138 crores itself has a whopping domestic pharmaceutical market of US \$ 42 billion and by 2024, it is anticipated to reach US \$ 65 billion and US \$ 120 billion by 2030. India exports vaccines to over 150 countries. Bacillus Calmette–Guérin (BCG) and Diphtheria, Pertussis and Tetanus (DPT) vaccines produced in India cater to 40-70% of WHO's requirement for vaccines and 90% of the WHO's demand for the measles vaccine. It also exports 60,000 generic drugs to over 200 countries across 60 therapeutic areas. This vast network has helped India rise to the ranks of being 3<sup>rd</sup> globally in total volume manufactured and ranked 14<sup>th</sup> by the means of monetary value.

According to a report by ICRA, a prominent rating agency, pharma market in India is poised to elevate at a rate of 9-11 percent in 2021-22. In 2021, Indian exports of pharmaceuticals amounted to US \$ 24.44 billion which made India the twelfth biggest exporter of pharmaceuticals globally. India is a powerhouse in pharmaceutical sector, the credit for which should be attributed to the Department of Pharmaceuticals under the Government of India which was able to identify the potential and launch strategic initiatives that would give a thrust and further strengthen the pharmaceutical sector. These initiatives include:

1. Production Linked Incentive (PLI) scheme for Pharmaceuticals

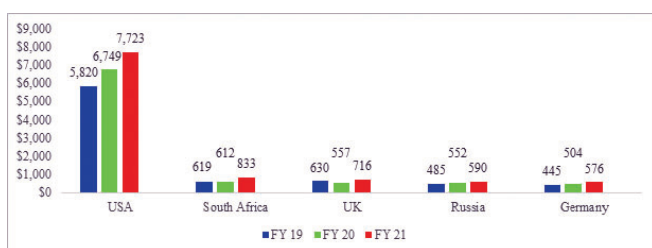
2. PLI for Promotion of Domestic Manufacturing of critical Key Starting Materials/ Drug Intermediates and Active Pharmaceutical Ingredients (APIs)
3. PLI for Promoting Domestic Manufacturing of Medical Devices
4. Scheme for Promotion of Bulk Drug Parks.
5. Scheme for Promotion of Medical Device Parks
6. Assistance to Pharmaceutical Industry for Common Facilities
7. Pharmaceutical Promotion and Development Scheme (PPDS)
8. Pharmaceutical Technology Upgradation Assistance Scheme (PTUAS)
9. Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP)
10. Scheme of Consumer Awareness, Publicity and Price Monitoring (CAPPM)

**Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP):** 8,000+ Jan Aushadhi stores across 726 districts provide high quality generic pharmaceutical products at low price in the country in which dedicated stores known as Pradhan Mantri Bhartiya Janaushadhi Kendra (PMBJK) which provide generic pharmaceuticals with presence of atleast one outlet per district. The medicines available are cheaper by at least 50% and in some cases even to a tune of 80-90% cheaper than already existing branded medicines by private pharma companies. The product portfolio consists of more than 800 formulations and above 154 surgical items. It utilises Information technology powered supply chain that tracks Point-of-Sale (POS) for smoothening their operations and hence enhancing availability.



**Graph 1: Indian Pharmaceutical Exports (\$ million)**

**Source:** Based on the table as given in Pharmexcil Handbook 2021 (p.4)



**Graph 2: India's Pharmaceutical Exports to Top 5 Countries in \$ Million**

**Source:** Based on the table as given in Pharmexcil Handbook 2021 (p.6).

**Table 1 Movement of Export Over the Years**

| Year    | Exports of Medicines & Pharmaceuticals Products (Rs. Crore) |
|---------|---|
| 2012-13 | 79,840  |
| 2013-14 | 90,341  |
| 2014-15 | 94,275  |
| 2015-16 | 1,10,522  |
| 2016-17 | 1,12,915  |
| 2017-18 | 1,10,195  |
| 2018-19 | 1,32,585  |
| 2019-20 | 1,46,260  |

**Source:** Compiled from Annual Report 2015-16 (p.7) and 2020-21 (p.4), Department of Pharmaceuticals, Ministry of Chemicals & Fertilizers, Govt. of India

## REVIEW OF LITERATURE

Masood Jawed and Sayed Amjad (2018) in their paper titled, 'Pharmaceutical Digital Marketing and Its Impact on Healthcare Physicians of Pakistan: A National Survey' highlights the fact that traditional marketing in pharma has been replaced by digital marketing due to greater cost efficiency, decreased time consuming engagement, ease of interaction with physicians. It has encouraged doctors to use social media and other digital tools which help them engage patients and other healthcare organizations on a grander scale. Twitter, Facebook and LinkedIn were the topmost social media tools utilised by companies. The



study revealed that for **assessing medical information doctors in Pakistan** resorted to **company websites, mobile apps, messaging through WhatsApp, electronic detailing, webinars, web detailing that was self-directed, marketing details and detailing over phone calls.**

Mithun Nandy (2016) in his paper titled, 'Pharmaceutical Marketing & Product Promotion: A Paradigm Shift in Indian Pharmaceutical Industry' touched the fact that patients and healthcare providers are consuming new media technology and adapting their preferences accordingly. He highlighted those pharmaceutical companies which leverage digital marketing that gives them an edge through efficiency, flexibility, extended target coverage, direct customer interaction. Multichannel promotion consists of digital marketing including emails, social media and websites. He referred about back-end promotion through electronic detailing and telemarketing and front-end marketing through tablet-aided calls and conventional medical representatives.

Melissa Sweet (2009) in her paper titled, 'Pharmaceutical marketing and the internet' discussed about pharmaceutical companies adopting to the changing trends by utilising the internet for electronic detailing, interactive websites, emails and new age media such as YouTube, Facebook, LinkedIn and myspace as a part of viral marketing campaigns that are intended to reach both the physicians as well as the consumers.

Vijay Bhangale (2008) in his paper titled, 'Pharma marketing in India: Opportunities, challenges and the way forward' believes that considering the population dynamics, increasing spending capacity, increasing disease prevalence and interest from global stakeholders gives Indian pharmaceutical market a huge future growth prospect. Sales workforce expense constitutes around 15-20% of annual product revenue being the highest cost head which needs to be looked into to improve the profitability. New directions include companies shifting focus on specific therapeutic areas, marketing innovation, leveraging technology for CRM programs. There is huge potential for building OTC products into 'mega brands' by promoting them directly to consumers.

Subba Rao Chaganti (2009), author of 'Pharmaceutical Marketing in India' emphasized on 9 Ps of marketing pharmaceutical

products – “Product, Price, Place, Promotion, Personal Selling, Prescription, Policy, Power, Public Relations” all of which are vital for pharmaceutical companies and are practically applied by sales workforce as well as marketers from launching a product to sustaining it and devising growth strategies. Fastest growing companies are those who reinvest in marketing-mix through initiatives that help them reach a wider customer base through means of scientific seminars, symposia, sponsoring medical conferences, providing scientific information that is not product related. Success of firms does largely depend on how they manage new products, the ability to devise a winning strategy, marketing focus, operation effectiveness and efficiency, exports, technology upgradation, resource utilization, strategic alliances and integration and strengthening core competency.

## CONVENTIONAL PHARMACEUTICAL MARKETING

Pharmaceutical marketing in India involves pitching directly to physician/ healthcare practitioner who is then expected to generate a prescription through which sales normally takes place. This conventional pharmaceutical marketing involves vigorous product marketing of prescription drugs. Marketing direct to consumer only in case of Over-the-Counter pharmaceutical products is allowed in India.

## CONVENTIONAL ELEMENTS OF PROMOTION

1. **Direct to consumer advertising (DTCA):** The Drugs and Magic Remedies (Objectionable Advertisement) Act, 1954 regulates the sales and marketing of pharmaceuticals in India. It restricts the advertisement of prescription drugs. It has identified 78 diseases for which direct advertising of prescription drugs to consumers is not permitted. DTCA includes channels like television, magazines, newspapers, internet, radio, billboards, direct mailings and even promotional brochures. Organisation of Pharmaceutical Producers of India (OPPI), has laid down a code of ethics within the boundaries of which pharma companies can advertise Over-the-Counter (OTC) direct to consumers. Paracetamol containing brand ‘Crocin’ owned by GSK and ‘Vicks Vaporub’ by Procter & Gamble are among the famous OTC household products in India. OTC market in

India is segmented by influenza, cold and cough products, pain killers (analgesics), topical skin products, vitamins, minerals and supplements (VMS) and other products.

2. **Personal Selling:** Medical representatives (MR) representing a pharmaceutical company on arranging a meeting with the physician, conveys detailed information about the products, ensures availability of the medicine through retail outlets, persuades the physician to generate a prescription which results into sales. Specific responsibilities of an MR include prescription generation, customer coverage and market intelligence. Sales team consists of medical representative, area manager, regional manager, zonal manager, sales manager and finally the vice president for sales at the apex.
3. **Public Relations (PR):** PR team plays key role in ensuring a smooth transit for marketers to better provide consumers and physicians with drug detailing and healthcare information. It helps generate effective market penetration, create and increase brand awareness, create strong brand value, update stakeholders and monitor consumer responses about the product. PR programmes educate patients on their medical conditions and brief them about the available treatments. In 2009, Cigna and Merck came together to form the Cigna-Merck contract with the objective to inculcate the idea of improving adherence to medication and improve blood sugar levels with Type 2 Diabetes. PR initiatives have resulted in enhanced patient adherence by enhancing compliance by conducting local community education programmes. There exists a direct correlation between the compliance and the amount of quality information they receive pertaining to their medical condition.

**Reckitt Benckiser launched a campaign - Dettol Banega Swachh India Hand Wash Digital Curriculum - with the objective of** influencing better health and hygiene. The campaign reached schools in 6 states covering 5 million students which resulted in 10 percent decrease in diarrhoea instances.

#### 4. Sales Promotion:

**Consumer promotion (stimulating consumer demand):**

Company highlights that an obvious demand exists for the pharmaceutical product due to its certain characteristics that differentiate it from the existing products. It includes the 'Pull' strategy of the company and products are usually covered under a patent or possess exclusive marketing rights. For example, AbbVie is marketing its patented injection Ozurdex for treatment of Diabetic Macular Edema.

**Trade promotion (motivating pharmacists' trading activity):**

The strategy relies on pharmacists to encourage and increase sales and hence promote the product. It is mostly done when there are no obvious differentiating characteristics in the product like that in case of generic pharmaceuticals and is normally a 'Push' strategy. Certain OTC products are also pushed by this means. For example, a pharmacist might dispense branded or local generic when the consumer demands for an OTC product.

**Merchandising (visual demonstration of goods and management of retail space):**

Merchandising aims at building an effective communication between pharmaceutical product and consumers. As an outcome, consumers are able to connect well with the product thereby contributing to increasing the volume of sales. The products need to have good visibility and accessibility. These can also be called as 'impulse goods'. For example, 'Strepsils' throat lozenges are placed right at the cash counter in a pharmacy.

### NEED FOR PHARMACEUTICAL COMPANIES TO SHIFT FROM CONVENTIONAL MARKETING

The COVID-19 pandemic hit with world with a wrath, countless lives lost, inescapable grief and trauma, but one can rightfully argue that it came as a blessing in disguise for pharmaceutical marketers, that were now forced to rebut on the traditional and worn-out concept of marketing, that hasn't had changed for much over a century. Post the World War – II, every sector witnessed serious and much needed reforms, many new schools of thought overhauled entire industries including pharma. Yet, the pharma marketing has largely resisted change.

The pharma marketing always needed reforms to better cater to the new world order posed by increased penetration of technology into daily lives since the start of 21st century, increased internet access waiting to be leveraged by the marketers. Some more reasons why new approaches were needed are as follows:

- **Increased cost of Promotion:** With increasing competition, pharma companies adopting conventional marketing techniques have to press by increasing the number of physician visits for which additional workforce is required which eventually increases the overall cost.
- **Waste:** 30 per cent of all the pharmaceutical marketing content is reported to be wasted. Wasted promotional spend increases the cost burden on the company as well as highlights the concern that the promotional message is not effectively reaching the desired target audience.
- **Overwhelming channel usage:** Uncoordinated, excessive and ineffective use of promotional channels which are backed by limited insights of reasons that actually drive customer impact. Promotional return on investment is either unavailable or not accurately deduced.
- **Empowered consumer:** With easy and inexpensive access to the internet, consumers have grown curious to gain information about the treatments they are prescribed. In order to gain consumer trust and loyalty, it is imperative that pharmaceutical companies shift focus onto consumer centric approach.
- **Newer age technology:** Block chain, Artificial Intelligence (AI), Internet of Things (IoT), Machine Learning (ML) helps marketers make rapid and logical business decisions by gaining insights into the data and information already available and hence helps streamline marketing activities and hence reduces overall cost as opposed to that in conventional marketing.
- **Increased cost and decreased effectiveness of personal selling:** Personal selling includes briefing the physician through physical visits, a practice followed by all pharmaceutical companies which has led to a dilution in its effectiveness while increasing the cost burden on the pharma companies which spend nearly 40% of their

marketing budget on sales representatives. A survey by Docplexus revealed that 90 percent doctors allow 2-5 minutes of time to a medical representative out of which 80% physicians due to busy schedules cannot avail the complete detailed information.

## **LATEST AND EMERGING MEANS OF MARKETING**

The modern era pharmaceutical marketing in India is slowly but surely adopting to one or more of the following strategic means of marketing:

### **1. A multi-disciplinary approach to healthcare**

As we move towards integrated health management, pharmaceutical companies are responding by adopting a multi-disciplinary approach which involves personalized and improved products that cater to individual patient's specific needs. Since the healthcare practitioners are dedicated towards providing the highest quality treatment, personalized medicines become the preferred choice hence benefitting the pharmaceutical company. Infosys has launched an SAP-based personalised medicine solution for pharmaceutical industry that helps them to meet regulatory and critical business requirements while delivering personalized medicines to patients. It leverages advanced analytics to manage individual patient treatment life cycle from the point of enrolling to scheduling treatment to post medical treatment.

### **2. Patient centric approach**

Companies that leverage predictive analytic tools powered by AI, ML give real time information about patients or even a simple mobile application or something as basic as providing dosage and drug information online. The companies that connect and prioritize patients and health care practitioners will eventually build value, grow trust and loyalty which shall benefit on the long run as compared to those companies that rely only on physician visits, briefing and sales sampling. The Managing Director of Lupin believes that patient-centricity in all we do is the much-needed shot in the arm for this industry to rise to its new level. Annually, Takeda Pharmaceuticals designs a unique patient engagement plan to connect patients worldwide.

### 3. Omnichannel Marketing

In simple terms, Omnichannel marketing means creating product availability through both online as well as offline presence ensuring convenience, consistency, relevance, empowerment and agility and hence a seamless customer experience. It does so by tying the touch-points together and creating transparency across them. India is among world's fastest growing and largest digitally powered consumer market with rapid digitisation, surging mobile internet penetration, and affordable data having influenced the purchase and consumption patterns.

On July 2021, Mankind Pharma collaborated with 'Ace Turtle' which is a specialized omnichannel platform to Fastrack omnichannel marketing in India. Its unified commerce platform, Rubicon 3.0 powered by Machine Learning supports functions such as inventory management, stock replenishment and data pertaining to products, stock positions and customers on one single platform.

A biopharma firm that wanted to expand its penetration to important HCPs for a major dermatological product in a cost-effective way by utilizing existing knowledge base and reducing sales workforce. HCPs were identified into four groups and engaged into campaign that included e-mail, paid advertising, portals and partner channels based on the company's information. This helped establish an automatic loop which was used to re-engage or progress critical messaging. Over the course of 16 weeks, the result saw an increase in penetration by 29% and patient engagement rose by 53%.

### 4. Data driven Promotion

Omnichannel marketing helps marketers narrow down on most effective promotion strategies by deriving insights through the available data and evidence. The abundance of available untapped and unstructured data on doctors and consumers is made available by social media and other platforms in a simplified manner, based on which pharma companies are rebuilding and reshaping their marketing strategies.

### 5. Social Marketing: A New Approach

Pharmaceutical companies adopting a holistic view of marketing their medicines which involves shifting focus solely from positive or negative impacts of the drug to ethical,

economic, cultural and social impacts of their medicine and use the insights to optimize and personalize the treatment hence focusing on availability, accessibility and affordability. For example, Bristol-Myers Squibb (BMS) founded the Advanced Breast Cancer Community, an information source and online community for advanced breast cancer patients. 13 premier breast cancer patient advocacy groups and Advocate Partners collaborated to form the AdvancedBreastCancerCommunity.org The website also includes information about new research, treatments, and clinical trials.

## 6. Phygital Marketing Strategies

It involves Integrated sales and marketing strategy involving both digital as well as physical channels. Pharma marketers have learnt that along with physical/personal visits, they will also have to adopt digital means in order to diminish in-person meetings and hence, reduce the burden on physicians resulting in increased preference and comfort by engaging through digital means. Digital aspect includes e-detailing to provide the doctor with essential information about the formulation. This strategy does not reduce the dependence or eminence of medical representatives but helps them strike the right balance to achieve the objectives.

eTISL was introduced as a phygital version of TISL-Terumo India Skill Lab, whose function is to assist cardiovascular doctors to improve their skillset and abilities by means of webinars, research findings and information, simulation training, webinars, and other resources.

India's biggest e-pharmacies Tata 1mg and PharmEasy have started going offline to establish omnichannel presence to broaden their user base. PharmEasy has introduced franchise-store model to whom the company itself acts as distributor and has also acquired diagnostic chain firm Thyrocare Technologies with the intent to provide information and relevant data, consultation, diagnosis and treatment to customers.

## 7. Electronic Detailing (E-Detailing)

Pharma companies have been shifting from face-to-face detailing by sales reps to electronic detailing which includes video conferencing, providing doctors with electronic education modules, emails and other means through the



internet to engage them in a two-way communication. In India, electronic detailing had poor penetration but since Covid pandemic pharma companies have started realising its true potential and hence inculcating e-detailing into their marketing strategies. Along the three covid waves in India when doctors did not entertain any medical representatives visiting them, companies resorted to electronic detailing as the only means to stay connected with the doctors. Since its penetration is still low, companies provide incentives to generate participation like practice tools, honoraria, product samples and patient education resources. For example, Sanofi, a reputed Pharma MNC, gives doctors digital devices loaded with clinical studies results, drug indexes, clinical support information,

## **8. Digital-first Customer Relationship Management Systems (CRMs)**

Marketing representatives use Customer Relationship Management Software that provide an integrated customer database, automated marketing campaigns, automated marketing communications, customer account management, planning of cycle activities and management of field visits. Brand managers are focusing digital-first CRMs to monitor engagements through emails, calls, video, text messages and even WhatsApp. A study conducted by McKinsey revealed that companies are shifting focus on operational resilience and accelerating initiatives that enable more agility with emphasis on workforce agility since workforce is getting distributed and hence remote. Companies are also ensuring transparency by utilising digital and analytical tools and automation. Traditionally, a medical representative could achieve 8-10 physician meetings per day but with the application of the digital CRM, the benchmark has shifted to 20 or more doctor meetings which means that existing workforce can now tap double the doctors within existing coverage. When such numbers are realistically achieved, profitability can be increased by 3-5 percent. Traditionally, smaller companies used to find it difficult to match the workforce level as compared to its larger counterparts but by deploying digital tools, they too are able to reach the doctors in areas with limited workforce.

## 9. Differentiated Pitching to Doctors Through New Age Technology

Artificial Intelligence, Blockchain, Machine Learning, Internet of Things and statistical tools help marketers derive meaningful insights about doctor's prescription habits, therapy preference and perception, dosage frequency, company molecule and competitors. The entire data can be used to draw qualitative insights to devise a strategy and hence differentiate the pitch to the doctor. Indian pharmaceutical industry is still at a nascent stage and look forward to these newer age technologies to be adopted across the entire value chain. In India, the focus has been on developing the right data models and ensuring data quality. The models developed are currently in proof-of-concept stage.

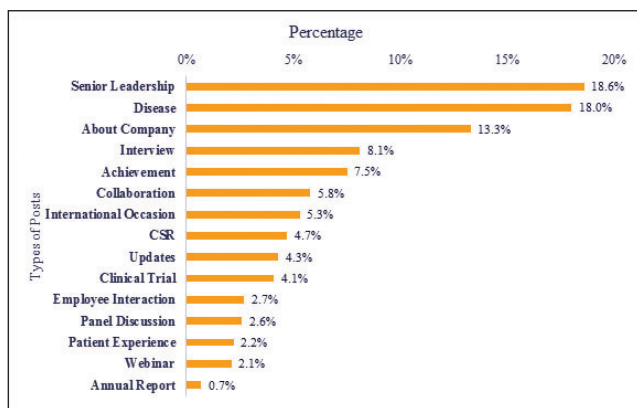
## 10. Social-Media as a Tool for Marketing

The term social media comprises of websites and applications which allows the luxury of creating and sharing desired content quickly in real time. It refers to any internet communication tool which allows the user to share content with a broad audience and engage with the public. It is accessible through computers and smartphone applications. It includes a range of websites and applications like Twitter, Facebook, Pinterest, Flickr, Instagram, LinkedIn etc.

Pharma companies have started using media platforms in the recent years to disseminate information about their products, initiatives, organization and related aspects. Companies are also interacting with patients directly by responding to their queries while following the strict rules and regulations imposed on such communications. Companies leverage the features of these platforms to drive campaigns to promote their products. For example, GlaxoSmithKline (GSK), in 2018 launched a campaign for its over-the-counter (OTC) product Flonase featuring a Baseball player named Justin Verlander. It also released a viral 104-second domino video for Restless Legs Syndrome on YouTube. It starts with the sleeping father who due to his restless legs knocks a book off the bed, and finishes with a TV being turned on and a commercial playing that says, "My dad is one of a million people in the United Kingdom who has Restless Legs Syndrome". The video has received over 500,000 views on YouTube.

Two contributors of this chapter, have conducted a study on 10 Indian MNCs and 10 foreign MNCs in the period of March 2020 to February 2021 pertaining to social media marketing by these companies on Twitter, LinkedIn and Facebook which were analysed on the following parameters: content formats used, number of posts on each platform, number of followers on each platform and overall usage and purpose. 15 broad categories of posts were identified by scanning the mentioned social media accounts of the selected pharmaceutical companies. The categories are Diseases, Senior Leadership, About Company, Employee Interaction, Interview, Achievement, Collaboration, International Occasion, CSR, Updates, Clinical Trials, Panel Discussions, Patient Experience, Webinar and Financial Results. Different types of content formats used by companies were also observed.

**Graph 3: Segments of Social Media Posts by Pharmaceutical Companies**



The study revealed that foreign MNCs used Twitter mostly to disseminate messages from their senior leaderships on various topics and to directly communicate with the public and to spread awareness about various diseases in their therapy areas. Indian MNCs used Twitter mostly to spread awareness on the diseases in their therapy areas. Majority of the posts were a combination of Text with a picture and a link. The company posted a photo along with a few lines of text and a website link.

The website link was either a link to the company website or any other website related to that post. For example, if the company shared a post regarding collaboration, the post consisted of a photo, a few lines of text and a website link of the company it collaborated with. An example of CIPLA is being shown on next page regarding this.

LinkedIn was also used by Foreign MNCs to spread information about diseases and their prevention and to disseminate information from their senior leadership. Indian MNCs used LinkedIn mostly for disease awareness. The content formats of the posts on LinkedIn were found to be similar to that on Twitter. Facebook was used by both foreign and Indian MNCs to spread disease awareness and the content formats used were similar to that on Twitter and LinkedIn.



No information about promotion of drugs were found on all three social media platforms which shows compliance with FDA guidelines and norms. However, companies share videos of webinars with HCPs discussing about treatment of diseases in therapy areas relevant to the company. The overall purpose of using social media platforms by pharmaceutical companies majorly is spreading awareness about diseases in its therapy area, communicating messages from its senior leadership, disseminating information about the company in the form of updates, posting about webinars, panel discussions, CSR activities and sharing employee and patient experiences thus building a positive image across the digital platforms.

## **11. Awareness through Opinion Leaders**

Pharmaceutical Companies rope in opinion leaders to create awareness about certain disease and conditions especially those linked to social stigma to educate the masses about the treatment available and measures to be followed pertaining to the condition and its treatment. Priyanka Chopra partnered with Cipla to create awareness about Asthma and addressed its psychosocial aspects including stigma which contributes towards patient anxiety, delay in diagnosis, denying disclosure of the condition and avoiding use of inhalers in public.

## **REGULATION OF PHARMA MARKETING IN INDIA**

Department of pharmaceuticals has laid down a 'Uniform Code of Pharmaceutical Marketing Practice' (UCPMP) for pharmaceutical marketing in India. Pertaining to modern marketing techniques in line with the code, it says that promotional material such as mails and journal advertisements should not disguise the real nature. Publication of promotional material in journals must not resemble editorial matter. However, implementation of UCPMP is voluntary in nature and hence shows varying levels of adherence by pharmaceutical companies. Experts in the field have shown strong intent that adherence to UCPMP should be made mandatory for all pharmaceutical companies in India.

## **PHARMA MARKETING IN A POST-COVID WORLD**

The post COVID world has changed the world order in many fields and pharma marketing, due to social distancing and other containment measures, has also been affected which led the marketers to come up with innovative solutions to continue engaging with physicians and also fill the void caused because of hampered personal communication.

