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# JOURNAL OF INTERNATIONAL BUSINESS AND ECONOMY



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## CRISIS PERCEPTION, EXPERIENCE, AND PREPAREDNESS AMONG MANAGERS IN GHANA

### ABSTRACT

Research about organizations and possible crisis events that may affect their operations or have negative consequences is wide-ranging. Recommendations include establishing crisis management plans and developing alternatives to deal with potential disasters. Most of the crisis management literature focuses on large businesses in developed countries. This study surveys the perceptions, preparedness, and involvement concerning crisis occurrences among managers in Ghana, an emerging nation. Initial findings suggest indigenous Ghanaian managers recognize the need for crisis preparation, but at the same time, may not invest the time, energy, and resources that are needed to be prepared. This study shows that Ghanaian firms with foreign ownership or control have in place crisis management policies typically found within large international businesses. This paper outlines the crisis management background and literature, presents the situation in Ghana, and reports on the survey conducted in Ghana. Our suggestions should assist managers of indigenous firms in Ghana

**Keywords:** *Ghana, Crisis management, Disasters, Indigenous firms, International business, Preparedness*

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## INTRODUCTION

Crisis management has received research interest in developed nations and large organizations (Crandall, Parnell, and Spillan, 2014; Lalonde and Roux-Dufort, 2013). There has been less analysis of crisis management awareness among organizations in developing nations (Arpan and Sun, 2006; Dadzie, Winston, and Dadzie, 2012; Herbane, 2013; Sawalha, Jraisat, and Quauh, 2013) such as Ghana (Agyapong and Boamah, 2013; Agyapoing and Muntaka, 2012; Mahmoud, 2011). However, developing countries continue to experience many natural and man-made catastrophes causing human suffering as well as being detrimental to their economies. This paper investigates crisis readiness in Ghana, a growing emerging nation in West Africa. We selected Ghana for the study because of its cultural and economic differences compared to developed nations. Our work replicates the investigation conducted by Parnell, Koseoglu, and Spillan (2010) that surveyed the crisis perceptions and readiness of managers in Turkey and the United States.

A crisis can be a turning point where events or activities risk escalating in intensity, interfere with the normal operations of the business, jeopardize an organization's image, or damage its financial condition in any way (Fink, 1986). This characterization is associated with a broad category of events and incidents that can affect an organization. Examples include unexpected events such as natural disasters, product failures, scandals, etc. Numerous crisis events over the years have highlighted the importance of being ready. Preparation typically lessens some of the distress and costs of a disaster event. Given the increasing rates and diversity of misfortunes, along with examples of ineffective management decisions, has given crisis management increased attention across the globe (Lalonde and Roux-Dufort, 2013; Parnell, 2021).

Crisis management is a method for planning and dealing with unexpected events that affect an organization. Also known as business continuity management, disaster planning, or contingency planning, the field of crisis management has been recognition as organizations in dynamic environments confront new and more sophisticated threats that can affect their functioning and even survival. This management approach involves a variety of components, starting with an appraisal of vulnerabilities and organizational priorities. Most large organizations have developed crisis management plans and organized teams in case a crisis strikes. However, enterprises often appear unprepared. The most serious management error is to assume that a crisis will never occur. Denial is a ruinous response to a crisis when one occurs. In short, effective crisis planning and execution of a

plan have shown to provide a degree of control over the crisis, and perhaps turn the problem into an advantage for the enterprise (Wilderoter, 1987).

Managers of many small businesses tend to avoid preparing for a crisis (McCartney, Crandall and Ziemnowicz, 1999). Nevertheless, small firms may face a large variety of misfortunes, and their managers' abilities to successfully deal with a sudden emergency can spell the difference between survival and ruin. Unfortunately, managers often perceive that "crises don't happen in our industry/field" or "we have a well-managed business and could manage our way through a crisis without