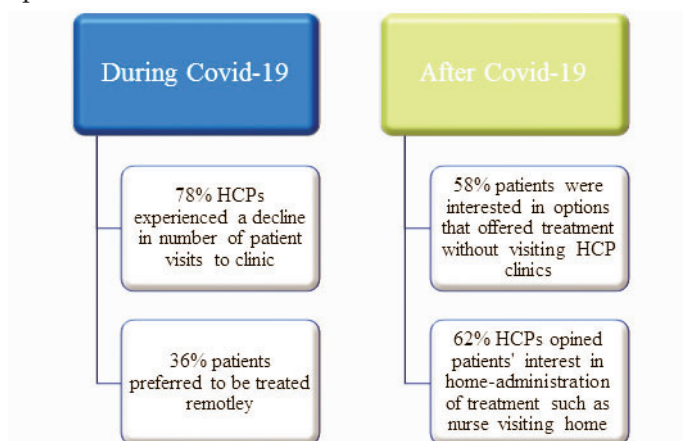
In the year 2020, when COVID-19 was at its peak, Accenture, a consulting organization, performed a survey of "New Models for Pharma Engagement with Healthcare Providers in a COVID-19 World" which intended to understand how the operations and needs in the healthcare has changed during the pandemic COVID-19, and to identify the changes that would leave long-term implications pertaining to interaction among

pharma companies, doctors, patients and other stakeholders. This survey revealed that due to COVID-19, healthcare providers have shifted focus to virtual interaction with both, patients and the pharma companies and that it will be there to stay for a long-term.

Pharma companies adopted different communication strategies that went beyond conventional techniques and focused on patient centricity, patient education, patient engagement with physicians, and all relevant and necessary supporting information all by leveraging the internet and modern era digital tools.

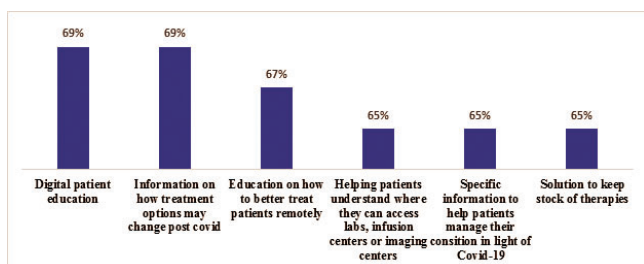
The survey concluded with three key findings that justified that pharma companies have made a positive move to help them engage with physicians and patients. The key findings were as follows:

1. COVID-19 is driving lasting changes in what healthcare providers need and value.



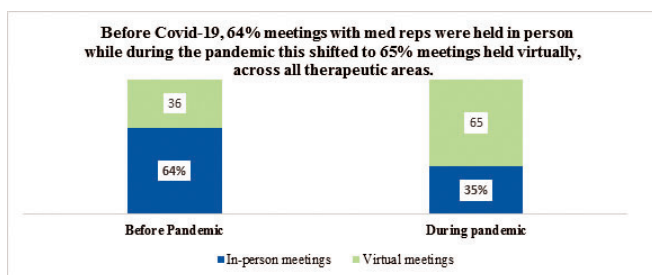
**Source:** Based on the data in “New Models for Pharma Engagement with Healthcare Providers in a COVID-19 World: Accenture” (2020)

2. Pharmaceutical companies have started redefining their presence in this new landscape, which is valued and appreciated by patients as well as healthcare providers. 82% of the HCPs said that they have seen pharma companies change what they communicate about, delivering not just product information but support that meets their most pressing needs”

**Graph 4 Results from survey on Pharma engagement with HCPs in a Covid-19 world**

**Source:** Graph drafted on the basis of data available in “New Models for Pharma Engagement with Healthcare Providers in a COVID-19 World: Accenture” (2020)

- Online interaction of pharma medical representatives with physicians will have to continue for an indefinite period and hence new methods of creating meaningful connections will have to be looked into.

**Graph 5 Pre-and During Covid-19 interaction between HCPs and Med representatives**

**Source:** Graph drafted on the basis of survey data available in “New Models for Pharma Engagement with Healthcare Providers in a COVID-19 World: Accenture” (2020)

## THE ROAD AHEAD

The future of pharma marketing is clearly moving towards becoming more remote and distributed, reevaluating its prospects will be a key focus for the pharmaceutical sector. With operations being more tech driven, the need for a workforce capable of programming, operating and interpreting data from these new-age technologies will be even greater. For this, significant reskilling and capacity building, accompanied by

strategic planning of the workforce would be required.

The formidable pairing of data science and technology in tandem will help in reshaping the pharma sector and will also enable the patients and physicians to have a better experience. The pharma and healthcare sectors, post COVID-19, has become one of the most appealing sectors as a career destination with a host of awaiting young, skilled and innovative talent. Experts in the field are of the opinion that the momentum gained during this period should be leveraged and strategies to create agile organizational support systems should be devised for employees and other stakeholders.

Statistics have clearly proved the importance of technology and digital marketing globally while Indian pharma has not yet been able to reap the maximum out of it. Indian companies allocate a mere 1% of their marketing budget towards this, while MNCs earmark 15%. In order to improve efficiency, profitability and to streamline the functions, considering long term growth, it is imperative that Indian pharma should consider investing heavily into digital means since the internet is the future. Hence, it demands sufficient budget allocation for digital marketing.

## References

1. Subba Rao Charangati. (2018). *Pharmaceutical Marketing in India, Concepts, Strategy, Cases*. PharmaMed Press.
2. Dimitris Dogramatzis (2001) *Pharmaceutical Marketing, A Practical Guide*. Taylor & Francis.
3. Philip Kotler, Kevin Lane Keller. (2017). *Marketing Management*. Pearson.
4. Department of Pharmaceuticals <https://pharmaceuticals.gov.in/>
5. Pharmaceuticals Export Promotion Council of India <https://pharmexcil.com/>
6. Accenture. (2020). *New Models for Pharma Engagement with Healthcare Providers in a COVID-19 World*.
7. Economic Times. (2022). Indian pharmaceutical industry estimated to grow 9-11% in 2021-22: ICRA. <https://economictimes.indiatimes.com/industry/healthcare/biotech/pharmaceuticals/indian-pharma-industry-estimated-to-grow-9-11-in-2021-22-icra/articleshow/88691254.cms>
8. EY. (2021). *Indian Pharmaceutical Industry 2021: future is now*. ey-ficci-indian-pharma-report-2021.pdf
9. Anton Morrison. (2020). *The Evolving World of Pharma Marketing*. <https://www.appnovation.com/resources/thought-leadership/2020-06-evolving-world-of-pharma-marketing>



10. Ankita Kaushik . (2021). Omnichannel Marketing: A Complete Guide for 2022 and Beyond. <https://www.moengage.com/blog/omnichannel-marketing/>
11. Digvijay Mishra. (2021). Tata-owned 1mg, PharmEasy go offline for Omnichannel presence. Economic times. <https://economictimes.indiatimes.com/tech/startups/tata-owned-1mg-pharmeasy-go-offline-for-omnichannel-presence/articleshow/87993649.cms>
12. BiopharmaDive. (2021), Moving pharma marketing from multichannel to omnichannel. <https://www.biopharmadive.com/spons/moving-pharma-marketing-from-multichannel-to-omnichannel/601275/>
13. Chris Lawson. (2020). Omnichannel marketing in pharma. <https://www.orientation.agency/insights/omnichannel-marketing-in-pharma>
14. Shoronya Banerjee. (2021). Pharmaceutical advertising in India:prohibited or regulated under the drug laws of India. <https://blog.iplayers.in/pharmaceutical-advertising-in-india-prohibited-or-regulated-under-the-drug-laws-of-india/>
15. (Akansh Khurana). (2021). How Pharmaceutical Marketing Is Undergoing A Paradigm Shift. <https://inc42.com/resources/how-pharmaceutical-marketing-is-undergoing-a-paradigm-shift/>
16. Financial express. (2021). Here's how pharma companies can leverage digital to market better 24 June, 2021 <https://www.financialexpress.com/lifestyle/health/heres-how-pharma-companies-can-leverage-digital-to-market-better/2277470/>
17. Niyati Pandya. (2021). How Pharmaceutical Marketing is Undergoing a Paradigm Shift. <https://www.healthpressrelease.com/2021/06/07/how-pharmaceutical-marketing-is-undergoing-a-paradigm-shift/>
18. Melissa Sweet. (2009). "Pharmaceutical marketing and the internet" <https://doi.org/10.18773/austprescr.2009.001>
19. Masood Jawed, Sayed Amjad. (2018). 'Pharmaceutical Digital Marketing and Its Impact on Healthcare Physicians of Pakistan: A National Survey'. <https://dx.doi.org/10.7759%2Fcureus.2789>
20. Mithun Nandy. (2021). 'Pharmaceutical Marketing & Product Promotion: A Paradigm Shift in Indian Pharmaceutical Industry' <http://dx.doi.org/10.21567/adhyayan.v5i2.8817>
21. Vijay Bhangale. (2008). 'Pharma marketing in India: Opportunities, challenges and the way forward'. Journal of Medical Marketing: Device, diagnostic and Pharmaceutical Marketing. <https://doi.org/10.1057%2Fpalgrave.jmm.5050121>
22. Shankar, V. and Li, J.K. (2014). Leveraging social media in the pharmaceutical industry. Innovation and marketing in the pharmaceutical industry. pp.477-505.

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## **Section II Financial Management**

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## Inter-Connectedness of Non-Banking Financial Companies & Development Financial Institutions in India: Issues and Policy Implications

Professor Karam Pal Narwal\*,  
Mansi Anand\*\* & Simran Arya\*\*\*

### ABSTRACT

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*Non-Banking Financial Companies (NBFCs) have transpired as a prominent source of finance in India. Being an emerging economy, India's capital intake is huge, which is very difficult to be fulfilled by banks alone. As RBI is also recognising the position of NBFCs as a strategic player in Indian economy (which is evident in their recent ideas on regulating NBFCs), it is imperative that attention should also be given to the factors holding NBFC sector back. All these factors have accelerated in the wake of failure of some major players of this industry. The spread of the pandemic had again geared up the process. In this study, we intend to look at Development Finance Institutions (DFIs) as a probable solution. DFIs have existed and contributed to the initial growth of Indian economy for a very long period of time. DFIs were established with the main objective of fulfilling the financial needs of newly born independent India whose indigenous industries suffered destruction during colonial rule. For about four decades, they injected funds into various sectors of Indian economy. But their charm started waning in the light of 1991 reforms - when*

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*India opened their gates to outside world. A multitude of factors were at play and many DFIs ceased to survive transforming either into banks or NBFCs. But lately, DFIs are being cited as one major tool by experts to act as a bridge which can supply funds to cash-starved sectors. This Paper intends to study the growth rate of a few selected DFIs after their conversion into Banks or NBFCs. We aim to look at the current contribution of DFIs to NBFCs sector and explore the opportunities for future. The pipeline of money which has been broken for NBFCs - Can DFIs act as a seal for it? This research work provides important insights for future probers looking for potential topics in the area of NBFCs and DFIs that are still waiting to be explored.*

**Keywords:** Non-Bank Financial Companies, Development Financial Institutions, DFIs, Interconnectedness, Growth, NBFCs.

## INTRODUCTION

Being a traditionally labour-intensive and capital-deficient economy, India has followed a system of financial middleperson, popularly known as financial intermediation. This middleperson acts like a bridge between two entities (financial players) – the borrowers and the suppliers of money. This job of financial intermediation has been performed by various entities ranging from public sector to private sector. As their name suggests, DFIs were established with a major goal of injecting money into various sectors of the economy which were deemed inaccessible or financially non-viable by the private sector.

DFIs traditionally have acted as a source of funds for public as well as private sector of the economy. Gradually, this role of 'financer' evolved to accommodate loans, equity, guarantees and many more financial instruments. This sounds similar to what a bank does, but there is a basic difference between DFIs and commercial banks. The main job of DFIs was to pump money into a newly independent nation to propel its economic growth by satisfying financial needs of sectors and projects which were not being met by banks. The reason being, high risk components due to the never-ending duration of these projects and involvement of huge investment outlays. This model worked well for quite some till India had its doors closed for the outside world but it started looking unsustainable as India moved from a closed economy to an unlocked one with a flourishing private sector. The role of public sector, although remaining significant, started declining gradually. The scale of Indian businesses grew exponentially which led to a higher appetite for funds that could not be satiated by banks alone. Hence, the need for

Non-Banking Financial Companies (NBFCs). They have been providing a plethora of financial services to the budding Indian industry. But unlike banks, deposits from public are a meagre source of finance for them. They route public money to its seekers in an indirect way. NBFCs have been discouraged to accept deposits from public so as to drive savers towards safer financial intermediaries like banks but this has also led to an increase in risk component by making NBFCs cling to banks for raising funds. The financial communion between NBFCs (both deposit taking and non-deposit taking) and banking industry has been existing since a long time in the Indian Context. Both DFIs and NBFCs are distant relatives of banks with different set of objectives. In this paper, we intend to study the impact of revival of DFIs on the NBFCs sector.

The outline of this paper is as follows: The paper is divided into four Sections. Section II reveals the Objectives of this paper. Section III explains the methodology. Section IV & Section V presents the concepts of DFIs and NBFCs and their journeys so far. Section VI discusses the revival of DFIs, Section VII helps the reader to understand the interconnectedness between DFIs & NBFCs and finally Section VIII concludes the paper & Section IX identifies the limitations of this paper.

## OBJECTIVES

1. To analyze the significance and impact of Development Financial Institution(s) as a 'financer' in India.
2. To delve deeper into the aspects related to NBFCs Crisis in India and its handling.
3. To identify various factors that call for revival of DFIs and the role they can play in dealing with the NBFCs crisis.
4. To study the financial performance of NBFCs which have evolved from DFIs in relation to those which were initially established as NBFCs.

## RESEARCH METHODOLOGY

The use of 'Descriptive' Research has been made to understand the mechanics of contagion effect which is responsible for transfer of crisis from one big company to entire industry. The same approach has been used to compare the financial performance of NBFCs evolving from a DFI background in

relation to those which were established originally as an NBFC. After that, use of 'Exploratory' Research Approach has been made to understand the interplay of DFIs and their role in posing as a probable solution to the NBFCs crisis in India. The Paper is presented in a thematic manner in view of the nature of data that has been collected from secondary sources like RBI website, Economic & Political weekly journal, Money control & various data houses i.e., Scopus, jstor etc. The growth and analysis of financial performance related to NBFCs with and without the DFIs origin has been done from audited financial statements of the respective NBFCs.

## **DEVELOPMENT FINANCE INSTITUTIONS (DFIS) – BIRTH & DEATH**

The story of Development Finance Institutions (DFIs) begins from the birth of independent India. India, because of its colonial past had suffered from systematic de-industrialization and destruction of its local industries. The division of the country and the subsequent migration led to loss of wealth for a good chunk of population. Being an agrarian economy, there was a huge dearth of capital in the country and population which was hungry for employment and livelihood.

Picking from models of various nations across the world, Indian policymakers decided to follow a mixed economy which could put in order, the chaos left by the previous colonial masters. These institutions which were looked upon as a solution, came to be known as 'Development Finance Institutions' or DFIs.

In the Indian context, the private sector was still in its Lilliputian stage, unable to propel growth. To bridge this gap, first DFI – Industrial Finance Corporation of India (IFCI) was operationalized in 1948. This was followed by establishment of Industrial Credit and Investment Corporation of India (ICICI) in 1955 and Industrial Development Bank of India (IDBI) in 1964. To meet the needs of the states, State Financial Corporation (SFCs) and State Industrial Development Corporations (SIDCs) were established in 1950s. To foster investment culture in the country, LIC was created in 1956 (after nationalization of insurance businesses), followed by establishment of Union Trust of India (UTI) in 1964 and General Insurance Company in 1973. These institutions had a fairly good run for about three decades (Nayyar, 2015).

With the advent of 1980s, need for sector-specific DFIs was being realized as access to finance had to be directed in certain industries like agriculture and real estate. It led to creation of institutions like National Housing Bank (NHB), National Bank of Agricultural and Rural Development (NABARD) and Rural Electrification Corporation Limited (REC) (Nayyar, 2015).

Looking at this journey, we can identify three major objectives of DFIs (Nayyar, 2015)

1. Long-term lending institutions at the Central Level
2. Lending Institutions at the State Level
3. Fostering a culture of investment in India

Throughout this journey, financial assistance from government at concessional interest rates had been a major source of funds. This money was used to make loans to various sectors of economy. The last decade of 20<sup>th</sup> century marked an end to four decades of development finance in the country. The triggering point for the downfall of DFIs arrived when Indian Economy went through a series of economic reforms in 1991. While India was undergoing a balance of payment crisis, World Bank provided loans to it for structural development but for this, the World Bank required India to cut down its expenditures (including financial assistance to DFIs), popularly known as Austerity Measures.

This led to cutting of umbilical cord of DFIs from cheaper source of finance and they were left to survive on their own. But in a country like India, which had recently opened its gates for the outside world, the business environment was not very conducive for DFIs to survive independently, rendering the finance model of DFIs unsustainable.

Finally, the cat was out of the bag, revealing weaknesses of the DFI model, which were till now, protected under the public umbrella, like

1. Sudden rise in cost of borrowing for DFIs
2. Dearth of sources of finance for DFIs
3. Underdeveloped financial markets
4. Exposure to foreign competition
5. Behest Lending & Past Sins (Accumulated NPAs)
6. Increasing Inclination towards Universal Banking

All these factors led to reduced significance of DFIs in the economy. Private sector was trying to catch up after the Liberalization, Privatization and Globalization (LPG) reforms whereas the public sector was loosening its control. Long-term lending by DFIs in India kept on falling and dropped to very low levels. The last straw was report by an RBI committee stating that DFIs role could be performed equally well, if not better, by commercial banks and capital markets suggesting that state level institutions should be closed down, while the national-level lending institutions should either be converted into banks or non-banking financial companies (NBFCs). Only DFIs established by Act of Parliament (NABARD, NHB, SIDBI, EXIM) should continue. All recommendations were accepted and executed. (Report of the Working Group on the Development Finance Institutions, Reserve Bank of India, 2004). The void created by DFIs was being filled by growing capital markets, booming economy, and budding alternative sources of funds.

## **NON BANKING FINANCIAL COMPANIES (NBFCs) – RISE & FALL**

Before talking about the opportunities and threats, they pose to the financial system, let's go through some basics.

### **What are NBFCs?**

Reserve Bank of India defines NBFCs as a company which engages itself in the activities like providing loans and advances, purchase of financial instruments like shares, bonds or any other securities which are marketable, issued by government or local authorities. This list of activities also include insurance businesses, hire-purchase, chit business and leasing. All those companies having agricultural, industrial or retail activities as their core business operation are not classified under NBFCs. The definition does not include stock exchanges or brokerage or insurance companies.

Again, seems like something a bank does? Absolutely. The point which differentiates NBFCs from banks is the level of regulation to which they are subjected. NBFCs enjoy some degree of regulatory arbitrage. They can be cited as close cousin of banks who perform almost the jobs as banks but have traditionally been less regulated than them. The reason being, unlike a



bank, NBFCs cannot accept deposits (However, exceptions are there). However, the evolution of effective regulatory norms that are discouraging deposit-taking by NBFCs (Reserve Bank of India (RBI), 1998) and encouraging the entry of non-deposit-taking NBFCs (RBI, 2006) has overall led to a steady decline in the share of deposits and incline in wholesale funding in the funding sources of the NBFCs. comprising mainly banks (mainly through term loans and rest through non-convertible debentures & commercial paper) and debt mutual funds ( particularly non-convertible debentures and commercial paper). They are also not intricated in cheques clearing and settlement system and if in case they are not able to pay back its depositors (deposits taking NBFCs), there is no availability of a protection mechanism like Deposit Insurance.

### Types of NBFCs

NBFCs can be categorized on three parameters

1. Types of liabilities that NBFCs have – Deposit & Non-Deposit Accepting
2. Their size – Systematically Important & others
3. The activities they conduct

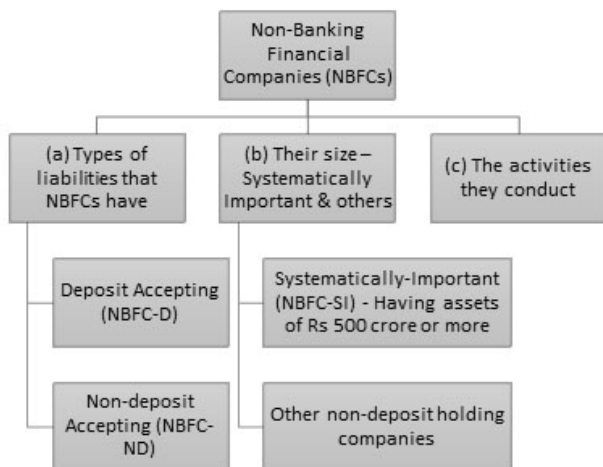
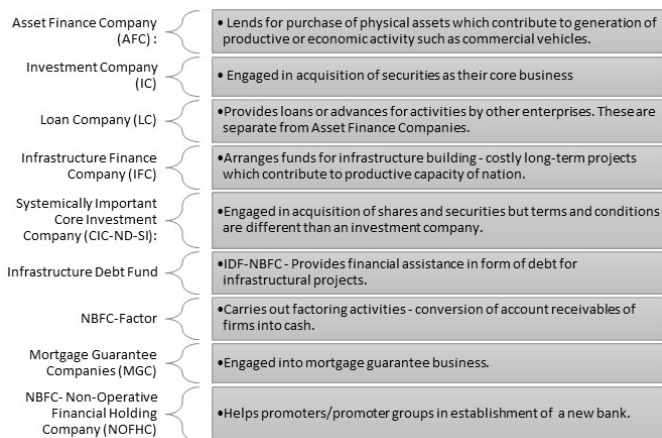


Fig 1. Types of NBFCs

Source - Reserve Bank of India

The sub-classifications under the third parameter – Activities that NBFCs conduct is explained in Fig 2.



**Fig 2. Sub-Classification of NBFCs on the Basis of Activities They Conduct**

*Source - Reserve Bank of India*

### Role of NBFCs in Infrastructure Financing

NBFC – IFCs and IDFs have been a strategic player in financing the projects having long gestation periods. They have earned exemptions from RBI which facilitates ease of raising funds so that they can divert it to infrastructural projects. But the problem lies in the fact that these NBFCs usually borrow short-term and invest into long-term assets by lending to projects with longer duration.

### Role of NBFCs in Financial Inclusion

Financial Inclusion, in simple terms, refer to the availability of financial services (at reasonable and affordable prices for those who have not been able to access these benefits. Microfinance has been cited as one of the measures to enhance financial inclusivity in India. It works upon few elements like

The beneficiaries of Services – Microfinance aims to provide financial services to underprivileged section of the society.

The Quantum of Services – Breaking down of service into small quantities. For Example – Bite-sized insurance.

The Cost of Services – Providing services at affordable prices. For Example – Monthly insurance premium instead of annual to divide the financial burden.

NBFCs and Micro Finance Institutions (MFIs) usually begin from a small scale, which makes them more decentralized, bringing them closer to ground level. They can easily cater to the needs of poorer and rural sections of the society as they enjoy proximity to them in relation to large-scale commercial banks. As Indian Government looks forward to the financial inclusion goals, NBFCs and MFIs can play the role of catalyst in the process.

### **The NBFC Crisis**

In September 2018, the fall of a strategic player of Indian NBFCs sector made to the news headlines. The company undergoing debt default was Infrastructure Leasing & Financial Services (IL&FS). The collapse led to onset of an industry crisis which made it difficult for other players to raise finance. The problems also spread to related industries like real estate which has been a major receiver of funds from NBFCs. As per the Credit Suisse October 2018 Report, the NBFCs' exposure in real estate developers has been estimated to be around INR 2.00 Lakh Crore. The crisis has also led to a fall in the real estate stock index and the benchmark index also declined during the said period. The share of NBFCs in total credit extended has increased from around 9.4% in March 2009 to more than 17% by March 2018 (RBI's FSRs). It may be pertinent to mention that IMF through the Global Financial Stability Report warned about the systemic risks associated with shadow banking practices in relation to NBFCs acting as lenders and about the entrance of such risks in the banking sector& can cause a major havoc sooner or later.

**Ram Mohan (2018)** examined the risks and problems at IL&FS Limited that vexed the financial services conglomerate at the end of 2018. It has been observed that the fundamental issue with the company was that of illiquidity. The firm was using short term funds to finance long-term infrastructure projects – a classic case of asset-liability mismatch. The failure to identify and address these liquidity issues at an early stage led to its bankruptcy. Illiquidity, in such cases, quickly turns into a solvency issue. Whereas, Chandrasekhar (2020), pointed out

that the entire crisis happened due to lack of due diligence, poor financial management and fraudulent activities. NBFCs, due to the very nature of their lending activity (i.e., lending for longer periods in case of housing, auto and infrastructure finance) were facing two problems – first, risk of default by borrower and second, risk of losing bank capital against debentures, bonds and commercial papers.

But, **Kukreja *et al.* (2021)** approached from the point of view of corporate governance lapses. The main parties responsible for the governance failures were seen to be the top management, independent directors and external auditors. Robust inspection mechanism for NBFC-ND-SIs, mandatory appointment and rotation of auditors and creation of an emergency fund for NBFCs can prove to be a solution to tide over such tumultuous times.

When the economy was already suffering through aftereffects of IL&FS fall, another major player called Dewan Housing Finance Limited (DHFL) also came tumbling down. It had also failed due to such corporate governance lapses. They relayed various instances where governance practices were violated. Earlier, it was believed that DHFL was a victim of sour market sentiment stemming from IL&FS' bitter fate. But later on, it came out that actually DHFL was brewing a poisonous beverage on its own.

### **What has been done by Government to support ailing NBFCs?**

The onset of the worldwide pandemic acted as a knockout for already languishing NBFCs. With the collapse of IL&FS and DHFL, the contagion spread to other parts of the industry. When the government came up with the Aatmanirbhar Bharat Relief Package, it was evident that they had to take certain steps to revive the NBFCs sector. Following steps were taken by them

#### **1. Special Liquidity Scheme –**

- (i) A Special Liquidity Scheme was launched in May 2020 to provide assistance to Non-Banking Financial Companies (NBFCs)/Housing Finance Companies (HFCs)/Micro-finance Institutions (MFIs) of ₹ 30,000 crore. These institutions provide funding to MSMEs (Micro, Small & Medium Enterprises).

- (ii) It included investments to be made in both primary (Initial Public Offerings & New Fund Offerings) and secondary market transactions in investment grade (not very highly rated) debt paper of NBFCs/HFCs/MFIs.
- (iii) The aim of this scheme was to provide financial assistance to NBFCs suffering from liquidity crunch but they are not very highly rated. The low credit rating restricts their money raising capacity fueling the liquidity issue.
- (iv) These securities have to be backed (guarantee) by the government. The objective here is to enhance the debt raising capacity of these companies by adding to their credit worthiness.

## **2. Partial Credit Guarantee Scheme 2.0**

- (i) The PCGS was first announced in July 2019. Under this scheme, public sector banks were allowed to purchase high-rated (BBB+ or above) papers from NBFCs and Housing Finance Companies (HFCs) having strong credit worthiness in terms of high credit ratings.
- (ii) To support NBFCs/HFCs/MFIs with low credit rating (AA and below including the unrated papers), Partial Credit Guarantee Scheme (PCGS) 2.0 was rolled out in May 2020 under Aatmanirbhar Bharat Relief Package.
- (iii) Under this scheme, the central government planned to pump Rs 45,000 crore into the economy by inducing public sector banks (PSBs) to purchase bonds/commercial papers (CPs) of such low rated institutions. To incentivise PSBs, the central government announced decided to provide 20% first loss guarantee. This means that if these NBFCs are unable to deliver, the central government will bear the first 20% of loss.

## **THE RE-BIRTH OF DFIS**

The concept of rebirth or reincarnation is not unfamiliar in India. From mythology to Bollywood movies, one can witness

a lot of examples where the protagonist, who had died earlier, takes a new and evolved form and comes back to life at the time of need. The development financial institutions (DFIs) in India are undergoing a similar fate. Once assumed dead, debates and discussions have been going around for their return lately. The National Bank for Financing Infrastructure and Development Bill, 2021 was introduced in Lok Sabha on March 22, 2021. The objective of this bill to set up a principal DFI in the country which will be known as The National Bank for Financing Infrastructure and Development (NBFID) to lend support to the infrastructure sector in the country.

The bill includes establishment of NBFID as a corporate body having an authorised capital of Rs 1,00,000 crore. The DFI will be established with 100% central government ownership initially but it can be brought down to 26% in the future. The DFI will get financial aid from the central government, Reserve Bank of India (RBI), institutional investors like scheduled commercial banks, mutual funds, sovereign wealth funds and multilateral development institutions (international as well). The new DFI will have a lending target of Rd 5 trillion to be achieved in the next three years with an initial capital of Rs 20,000 crore (around USD 3 billion).

Financial assistance will be provided to the new DFI in the form of grants (worth Rs 5,000 crore) and guarantee which will help lower the cost of borrowing from multilateral institutions. The focus will be on keeping the management of NBFID professional and similar to corporates including appointment of Managing Director and independent directors on recommendations by a Board constituted especially for this purpose.

## **Factors calling for the Revival of DFIs.**

### ***1. Insatiable appetite for infrastructure financing***

To revive the economy from the impacts of pandemic, Indian Government needs a mechanism to pump money into economy and that too, direct this financial assistance to certain most-hit sectors. Launched in August 2020, National Infrastructure Pipeline (NIP) is an exercise by Indian Government to provide world-class infrastructure across India. Again, to carry out this 5-year programme, a lot of money is needed.

## ***2. Dwindling risk appetite***

Due to the fall of major players of NBFC industry, like ILFS & DHFL, financial institutions like commercial have become risk averse. In year 2020, India witnessed major financial issues in three banks namely, Yes Bank, Punjab & Maharashtra Cooperative (PMC) Bank, Lakshmi Vilas Bank majorly due to high exposure to the NBFCs sector. The impact has transferred to the banking sector as well. Indian Banks have become wary of lending to large enterprises to avoid large-scale NPAs. The outbreak of covid-19 has added to the chaos.

## ***3. Learning from mistakes of past***

The main reason which led to demise of Development Finance Institutions (DFIs) was lack of alternate funding sources for DFIs. The business environment, at that time, was not conducive enough to support the survival of DFIs on their own, on being cut from their ultimate source of funds – The Government. But today, the times have changed. India has undergone a transformation since 1991 and has a lot more potential to offer opportunities for the independent existence of DFIs. Some of these changes are

**4. Growing Bond Market:** Three decades back, the bond market in India was miniscule. The main reason being absence of investors like insurance companies and pension funds who have access to long-term deposits. Comparing it with current times, Securities and Exchange Board of India (SEBI) is continuously taking steps to make bonds more acceptable to Indian economy, trying to get insurance companies and pension funds to subscribe to such bonds. They act as a reliable source of funding as they do not suffer the asset-liability mismatch (ALM) problem as commercial banks. This can provide DFIs with a constant source of finance.

**5) Emergence of ‘fintech’ and ‘regtech’:** With the advent of 21<sup>st</sup> century, the world has been transformed by application of technology in every field. Hence, finance structures are also not untouched by it. Emphasis on Account Aggregator Platforms (which seek to bridge the gap between the borrowers and suppliers of funds and reduce informational asymmetry), can help institutions to raise funds at fair rates of interest by providing information to investors about their performance and

potential. Public Sector was never considered a growth area but the interest for investors in the Initial Public Offerings of Indian Railway Finance Corporations (IRFC), Railtel Corporation of India and soon to debut Life Insurance Company (LIC) point towards changing times. The advancement in regulatory technology can make it easier to keep a check on these budding tech platforms.

**6) Access to international funds:** Financial Institutions in India are currently better placed to look for international funding. The relative higher interest rates in India, can draw international investors (like Sovereign Wealth Funds – SWF) to India, who are looking for higher returns in times of near-zero interest rates in developed world. The main challenge here, is to retain this funding as international investors can exit the country at a faster speed than what they enter the country with. This is an area for policymakers to work upon.

**7) Availability of professionals:** DFIs in the pre-reform era suffered from accumulation of Non-performing Assets (NPAs). This was majorly because there was lack of due diligence while lending money to large projects which were unable to generate returns in the future. One cannot ignore the political interference in the process of making the loans. Today, India has a large workforce of qualified professionals who can provide these institutions with Technical Assistance (TA) apart from managerial skills. The challenge here, is to create efficient hiring, compensation, evaluation and appraisal structures in order to put the management of DFIs in qualified hands and keep it away from political nexus.

**8) Sector-specific nature of DFIs:** During 1980s, establishment of sector-specific DFIs was being stressed upon to direct money into certain sectors which are considered too risky by other lending institutions (remember NHB & REC!). This can help government to combat investment inequality at regional level and promote pan-India development. Concerns like climate protection have been the topic of international discussion for a long time and resulted in Environmental Social Governmental (ESG) trend and environmentally-conscious investments. Investors, today into account the social impacts of the activities of the companies they are investing in. DFIs can be helpful in tackling global challenges (te Velde, 2011).



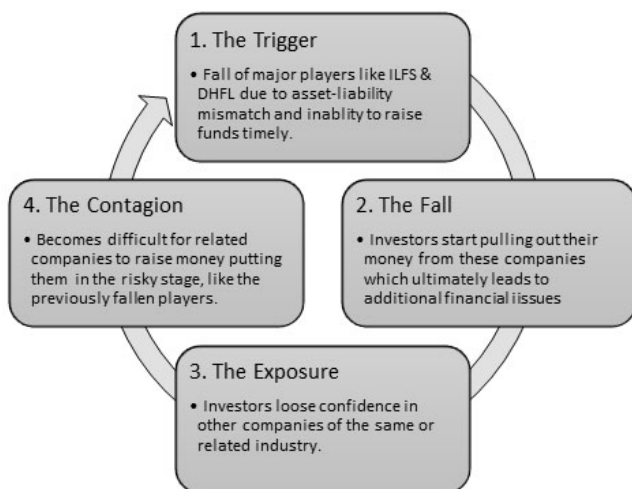
**9) SPV Model at International Level:** A Special Purpose Vehicle or an SPV is a legal body created to achieve a specific purpose. To combat the impacts of pandemic, Federal Reserve (central bank of USA) also created an SPV to provide financial aid to liquidity-starved sectors. This propagated a debate in India as well if this model can also be followed in India.

**10) Unimpressive Record of Universal Banking:** A reason behind death of DFIs was growing inclination towards Universal Banking. In simple terms, universal banking refers to the practice of combining investment and commercial banking. It is the opposite of creating specialised and niche institutions. A major advantage of universal banking was cited as lower costs due to optimal utilisation of resources and economies of scale accrued because of larger scale of financial institutions. But the Global Financial Crisis of 2008 highlighted the risks of interconnectedness and interdependence of banking and insurance businesses. The larger the scale of these companies, greater is the risk that they pose to the financial structures. This has given rise to concepts like 'Too Big To Fail' (TBTF) . Since, the fall of these TBTF institutions can wreak havoc on economy, governments rescue them as saviours. This results in privatisation of profits but socialisation of losses and the entire economy suffers because of wrongdoings of the few. Lately, we can see the emergence of niche institutions catering to the needs of specific sectors and providing specialised services (the rise of Neobanks!).

## **INTERCONNECTEDNESS - CAN DFIS HELP NBFCs?**

As learnt till now, the main problem of NBFC is handling the asset-liability mismatch. For providing long-term large-scale projects, they need a constant source of funding. Here, government or RBI cannot invest directly in these non-banking financial companies (NBFCs) as stigma is attached to taking direct financial assistance from government. And, direct money supply by government can be a one mechanism which can help to provide funding to NBFCs sector in the bad times.

First, let's understand the mechanism of the problem.



**Fig 3. The cyclic nature of fall mechanism**

We have divided the problem into four stages -

1. **The Trigger** – When major players face asset-liability mismatch, they are unable to pay their debtors, which puts them at bankruptcy risk. If they are able to raise money, then the problem is solved but if not, then the company becomes bankrupt leaving its creditors unpaid.
2. **The Fall** – As soon as the word gets out about the financial crunch company is facing, company's investors start to pull out their investments, leading to a fall in company's share prices. The market starts to perceive company as vulnerable and it becomes difficult for it to raise funds leaving it to the mercy of regulators.
3. **The Exposure** – The unpaid creditors and the other related entities of the bankrupt company start facing problems as the investors loose trust (due to connection with bankrupt entity) and start selling downward pressure on the share prices of these related entities.
4. **The Contagion** – Just as a communicable disease is spread from one person to another person with close proximity, there is contagion effect on the related entities raising the cost of borrowing for them and messing with their finances. This makes them vulnerable to the bankruptcy leading to the first stage of the cycle.

Commercial Banks and other financial institutions refrain from lending to these vulnerable sectors as they do not want to land in muddy waters. Government and the central bank as discussed earlier can provide a one-time solution but affect the credit-worthiness of the company in the long-run. When large-sized investors are not willing to invest, smaller investors (institutional and retail) ape their behaviour and stop investing into the needy company. This cycle continues spreading to the entire economy until it is broken by an investor who can put money into companies when others are pulling out. This is called a **counter-cyclical approach**. Most of the investors in the economy operate with a profit-making motive but DFIs (as their main motive is to propagate development) can break the cycle by putting money into the companies which are asset-liability mismatch preventing the investors from losing confidence and the spread of financial risk to other entities. This can also improve risk perception of other investors, which in turn will lead to attracting more investors to the company once a reputable institution (like a DFI) puts money in the company.

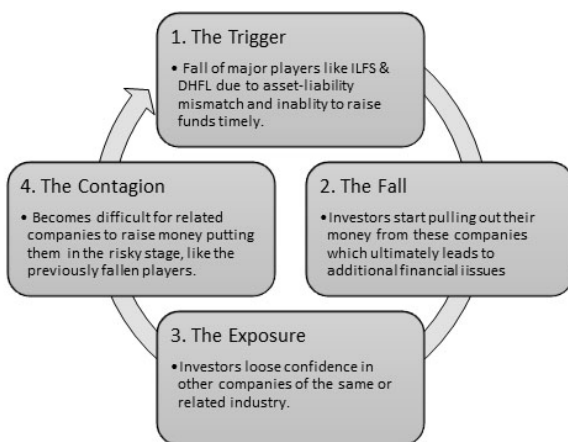


Fig 4. The counter-cyclical approach of DFIs

### Post-conversion performance of DFIs

As we have already seen, while the DFIs were on their deathbed, it was proposed that they should be converted into banks or NBFCs. Here, the aim is to have a look at the performance of DFIs which have been converted into NBFCs – For this purpose, we have selected three DFIs currently active as NBFCs

- 1. Rural Electrification Corporation (REC) Ltd
- 2. Power Finance Corporation (PFC) Ltd.
- 3. Indian Railway Finance Corporation (IRFC)

We have looked at three financial parameters (belonging to the year 2020-21)

- 1. Debt-Equity Ratio – An indicator of solvency. It indicates the financial risk the firm is facing. This ratio highlights the proportion in which the firm makes use of various long-term sources of finance (the split between equity and debt).
- 2. Return on Equity (ROE) – An indicator of profitability. It indicates what percentage of its equity capital, the firm is able to generate as return.
- 3. Current Ratio – An indicator of liquidity. It indicates whether the firm is able to meet its short-term funds requirement or working capital requirements in an efficient manner.

These three NBFCs are rated on these three financial parameters and their results are compared with the average of seven financial institutions which were originally established as NBFCs. The purpose of this comparison is to analyze the financial position of NBFCs, which were previously DFIs with that of the NBFCs having no such DFI past. The analysis can be summarized in Fig 5.

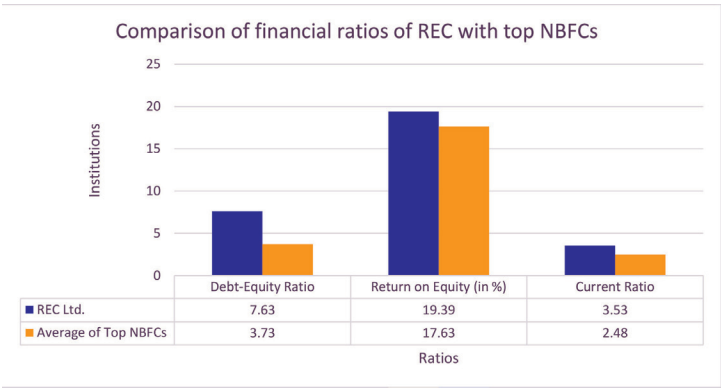
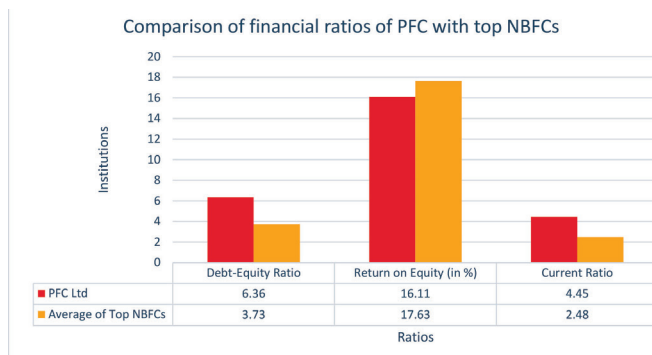
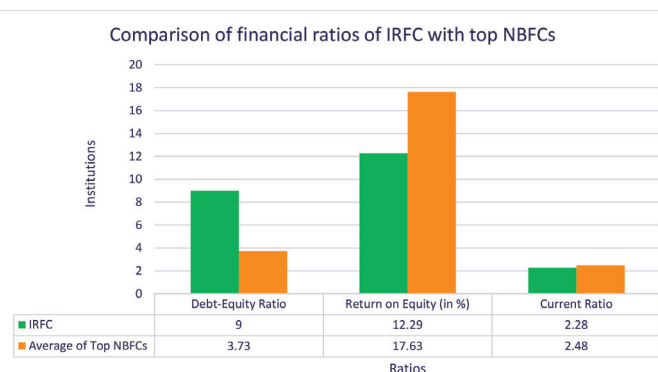


Fig 5 (a) Assessment of Post-Conversion Financial Position of DFI – REC Ltd.



**Fig 5 (b) Assessment of Post-Conversion Financial Position Of DFI – PFC Ltd.**



**Fig 5 (c) Assessment of Post-Conversion Financial Position of DFI – IRFC**

From Fig 5 (a), (b) & (c), we can witness that

- (i) All the three institutions having DFI past, when compared with the average of NBFCs with no DFI past yield a very high debt-equity ratio – almost double in case of REC and PFC and almost triple in case of IRFC. This indicates high degree of financial risk as they are employing higher proportions of debt relative to equity. But one point that can be noted here is, these three institutions are able to employ high proportion of debt because they are able to raise it, which indicates their ability to raise debt. And debt, being a cheaper source of capital (than equity), can bring the cost of capital down.

- (ii) Coming to Return on Equity (ROE), it is higher than the average of NBFCs only in one case, that is, REC (marginally higher than average of no DFI past NBFCs). In rest of the two cases (PFC & IRFC), we can see that ROE generated by them is lower than the averages of NBFCs. But the calculation of ROE does not take into account, the capital gains an equity shareholder can make.
- (iii) Current Ratio in case REC Ltd. & PFC Ltd. is more than the averages of NBFCs, which indicates the current assets (Assets which can easily be converted into cash) of both of them are higher than the current liabilities that they have to pay off in an year, which indicates a strong liquidity position, which again, can be a result of fund-raising ability.

The data tells us that these three institutions have been able to raise debt but this can definitely add to the financial risk they are exposed to. The focus should be on making optimal utilization of the money raised, and trying to use it for contributing to the returns generated by the shareholders.

### **DFIs – A global phenomena**

There is a perception about Development Finance Institutions (DFIs) that they are usually a feature of emerging and developing economies. But it is also an advanced economy characteristic. KfW in Germany, Japan Development bank in Japan, BNDES in Brazil, China Development Bank, Development Banks in Colombia, Mexico, Indonesia are a few examples. (DFI Report, Rakesh Mohan, 2021).

Moving to an international level, there are multilateral institutions providing financial and technical aid to the nations in need. The main objective of these institutions is to promote healthy and cordial relationships between countries to promote an equitable and sustainable development at global level. They try to tackle global challenges by uniting different countries to find solutions to global problems which are acceptable to all. Few examples are World Bank, European Investment Bank, European Bank for Reconstruction Development (formed after the Iron Curtain fell), Asian Development Bank (DFI Report, Rakesh Mohan, 2021).

## CONCLUSION

From this entire discussion, we can conclude that DFIs have been a significant source of funds for Indian Industry in the pre-reform era. But due to management failures, they lost their charm and their role was shifted to commercial banks and NBFCs. But since economy has been suffering through problems in the banking and non-banking financial sectors from almost a decade now, their risk appetite is also diminishing and there is need for financial institutions which can break the wheel of crisis. In the current times, when the economy is trying to revive from the impacts of pandemic induced lockdowns and supply-chain disruptions, DFIs can be a useful approach due to their counter-cyclical approach. Due to their sector-specific nature, DFIs can promote sustainable approach of development and help in routing funds to the growing ESG wave. There are going to be challenges especially making sure that mistakes of the past do not get repeated in the form of professional management and creating self-sustainable financial models but DFIs, if evolved into a more efficient form can help to reverse this cycle.

## LIMITATIONS

1. The study excludes the outliers, data of those NBFCs which are prominent and systematically important but were having extreme financial ratios so as to avoid the data that differed significantly and skewness.
2. The literature and data taken under contemplation was taken for the prominent NBFCs & DFIs that have been converted into NBFCs, it could have been done more comprehensively and that would have changed the findings entirely.
3. The study has been done keeping in mind the Financial Sector of the Economy, its impact and importance for other sectors of the Economy has not been considered. Future probers can try to look at the impact of DFI financing in other sectors like promotion of sustainable investing and growing inclination towards Environmental, Social and Governance (ESG) Trend.

## References

1. Dirk Willem te velde (2011) The role of development finance institutions in tackling global challenges, Overseas Development Institute
2. Dirk Willem te Velde and Warner M. (2007) 'The use if Subsidies by Development Finance Institutions in the Infrastructure Sector', Overseas Development Institute
3. Rajan R. G. and Subramaniam, A. (2007) 'Aid and Growth : What does the Cross-country evidence really show? American Economic Review
4. Isabella Massa (August 2011) Impact of multilateral development finance institutions on economic growth, Overseas Development Institute
5. J.P. Singh (2019) Development Finance 2.0 : Do participation and information technology matter?, Review of International Political Economy
6. Deepak Nayyar (2015) Birth, Life and Death of Development Finance Institutions in India, Economic and Political Weekly
7. Rakesh Mohan; K.V. Kamath; G.A. Tadas; Stephany Griffith-Jones; Viswapati Trivedi; Partha Mukhopadhyay; Milindo Chakravarti (2021) New-Generation DFI in India : Opportunities and Challenges - A report based on RIS-IIC Webinar Series on Banking & Finance 2020-2021
8. A. Karunagran (2005) Should DFIs be revived?, Economic & Political Weekly
9. Reserve Bank of India. (2020). Report on Trend and Progress of Banking in India 2019-20.
10. Financial Stability Board. (2020). Global Monitoring Report on Non-Bank Financial Intermediation 2020. Financial Stability Board.
11. Acharya, V. V., Khandwala, H., & Öncü, T. S. (2013). The growth of a shadow banking system in emerging markets: Evidence from India. *Journal of International Money and Finance*, 39, 207-230.
12. Ghosh, S., del Mazo I.G., and Inci O. R., "Chasing the Shadows: How significant is shadow banking in emerging markets?", *Economic Premise*, Washington, World Bank, 2013
13. Chandrasekhar, C. (2020). Revisiting the NBFC Crisis. *Economic and Political Weekly*, 55(2), 10-11.
14. Ram Mohan, T. (2018). IL&FS was an Avoidable Crisis. *Economic and Political Weekly*, 53(45), 12-13.
15. RBI. Sherpa, D. (2013). Shadow banking in India and China: Causes and consequences. *Economic and Political Weekly*, 48(43), 113-122.



## APPENDIX

The seven Non-Banking Financial Companies which were originally established as NBFCs, having no DFI past selected for comparison with NBFCs having DFI past are :

| Data belongs to year 2020-21 |                       |                         |                    |               |
|------------------------------|-----------------------|-------------------------|--------------------|---------------|
| S. No                        | Names of NBFCs        | Return on Equity (in %) | Debt/ Equity Ratio | Current Ratio |
| 1                            | Bajaj Finance         | 11                      | 2.78               | 4.71          |
| 2                            | Shriram Transport     | 11.53                   | 4.92               | 2.74          |
| 3                            | M&M Financial         | 2.27                    | 3.98               | 2.31          |
| 4                            | Manappuram Finance    | 24.6                    | 2.56               | 2.83          |
| 5                            | Muthoot Finance       | 24.42                   | 3.02               | 1.87          |
| 6                            | PNB Gilts             | 34.49                   | 7.49               | 1.01          |
| 7                            | Sunderram Finance     | 15.07                   | 1.37               | 1.93          |
|                              |                       |                         |                    |               |
|                              | Aggregate             | 123.38                  | 26.12              | 17.4          |
|                              | Average = Aggregate/7 | 17.62571429             | 3.731428571        | 2.485714286   |

### Declaration

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## COVID 19 Pandemic and the Stock Market Behaviour: Evidences from India

Dr. Rachna Mahalwala\*

### ABSTRACT

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*Taking Nifty 500 index as representative of the Indian stock market, the present study observes the impact of COVID 19 pandemic on the behaviour of the stock market in India by adopting asymmetric GARCH frameworks proposed by Nelson (1991) and Zakoian (1994) for empirical analysis. The results of the study indicated no significant impact of pandemic on the volume of stock market. An insignificant downward pressure stock market returns is evident from empirical findings just after outbreak of the COVID 19 pandemic, however, a significant upward pressure on returns is detected in the longer time period considered for finding the continuing impact of pandemic on stock market with ARMA-EGARCH framework. The volatility of stock market is found to have increased significantly during the entire pandemic period. The results will aid investors to comprehend market movements in turbulent times for taking appropriate investment decisions.*

**Keywords:** COVID 19, Stock Market, Volatility, EGARCH, TGARCH

### I. INTRODUCTION

The occurrence of the COVID-19 pandemic with surprising impact on the stock market dynamics is an event that fulfils all the characteristics of a black swan event proposed by Taleb (2007) as the unexpected outbreak of coronavirus disease

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had significantly affected the behaviour of the stock market all over the globe. The Indian stock market has witnessed stock market crash and recovery amidst major the crisis like Harshad Mehta scam 1992, financial crisis of 2008, downturn in August, 2015 due to fear of potential slowdown in the Chinese economy and outbreak of COVID-19 pandemic in March, 2020 resulting in immediate industrial halt and lockdowns. After being first reported in December, 2019 in Wuhan city of China; the coronavirus disease spread so fast in 114 countries throughout the world that on March 11, 2020, the World Health Organization (WHO) declared it as a pandemic. As soon as market assimilated this information, the Dow Jones Industrial Average (DIJA) closed 9.99 percent lower, the worst drop since 1987 stock market crash. As COVID 19 pandemic created disorder in global stock markets, the very next day the, the BSE Sensex plunged by 8.81 percent and the NSE Nifty went down by 8.30 percent. With rising coronavirus cases in India and resulting lockdown by Government in 75 districts in India bringing industrial activities to near standstill, the Sensex and Nifty fell to their lowest level by closing with 13.5 percent and 12.98 percent lower respectively on 23rd March. However, this drop down of market was temporary and Indian stock market started recovering since June, 2020 with Sensex and Nifty touching fresh lifetime highs. Sensex touched a lifetime high of 52,641.53 on June 11, 2020 in intra-day trade reflecting a bullish trend. Amid these ups and downs of stock market, it will be interesting to empirically examine the impact of COVID 19 pandemic on the behaviour of the stock market in India with respect to its volume, returns and volatility.

The study is divided into six sections including the present one. Section II reviews the existing literature. Section III provides the objectives and testable hypotheses. Section IV discusses the data and methodology used. Section V reports the empirical results. Section VI summarises the results and concludes the same.

## II. REVIEW OF LITERATURE

The COVID19 pandemic heightened global uncertainty and risk, hitting hard both developed and emerging economies including the United States, Italy, France, Spain, Germany, Brazil, Nigeria, China and India among others. The COVID 19 pandemic being a recent phenomenon, the existing literature

relating to the impact of COVID 19 on stock market is sparse. However, during the last two years, due to interest of academicians and researchers, some good research relating to topic under consideration is evident producing a wide range of results. A brief description of some relevant studies is discussed as under:

**Baker et al. (2020)** evaluated the role of coronavirus disease outbreak on the behaviour of stock market using text-based methods and making a comparative analysis with previous epidemics like Spanish Flu and influenza in case of U.S. market. The study concluded that no prior infectious disease outbreak has resulted in daily stock market movements as dramatically as those seen in 2020 in response to COVID 19. **Onali (2020)** examined the impact of COVID 19 on the returns and volatility of the US stock market applying first order symmetric GARCH model and reported insignificant impact of pandemic on returns and positive impact on volatility of Dow Jones and S&P returns. **Lee (2020)** conducted a study to find out the impact of COVID 19 on US stock market and checked whether there is any correlation between COVID 19 sentiments and some selected sectoral indices of US stock market. The results showed evidence of abnormal returns from the Fama-French three factor model and indicated for any investment decisions; the time varying correlation should be taken into consideration.

**Anh and Gan (2020)** analysed the impact of COVID 19 on the returns of 723 listed firms of Vietnam's stock market by employing panel data regression method. The findings showed a negative impact of COVID 19 on stock returns, the financial sector to be the hardest-hit sector of Vietnam. **Alam, Alam and Chavali (2020)** examined the influence of COVID 19 lockdown on the reaction of Indian stock market and compared the average abnormal returns (AAR) of pre-lockdown and lockdown period. The results showed a positive impact of lockdown on stock market returns. **Zeren and HIZARCI (2020)** carried out a research to find out the effects of COVID 19 crisis on stock market of China, Italy, France, South Korea, Germany and Spain using daily closing price data and adopting Maki Cointegration test (2012) and RALS-LM unit root test of Meng et. al. (2014) allowing for structural breaks. The results reported presence of cointegration between daily total death and stock

markets of all countries. The results suggested investors to consider alternative investment options like gold.

**Topcu and Gulal (2020)** examined the impact of COVID 19 on stock markets of emerging economies listed by Morgan Stanley Capital International taking daily data of stock indices, oil price shocks, exchange rates, and infection rate. They conducted unit root test and regression analysis and found the negative impact of COVID 19 on emerging stock markets steadily decreased, and by mid-April, it began to taper off. **Khan et al. (2020)** employed Pooled OLS regression, conventional t-test and Mann-Whitney test to analyse the impact of COVID 19 on the most representative stock indices of sixteen countries and S&P Global 1200 Index. The results revealed negative reaction of all the stock indices during pandemic, however, the worst affected Shanghai Composite Index bounced back early due to prompt remedial measures taken by the Chinese government. **Bakas and Triantafyllou (2020)** studied the effects of the pandemic on global commodity markets and established that the uncertainty surrounding the pandemic has reduced commodity market volatility, particularly in case of the crude oil market and the effect of pandemic on the gold market turned out to be positive but weakly insignificant.

**Takyi and Ennin (2020)** evaluated the impact of COVID 19 on the performance of stock market of thirteen African countries by adopting a state-space model, namely, Bayesian structural time series model. The results indicated that negative impact of COVID 19 on eight countries and insignificant impact on remaining five countries. **Hasan and Gavilanes (2021)** observed the impact of COVID 19 on first affected economies, namely, China, United States, Italy, Spain, South Korea and Japan; employing panel Vector Auto-Regressive (VAR) model. The results affirmed the short-term negative impact of COVID 19 on the returns of indices of stock markets. **Sun et al. (2021)** conducted a study to investigate impact of individual investor sentiment on the Chinese stock market for 71 industries adopting an event study methodology and panel regression model. As pandemic infused negative sentiments among investors, the returns of different industries got affected differently. The investors sell off stocks with high-risk characteristics and preferred holding stocks highlighted by Government.

Even a cursory look on existing research reveals that most of the researchers concentrated more on impact of COVID 19 on returns of stock market, neglecting the volume and volatility. The present study, therefore, aims at examining the impact of COVID 19 on the behaviour of stock market in totality taking returns, volume and volatility into consideration.

### III. OBJECTIVE AND HYPOTHESIS

The purpose of the study is to measure the impact of COVID 19 pandemic on trading volume, returns and volatility of the stock market in India. Accordingly, the following are the testable hypothesis in their alternative form:

1. There is a statistically significant impact of COVID 19 on the trading volume of stock market in India.
2. There is a statistically significant impact of COVID 19 on the returns of stock market in India.
3. There is a statistically significant impact of COVID 19 on the volatility of stock market in India.

### IV. RESEARCH METHODOLOGY

#### Data

For the purpose of empirical analysis, the present study considers National Stock Exchange (NSE)'s index Nifty 500 as representative of Indian Stock Market as it represents more than 95% of the free float market capitalization of the stocks listed on NSE. The study uses the daily closing price and turnover data Nifty 500 for a period starting from January 1, 2015 to December, 2021. The data is extracted from official website of NSE ([www.nseindia.com](http://www.nseindia.com)).

#### Variables

In the present study, return is defined as the difference between the natural logarithm of the closing price of Nifty 500 on a particular day and the natural logarithm of the closing price of the Nifty 500 on its previous trading day, the volatility is defined as the variability of returns (variance) on a particular trading day and volume is defined as the difference between natural logarithm of the turnover of Nifty 500 on a particular day and the natural logarithm of the turnover of the Nifty 500 on its previous trading day.

For finding out impact of COVID 19 pandemic on stock market, two dummy variables for two distinct time periods are considered in the model adopted for the study. The two dummy variables for two distinct time periods are taken to identify the (i) immediate effect and (ii) continuing effect of COVID 19 on the behaviour of stock market. In the first time period, dummy for pandemic is taken for the period after the World Health Organization (WHO) declared COVID 19 as pandemic till stock market in India started bouncing back i.e.; from March 11, 2020 till June1, 2020 during the sample period. In the second time period, dummy variable for pandemic is considered for the entire period after the WHO declared COVID 19 as pandemic during the sample period i.e.; from March 11 till December 31, 2021.

### Model

The present study adopts time series analysis for modelling of stock market volume and return generation process along with volatility with Autoregressive Moving Average (ARMA) structures (Box and Jenkins, 1976), Exponential Generalised Autoregressive Conditional Heteroscedastic (EGARCH) Model (Nelson, 1991) and Threshold GARCH model (Zakoian, 1994). The volume is modelled with ARMA model with two dummy variables for COVID 19 pandemic and returns and volatility is modelled with joint ARMA-EGARCH and ARMA-TGARCH framework with two dummy variables for COVID 19 pandemic for capturing the evidences on impact of COVID 19 pandemic on the stock market. A dummy variable "Dummy P (I)" is used for finding out the immediate impact of "Pandemic" on stock market and this dummy variable takes the value "1" for all the trading days from March 11, 2020 till June1 for the first time period and the value "0" for all other trading days and similarly, another dummy variable "Dummy P (C)" is used for finding out the continuing impact of "Pandemic" on stock market and this dummy variable takes the value "1" for all the trading days from March 11 till December 31, 2021 and the value "0" for all other trading days.

Taking the two dummy variables for pandemic, the order of autoregressive (AR) process (m) and moving average (MA) process (n) in the mean equation (volume and return) and the order of the ARCH process (p) and the GARCH process

(q) into consideration for variance equation, ARMA-GARCH and ARMA-EGARCH model are specified with following formulation:

### Mean Equation with ARMA (m,n) for Volume and Return

$$y_t = c + \sum_{i=1}^m a_i y_{t-i} + \sum_{j=1}^n b_j \varepsilon_{t-j} + \sum_{k=1}^q \lambda_k \text{Dummy P(I)} + \sum_{l=1}^p \zeta_l \text{Dummy P(C)} + \varepsilon_t \quad (1)$$

The observation in a time series (such as volume and returns)  $y_1, y_2, y_3, \dots, y_t$  are generated by the ARMA (m, n) model and  $a_i$  and  $b_j$  are the coefficients of autoregressive (m) and moving average (n) terms respectively in the above equation. The error terms  $\varepsilon_t$  are generally assumed to be independent identically-distributed random variables (i.i.d.) sampled from a normal distribution with zero mean:  $\varepsilon_t \sim N(0, \sigma^2)$ , where  $\sigma^2$  is the variance.  $\lambda_k$  is the coefficient of dummy variable, Dummy P(I) to capture the immediate impact of COVID 19 pandemic on the volume/returns of the stock market and  $\zeta_l$  is the coefficient of Dummy P(C) to capture the continuing impact of COVID 19 pandemic on the volume/returns of the stock market.

### Variance Equation with EGARCH for Volatility with Leverage Effect

$$\ln(h_t) = \omega + \sum_{i=1}^q \alpha_i |\varepsilon_{t-i}/h_{t-i}| + \sum_{k=1}^r \gamma_k \varepsilon_{t-k}/h_{t-k} + \sum_{j=1}^p \beta_j \ln h_{t-j}^2 + \sum_{l=1}^s \delta_l \text{Dummy P(I)} + \sum_{m=1}^t \zeta_m \text{Dummy P(C)} \quad (2)$$

Where,  $h_t$  is the conditional variance of  $\varepsilon_t$  (conditional on the information available at time t). In Eq. (2) the standardised residuals  $\varepsilon/h$  are used. The ARCH effect is produced by the absolute value of the standardised residuals, not by their squares with  $\alpha_i$  being the coefficient of ARCH parameter. The asymmetry is also captured by the standardised residuals. For  $\gamma \neq 0$ , we find ARCH effect  $\alpha + \gamma$  for positive residuals and that of  $\alpha - \gamma$  for negative residuals. If a leverage effect exists,  $\gamma$  is expected to be negative.  $\beta_j$  is coefficient of GARCH term.  $\delta_l$  is the coefficient of dummy variable P(I), to capture the immediate impact of COVID 19 pandemic on the volatility of the stock market and  $\zeta_m$  is the coefficient of dummy variable, Dummy P(C), to capture the continuing impact of COVID 19 pandemic on the volatility of the stock market, where  $i=1-----q$  and  $j=1-----p$ ,  $k=1-----r$ ,  $l=1-----s$ , and  $m=1-----t$ .



### Variance Equation with TGARCH for Volatility with Asymmetric Effect

$$\sigma_t^2 = \alpha_0 + \sum_{i=1}^{\infty} (\alpha_i + \gamma_i N_{t-i}) a_{t-i}^2 + \sum_{j=1}^m \beta_j \sigma_{t-j}^2 + \sum_{l=1}^s \delta_l \text{Dummy P(I)} + \sum_{m=1}^t \zeta_m \text{Dummy P(C)} \quad (3)$$

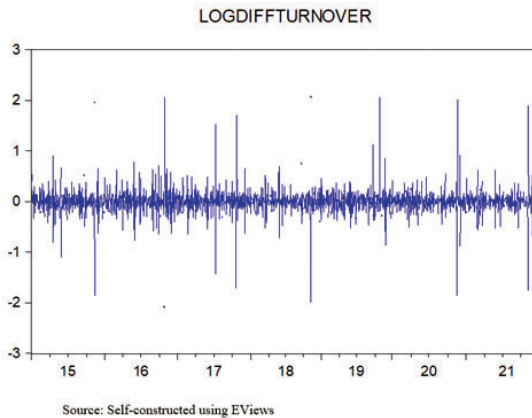
where  $N_{t-i}$  is an indicator for *negative at  $-i$* , that is,

$$N_{t-i} = \begin{cases} 1 & \text{if } a_{t-i} < 0 \\ 0 & \text{if } a_{t-i} \geq 0 \end{cases}$$

and  $\alpha_i$ ,  $\gamma_i$ , and  $\beta_j$  are non-negative parameters capturing ARCH effect, Asymmetry and GARCH effect respectively. From the model, it is seen that a positive  $a_{t-i}$  contributes, whereas a negative  $a_{t-i}$  has a larger impact with  $\gamma_i > 0$ . The model uses zero as its *threshold* to separate the impacts of past shocks.  $\delta_l$  is the coefficient of dummy variable, Dummy P(I), to capture the immediate impact of COVID 19 pandemic on the volatility of the stock market and  $\zeta_m$  is the coefficient of dummy variable, Dummy P(C), to capture the continuing impact of COVID 19 pandemic on the volatility of the stock market.

### EMPIRICAL FINDINGS

The empirical analysis begins with finding impact of COVID 19 on trading volume of stock market. The line graph of log differenced turnover as proxy for volume of Nifty 500 is shown in Figure 1. Figure 1 depicts no trend in the volume series.



**Figure 1 Line Graph of Log Differenced Turnover (Volume)**

Table 1 shows characteristics of Nifty 500 volume. The mean is near to zero (0.002151), the standard deviation is different from

one (0.257750), the volume series is positively skewed (0.486942) and the kurtosis (27.65162) is very large indicating that volume series is leptokurtic. The Jarque-Bera statistic (43569.25) with p-value (0.0000) indicate that data is not normal.

**Table 1 Descriptive Statistics of Nifty Volume**

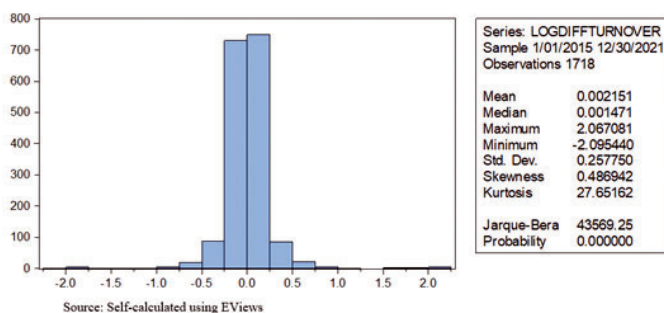


Table 2 shows the estimated values of Autocorrelation Function (ACFs), Partial Autocorrelation Function (PACFs) and Ljung-Box Q-statistics up to 15 lags. The results depict strong evidence of autocorrelation. The significant value for Q (1) statistic at 1 percent level establishes that there is autocorrelation volume series.

**Table 2 Results of Autocorrelation and Partial Autocorrelation on Volume**

| S. No. | AC     | PAC    | Q-Stat | Prob  |
|--------|--------|--------|--------|-------|
| 1      | -0.418 | -0.418 | 301.30 | 0.000 |
| 2      | -0.019 | -0.235 | 301.92 | 0.000 |
| 3      | -0.034 | -0.183 | 303.93 | 0.000 |
| 4      | -0.002 | -0.138 | 303.93 | 0.000 |
| 5      | 0.028  | -0.065 | 305.29 | 0.000 |
| 6      | -0.005 | -0.041 | 305.33 | 0.000 |
| 7      | -0.024 | -0.056 | 306.29 | 0.000 |
| 8      | 0.018  | -0.025 | 306.86 | 0.000 |
| 9      | -0.042 | -0.070 | 309.91 | 0.000 |
| 10     | 0.038  | -0.026 | 312.35 | 0.000 |
| 11     | -0.017 | -0.033 | 312.82 | 0.000 |
| 12     | 0.011  | -0.016 | 313.03 | 0.000 |
| 13     | -0.002 | -0.011 | 313.04 | 0.000 |
| 14     | -0.020 | -0.034 | 313.77 | 0.000 |
| 15     | 0.019  | -0.013 | 314.38 | 0.000 |

Source: Self-calculated using EViews

The results of Augmented Dickey Fuller test are reported in Table 3. The results indicate that ADF test statistic (-26.89204) is lower than its critical values at 1%, 5% and 10% levels of significance (with p-value =0.0000). Thus, the ADF test rejects the null hypothesis of unit root in the volume series.

**Table 3 Results of Unit Root Test on Volume**

|   |           |  |             |        |
|---|-----------|--|-------------|--------|
| Null Hypothesis: NIFTY500 RETURN has a unit root    |           |  |             |        |
| Exogenous: Constant                                 |           |  |             |        |
| Lag Length: 6 (Automatic - based on SIC, maxlag=24) |           |  |             |        |
|   |           |  | t-Statistic | Prob.* |
| Augmented Dickey-Fuller test statistic              |           |  | -14.30544   | 0.0000 |
| Test critical values:                               | 1% level  |  | -3.433969   |        |
|   | 5% level  |  | -2.863025   |        |
|   | 10% level |  | -2.567608   |        |
| *MacKinnon (1996) one-sided p-values.               |           |  |             |        |

Source: Self-calculated using EViews

The results of impact of COVID 19 pandemic on the volume of stock market are given in Table 4. The results show that coefficients of both dummy variables, Dummy P(I) and Dummy P(C), are insignificant which infers that stock market volume did not get significantly affected by COVID 19 pandemic for both time-periods i.e., immediately after declaration of coronavirus disease as pandemic and in the longer period for checking the continuing effect of pandemic. This implies no statistically significant difference in stock market volume during pandemic period as compared to other trading days in the sample period. Thus, Hypothesis 1 is rejected.

**Table 4 Results of ARMA Estimation on Volume during Pandemic**

| Dependent Variable: Log Diff (VOLUME) |             |            |             |        |
|---------------------------------------|-------------|------------|-------------|--------|
| Method: ARMA Least Squares            |             |            |             |        |
| Variable                              | Coefficient | Std. Error | t-Statistic | Prob.  |
| C                                     | 0.002208    | 0.001520   | 1.452593    | 0.1465 |
| DUMMY P(I)                            | -0.003051   | 0.003127   | -0.975746   | 0.3293 |
| DUMMY P(C)                            | 0.005526    | 0.008365   | 0.660641    | 0.5089 |
| AR(1)                                 | 0.695410    | 0.103693   | 6.706408    | 0.0000 |
| MA(1)                                 | -1.319462   | 0.111680   | -11.81469   | 0.0000 |
| MA(2)                                 | 0.394219    | 0.083337   | 4.730428    | 0.0000 |

Source: Self-calculated using EViews

Now, the impact of COVID 19 pandemic on Stock market returns and volatility is measured with joint ARMA-EGARCH and ARMA-TGARCH framework.

The line graph of Nifty 500 returns is demonstrated in Figure 3 and the data characteristics of return series are given in Table 6. Figure 3 discloses that the movements of Nifty 500 returns are both in the positive and negative territory and larger variations tend to cluster together separated from the periods of relative tranquil. Table 5 shows that mean returns are close to zero

and standard deviation though is quite larger than mean but quite different from 1. There is negative skewness (-1.791953) in returns series and the returns data is extremely leptokurtic (24.59479). The Jarque-Bera statistic (34301.26) with p-value <0.05 rejects of the null hypothesis of normal distribution of the Nifty 500 return.

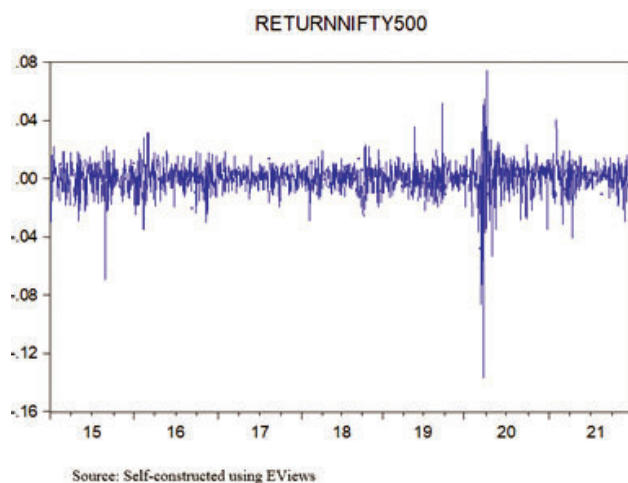


Figure 3 Line Graph of Nifty 500 Returns

Table 5 Descriptive Statistics of Nifty Returns

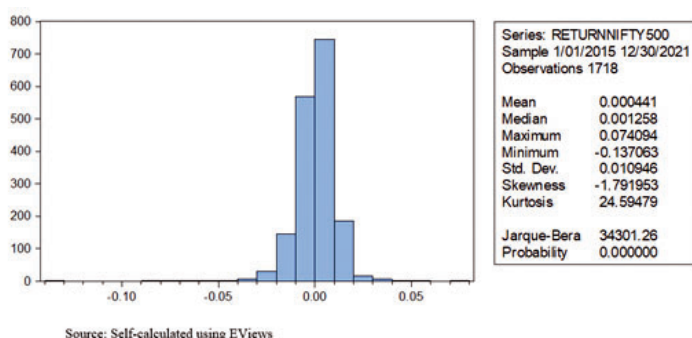


Table 6 shows the estimated values ACFs, PACFs and Ljung-Box Q-statistics for Nifty 500 return series up to 15 lags. The results depict strong evidence of autocorrelation in Nifty 500 returns as Q (1) statistic is significant at 5 percent level.

**Table 6 Results of Autocorrelation and Partial Autocorrelation on Nifty 500 Returns**

| S. No. | AC     | PAC    | Q-Stat | Prob  |
|--------|--------|--------|--------|-------|
| 1      | 0.006  | 0.006  | 0.0541 | 0.016 |
| 2      | 0.027  | 0.027  | 1.2996 | 0.022 |
| 3      | 0.025  | 0.025  | 2.3715 | 0.099 |
| 4      | -0.001 | -0.002 | 2.3738 | 0.067 |
| 5      | 0.100  | 0.099  | 19.745 | 0.001 |
| 6      | -0.124 | -0.127 | 46.467 | 0.000 |
| 7      | 0.104  | 0.104  | 64.983 | 0.000 |
| 8      | -0.010 | -0.014 | 65.157 | 0.000 |
| 9      | -0.013 | -0.010 | 65.455 | 0.000 |
| 10     | 0.085  | 0.073  | 77.885 | 0.000 |
| 11     | -0.059 | -0.039 | 83.898 | 0.000 |
| 12     | 0.067  | 0.034  | 91.775 | 0.000 |
| 13     | -0.047 | -0.025 | 95.648 | 0.000 |
| 14     | -0.039 | -0.050 | 98.247 | 0.000 |
| 15     | 0.035  | 0.024  | 100.36 | 0.000 |

Source: Self-calculated using EViews

The results of unit root test on Nifty returns are presented in Table 7. The results report ADF test statistic (to be lower than its critical value at any level of significance (1%, 5%, 10%)), thus, ADF test rejects the null hypothesis of unit root in the returns series referring that return series is stationary.

**Table 7 Results of Unit Root Test on Return**

|   |           |  |             |        |
|---|-----------|--|-------------|--------|
| Null Hypothesis: NIFTY500 RETURN has a unit root    |           |  |             |        |
| Exogenous: Constant                                 |           |  |             |        |
| Lag Length: 6 (Automatic - based on SIC, maxlag=24) |           |  |             |        |
|   |           |  | t-Statistic | Prob.* |
| Augmented Dickey-Fuller test statistic              |           |  | -14.30544   | 0.0000 |
| Test critical values:                               | 1% level  |  | -3.433969   |        |
|   | 5% level  |  | -2.863025   |        |
|   | 10% level |  | -2.567608   |        |
| *MacKinnon (1996) one-sided p-values.               |           |  |             |        |

Source: Self-calculated using EViews

Before adopting Asymmetric GARCH models along with ARMA in joint estimation for returns and volatility, namely, ARMA-EGARCH and ARMA-TGARCH, for finding out impact of COVID 19 on Nifty 500 returns and volatility, the presence of ARCH effect in data is checked through Lagrange Multiplier (LM) Test suggested by Engle (1982). Table 8 presents the results of the LM test for ARCH effects in the error structure of Nifty 500 returns. The results reject the null hypothesis of homoscedasticity in the error distribution in Nifty 500 returns because the estimated F-statistic value (30.58015) is significant at 1% level of significance. Hence, it is confirmed that ARCH effect is present in Nifty 500 returns.

**Table 8 Results of ARCH-LM Test for Heteroscedasticity in Nifty 500 Returns**

| <b>Heteroscedasticity Test: ARCH-LM</b> |          |                         |        |
|---|----------|-------------------------|--------|
| F-statistic                             | 30.58015 | Prob. <u>F</u> (1,1587) | 0.0000 |
| Observed*R-squared                      | 30.07889 | Prob. Chi-Square(1)     | 0.0000 |

Source: Self-calculated using EViews

The results of ARMA (1,3)–EGARCH (1,1) framework applied to Nifty 500 return for finding impact of COVID 19 pandemic on returns and volatility are listed in Table 9. In the return equation, the coefficient of Dummy P(I) for finding immediate impact of COVID 19 pandemic on Nifty 500 returns is negative but statistically insignificant in mean equation and coefficient of Dummy P(C) for finding continuing impact of COVID 19 pandemic on Nifty 500 returns is positive and statistically significant in mean equation. This infers that insignificant downward pressure on returns created just after declaration of coronavirus disease as pandemic by WHO, however, in the longer time window after the outbreak of pandemic, the market returns have increased significantly. Thus, hypothesis 2 is accepted in case of longer time period represented with Dummy P(C) for finding out continuing impact of pandemic on stock market returns. In variance equation, the results depict that mean returns are positive and volatility is persistent as  $(\alpha + \beta)$  is close to one. The model estimates confirmed presence of leverage effect coined by Black (1976) as asymmetry component coefficient in variance equation is negative which implies that volatility goes up more after negative shocks than after positive shocks. The coefficients of COVID 19 pandemic for both the dummy variables, Dummy P(I) and Dummy P(C), are positive and statistically significant demonstrating that stock market volatility increased significantly in the shorter as well as longer time period during the pandemic. Thus, Hypothesis 3 is accepted.

**Table 9 Results of ARMA-EGARCH Model Fitted to Nifty 500 Returns**

| <b>Dependent Variable: NIFTY 500 RETURN</b>                |                    |                   |                    |              |
|--|--------------------|-------------------|--------------------|--------------|
| <b>Method: ML - ARCH (Marquardt) - Normal distribution</b> |                    |                   |                    |              |
| <b>Variable</b>  | <b>Coefficient</b> | <b>Std. Error</b> | <b>z-Statistic</b> | <b>Prob.</b> |
| <b>Return Equation</b>                                     |                    |                   |                    |              |
| <b>C</b>   | 2.70E-06           | 0.000255          | 0.010563           | 0.9916       |
| <b>DUMMY P(C)</b>  | 0.001281           | 0.000598          | 2.141941           | 0.0322       |
| <b>DUMMY P(I)</b>  | -0.004937          | 0.004282          | -1.152905          | 0.2489       |
| <b>AR(1)</b>   | -0.996015          | 0.003299          | -301.9279          | 0.0000       |
| <b>MA(1)</b>   | 1.123669           | 0.015080          | 74.51409           | 0.0000       |
| <b>MA(2)</b>   | 0.132580           | 0.009921          | 13.36326           | 0.0000       |
| <b>MA(3)</b>   | 0.007283           | 0.016654          | 0.437329           | 0.6619       |
| <b>Variance Equation</b>                                   |                    |                   |                    |              |
| <b>Constant</b>  | -0.934104          | 0.103003          | -9.068707          | 0.0000       |
| <b>ARCH term</b>   | 0.067111           | 0.022655          | 2.962227           | 0.0031       |
| <b>Asymmetry Component</b>                                 | -0.234564          | 0.015458          | -15.17439          | 0.0000       |
| <b>GARCH term</b>  | 0.908137           | 0.010306          | 88.12112           | 0.0000       |
| <b>DUMMYP (C)</b>  | 0.028659           | 0.014062          | 2.038062           | 0.0415       |
| <b>DUMMY P(I)</b>  | 0.200142           | 0.033628          | 5.951696           | 0.0000       |

Source: Self-calculated using EViews

The results of ARMA (1,3)-TGARCH (1,1) framework applied to Nifty 500 return for exploring the impact of COVID 19 pandemic on returns and volatility are reported in Table 10. In the mean equation, coefficients of both the dummy variables are insignificant implying that COVID 19 pandemic has not impacted the returns of stock market significantly during the shorter as well as longer time period considered for finding out immediate and continuing effect of pandemic. Thus, Hypothesis 2 is rejected. In the variance equation, the reported results are similar to the results reported for ARMA (1,3)-EGARCH (1,1) model. The results show that means returns to be positive and volatility is persistent as  $(\alpha+\beta)$  is close to one. The asymmetry term is statistically significant and positive implying that volatility increased more after negative news than after positive news. Dummy P(I) and Dummy P(C) are having significant positive coefficients inferring that stock market volatility is significantly increased during the entire COVID 19 pandemic period. Thus, Hypothesis 3 is accepted.



**Table 10: Results of ARMA-TGARCH Model Fitted to Nifty 500 Returns**

| <b>Dependent Variable: NIFTY 500 RETURN</b>                |                    |                   |                    |              |
|--|--------------------|-------------------|--------------------|--------------|
| <b>Method: ML - ARCH (Marquardt) - Normal distribution</b> |                    |                   |                    |              |
| <b>Variable</b>  | <b>Coefficient</b> | <b>Std. Error</b> | <b>z-Statistic</b> | <b>Prob.</b> |
| <b>Return Equation</b>                                     |                    |                   |                    |              |
| <b>C</b>   | 0.000235           | 0.000240          | 0.982374           | 0.3259       |
| <b>DUMMY P(C)</b>  | 0.000546           | 0.000570          | 0.956676           | 0.3387       |
| <b>DUMMY P(I)</b>  | -0.002422          | 0.004198          | -0.576916          | 0.5640       |
| <b>AR(1)</b>   | 0.119764           | 1.044446          | 0.114667           | 0.9087       |
| <b>MA(1)</b>   | -0.006251          | 1.045557          | -0.005979          | 0.9952       |
| <b>MA(2)</b>   | -0.027163          | 0.119751          | -0.226828          | 0.8206       |
| <b>MA(3)</b>   | -0.018176          | 0.027860          | -0.652396          | 0.5141       |
| <b>Variance Equation</b>                                   |                    |                   |                    |              |
| <b>Constant</b>  | 5.65E-06           | 8.85E-07          | 6.380673           | 0.0000       |
| <b>ARCH term</b>   | -0.019913          | 0.007752          | -2.568754          | 0.0102       |
| <b>Asymmetry Component</b>                                 | 0.257863           | 0.023627          | 10.91380           | 0.0000       |
| <b>GARCH term</b>  | 0.817049           | 0.019042          | 42.90785           | 0.0000       |
| <b>DUMMYP (C)</b>  | 2.54E-06           | 7.21E-07          | 3.518002           | 0.0004       |
| <b>DUMMYP (I)</b>  | 4.01E-05           | 1.88E-05          | 2.134342           | 0.0328       |

Source: Self-calculated using EViews

## VI CONCLUSIONS

The severity of COVID 19 pandemic on global economies was evident with the reaction of stock markets worldwide after its outbreak. To know the exact impact of COVID 19 on stock market behaviour in India, the present study aimed to examine the impact of COVID 19 pandemic on returns, volume and volatility of stock market taking Nifty 500 index as representative for stock market. For finding the immediate impact of COVID 19 on stock market, for the sample period, two dummy variables were introduced. Dummy P(I) is taken from March 11, 2020 till June1, 2020 for checking immediate impact of pandemic on stock market and Dummy P(C) is taken from March 11, 2020 till December, 2021 to examine the continuing impact of pandemic on stock market. The results in general revealed no change in stock market volume and returns due to pandemic. However, an upward trend in returns detected with Dummy P(C) in longer time period with ARMA (1,3)-EGARCH (1,1) model. The stock market volatility consistently showed an significant upward trend with both ARMA (1,3)-EGARCH (1,1) and ARMA (1,3)-TGARCH (1,1) models for both the dummy variables. To sum up, the empirical results revealed insignificant impact of pandemic on stock market trading volume and significant impact of pandemic on the volatility



of stock market. The results relating to impact of COVID 19 pandemic on returns are mixed showing upward pressure on returns for Dummy P(C) with ARMA (1,3)–EGARCH (1,1) only. The implications of the present study are vital for stock market participants, specifically risk-averse investors, to comprehend and predict the behaviour of stock market volume, returns and volatility during such crisis-like situations before trading and investing.

## References

1. Alam, M. N., Alam, M. S., & Chavali, K. (2020). Stock market response during COVID-19 lockdown period in India: An event study. *The Journal of Asian Finance, Economics, and Business*, 7(7), 131-137.
2. Anh, D. L. T., & Gan, C. (2020). The impact of the COVID-19 lockdown on stock market performance: evidence from Vietnam. *Journal of Economic Studies*.
3. Bakas, D., & Triantafyllou, A. (2020). Commodity price volatility and the economic uncertainty of pandemics. *Economics Letters*, 193, 109283.
4. Baker, S. R., Bloom, N., Davis, S. J., Kost, K. J., Sammon, M. C., & Viratyosin, T. (2020). *The unprecedented stock market impact of COVID-19* (No. w26945). National Bureau of Economic Research.
5. Black, F. (1976). Studies of Stock Price Volatility Changes, Proceedings of the 1976 Meetings of American statistical association, Business and Economics Section, Washington, D.C., *American statistical association*, 177-181.
6. Bollerslev, T. (1986). Generalized autoregressive conditional heteroskedasticity. *Journal of econometrics*, 31(3), 307-327.
7. Box, G.E.P. and Jenkins, G.M. (1976). *Time series Analysis: forecasting and Control*, Revised Edn., California. Holden-Day Press.
8. Engle, R. F. (1982). A general approach to Lagrange multiplier model diagnostics. *Journal of Econometrics*, 20(1), 83-104.
9. Hassan, S., & Gavilanes, J. M. R. (2021). First to react is the last to forgive: Evidence from the stock market impact of COVID 19. *Journal of Risk and Financial Management*, 14(1), 26.
10. Khan, K., Zhao, H., Zhang, H., Yang, H., Shah, M. H., & Jahanger, A. (2020). The impact of COVID-19 pandemic on stock markets: An empirical analysis of world major stock indices. *The Journal of Asian Finance, Economics, and Business*, 7(7), 463-474.

11. Lee, H. S. (2020). Exploring the initial impact of COVID-19 sentiment on US stock market using big data. *Sustainability*, 12(16), 6648.
12. Nelson, D.B. (1991). Conditional Heteroskedasticity in Asset Returns: A New Approach, *Econometrica*, 59, 347-70.
13. Onali, E. (2020). COVID-19 and stock market volatility. *Available at SSRN 3571453*.
14. Sun, Y., Wu, M., Zeng, X., & Peng, Z. (2021). The impact of COVID-19 on the Chinese stock market: Sentimental or substantial?. *Finance Research Letters*, 38, 101838.
15. Takyi, P. O., & Bentum-Ennin, I. (2021). The impact of COVID-19 on stock market performance in Africa: A Bayesian structural time series approach. *Journal of Economics and Business*, 115, 105968.
16. Taleb, Nassim Nicholas (2007). The black swan: The impact of the highly improbable. New York :Random House, ISBN 978-1400063512
17. Topcu, M., & Gulal, O. S. (2020). The impact of COVID-19 on emerging stock markets. *Finance Research Letters*, 36, 101691.
18. Zakoian, J. M. (1994). Threshold heteroskedastic models. *Journal of Economic Dynamics and control*, 18(5), 931-955.
19. Zeren, F., & HIZARCI, A. (2020). The impact of COVID-19 coronavirus on stock markets: evidence from selected countries. *Muhasebe ve Finans İncelemeleri Dergisi*, 3(1), 78-84.

## The Unified Payment Interface (UPI): A Digital Transformation and Its Impact on The Payments Industry

Vishu Jain\* & Prof. (Dr.) Neelam Jain\*\*

### ABSTRACT

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*India's financial payments infrastructure has grown at a breakneck pace in recent years. With India's rising smartphone penetration (over 600 million in Aug 2021, according to Economic Times) and the rise of the Internet, there has been a push to bring banking over mobile phones. In comparison to manual payment methods, digital payment applications have proliferated. UPI is the most recent addition to the list (Unified Payments Interface). This article discusses the fundamental paradigm of UPI, how it may be seen in the future with the UPI 2.0 model, and its impact on the payment industry.*

**Keywords:** Unified Payment Interface (UPI), Digital Payments, Economic development, NPCI.

### INTRODUCTION

With a GDP of \$3.050 trillion, India is the world's sixth-largest economy. India is primarily a cash economy. High reliance on cash creates its own set of issues, such as currency note manufacture, storage, and cash management costs, as well as the usage of counterfeit currency. As the economy expands, these issues will only worsen (Chakrabarty et al., 2020). The Reserve Bank of India (RBI) has undertaken initiatives in an effort to enhance cashless transactions in India, including establishing

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the 'National Payment Corporation of India (NPCI)' to provide low-cost digitized payment systems for retail (Alaeddin et al., 2018).

NPCI unveiled the UPI in August 2016, a next-generation e-payment mechanism that allows bank payments in real-time. UPI capitalizes on India's high teledensity to make cellular phones, the principal device for both customers and merchants, making electronic payments ubiquitous across the economy. (Gupta & Kumar, 2020).



This article investigates the added value that UPI provides over conventional digital payment systems. The creation of UPI solutions focused on merchants would considerably enhance user acceptance of UPI, which is now in its infancy. UPI empowers a majority of users to gain access to cutting-edge technologies, leading the country towards a higher shore of growth.

UPI systems centered on merchants can bridge this imbalance in a price-effective manner in India, which currently lacks a suitable digital payment acceptance infrastructure. UPI can be used as a model for developing a successful, widely used cashless payment system in both advanced and emerging economies.

## BACKGROUND

The year 2016-17 was a watershed moment in India's payments environment, with dramatic legislative moves, the advent of new payment mechanisms of the next generation, & rapid changes in consumer behavior and interactions.

During this time, demonetization was implemented, rendering 86 percent of cash notes useless overnight (Sivathanu, 2017). Paper money became scarce during the demonetization process, and huge lines formed at branches and ATMs were accessible to

withdraw the meager money left. The economy stalled as trade and commerce came to a halt, even after the advent of new banknotes and the use of digital ways of payment.

Mobile-based digital wallets became popular just a year before demonetization, and a substantial smartphone-using populace enthusiastically embraced them (Sadar, 2016). NPCI wanted to establish a new payment system - UPI - with a clear vision from the Reserve Bank to push next-generation online payments. On April 11, 2016, the RBI Governor publicly inaugurated the 'Unified Payment Interface (UPI)', later made available to the public on August 25, 2016 (NPCI, 2016).

Reserve Bank has really been working tirelessly to establish a reliable online payments ecosystem in the nation. Under its supervision and with the cooperation of the Indian Banks Association (IBA), the Reserve Bank has laid the foundation of NPCI as an apex entity for e-commerce payment systems in India, with all large banks as stake-holders (RBI, 2009).

## **UPI'S CAPABILITIES OVER EXISTING CASHLESS SYSTEM**

### **Interoperable Interface Design**

Payments can be made across interfaces using UPI, enabling the consumers to execute transactions that are interoperable, where the payment can be requested on one platform and a transaction processed on another. For example, a website can be used by a merchant to seek money, the user can confirm and pay with their cell phone,

### **Abstraction of Bank Account Information**

The account holder is not required to provide any sensitive banking details, in order to execute a transaction. Users can create their own UPI id, which will function as their unique identifier for sending and receiving money.

### **Push and Pull Based Smartphone Transactions**

Modern technical payment methods, are push-based transactions in which the consumer initiates the transaction. A merchant cannot submit a payment request (pull) to a customer for approval or payment. UPI allows mobile phones to perform real-time push and pull operations.

### **No need to preload the money**

Other methods of mobile payment, such as e-wallets, function in their own spheres of influence, requiring both the payer and the payee to participate. The beneficiary's payment address is necessary for conducting transactions via UPI. Customers must preload funds into their wallet accounts in digital wallets, suggesting that the cash will remain in the wallets until they are redeemed back into their respective bank accounts. Money is immediately taken from the payer's bank account and credited to the payee's bank account while using UPI.

### **Mobile Centric Approach**

In India, where almost every adult appears to have a savings account and a cellphone, UPI takes advantage of this widespread connectivity to enable universal digital payments. UPI was created for India's smartphone users to make low-cost and ubiquitous online payments possible.

### **One-Click-2-Factor Authentication**

Consumers can complete purchases with only one click on their phone by entering their MPIN. This differs from current payment methods, which require users to enter card information, usernames, passwords, and one-time passwords (OTPs) in order to make a purchase. The key device for authorizing and validating payments under UPI is the user's cell phone.

## **UPI'S IMPACT ON THE PAYMENTS INDUSTRY**

Since its inception in August 2016, UPI has seen tremendous development in terms of users, transaction volume, and transaction value. The Covid-19 epidemic has hastened UPI's rapid acceptance since its launch in 2016. In October 2019, it surpassed 1 billion transaction for the first time. The subsequent one billion occurred in less than a year. For the first time in October 2020, UPI executed over 2 billion transaction. The increase from 2 billion to 3 billion transactions per month occurred in just ten months, demonstrating UPI's remarkable appeal as a gateway for retail electronic payments among consumers. UPI had taken only three months to surpass 3 billion monthly transactions. Additionally, UPI handled 4 billion transactions in the last consecutive months of 2021 (October, November, & December). Person-to-person money transfers now account for the vast

majority of UPI transactions, whereas merchant-to-merchant transfers are relatively insignificant. The lack of merchant adaptation infrastructure for UPI payments at payment terminals is the rational explanation for this. With more companies accepting UPI transactions for their clients, UPI adoption for merchant payments is projected to rise (Kakade & Veshne, 2017).

### **UPI's Impact on Transactions in the Real World**

Cash and Card based transactions constitute transactions of the physical world. UPI seems to have the potential to revolutionize offline payments by giving a low-cost substitute for them. With UPI, retailers will not be needing any sophisticated POS devices technology for processing payments via cards; instead, they will be able to showcase a distinctive UPI QR Code that customers can scan with their phone to make a payment, with the money being deposited to the bank account of the retailers.

### **UPI's Impact on e-Payments**

Payment gateways currently facilitate the bulk of online transactions, with traditional payment methods such as Plastic money and e-Banking serving as the principal payment method. Users must enter all sensitive information, such as card numbers, CVV values, Online banking usernames and passwords, and so on. As a result, digital payments are susceptible to data breaches and fraud. Customers do not need to supply any information while using UPI; they simply use their cell phone to scan the QR code displayed on the website, and the transaction is processed in seconds.

### **UPI's Impact on Businesses**

UPI facilitates digital payments for a wide range of companies, including both brick and mortar stores and online websites. In a physical business, there is no need for POS equipment; each employee can be given a unique UPI ID and QR code, which can be presented to clients for payment collection (Shubha, 2017). Allowing payment at the moment of delivery is another critical use case for enterprises. Cash on delivery is quite popular in India, with about 60% of e-commerce purchases demanding payment in cash while delivering. Such cash payments can be transformed into digital payments using UPI, allowing customers to pay via UPI.

## **UPI 2.0: THE WAY FORWARD**

UPI has experienced tremendous expansion, owing to the developing ecosystem encouraged by banking institutions and other fintech and increased consumer adoption. To make UPI a payment method, security, convenience of use, and the creation of commercial solutions are critical and will benefit both parties, fintech, and consumers.

In this approach, NPCI is releasing UPI 2.0, an improved version of UPI with improvements in security and user simplicity of use, as enterprise use cases are expanding, as is the UPI ecosystem.

The following are likely to be key features of UPI 2.0:

### **Biometric Transaction Authentication**

Currently, consumers can validate their payment using a four- to six-digit MPIN. User biometrics, such as fingerprints or iris prints, will be used to authenticate transactions in UPI 2.0. The user will be able to authenticate transactions with his or her biometrics.

### **UPI Payment Mandate**

Repeatedly making monthly payments like utility bills, school fees, insurance premiums, and loan EMI payments is one of the most popular applications for consumers and enterprises. Customers will give 'one-time verification' for payments regularly to the number of merchants and billers, allowing companies to receive monthly payments. While creating a mandate is a one-time process, it enables the person's account to be debited following the agreed-upon terms and conditions without confirming each operation.

## **CONCLUSION**

UPI has made it possible to utilize a mobile phone like a significant device for sending and receiving payments. UPI allows even the tiniest retailer to start accepting e-payments without requiring POS equipment in India. UPI has removed the requirement for transacting parties to be aware of the payment system functionality, making. Compared to other payment solutions, UPI is the world's most advanced and sophisticated form of payment method. There are no middlemen in UPI with card networks, allowing for reduced transaction fees and



immediate settlement. It runs on a safe, secure, and strong platform with multiple security features, making it safer and more reliable than any other payment method now in use. In the future, biometric authentication in UPI will not only increase the security of payments, but it will also mark a significant step forward in combining next-generation technology with established payment systems. UPI has the potential to be a significant facilitator of financial inclusion in India, allowing a large portion of the people to participate in the digital economy.

## References

1. Alaeddin, O., Rana, A., Zainudin, Z., & Kamarudin, F. (2018). From Physical to Digital: Investigating Consumer Behaviour of Switching to Mobile Wallet. *Polish Journal of Management Studies*, 17(2), 18–30.
2. Chakrabarty, M., Jha, A., & Ray, P. (2020). Demonetization and digital payments in India: perception and reality. *Applied Economics Letters*, 8(3), 1–5.
3. Gupta, S., & Kumar, D. (2020). Upi - An Innovative Step for Making Digital Payment Effective and Consumer Perception on Unified Payment Interface. *The International Journal of Analytical and Experimental Modal Analysis*, 12(1), 2482–2491.
4. Kakade, R., & Veshne, N. (2017). Unified Payment Interface: A Step Towards a Cashless Economy. *International Research Journal of Engineering and Technology (IRJET)*, 4(11), 762–766.
5. National Payments Corporation of India (NPCI) Mumbai (2016, April,11) *NPCI Presents Unified Payments Interface (UPI) System* [Press Release].
6. Reserve Bank of India (2009) *Payment Systems in India Vision 2009-12*. Department of Payment and Settlement Systems. Reserve Bank of India, 6(4),8.
7. Sadar, R. (2016). Preference Towards Mobile Wallets Among Urban Population of Jalgaon City. *Journal of Management(JOM)*, 3(2), 1–11.
8. Shubha (2017). Comprehensive 2017, U.S. Market Analysis of POS Terminals and EMV & NFC Status Review. Lets Talk Payments.
9. Sivathanu, B. (2017). Adoption of digital payment systems in the era of demonetization in India: An empirical study. *Journal of Science and Technology Policy Management*, 10(1), 143–171

## Exploring the Investor's Opinion on SEBI SCORES Redressal

Ritika Gupta\* & Sonam Bhateja\*\*

### ABSTRACT

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*The Securities and Exchange Board of India has initiated SCORES, a centralized Web-based system for lodging and tracking the complaints. A grievance can be filed on SCORES against listed companies and intermediaries registered with Sebi like R&T agents, portfolio managers, depositories and its participants, debenture trustees, credit rating agencies, custodians etc. Sebi asked stock exchanges to make a stronger and more effective system for quicker resolution of grievances and to offer for the immediate grant of financial relief to investors after the arbitration procedures.*

*The current paper is an attempt to study the investors grievances redressal mechanism of SEBI SCORES. This study also explored the opinion of the investors towards important factors that lead to lodge a complaint to SEBI SCORES. In order to achieve the objective, both primary and secondary data is used. The secondary data have been obtained from various authentic websites to find out the number of lodged complaints and the primary data have been collected from 200 respondents with the help of structured questionnaire and the respondents were asked to rate their opinion on a five-point Likert scale. Further, the study revealed that the investors considered some of the factors as important for complaint redressal. It is also suggested to SEBI to cautiously address the investors complaint timely.*

**Keywords:** Investor Grievances, Web-based mechanism, SEBI (Securities and Exchange Board of India), SCORES (Sebi Complaints Redress System), Investor Opinion.

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## INTRODUCTION

SEBI SCORES is an independent platform to gauge the efficacy of redressal mechanism of investor grievances they face while dealing with registered companies and brokers in the stock exchanges. Investors may have, on occasion, complaint against listed companies or any intermediaries they are dealing with while investment in stock exchange can approach first to the company for redressal of their complaints, if not satisfied then they can reach to SEBI scores to get the Redressal of their grievances done.

SEBI, with the aim to reduce the formalities in the proceedings of registration of complaint, has empowered the Scores to process the redressal system quickly and more efficiently. The most significant characteristics of scores is a centralised database for all the complaints and online visibility of status of the complaints and action undertaken for it. Till 2011, the system of grievance handling was only through off-line mode, which was quite time-consuming process and the number of complaints received were also very less as compared to the actual scenario and investors were not able to know the action taken on complaints filed by them which leads to dissatisfaction and distrust. With the objective of shortening the time period and processing in receiving and redressal of complaints, Scores introduced computer-based online system in order to make convenient for investors to seek protection for their interests.

## RESEARCH METHODOLOGY

This study is exploratory and descriptive in nature. Primary as well as secondary data has been used in order to achieve the desired objectives. A sample of 200 respondents (investors) was selected using random sampling. A structured questionnaire was developed and the respondents were asked to rate their opinion on a five-point Likert scale, ranging from 1-strongly disagree to 5-strongly agree. The questionnaire was constructed and the reliability of the data was checked by using Cronbach's alpha that yielded a reliability score of greater than 0.8. The data was collected by personal interview and 150 questionnaires were found to be complete in all aspects and useful for analysis.

The data was analysed using SPSS. The statistical tools used are percentage analysis, t test, correlation and Friedman's test.

## OBJECTIVES

- To study the investors grievances redressal mechanism of SEBI SCORES.
- To explore the opinion of investors on SEBI SCORES mechanism based on some prominent factors for lodging a complaint.

### 1. Status of Investor Grievances Received and Redressed

SEBI has required both issuers and intermediaries to have in place mechanisms to address the investor's complaints. Thus, when grievances are received at SEBI, SEBI directs them to the respective intermediary. Intermediaries are obligatory to inform the SEBI that how they dealt with the grievances and it is always expected to deal within 30 days.

Table 1 reports the trends in Investor grievances received and redressed by SEBI over the years.

**Table 1 Investor Grievances (Received, Redressed and Pending)**

| Financial Year | Grievances Received |            | Grievances Redressed |            | Pending Actionable Grievances |
|----------------|---------------------|------------|----------------------|------------|-------------------------------|
|                | Year-wise           | Cumulative | Year-wise            | Cumulative |                               |
| 2008-09        | 57,580              | 26,74,560  | 75,989               | 25,03,560  | 49,113                        |
| 2009-10        | 32,335              | 27,06,895  | 42,742               | 25,46,302  | 37,880                        |
| 2010-11        | 56,670              | 27,63,565  | 66,552               | 26,12,854  | 28,653                        |
| 2011-12        | 46,548              | 28,10,113  | 53,841               | 26,66,695  | 23,725                        |
| 2012-13        | 42,411              | 28,52,524  | 54,852               | 27,21,547  | 11,410                        |
| 2013-14        | 33,550              | 28,86,074  | 35,299               | 27,56,846  | 9,147                         |
| 2014-15        | 38,442              | 29,24,516  | 35,090               | 27,91,936  | 5,736                         |
| 2015-16        | 38,938              | 29,63,454  | 35,145               | 28,27,081  | 5,452                         |
| 2016-17        | 40,000              | 30,03,454  | 49,301               | 28,76,382  | 4,476                         |
| 2017-18        | 43,131              | 30,46,585  | 43,308               | 29,19,690  | 3,771                         |
| 2018-19        | 42,202              | 30,88,787  | 39,108               | 29,58,798  | 3,094                         |

Source: Computed (Data taken from SCORES and SEBI Reports)

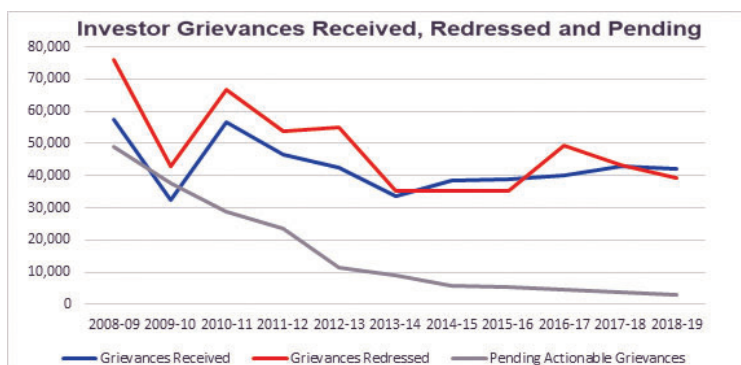
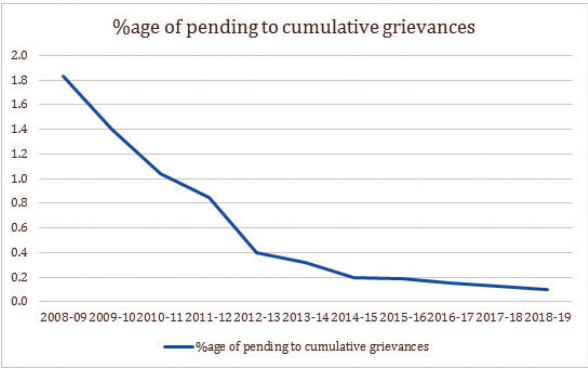


Figure 1

Table 2 Percentage of Pending to Cumulative Grievances

| Financial Year | Grievances Received (cumulative) | Pending Actionable Grievances | % age of pending to cumulative grievances |
|----------------|----------------------------------|-------------------------------|---|
| 2008-09        | 26,74,560                        | 49,113                        | 1.8                                       |
| 2009-10        | 27,06,895                        | 37,880                        | 1.4                                       |
| 2010-11        | 27,63,565                        | 28,653                        | 1.0                                       |
| 2011-12        | 28,10,113                        | 23,725                        | 0.8                                       |
| 2012-13        | 28,52,524                        | 11,410                        | 0.4                                       |
| 2013-14        | 28,86,074                        | 9,147                         | 0.3                                       |
| 2014-15        | 29,24,516                        | 5,736                         | 0.2                                       |
| 2015-16        | 29,63,454                        | 5,452                         | 0.2                                       |
| 2016-17        | 30,03,454                        | 4,476                         | 0.1                                       |
| 2017-18        | 30,46,585                        | 3,771                         | 0.1                                       |
| 2018-19        | 30,88,787                        | 3,094                         | 0.1                                       |

Source: Computed (Data taken from SCORES and SEBI Reports)



**Figure 2**

Table-1 reports the trends in the grievances received and redressed by SEBI over the years and Table-2 depicts the pending grievances with Sebi. It has declined nearly 20 % percent till March, with the market regulator acting on prompt disposal of the complaints. The number of pending grievances has fallen sharply in 2008-09. The number of pending grievances has been steadily declining over the years.

## 2. Exploring the Investor's Opinion on SEBI SCORES Redressal

### *Analysis and Interpretation*

The respondents were classified based on their profile and are presented in Table 2

**Table 2 Profile of the Respondents**

| S. No. | Profile Variables | Percentage |
|--------|-------------------|------------|
| 1      | <b>Age</b>        |            |
|        | Below 20 years    | 13.5       |
|        | 21-30years        | 31         |
|        | 31-40 years       | 24.5       |
|        | 41-50 years       | 20.5       |
|        | Above 50years     | 10.5       |
| 2      | <b>Gender</b>     |            |
|        | Male              | 54.5       |
|        | Female            | 45.5       |

|   |                                  |      |
|---|----------------------------------|------|
| 3 | <b>Educational qualification</b> |      |
|   | Schooling                        | 12.5 |
|   | Diploma                          | 17.5 |
|   | Under Graduate                   | 32.5 |
|   | Post Graduate                    | 26.5 |
|   | Others                           | 11   |
| 4 | Marital Status                   |      |
|   | Unmarried                        | 42.5 |
|   | Married                          | 57.5 |
| 5 | <b>Occupation</b>                |      |
|   | Govt Employee                    | 13   |
|   | Private Employee                 | 20.5 |
|   | Business                         | 23.5 |
|   | Others                           | 17.5 |

Source: Computed (Primary Data)

Among the sample 200 respondents, 30% of the respondents belonged to the age group of 20-30 years, 54% of the respondents are male, 32% of the respondents are undergraduates, 57% of the respondents are married and 25% of the respondents are students.

### Factors influencing Complaint Registration

To register and regulate the working of stockbrokers, sub-brokers, share transfer agents, bankers to an issue, trustees of trust deeds, registrars to an issue, merchant bankers, underwriters, portfolio managers etc.

### Investor Grievances Redressal

The mean score, standard deviation, mean rank, and chi-square value for the variables on satisfaction are presented in Table 3.

**Table 3 Dominant Variables in Investor Grievances Redressal**

| Sr. No | Variables                             | Mean | Standard Deviation | Mean Rank | Chi-Square Value |
|--------|---------------------------------------|------|--------------------|-----------|------------------|
| 1      | Completely aware of SCORES            | 2.05 | 1.15               | 2.28      | 219.896**        |
| 2      | Know the costs and benefits           | 2.05 | 1.19               | 2.24      |                  |
| 3      | Know the entire complaining procedure | 2.54 | 1.41               | 3.18      |                  |
| 4      | SCORES improve investor interest      | 2.08 | 1.21               | 2.30      |                  |

Source: Computed (Primary Data \*\* significant at 1 percent)

The most important variable on the factor is “Know the entire complaining procedure” with mean score of 2.54, a Standard deviation of 1.41, and a mean rank of 3.18. The chi-square value is significant at 1 percent, leading to the inference that there is a significant difference among the included variables in **investor grievances redressal**

### **Satisfaction**

The mean score, standard deviation, mean rank, and chi-square value for the variables on satisfaction are presented in Table 4.



**Table 4 Dominant Variables in Satisfaction**

| Sr. No | Variables   | Mean | Standard Deviation | Mean Rank | Chi-Square Value |
|--------|---|------|--------------------|-----------|------------------|
| 1      | How long does it take for the entity to respond to the complaint?             | 1.89 | 1.02               | 3.52      | 285.205**        |
| 2      | limitations in dealing with complaints  | 1.65 | 0.77               | 2.86      |                  |
| 3      | Satisfied with the existing redressal mechanism                               | 1.99 | 1.09               | 3.80      |                  |
| 4      | Satisfied with the way handles the Problems                                   | 2.18 | 1.07               | 4.36      |                  |
| 5      | Satisfied with the availability of information about processing time and fees | 1.71 | 0.82               | 3.01      |                  |
| 6      | Whom to approach for complaint against Stockbrokers/Depository Participants?  | 1.87 | 0.92               | 3.45      |                  |

Source: Computed (Primary Data \*\* significant at 1 percent)

Among the statements of satisfaction, the most important statement is “satisfied with the way service provider handles the problem” with a mean score of 2.18, a standard deviation of 1.07, and a mean rank of 4.36. The lesser mean is observed in the statement “overall the response is good” with a mean of 1.65, a standard deviation of 0.77 and a mean rank of 2.86. The Chi-square value is significant at 1 percent and hence it is inferred that there is a significant difference among the included variables on satisfaction.

### Trust

The variables used to measure trust were included and the respondents were asked to rate their opinion on the various statements of trust. The mean score, standard deviation and mean rank were calculated and summarised in Table 5.

**Table 5 Dominant variables in Trust**

| Sr. No | Variables   | Mean | Standard Deviation | Mean Rank | Chi-Square Value |
|--------|---|------|--------------------|-----------|------------------|
| 1      | Trust concerned listed company                                  | 2.19 | 1.13               | 4.18      | 279.971**        |
| 2      | You feel a sense of loyalty towards redressal of listed company | 2.19 | 1.13               | 4.18      |                  |
| 3      | The speedy redressal procedure always meets your expectations   | 1.73 | 0.89               | 2.84      |                  |
| 4      | Mechanism is honest and truthful                                | 1.92 | 0.92               | 3.40      |                  |
| 5      | Redressal forum treats you fairly and justly                    | 1.85 | 1.02               | 3.19      |                  |
| 6      | SCORE is sincere in the redressal of complaint                  | 1.85 | 0.87               | 3.22      |                  |

Source: Computed (Primary Data \*\* significant at 1 percent)

The statements “trust concerned listed company” and “you feel a sense of loyalty towards redressal of listed company” are the most important statements in trust with a mean score of 2.19 and a standard deviation of 1.13 each. The chi-square value is proved to be significant at one percent, thus, a significant difference has witnessed among the selected variables on trust.

### Facilitation

The variables on facilitation were listed and the mean scores, standard deviation, mean rank and chi-square is calculated and is presented in the following Table 6.

**Table 6 Dominant Variables in Facilitation**

| Sr. No | Variables   | Mean | Standard Deviation | Mean Rank | Chi-Square Value |
|--------|---|------|--------------------|-----------|------------------|
| 1      | Availability of guidelines for loading complaint                | 2.06 | 1.07               | 2.88      | 145.605**        |
| 2      | Provision to seek confidentiality and non-disclosure            | 1.92 | 0.94               | 2.63      |                  |
| 3      | Specific variables of documents required for filing a complaint | 1.58 | 0.93               | 1.94      |                  |
| 4      | Provision of check status and updates of complaints             | 1.88 | 0.72               | 2.56      |                  |

Source: Computed (Primary Data \*\* significant at 1 percent)

“The Availability of guidelines for lodging complaint” is the most important statement on facilitation with a mean score, standard deviation and mean rank of 2.06, 1.07, and 2.88 respectively. It is inferred that there is a significant difference among the included variables in facilitation since the chi-square value is significant at 1 percent.

## FINDINGS

The findings revealed that the investor considers certain statements to be very important. The investor expects the SCORES to handle problems satisfactorily. They view trust and loyalty towards the SCORES to be important. The investors also consider the facilitation that they need not to get to the SCORES in comparison to that of the other forums to match their expectations. The SCORES will have to build their mechanism keeping in mind the expectations and try to meet them. Irrespective of the type of complaint, the investors view trust as an important factor, therefore, SCORES can devise strategies to build trust among the investors. The study shows that the four factors awareness of investors grievances, satisfaction, trust and facilitation will have to be cautiously addressed by the SCORES.

The study is limited to the four factors that influence grievance handling. There are other factors like the approachability, quick decisions, online status of grievance handling etc can be included to study the behaviour of the investors. Further, the investor grievance received and redressed among the investors of other complaints can be explored.

## CONCLUSION

To regulate the investor grievances redressal, SEBI has set up a platform which is more investor friendly and creates awareness about their basic rights of protection against frauds and misleading statements by brokers and companies. The study is showing that the number of complaints has reduced as compared to the past 10 years and complaints redressal has increased in proportion. Investors can build strong relationships only if elements like trust, services and assurity by regulators are provided. Furthermore, schedules of various investor awareness programs are also enabled on the website for the education of investors. The transparency and clarity of complaint redressal procedure has now been introduced on the website of SCORES.

Investors can check the status of complaints resolution at any time. At the same time, interaction with brokers and registered companies is equally essential to attract more investors.

## References

1. Ajit, D., Malik, S., & Nautiyal, S. (2017). Effectiveness of SEBI's Complaints Redress System (SCORES) in India. *IOSR Journal of Business and Management (IOSR-JBM)*.
2. Tata, Y. (2020). Applicability of Consumer Protection Act on Capital Markets in Comparison with SEBI Scores. *Available at SSRN 3599245*.
3. Singh, K. J. (2021). Investor Protection Measure: Limitation Period for Complaints on SCORES. *Available at SSRN 3853088*.
4. Maheshwari, D. (2016). Investor protection through Investor Grievance Redressal Mechanism at SEBI. *NJRIP-National Journal of Research and Innovative Practices*.
5. Kaur, P., & Kaur, J. (2016). Investors' Grievances in India: Role of SEBI. *MUDRA: Journal of Finance and Accounting*, 3(1), 70-83.
6. Das, I., Sarkar, P. K., Nayak, P., & Garikapati, K. (2020). Growth of Sebi as a regulator of the Indian Capital Market. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(12), 178-201.

## Websites

1. <https://www.sebi.gov.in/>
2. <https://scores.gov.in/scores/Welcome.html>

## Impact of Financial Reporting Quality on Labour Investment Inefficiency

Leela Joshi\*

### ABSTRACT

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*Financial reporting quality has been recognized as a very important issue in the finance and accounting area for a long time. Increased awareness among investors and stringent disclosure regulations has converted the subject of quality of financial reporting into an area of growing corporate and academic interest. A large literature in finance provides evidence that information asymmetry causes firms to undertake suboptimal levels of investment decisions. The notion of recent accounting research is that high-quality financial reporting can serve to mitigate such market imperfections (information asymmetry) and improve investment efficiency. In line with this proposition, a growing body of empirical evidence suggests that high-quality reporting is associated with more efficient capital investments. This chapter provides an insight for understanding the potential role high financial reporting quality can play in affecting investments in labour, an important factor of production that has been largely overlooked. So, the role of financial reporting quality in facilitating employment decisions has been discussed in this chapter.*

*Keywords: Financial reporting quality; labour investment efficiency; employment; disclosure; information asymmetry.*

### INTRODUCTION

Ideally speaking, in a perfect capital market there is no information asymmetry and managers always make optimal

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investment decisions with positive NPV and withdraw from projects with negative NPV causing wealth maximisation of shareholders. However, in reality, capital markets are not perfect and the presence of information asymmetry and credit crunch prevents firms from undertaking optimal investment decisions (Myers and Majluf, 1984; Fazzari, et al., 1988). Moreover, even if the firms don't face financial constraints the opportunistic behaviour of the managers leads to selecting and executing value-destroying investments, which are not in favour of maximisation of wealth of shareholders of the firm (Jensen, 1986; Stein, 2003; Hope and Thomas, 2008).

Corporate financial reporting has emerged as one of the prominent areas of research and debate among researchers, practitioners, and policymakers. Extensive research has analytically explicated and empirically established that high financial reporting quality is expected to alleviate the presence of information asymmetry enabling a firm to undertake investment decisions closer to their optimal level. It is the two major problems associated with information asymmetry which causes a firm to undertake sub-optimal investment decisions.

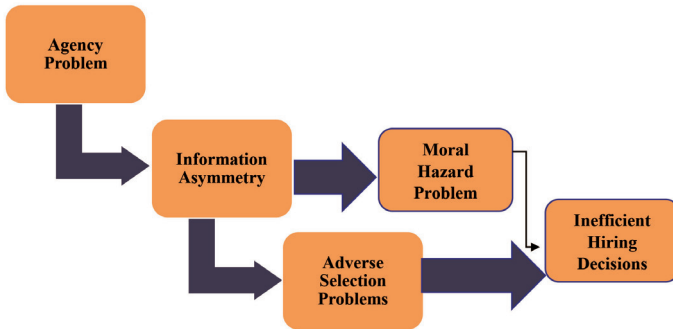
## CONCEPTUAL FRAMEWORK OF FINANCIAL REPORTING QUALITY

FRQ represents a quality spectrum that is very difficult to measure, as a result, there is no agreed definition of FRQ in the literature (Dechow; et al., 2010). As such, a universal definition of FRQ seems impracticable, yet, the **appropriateness of financial information** to all the stakeholders including shareholders, lenders, suppliers, regulatory bodies and others, may be considered as the most significant **cardinal attribute of FRQ** (Himanshu et al., 2020).

The more the ability of reported earnings to predict future operating cash flow the higher is the quality of financial reporting. This notion is based upon the objectives of the Financial Accounting Standards Board (FASB), as reflected in its Statement of Financial Concepts No. 1, **Objectives of Financial Reporting by Business Enterprises [1978], paragraphs 37 and 44.**

**Concept of Labour Investment Inefficiency:** When observed (actual) labour investment deviates from the expected (optimal)

level of labour investment, then there is a presence of labour investment inefficiency.



**Fig 1.1 Information Asymmetry and Labour Investment Inefficiency**

As per agency theory, there is a conflicting relationship between two parties (either manager and owners or between managers and outside investors) giving rise to moral hazard problems and adverse selection problems causing inefficiencies in the form of over &/or under-investment (Fig 1.1).

### **MORAL HAZARD PROBLEM AND OVERINVESTMENT IN LABOUR**

Sometimes, managers tend to exhibit self-maximising behaviour to pursue their self-interests instead of striving for the wealth maximization of shareholders. This managerial opportunism curtails the ability of the shareholders to perceive the decisions undertaken by managers. For example, self-interested managers are more willing to create empires for them for the sake of their prestige, status, compensation and so on. Thus, managers indulged in the problem of empire-building keep on hiring a greater number of employees which is far more than the number of employees required to run some project optimally causing over-investment in labour. Williamson (1963) speculated that managers tend to expand staff beyond optimal levels on account of meeting their personal desires for power, promotion and prestige.

On the contrary, some managers prefer a quiet life and don't want to undertake strenuous efforts of right-sizing or they don't want to face any legal repercussions of wage cuts or layoffs. So,

they allow poor-performing employees to stay in the firm. To create a work-life balance, they sometimes end up turning down potentially profitable opportunities (Bertrand & Mullainathan, 2003). Moreover, these passive managers enter into long-run mutually beneficial agreements with underproductive/unproductive employees by restraining themselves from the removal of these employees (Pagano and Volpin; 2005). In return, employees also let these perverse managers stay within the firm without any hindrances.

### **ADVERSE SELECTION PROBLEM AND UNDERINVESTMENT**

The information asymmetry present between the firm and outside investors make investors at an information disadvantageous position. In the situation of high risk, uncertainty and confusion, investors start expecting a high rate of return. Put it differently, they penalise the prices of securities. As a result, lesser funds are raised due to the higher cost of external capital. Thus, otherwise profitable projects remain unfunded.

There is an alternative explanation given behind the reason for underinvestment i.e., Shareholders &/or Manager's Myopic View. Shareholders are more concerned about short term earnings targets and persistently create pressure on managers resulting in rejection of long-run profitable projects. This happens, out of the fear and concern for the near-term stock prices which would turn gloomy on account of depressing short-term earnings.

Similarly, sometimes managers behave myopically, especially at the time of seasoned equity offerings (SEO), reorganisation, takeovers, dismissal of managers due to poor performance etc. Thus, for the manager's greater incentive to undertake suboptimal investment decisions is to inflate short term stock prices.

Hence, it can be concluded that the shorter horizon/myopic view reduces the cognitive ability of managers to comprehend the ramifications of turning down long-run profitable projects and the revelation of undertaking sub-optimal decisions in the future.

Prior studies (Froot, Perold, & Stein, 1992; Von Thadden, 1995) suggested that the pressure created by myopic outside



investors may cause managers to turn down profitable projects. Supporting empirical evidence put forward by Graham, Harvey, and Rajgopal (2005) signified that a significant number of managers, who are more concerned with the short-term stock price, are likely to give up projects having long-run profitability and thus postpone or eliminate hiring to meet short-run earning targets. Hence, concerns over short-term earnings targets result in under hiring.

### **RELEVANCE OF FINANCIAL REPORTING QUALITY IN HIRING DECISIONS**

In a large stream of accounting and finance literature, there are multiple numbers of researches investigating the impact of high financial reporting quality on investment efficiency (Bushman and Smith, 2001; Healy and Palepu 2001; Ball and Shivakumar, 2005) empirically established that a better FRQ enhances investment efficiency by lessening information asymmetry and agency costs on account of adverse selection and moral hazard problems; which eventually leads to mitigate over and under-investment problems. High-quality financial reporting contributes to the better functioning of financial markets by alleviating market frictions arising from agency problems (Kanodia and Lee, 1998). Thus, high financial reporting quality mitigates the problem of inefficient investment and enhances investment efficiency (Biddle and Hilary, 2006; Biddle, et al., 2009; Ahmed and Duellman, 2011; Bushman, et al., 2011). However, the research examining the link between financial reporting quality and labour investment efficiency is still in its nascent stage. The potential role of high quality has been confined to non-labour investments. One of the significant factors of production i.e., labour has been ignored altogether.

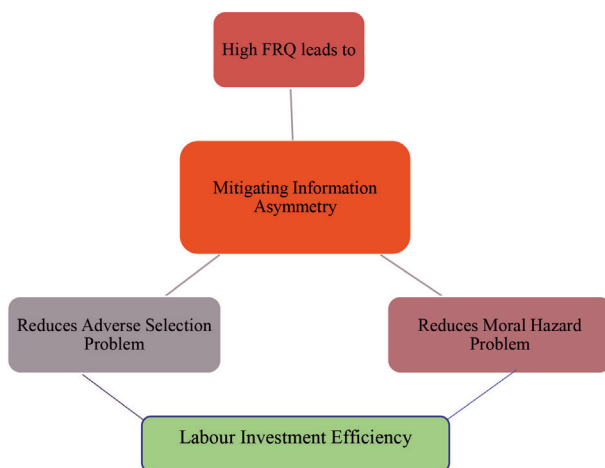
The positive link between high-quality disclosure practices and investment efficiency can't be extended to employment efficiency unless it is proved empirically.

As per Classical Economic View, labour is a purely variable factor. So, there is no time lag between wage payments and revenue generation. In other words, whenever a firm requires funds to make payment of labour costs, there is no need to go to external capital markets as revenues are generated at the same time.

Thus, the role of high quality of financial information to mitigate information asymmetry present in the external capital market is null and void.

However, contemporary research on labour elucidated that labour is not a purely variable factor. In fact, it has some fixed components known as upfront costs or adjustments costs like hiring costs, training costs, and firing costs (Oi, 1962; Farmer, 1985; Hamermesh, 1995; Hamermesh and Pfann, 1996). Thus, labour is a quasi-fixed cost and the events of hiring, training, and firing occur at different points of time than the revenue generation occurring at the end of the production process. To bridge the time gap, firms are required to access the external capital market making financial reporting quality relevant to mitigate the information asymmetry and hence, allowing a firm to take efficacious hiring decisions.

So overall, it can be said that improved financial reporting quality becomes relevant and whether it is associated with employment decisions or not, is an empirical question (See Fig 1.2).



**Fig 1.2 High Financial Reporting Quality (FRQ) Leads to Labour Investment Efficiency**

As per Biddle, Hilary, and Verdi, 2009; Jung et., al, 2014; Ghaly et., al, 2020, hiring behaviour varies with financial reporting quality. More specifically, high-quality financial reporting can

serve to mitigate agency conflicts and improve investment efficiency.

**FRQ and Underinvestment in labour:** A firm can mitigate information asymmetry between itself and market participants and among informed, less informed, and uninformed investors by providing information that helps investors in the economic decision-making process rationally. Investors give rewards to firms providing high-quality disclosure by demanding lower returns. Thus, reducing the cost of external financing to the firm ultimately leads to efficient investment decisions including investment decisions of labour.

**High FRQ and Over investment in labour:** High financial reporting quality leads to minimisation of information asymmetry between outside investors and managers by putting more checks and external monitoring on managerial activities including opportunistic behaviour.

Thus, Higher quality financial reporting minimises information asymmetry and hence facilitates firm managers in making more efficient investment decisions related to labour investment which ultimately leads to improved and better financial performance (Jung Lee, & Weber, 2014).

High FRQ leads to alleviation of over investment or underinvestment completely depending upon the fact that which underlying channel is working. For example, FRQ is reducing investment inefficiency in labour through its ability to incentivise managers to act more in line with shareholders' interests or through its ability to reduce information asymmetry. Sometimes, one channel is stronger than the other enabling FRQ to reduce one of the forms of inefficiencies rather than total inefficiency.

## FINANCIAL CONSTRAINTS AND LABOUR INVESTMENT INEFFICIENCY

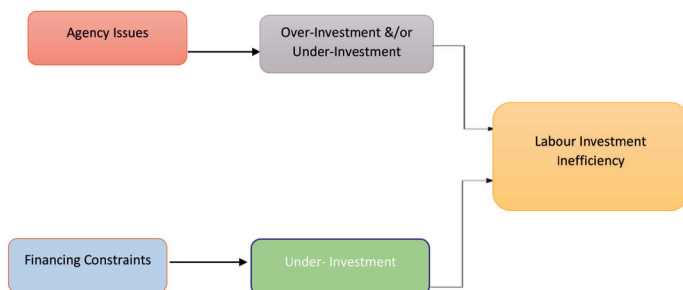
The role of high-quality reporting becomes even more important if firms are highly financially constrained.

As per Bhaduri, 2005, a firm is defined to be financially constrained if the cost or availability of external funds refrains the firms from undertaking an optimum investment decision ( $I_{it}^*$ ) which it would have taken otherwise if internal funds ( $CF_{it}$ ) were available. In other words, constrained firms are not able

to invest in projects with positive NPV due to restricted access to equity markets and higher transaction costs of raising capital (e.g., Hennessy & Whited, 2007). For a financial constraint firm, the investment decision can be depicted as:

$$I_{it} = \min (I_{it}^*, CF_{it})$$

Previous studies showed that a firm's financial constraints contribute to labour investment (see fig 1.3) in such a way that these firms are less efficient in investing in labour (Benmelech, et al., 2011; Jung, et al., 2014; Ben-Nasr & Alshwer, 2016).



**Fig 1.3 Conceptual Framework Showing Agency Problems and Financial Constraints Lead to Inefficient Labour Investment**

Constrained firms aggressively use income inflated accruals (i.e., low-quality reporting) due to managerial myopia caused by capital market pressure and not due to managerial opportunism. The Investors are rational enough to anticipate the tendency of managers of constrained firms to manage earnings upward before the equity offerings and discount issuer's stock prices leading to underinvestment of proceeds attributable to the **Rational Expectations Hypothesis** (Kurt 2018).

For the highly constrained firms, the potential role of FRQ becomes even more pronounced by the fact that the effect of FRQ on employment also works through employees' supply of human capital. Unlike capital investments, labourers have the ability to quit and are more likely to react to a firm's financial distress by leaving the firm and seeking employment elsewhere (Matsa, 2018; Brown and Matsa, 2016). By mitigating financial constraints with the help of improved quality of financial reporting, firms can reduce the likelihood of withdrawal of human capital from the firms with financial distress (Jung et al., 2020).

Thus, on one hand, financially constrained firms invest less efficiently in labour due to a shortage of funds. On the other hand, the Rational Expectations Hypothesis make the situation even worse leading to lesser investment in the end.

In both, situations providing high FRQ is the sole solution to invest efficiently in labour.

## SUMMARY AND CONCLUSION

Labour cost represents more than 50% of GDP (Donangelo et al., 2019) and is one of the largest factors of production in general. A large literature (both theoretical and supporting empirical) has suggested that market frictions stemming from information asymmetry always causes a firm to take sub-optimal investment decisions. This proposition has been endorsed by a growing body of empirical evidence. Recent accounting and finance research suggests that high-quality financial reporting can enhance efficiency in investments by mitigating information asymmetry between managers and external investors (Bushman & Smith, 2001; Cohen, 2008; Healy & Palepu, 2001; Chen, et al., 2011a; Lambert, et al., 2007; Biddle, et al., 2009).

Although labour is one of the primal factors of production and inefficient net hiring is of economic significance; it has been largely overlooked by previous accounting and finance literature. In a modern and technology-oriented economy, prudent, judicious, and effective allocations of labour and capital have been gaining importance gradually. Very scant evidence within accounting and finance literature exists endorsing the notion that the choice of high-quality financial reporting augments efficient labour investments.

## References

1. Ahmed, A. S., & Duellman, S. (2011). Evidence on the role of accounting conservatism in monitoring managers' investment decisions. *Accounting & Finance*, 51(3), 609-633.
2. Ahmet C. Kurt (2018) How Do Financial Constraints Relate to Financial Reporting Quality? Evidence from Seasoned Equity Offerings, *European Accounting Review*, 27:3, 527-557
3. Ball, R., and L. Shivakumar. 2005. The role of accruals in asymmetrically timely gain and loss recognition. *Journal of Accounting Research* 44 (2): 207-42.

4. Ben-Nasr, H., & Alshwer, A. A. (2016). Does stock price informativeness affect labour investment efficiency? *Journal of Corporate Finance*, 38, 249-271.
5. Bertrand, M., Mullainathan, S., 2003. Enjoying the quiet life? Corporate governance and managerial preferences. *J. Polit. Econ.* 111, 1043-1075.
6. Bhaduri, S. N. (2005). Investment, financial constraints and financial liberalization: Some stylized facts from a developing economy, India. *Journal of Asian Economics*, 16(4), 704-718.
7. Biddle, G., and G. Hilary. 2006. Accounting quality and firm-level capital investment. *The Accounting Review* 81 (5): 963-82.
8. Biddle, G., G. Hilary, and R. Verdi. 2009. How does financial reporting quality relate to investment efficiency? *Journal of Accounting and Economics* 48 (2-3): 112-31.
9. Brown, J., & Matsa, D. A. (2016). Boarding a sinking ship? An investigation of job applications to distressed firms. *The Journal of Finance*, 71(2), 507-550.
10. Bushman, R., and A. Smith. 2001. Financial accounting information and corporate governance. *Journal of Accounting and Economics* 31 (1-3): 237-333.
- 11.
12. Bushman, R., J. Piotroski, and A. Smith. 2011. Capital allocation and timely accounting recognition of economic losses. *Journal of Business Finance and Accounting* 38 (1-2): 1-33.
13. Chen, F., O.-K. Hope, Q. Li, and X. Wang. 2011a. Financial reporting quality and investment efficiency of private firms in emerging markets. *The Accounting Review* 86 (4): 1255-88
14. Cohen, D. A. (2008). Does information risk really matter? An analysis of the determinants and economic consequences of financial reporting quality. *Asia-Pacific Journal of Accounting & Economics*, 15(2), 69-90.
15. Dechow, P., and I. Dichev. 2002. The quality of accruals and earnings: The role of accrual estimation errors. *The Accounting Review* 77 (Supplement): 35-59
16. Dixit, A. 1997. Investment and employment dynamics in the short run and the long run. *Oxford Economic Papers* 49, 1-20.
17. Donangelo, A., F. Gourio, M. Kehrig, and M. Palacios. 2019. The cross-section of labour leverage and equity returns. *Journal of Financial Economics* 132 (2): 497-518.
18. Farmer, R. 1985. Implicit contracts with asymmetric information and bankruptcy: The effect of interest rates on layoffs. *Review of Economic Studies* 52 (3): 427-42

19. Fazzari, S., R. G. Hubbard, and B. Petersen. 1988. Financing constraints and corporate investment. *Brookings Papers on Economic Activity* 1988 (1): 141–206
20. Froot, K. A., Perold, A., & Stein, J. C. (1991). Shareholder trading practices and corporate investment horizons.
21. Ghaly, M., Dang, V. A., & Stathopoulos, K. (2020). Institutional investors' horizons and corporate employment decisions. *Journal of Corporate Finance*, 64, 101634.
22. Graham, J. R., Harvey, C. R., & Rajgopal, S. (2005). The economic implications of corporate financial reporting. *Journal of accounting and economics*, 40(1-3), 3-73.
23. Ha, J., & Feng, M. (2018). Conditional conservatism and labour investment efficiency. *Journal of Contemporary Accounting & Economics*, 14(2), 143-163.
24. Hamermesh, D. 1993. *Labor Demand*. Princeton, NJ: Princeton University Press.
25. Hamermesh, D., and G. Pfann. 1996. Adjustment costs in factor demand. *Journal of Economic Literature* 34, 1264–1292
26. Healy, P., and K. Palepu. 2001. Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics* 31 (1–3): 405–40.
27. Hennesy, C. A., & Whited, T. M. (2007). How costly is external financing? Evidence from a Structural Estimation.
28. Himanshu, Singh, J. P., & Kumar, A. (2020). Prioritizing and establishing cause and effect relationships among financial reporting quality metrics. *Vision*, 24(3), 330-344.
29. Hope, O.-K., and W. Thomas. 2008. Managerial empire building and firm disclosure. *Journal of Accounting Research* 46 (3): 591–626
30. Jensen, M., 1986. Agency costs of free cash flow, corporate finance, and takeovers. *American Economic Review* 76, 323–29
31. Jung, B., W.-J. Lee, and D. P. Weber. 2014. Financial reporting quality and labour investment efficiency. *Contemporary Accounting Research* 31 (4): 1047-1076.
32. Jung, B., Kang, T., Lee, W. J., & Zhou, G. S. (2016). Labourism, investment efficiency in labour, and operating performance around the world. *Investment Efficiency in Labour, and Operating Performance Around the World* (June 29, 2016).
33. Jung, B., Lee, W. J., Weber, D. P., & Yang, D. G. (2021). Financial Reporting Quality and Employment: The Case of Refinancing Risk. Available at SSRN 3474827.

34. Kanodia, C., & Lee, D. (1998). Investment and disclosure: The disciplinary role of periodic performance reports. *Journal of accounting research*, 36(1), 33-55.
35. Lambert, R., C. Leuz, and R. Verrecchia. 2007. Accounting information, disclosure, and the cost of capital. *Journal of Accounting Research* 45 (2): 385–420.
36. Matsa, D. A. (2018). Capital structure and a firm's workforce. *Annual Review of Financial Economics*, 10, 387-412.
37. Myers, S., and N. Majluf. 1984. Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics* 13, 187-221.
38. Oi, W. 1962. Labour as a quasi-fixed factor. *Journal of Political Economy* 70 (6): 538–55
39. Pagano, M., & Volpin, P. F. (2005). Managers, workers, and corporate control. *The journal of finance*, 60(2), 841-868.
40. Stein, J. 2003. Agency, information and corporate investment. In *Handbook of the Economics of Finance*, eds. G. Constantinides, M. Harris, and R. Stulz, 111–65. Amsterdam: Elsevier.
41. Von Thadden, E. L. (1995). Long-term contracts, short-term investment and monitoring. *The Review of Economic Studies*, 62(4), 557-575.
42. Williamson, O. 1963. Managerial discretion and business behaviour. *American Economic Review* 53 (5): 1032–57



## Digitalization of Financial Inclusion

Dr. Richa Agrawal\*

### ABSTRACT

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*The paper defines digital economic inclusion, and highlights the aim of virtual monetary inclusion, the components of virtual monetary inclusion, the providers of digital financial services, the units for virtual monetary inclusion, the advantages of digital monetary inclusion, the risks of digital monetary inclusion, and the regulatory troubles associated with virtual economic inclusion. It additionally shows approaches to make virtual monetary inclusion work for the best of all. The paper concludes by way of providing a few implications for coverage making and practice in the virtual finance surroundings.*

**Keywords:** *Digital Finance Finance, Synthetic Intelligence, Financial Inclusion, Virtual Financial Inclusion*

### 1. INTRODUCTION

The cause of this paper is to talk about virtual financial inclusion. The paper **presents everything** that needs to be **recognized** approximately virtual economic inclusion through the years, the number of virtual packages that provide monetary services have improved

and keep growing. a number of the virtual applications used to provide economic services are evolved by way of technology agencies or financial technology groups for themselves or for banks to serve their customers.

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in the literature, many studies on digital financial inclusion have emerged. In the year 2021 alone, many studies tested digital economic inclusion when it comes to monetary growth (Ahmad et al, 2021), entrepreneurship (Baker, 2021), urban-rural profits gap (Ji et al, 2021), poverty reduction (Wang and Fu, 2021), funding diversification (Lu et al, 2021), complicated systems (Dai, 2021), studies and development (solar et al, 2021), etc.

No matter the increasing quantity of studies on digital monetary inclusion, digital financial inclusion – in terms of its meaning, purpose, components, units and regulatory problems

– is not usually understood. there may be a variety of perspectives on what virtual financial inclusion is among pupils and researchers in coverage and educational circles. also, folks who do not realize the meaning of digital economic inclusion form their very own summary meanings of digital monetary inclusion. Others regard virtual financial inclusion as nothing however a means of virtual surveillance by means of the state. nevertheless, many others maintain to enroll into the virtual economic gadget because their friends have joined the virtual economic machine - they don't have any clue approximately what they may find in the virtual financial system when they join whether proper or horrific.

What does this potential lack of know-how mean for digital economic inclusion and for its destiny? Is there whatever new or special about virtual financial inclusion? Can digital economic inclusion improve the wellbeing of the negative? And in which is digital financial inclusion going to inside the future? Is digital monetary inclusion simply a fad in an effort to disappear as different schemes have finished within the past? Or, does digital monetary inclusion have a vibrant future? Is digital financial inclusion a subject well worth making an investment one's research profession into? Many questions like those had been raised. This paper offers answers to a number of

those questions through highlighting that means of digital monetary inclusion, the aim of digital financial inclusion, the components of digital economic inclusion, the instruments for digital economic inclusion, and the regulatory issues associated with digital monetary inclusion.

## **2. DEFINITION AND GOAL OF DIGITALIZATION OF FINANCIAL INCLUSION**

### **2.1 Definition of Digital Financial Inclusion**

Digital Financial Inclusion involves bringing non-banking adults into the formal financial sector by providing financial services using devices with digital interfaces such as mobile phones or other digital devices. Providing digital financial services to the economically excluded and backward population in the Digital Financial Inclusion and the use of mobile phones or other digital devices to increase access to digital financial services (Ozili, 2018). Digital Financial Inclusion includes the provision of access to affordable formal financial services to the excluded population using existing digital technologies (Ozili, 2021b). Digital financial inclusion is a sustainable access to affordable digital financial services that bring the poor into the formal financial sphere of the economy.

### **2.2 Digital Financial Inclusion Goal**

Digital Financial Inclusion is the provision of financial services to all individuals, households, organizations and governments through digital means, thereby contributing to the achievement of poverty reduction, increased financial mediation and sustainable development goals. Digital Financial Inclusion seeks to provide a range of digital financial services that provide opportunities to access money, transfer funds, raise capital, save money and reduce risk.

## **3. COMPONENTS OF DIGITAL FINANCIAL INCLUSION**

1. Digital financial services can be provided by banks, non-bank financial institutions, financial technology (fintech) companies and technology companies. The components of Digital Financial Inclusion include:
2. Digital devices. Consumers or users of digital financial services must have a digital device, e.g. A mobile phone, smart phone, laptop or computer that allows the transmission of electronic information or devices.
3. Retail Agent. Retail agents are vendors or agents who own a digital device connected to a communication infrastructure. Retail agents can transmit and receive

financial transaction details, enabling customers to convert cash into electronically stored value and convert stored electronic value back into cash.

4. Additional financial services. It refers to the add-on financial services provided to customers by banks, non-banks or fintech companies. These include credit products, savings products, insurance products, investment products, mortgage products and risk management services.
5. Digital transaction platform. It refers to the interface that connects the customer to the financial institution that provides the specific financial services. Digital
6. The transaction platform can be a bank application, digital software, internet website or retail agent.
7. Backend server. It refers to the digital telecommunications infrastructure that stores data with financial institutions and electronically verifies customer details before allowing digital financial transactions. It is responsible for storing and managing data and making sure that everything in the frontend interface works well for users. The backend server communicates with the frontend. It sends and receives information displayed in the frontend user interface. When customers fill in their login details or wish to transfer digitally, the frontend application sends a request to the backend server, which provides information in the form of frontend code that the frontend application can understand and display.
8. Customers: Customers in Digital Financial Inclusion Programs are primarily individuals, corporations and governments. Individuals include young people, the elderly, families, poor people, low-income people, middle-income people, and high-income people. Corporations include small businesses, small and medium enterprises (SMEs) and large corporations. Governments include municipal agencies, boroughs, and other government agencies.

#### **4. PROVIDERS AND INSTRUMENTS FOR DIGITAL FINANCIAL INCLUSION**

Types of Digital Financial Service Providers for Digital Financial Inclusion

There are four types of providers providing digital financial services for digital financial inclusion. The full-service bank is the first provider to provide a basic transaction account for digital payments, digital transfers and digital value storage through digital devices such as mobile devices, payment cards or point-of-sale (POS) terminals. A complete service bank offering unlimited range of digital financial services. The second provider is a limited-service bank, which provides specialized financial services through a mobile device, payment card or POS terminal. A limited-service bank offering a very limited digital set

Financial services such as providing digital financial services to a sector. The third provider is the Mobile Network Operator (MNO) issuer of e-Money. The fourth provider is the non-bank (non-MNO) e-money issuer. Digital financial inclusion requires three components for these four digital financial service providers to function effectively: (i) the digital transaction platform, (ii) the agent network and (iii) the customer access. Device. With these three components, digital financial services can be provided to excluded and under-served customers.

#### B. Tools for Digital Financial Inclusion

Some tools or equipment for digital financial inclusion:

- i. e-Money Accounts
- ii. Second Debit Cards
- iii. Credit card
- iv. Mobile money
- v. Internet banking
- vi. Retail Point of Sale (PoS) Terminal
- vii. Agent Network

### 5. IMPORTANT DIGITAL FINANCIAL INCLUSION RESEARCH

Shen, Huang and Hu (2020) will look at ways to achieve economic inclusion in China. They found that the level of financial literacy and the use of digital financial products had greatly enhanced the level of financial inclusion in China, enhanced by the popularity of the Internet.

Ozili (2021a) examines whether high-level economic inclusions are associated with greater economic risk, using a diverse global

model of 79 countries. In the study, Ozili (2021a) regulated the use of digital financial services such as debit cards and credit cards and electronic payment channels. The study found that increased use of debit cards, credit cards and digital finance products may help reduce financial losses.

Areas of developed countries but not for transitional economies and developing countries. Furthermore, the combined use of digital finance products with increased official account ownership has improved the efficiency of the financial sector in developing countries. The implication of research is that digital financial inclusion will benefit not only the excluded population but also the economy.

Bachas, Gertler, Higgins and Cera (2018) examined how a particular digital financial product, e.g., debit card, affects financial inclusion. They study the natural experiment of introducing debit cards linked to existing savings accounts over time to the beneficiaries of the geographically Mexican money transfer program 'Oportunidades'. Upon receipt of the debit card, the beneficiaries will continue to receive their benefits in the savings account, while their transfers and savings can be used at any bank ATM. They can check their balance at any bank ATM or use the card to make purchases at point-of-sale terminals. In a natural experiment, he observed that debit cards reduce transaction costs by reducing the distance to access bank accounts. They found that clients would respond to a reduction in transaction costs by changing the mode of transport they use to access their bank account, such as a reduction in transportation on the bus and an increase in walking.

Senou, Ouattara, & Acclassato Houensou (2019) assessed the role of digital technologies using mobile phones and the Internet in promoting financial inclusion. They use data collected from the Central Bank of the West African States (BCEAO) and the International Telecommunication Union (ITU) from 2006 to 2017. They found that the combined use of mobile phones and the Internet were important determinants of countries' financial inclusion. West African Economic and Monetary Union.

## **6. BENEFITS OF DIGITAL FINANCIAL INCLUSION**

Digital financial inclusion offers many benefits. Among them are:

- i. Provide access to all types of formal financial services - payments, transfers, savings, loans, insurance, securities, etc. .;
- ii. Encourage digital payments, transfers, savings, loans, insurance and investments;
- iii. Promoting digital payments from government to individual, such as conditional cash transfers and unconditional cash transfers
- iv. Low cost of digital transactions for customers and providers of digital financial services;
- v. Allowing financial services to suit the needs and financial conditions of poor customers (Ozili, 2020). For example, allowing digital transfers of small amounts of cash (such as \$ 1.86 cents) and saving small amounts of cash (such as \$ 0.50 cents) that are difficult to use;
- vi. Reducing the risk of loss, theft and other financial crimes from cash-based transactions;
- vii. Low costs associated with the use of cash transactions and informal providers;
- viii. Reducing counterfeit money circulating to poor people and families;
- ix. It promotes financial empowerment by initiating property ownership and capital raising;
- x. It increases economic participation for women;
- xi. It promotes growth and stability to the economy by increasing total expenditure and increasing tax revenue.

## **7. RISKS AND REGULATORY ISSUES OF DIGITAL FINANCIAL INCLUSION**

### **(a) Risks of Digital Investments Digital Investing Poses Certain Risks. They Include**

- i. The rising cost of digital equipment (eg mobile phones, laptops, etc.) and the rising cost of internet connection in developing and poor countries can make it difficult for people to stay in the digital financial system for long periods of time;
- ii. Allowing non-financial firms to provide financial services may create new problems;

- iii. New digital financial services will need to be managed differently and can make the regulatory ecosystem more complex;
- iv. The increase in the cost of digital manufacturing will affect the poorest low-income customers;
- v. Data privacy and data security issues will arise as a result of the use of new types of data;
- vi. Customers unfamiliar with digital financial services may be exploited and harassed;
- vii. There may be risks associated with the agent. Agents can provide digital financial services to desperate customers and disregard existing consumer protection laws applicable to banks and other traditional financial institutions;
- viii. There are risks associated with digital technology arising from the unexplained loss of internet connectivity, communication network failure, breach of privacy or security which may seriously affect the use of digital technology;
- ix. There are also risks associated with the digital platform used.

### **(b) Control Problems**

The digital investment will create more problems for regulators, especially banking regulator and communications regulator. They will face new challenges when promoting digital investments. Many regulators will need to communicate and work together to find solutions to regulatory issues. Other regulatory issues include the following:

- i. Ensuring that digital service providers do not exploit customers seeking digital financial services in remote areas;
- ii. Challenges in establishing stricter anti-money laundering laws (AML);
- iii. Challenges in the development of anti-terrorism financing laws;
- iv. Control measures in the management of e-money and digital currencies;
- v. Consumer protection issues;
- vi. Weak payment control system;



- vii. Dealing with unfair competition practices between banks and non-bank players in the digital financial system.
- viii. The presence of corrupt and uncontrolled digital players in the digital financial services

## 8. DIGITAL INVESTMENT: ACTIVATION

Further steps can be taken to achieve digital investment.

- i. There is a need to ensure that digital payments are widely accepted by retailers and their customers;
- ii. Develop some credible identification systems for digital investment;
- iii. Increasing security, and reliance on digital financial services;
- iv. Financial sector regulators should support the growth of Fintech companies in order to contribute to increasing the level of digital investment;
- v. Reduce barriers to entry in the Fintech industry. Reduces licensing requirements for access to Fintech's digital financial system;
- vi. Reduce the cost of digital services. Compared to conventional banking, digital banking services should be cheaper to produce and distribute. This should lead to cost savings that make digital banking services less expensive and accessible to those who need them;
- vii. Managers need to constantly re-negotiate the cost of using a digital trading platform as this will go a long way in making more people willing to use digital financial services;
- viii. Use artificial intelligence to eliminate systematic bias that is a major cause of investment in the financial system. With due diligence and oversight, strategic intelligence tools can be used to eliminate bias in the policies, programs and decisions that undermine non-banking adults based on their low income, race or ethnic background;
- ix. Digital investment agents should provide easy-to-access and easy-to-use digital financial services;
- x. Providers of digital financial services should have internal security measures in place to reduce data theft, identity theft, or loss of revenue by bad players and cyber criminals;

- xi. Providers of digital financial services should provide data-driven information to clients. Digital financial services providers should use the vast amount of digital data they have, and with permission, educate and advise clients on the need to improve their savings practices, and pre-purchasing capabilities;
- xii. Regulators should adopt open banking models and new payments as they can increase the breadth and depth of digital financial services in ways that support digital investment.

## **9. LIMITATIONS OF DIGITAL TECHNOLOGY IN PROMOTING FINANCIAL INCLUSION**

### **1. It Has No Human Touch**

Digital financial integration eliminates the human mediator or human touch between the customer and the financial services provider. Instead of talking to a real person when making financial transactions, people will interact with an app that offers very limited options and may not have the options that customers want. This reinforces the willingness of many individuals to speak with the human representative of financial institutions

Respect and value the opportunity to speak with a customer service representative who can guide them when making financial transactions and who can assist them in resolving their grievances. The fully digital financial system that uses artificial intelligence completely eliminates human touch and the implications of digital financial inclusion are that advanced users of digital financial services may not be able to get the human support they need.

### **2. Policy for garbage-in-garbage-out (GIGO) Financial Inclusion**

Many digital finance applications use the Garbage-in-Garbage-Out (GIGO) approach to promote financial inclusion. Families that use digital financial services can make mistakes in the input data by adding extra zeros. Digital transfer of \$ 100,000 with the intention of transferring only \$ 1,000. Due to the garbage-in-garbage-out (GIGO) nature of digital transaction platforms, individuals or businesses may have to pay a fee to reverse a transaction that has occurred by mistake, thus making such errors very costly to individuals. And businesses.

## CONCLUSION

The paper revisits the Digital Financial Inclusion Agenda to provide a comprehensive insight into what Digital Financial Inclusion means. The paper defines digital financial inclusion, and then the objectives of digital financial inclusion, components of digital financial inclusion, digital financial services providers, tools for digital financial inclusion, digital financial inline, utility. Inclusion, and regulatory issues associated with the Digital Financial Inclusion, among others.

The implication of the discussion in this paper is that digital financial inclusion is more of a journey than a destination. Much progress needs to be made and moving towards financial integration requires the use of existing and new innovative digital technologies to adapt financial services to meet everyone's needs. Policymakers need to be careful

In choosing a national strategy for digital financial inclusion. After selecting a strategy, the effectiveness of the strategy should be constantly evaluated. Also, since digital financial inclusion is not without problems, policy makers need to understand the challenges of digital financial inclusion and the limitations of digital technologies in promoting financial inclusion.

## Reference

1. Ahmad, M., Majeed, A., Khan, M. A., Sohaib, M., & Shehzad, K. (2021). Digital financial inclusion and economic growth: Provincial data analysis of China. *China Economic Journal*, 14(3), 291-310.
2. Bachas, P., Gertler, P., Higgins, S., & Seira, E. (2018, May). Digital financial services go a long way: Transaction costs and financial inclusion. In *AEA Papers and Proceedings* (Vol. 108, pp. 444-48).
3. Baker, L. (2021). Everyday experiences of digital financial inclusion in India's 'micro- entrepreneur paratransit services. *Environment and Planning A: Economy and Space*, 53(7), 1810-1827.
4. Dai, W. (2021). Development and Supervision of Robo-Advisors under Digital Financial Inclusion in Complex Systems. *Complexity*, 2021.
5. Ji, X., Wang, K., Xu, H., & Li, M. (2021). Has Digital Financial Inclusion Narrowed the Urban-Rural Income Gap: The Role of Entrepreneurship in China. *Sustainability*, 13(15), 1-18.

6. Lu, X., Guo, J., & Zhou, H. (2021). Digital financial inclusion development, investment diversification, and household extreme portfolio risk. *Accounting & Finance*. Available at <https://doi.org/10.1111/acfi.12863>
7. Ozili, P. K. (2018). Impact of digital finance on financial inclusion and stability. *BorsaIstanbul Review*, 18(4), 329-340.
8. Ozili, P.K. (2020). Contesting digital finance for the poor. *Digital Policy, Regulation and Governance*, 22(2), 135-151
9. Ozili, P. K. (2021a). Has financial inclusion made the financial sector riskier? *Journal of Financial Regulation and Compliance*. Vol. 29 No. 3, pp. 237-255.
10. Ozili, P. K. (2021b). Digital Finance, Green Finance and Social Finance: Is there a Link? *Financial Internet Quarterly*, 17(1), 1-7.
11. Senou, M. M., Ouattara, W., & Acclassato Houensou, D. (2019). Financial inclusion dynamics in WAEMU: Was digital technology the missing piece? *Cogent Economics & Finance*, 7(1), 1-16.
12. Shen, Y., Hueng, C. J., & Hu, W. (2020). Using digital technology to improve financial inclusion in China. *Applied Economics Letters*, 27(1), 30-34.
13. Sun, M., Xu, J., Tang, H., & Zu, Z. (2021). Research on the Impact of Digital Financial Inclusion on R&D Innovation. In *E3S Web of Conferences* (Vol. 275, p. 01017). EDP Sciences.
14. Wang, X., & Fu, Y. (2021). Digital financial inclusion and vulnerability to poverty: evidence from Chinese rural households. *China Agricultural Economic Review*. Available at <https://doi.org/10.1108/CAER-08-2020-0189>

## Blockchain: Implementation and Challenges

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### ABSTRACT

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*Bitcoin is the first application of blockchain technology. Blockchain technology are attracting massive attention and trigger multiple projects in different industries. However, the financial industry is seen as a primary user of the blockchain concept. This is not only due to the fact that the most well-known application of this technology is the crypto-currency Bitcoin, but it is also applicable to varied departments due to its inherited benefits. This paper aims to describe the basics of blockchain and tries to present its current and potential implications among different sectors. Effort has been made to list the challenges that encountered in its implementation.*

**Keywords:** Blockchain, Bitcoin, Financial Industry

### 1. INTRODUCTION

Crypto currencies are the topic of immense interest in today's world. Among them bitcoin is one of the most popular cryptocurrency. The blockchain is core mechanism for bitcoin. Both the concepts are introduced by Satoshi Nakamoto in his

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white paper named “Bitcoin: A Peer-to-Peer electronic cash system”. A purely peer-to-peer version of electronic cash would allow online payments to be sent directly from one party to another without going through a financial institution and propose a solution to the double-spending problem. (Nakamoto, 2008). Satoshi has never used the term ‘blockchain’ in his entire paper rather he used both the terms separately as ‘block’ and ‘chain’. Satoshi provides a framework for blockchain. Bitcoin is the first application of blockchain technology. Blockchain technology is attracting massive attention and triggers multiple projects in different industries. However, the financial industry is seen as a primary user of the blockchain concept. This is not only due to the fact that the most well-known application of this technology is the crypto-currency Bitcoin, but it is also driven by substantial process inefficiencies and a massive cost base issue specifically in this industry (Michael Nofer, 2017). Development of blockchain is categorized into 4 stages: blockchain 1.0(cryptocurrencies), Blockchain 2.0(smart contracts and tokens), Blockchain 3.0(decentralized applications i.e. dApp) and blockchain 4.0(inclusion of artificial intelligence) (Jannis Angelis, 2019). The scope of blockchain technology has expanded by becoming central to new and emerging market practices and forms of consumption. (myriam ertz, 2019). Blockchain network is categorized as permissionless and permissioned network that is adopted according to need and requirement and level of transparency accordingly. Bitcoin and Ethereum are instances of permissionless blockchains, which are open and decentralized. Any peer can join and leave the network as reader and writer at any time. Interestingly, there is no central entity which manages the membership, or which could ban illegitimate readers or writers. To only authorize a limited set of readers and writers, so called-permissioned blockchains have been recently proposed. Here, a central entity decides and attributes the right to individual peers to participate in the write or read operations of the blockchain. The most widely known instance of permissioned blockchains is Hyperledger Fabric and R3 Corda (Karl Wüst). However permissioned blockchain bring out various questions into limelight by making a blockchain network centralized to some extent. However, blockchain play a significant role in

strengthening the cybersecurity and protecting privacy. The data is fully encrypted, Cryptographic hash functions are used. Public-private key cryptography makes sure that the data is received only by the intended recipient. (Kshetri, 2017). The main value drivers for the disruptive growth of this technology are listed as transparency, immutability, privacy, durability and reliability, fault tolerance, democratization, security, risk control and tokenization (Jannis Angelis, 2019). Negative aspects of blockchain include its challenges that include: scalability, privacy leakage, selfish mining (zibin zheng and shaoan xie, 2018). Such issues need to be addressed as early as possible. In spite of such challenges blockchain has possibility of exploring many other areas and it is expected to bring a revolution in the whole economy as just internet revolution did.

## OBJECTIVES

The major research objectives mainly emphasis on following:

- To describe the basics of blockchain.
- To present its current and potential implications among different sectors.
- To list the challenges that encountered in its implementation.

## RESEARCH METHODOLOGY

The research is undertaken through secondary mode. Various research articles and review papers are undertaken into account to have a better understanding of the concepts and an attempt is made to provide brief summary of all of it. Whole paper is divided into 5 sections: section 2 describe basic blockchain terminologies, section 3 deals with features, 4 with process or working of blockchain whereas section 5 and 6 describe applications and challenges respectively.

### 2. BASIC TERMINOLOGY

**Block** – A block is a collection of transactions entered into blockchain that has not yet been recorded in any prior blocks.

**Blockchain**- It is a structure for storing digital transactions or data in an immutable, distributed, decentralized digital ledger consisting of blocks that are linked via cryptographic signature that is nearly impossible to fake, hack or disrupt.

**Blockchain (private/ permissioned)-** A blockchain in a network of computers that is accessible to those with permission. Participants are less and they are known to each other. In this incentivization system is absent.

**Blockchain (public/permissionless) -** A blockchain that resides on a network of computers around the world that is accessible to everyone. Participants are not known to each other. Transactions validated by miners through incentivization system.

**Consensus mechanism-** In the absence of central authority in the blockchain architecture, before a block can be accepted for inclusion into the ledger, the participating nodes have to reach a consensus (agree) by running a predefined consensus algorithm used in the blockchain's protocol. Commonly used consensus algorithms are Proof of work, Proof of stake, delegated Proof of stake and practical byzantine fault tolerance. There are other algorithms as well used by nodes depending on the type of transaction.

**Consensus mechanism (Proof of Work) -** To create a block, miners need to perform mathematical work. In bitcoin miners need to find a hash value smaller than the target value using SHA256. For ex, to increase the difficulty, the bitcoin software can increase the no. of zeroes required at the beginning of hash value and make the target value smaller. Therefore, miners have to perform multiple trial and error operations to find a nonce that generates a hash value lower than the target value. Based on the protocol, the target value is regularly adjusted to allow a block generation every ten minutes on average. Once a miner solves the problem, he/she can create a block with the calculated hash value. PoW is computationally demanding and consumes a lot of electricity enough to power a small country like Ireland for a year. It also creates inefficiency and resource waste.

**Consensus mechanism (Proof of stake)-** it eases a computational demand depending on the stake of block creating nodes, reducing energy consumption and resource waste. In PoS, the difficulty of task reduces as a block creating node puts a higher stake in the network.

**Cryptography-** the science of securing communication using individualized codes so only the participating parties can read the message.



**Hash function-** it is a mathematical function that transforms data of any size into fixed size data. For ex, an MD5( message digest algorithm) function generates a 128bit hash value while SHA 256 (secure hash algorithm) generates a 256bit hash value, regardless of whether the input data is a word, sentence, or the entire hard drive. A hash function allows data validation without knowing the data themselves.

**Miner-** a miner is a node on the network that is actively involved in the consensus mechanism used to verify transaction before these transactions are batched in blocks.

**Mining-** the process of adding new transaction records to a block and verifying a block created by other miners. Miners collect transaction fees and are rewarded for their service.

**Node-** a node is any kind of device such as computer, laptop or server that is connected to the blockchain network. It stores, spreads, preserves the blockchain data. All nodes on the blockchain network are connected and constantly exchange the latest data with each other.

**Nonce-** a nonce is an abbreviation for “number only used once” is a pseudo random no. that is used as a counter during the mining process. A nonce is a number that blockchain miners are trying to solve.

### 3. FEATURES OF BLOCKCHAIN

Some of the prominent features of blockchain as described by various prominent experts according to their expression of blockchain potentials are describes as:

1. **Decentralization-** Each party on blockchain can access to the database and check the history of transactions without the involvement of third party. In the blockchain architecture, there is no controlling authority. Information about each completed transaction is stored in a distributed ledger, shared across all the participating nodes of the blockchain network. The need for a ‘trusted third party’ such as banks or other central authority is eliminated by blockchain, thus lowering transaction cost and speeding up business processes and transactions. This is one of the reasons why blockchain technology has been widely embraced by cryptocurrency developers and users.

2. Users anonymity – As transactions in blockchain occurs between blockchain addresses. Each user has a unique alphanumeric address and they can decide to keep it secret or open to others. No central party stores users' private information. This preserves the identity and provides sufficient privacy.
3. Consensus mechanism- In blockchain, there is no central trusted agent; a consensus mechanism is introduced into the network. Its purpose is to achieve validation from the participants on every transaction. It is possible to forge a nonexistent record by managing to control more than 51% of the accounting nodes in the entire network. To make an agreement on a particular transaction, there are various consensus algorithms which are utilized depending on the type of transaction. Most blockchain projects use proof of work (PoW), proof of stake (PoS) and Practical Byzantine Fault tolerance which are further explained in this chapter.
4. Immutability- Transactions in a blockchain network once done cannot be altered. This implies keeping records about corporate financial transactions, for the benefit of shareholders, tax authorities and other stakeholders. Financial institutions cannot reverse a transaction meaning transactions on the blockchain network are final and irreversible. Thereby Blockchain technology has been proposed as a solution to prevent fraud in various areas.

#### 4. HOW BLOCKCHAIN WORKS

The transaction in blockchain took place in the following four steps:-

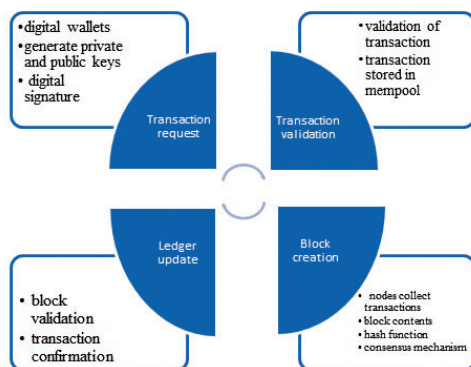


Figure 1 Working of Blockchain

In order to understand it in an easy and less complicated manner, let's take a classical example- Alice wants to send money to Bob.

### **Step1. Transaction Request**

- A. Wallets: - To use blockchain, users (Alice and Bob) need to be connected to blockchain nodes. This is done by using wallets for the blockchain. Wallets allow users to store, send and receive digital currency operating in the blockchain.
- B. Cryptography: private and public keys:- all digital wallets in blockchain system generate a key pair- private key and public key and its related address. There are different schemes to generate key pairs. In bitcoin, the Elliptic curve digital signature algorithm (ECDSA) is used to generate public and private keys. The private key is master key and is known to the holder only while public key is shared in the network so other nodes can use it to validate transactions originated from the related private key.
- C. Cryptography: encryption- In our example Alice wants to pay Bob. Bob will generate an address using his public key and share it with Alice. Alice will instruct her wallet provider to pay a certain amount of digital currency to Bob's address. Upon Alice's instruction, the wallet provider will create a transaction consisting of a message and a digital signature. Specifically the wallet provider generates a digital signature by converting the message into its hash format and encrypting it with Alice's private key. The wallet provider attaches the digital signature to the message and broadcasts them to nodes in the blockchain network.

### **Step 2. Transaction Validation**

- A. Cryptography: decryption- Once nodes receive the transaction request, they verify the transaction against the business and technical rules stated in the blockchain protocol. Assuming Alice has sufficient funds in her address; nodes validate the authenticity of the transaction using the attached signature in the transaction and public key.
- B. Synchronisation of transaction: - Once a transaction is validated it is stored in mempool (memory pool) of the node. The blockchain software aggregates the validated

transactions from the individual mempool of the nodes and creates the common mempool of the blockchain which can be accessed by any node. The validated transaction stays in the mempool until they are collected by block creating nodes.

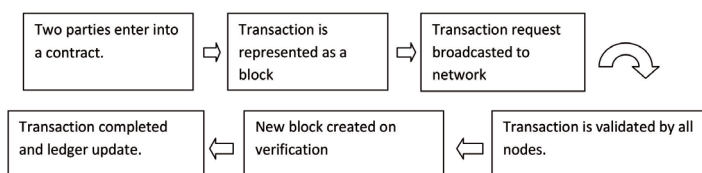
### Step 3. Block Creation

- A. Nodes- Nodes are the participants in the blockchain network. There are different types of nodes for performing different functions. Nodes are active members of blockchain storing the whole history of transactions in the blockchain. Full nodes create, receive, validate, store and relay transactions.
- B. Block contents:- a block consists of block header and block body. A block header contains (i) previous block's hash value (ii) protocol version(iii) timestamp(iv) difficulty target (v) merkle tree root hash value(vi) nonce. On the other hand a block body consists of (i) transaction counter and (ii) transaction list. A transaction counter is the count of transactions included in the block while a transaction list is the data that blockchain intends to store in its ledger.
- C. Cryptography hash function: - A hash function allows data validation without knowing the data themselves.
- D. Consensus mechanism:- Different blockchains use different mechanisms to create blocks which is consensus mechanism. Commonly used are Proof of Work and Proof of Stake.

### Step 4:- Ledger update

- A. Block validation:- once a block is created, it is broadcast to other full nodes. As blockchain operates in a trustless environment among nodes, each node validates the block before adding it to its own copy of blockchain.
- B. Transaction confirmation:- once a block is validated and added to the blockchain, the transaction included in the block becomes confirmed. Their status changes from 'unconfirmed' to 'confirmed'.

Our transaction where Alice wants to pay Bob is confirmed and recorded in the blockchain in an irreversible manner.



**Figure 2 Processing of Blockchain Transaction**

## 5. APPLICATIONS OF BLOCKCHAIN

As far as applications of blockchain among different sectors are concerned, many countries have initiated various projects related to blockchain while some of countries like Estonia, South Korea, Tunisia and Barbados had completed some of it. Actual and potential applications of blockchain are:

- **Finance:** Financial system is the backbone of economy. All other activities revolve around it. Various financial intermediaries working on the agenda of centralized system has inherited disadvantages of this respective system like high transaction costs or centralized database. Implementation of blockchain working on peer-to-peer mechanism ensures overcoming all of the centralized mechanism drawbacks along with surety of transparency and immutability. Blockchain technology could be applied to many areas under it including clearing and settlement, transformation of enterprise, building a P2P financial market, loan evaluation and risk assessment or customer verifications. Some of the blockchain based initiatives undertaken in finance sector by different countries are listed in table
- **Internet of things (IOT):** It proposed to integrate the internet with things to provide services. IOT E-business model based on blockchain and smart contract was proposed. Blockchain also helps in improving privacy in IOT applications.
- **Health sector:** Health sector is also one of the prominent field where various blockchain initiatives undertaken due to requirement of data privacy, anonymity, immutability and security of records. Potential applications of blockchain in health sector involve exchange of health data in a secure and reliable manner, sharing health records

while maintaining anonymity and ensurance of efficient health insurance claim procedure. Blockchain can ensure efficient and reliable drug and medical equipment supply.

- Energy sector: Energy sector is moving from conventional energy generation to non-conventional generation mode. Various IT based solutions adopted to monitor the energy consumption or generate the bill. To enhance the security and ensuring immutability blockchain be tremendously helpful. It can employ varying tariff rates with real time evaluation and invoicing. Load forecasting would probably potential implementation of it.
- Government sector: Currently, there is great controversy related to cryptocurrencies whether it should be legalized or not? But, instead of it there are other various aspects also in which blockchain can do wonders for government sector that involves voting, legal aid, startup support, land registry, civil supply etc.

## 6. CHALLENGES ASSOCIATED WITH BLOCKCHAIN IMPLANTATION

1. Scalability – Blockchain transactions take some time to implement due to their complexity, encrypted and distributed nature. It is reported that VISA manages 24,000 transactions per second; PayPal manages 193 transactions per second whereas bitcoin and Ethereum can only handle 20 transactions per second. Due to limited capacity of blocks which often delay some small transactions as miners preferring transactions with high fees.
2. Security – Blockchain network is prone to 51% attack where hackers are major source of blockchain's computing network. They are the majority in the network and control the entire blockchain. Crypto jacking is when computers are hijacked for their computational to mine crypto currencies. This is an example of backdoor and on ramp exploits, which are similar to supply chain attacks but use the distributed nature of blockchain. Flash loan attacks are when smart contracts designed to support flash loans are attacked to siphon assets elsewhere. These attacks exploit uncollateralized loans by manipulating smart contract inputs. Rug pulls is another form of fraud where insiders such as – crypto developers, criminal groups and

**Table 1 Initiatives of Blockchain Undertaken Country Wise**

| Country   | Initiative Name                               | Sector                        | Blockchain Application                 | Features                                    | Status                 |
|-----------|---|-------------------------------|--|---|------------------------|
| Tunisia   | eDinar Digital Currency                       | Tunisian post                 | Digital Currency(central Bank Issued ) | Easiness in all financial transactions.     | Completed              |
| Australia | Developments in Financial system Architecture | Reserve Bank of Australia     | Digital Currency(central Bank Issued ) | DLT currency                                | Initial stage          |
| Palestine | Plaestinian e-Currency                        | Palestine Monetary Authority  | Digital Currency(central Bank Issued ) | Secure, transparent, easy to use.           | Initial stage          |
| Canada    | RegTech Hackathon                             | Ontario Securities Commission | Digital Currency(central Bank Issued ) | Robust, efficient, easy KYC process         | Project in development |
| China     | Central Bank Digital Currency                 | People's Bank of China        | Digital Currency(central Bank Issued ) | Increase the international transactions     | Project in development |
| Barbados  | Central Bank Digital Currency                 | Barbados Central Bank         | Digital Currency(central Bank Issued ) | Cryptocurrencies for financial transactions | Completed              |

paid influencers create hype about a project and only to abandon it and run off with investors funds. In 2021 alone, 1300 scams were noticed which resulted in a loss of billions of dollars. Although blockchain technology has shown uniqueness in the capital market, its immature technology status is still a challenge to regulators.

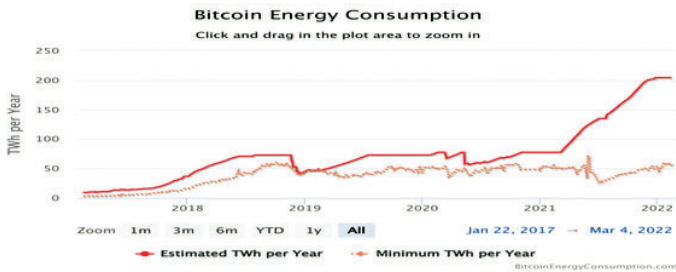
**Table 2 Blockchain Issues**

|                             |  |
|-----------------------------|--|
| FEB 28,2014                 | Mt. Gox the largest bitcoin trading platform in the world announced that 8,50,000 bitcoin were stolen including users account resulting in total loss of 467 million US dollar |
| June 8 <sup>th</sup> , 2016 | The Dao world's largest crowdfunding platform lost 75 million US\$ because of hacking.   |
| Aug 2 <sup>nd</sup> , 2016  | Bitfinex, the bitcoin exchange resulting in a loss of \$60 million when 120000 bitcoin were stolen   |
| 2018                        | Japanese exchange noted a theft of half a billion of dollars of cryptocurrency.  |
| Aug 10,2021                 | Blockchain site Poly Network was exploited by hackers, stolen \$600m being the largest cryptocurrency heist ever.  |

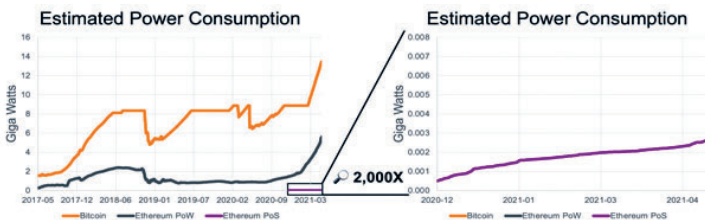
3. Privacy leakage: - Blockchain provides very little privacy protection. The public nature of blockchain allows opportunities for identification. The most high profile use of these techniques was the arrest of Ross Ulbricht for operating the deep web site 'silk road' which was the market place for illegal drugs, aiming other things. The techniques allowed law enforcement to identify Ulbricht as the operator of Silk Road. Interestingly, an IRS agent was also able to track bitcoin transactions to determine that a U.S. Drug Enforcement Administration agent involved in the investigation, Carl Force was laundering bitcoin related to Silk Road. Transactional information leakage may take place because all information related to any permissionless transaction is available to everyone.
4. Energy consumption:- The execution and storage costs of big data programs can be higher than the long term storage costs of electronic money transfers and transaction



data. It is claimed that the computing power needed to run blockchain is rapidly growing. The bitcoin system consumes a large amount of electricity. The amount of electricity required by a single bitcoin transaction needs terawatt hour. Consumption of electricity also depends on blockchain consensus mechanism. Mining mechanism consumes more electricity than proof of stake equity mechanism as shown in the figure below.



Source- Digiconomist



**Figure 3 Bitcoin and Ethereum PoW Energy Consumption Compared to Ethereum PoS.**

Source- Digiconomist

5. Interoperability: Exchange of information by different blockchain system comes under architecture mechanism. When number of blockchain applications are increasing day by day, interoperability issues also getting more serious.
6. Latency: The transaction rate at which transaction completion take place is quite not up to mark in blockchain system.

Above mentioned challenges are few among the various that exist. An effort has been made to address such issues while some of them remained unresolved. The summary of various

challenges along with the solutions identified or not are presented in figure:

**Table 3 Challenges Prevailing Among Different Sectors**

| Challenges                   | Government sector | Health sector | Finance sector | Energy sector |
|------------------------------|-------------------|---------------|----------------|---------------|
| Scalability                  |                   |               |                |               |
| Interoperability             |                   |               |                |               |
| High Development Cost        |                   |               |                |               |
| Legal and regulatory support |                   |               |                |               |

## CONCLUSION

Blockchain technology has tremendously impacted and expected to impact various sectors directly or indirectly. It will surely bring revolution to existing centralized environment as internet revolution did to old pertaining environment. Internet revolution is considered as revolution of information, it recognized as revolution of value. But this become reality only when its challenges overcome by bringing better solutions.

## References

1. Alladi, T., Chamola, V., Parizi, R. M., & Choo, K. K. R. (2019). Blockchain Applications for Industry 4.0 and Industrial IoT: A Review. *IEEE Access*, 7, 176935–176951. <https://doi.org/10.1109/ACCESS.2019.2956748>
2. Chang, V., Baudier, P., Zhang, H., Xu, Q., Zhang, J., & Arami, M. (2020). How Blockchain can impact financial services – The overview, challenges and recommendations from expert interviewees. *Technological Forecasting and Social Change*, 158(June). <https://doi.org/10.1016/j.techfore.2020.12016>
3. Ikeda, K., & Hamid, M. (2018). Applications of Blockchain in the Financial Sector and a Peer-to-Peer Global Barter Web. *Blockchain Technology: Platforms, Tools and Use Cases*, 1–22. <https://doi.org/10.1016/bs.adcom.2018.03.008>
4. Kimani, D., Adams, K., Attah-Boakye, R., Ullah, S., Frecknall-Hughes, J., & Kim, J. (2020). Blockchain, business and the fourth industrial revolution: Whence, whither, wherefore and how? *Technological Forecasting and Social Change*, 161(May). <https://doi.org/10.1016/j.techfore.2020.120254>

5. Natarajan, H., Krause, S. K., & Gradstein, H. L. (2017). Distributed Ledger Technology (DLT) and Blockchain. *FinTech Note*, 1, 1–60. <http://hdl.handle.net/10986/29053%0Ahttp://documents.worldbank.org/curated/en/177911513714062215/pdf/122140-WP-PUBLIC-Distributed-Ledger-Technology-and-Blockchain-Fintech-Notes.pdf>
6. Schuetz, S., & Venkatesh, V. (2020). Blockchain, adoption, and financial inclusion in India: Research opportunities. *International Journal of Information Management*, 52(February), 1–8. <https://doi.org/10.1016/j.ijinfomgt.2019.04.009>
7. Wang, L., Luo, X. R., Lee, F., & Benitez, J. (2021). Value creation in blockchain-driven supply chain finance. *Information and Management*, July. <https://doi.org/10.1016/j.im.2021.103510>
8. Jannis Angelis, E. R. (2019). blockchain adoption: value driver perspective. *Business Horizons*, 307–314.
9. Karl Wüst, A. G. (n.d.). Do you need a Blockchain?
10. Kshetri, N. (2017). Blockchain's roles in strengthening cybersecurity and protecting privacy. *Telecommunications Policy* 41, 1027–1038.
11. Michael Nofer, P. G. (2017). blockchain. *Bus Inf Syst Eng* 59(3), 183–187.
12. myriam ertz, e. b. (2019). the rise of digital economy: thoughts on blockchain and cryptocurrencies for the collaborative economy. *international journal of innovation studies*, 84-93.
13. Nakamoto, S. (2008). Bitcoin: A Peer-to-Peer Electronic Cash System.
14. zibin zheng and shaoan xie, h. n. (2018). Blockchain challenges and opportunities: a survey. *International Journal of Web and Grid Services*.
15. Lee, J. Y. a decentralised token economy: how blockchain and cryptocurrency can revolutionize business. *Business Horizons*.
16. stve huckle, r. b. (2016). internet of things, blockchain and shared economy applications. *Procedia Computer Science* 98, 461-466.
17. Danson Kimania, K. A.-B. (2020). blockchain business and fourth industril revolution:whence, whither,wherefore and how? *Technological Forecasting & Social Change* 161.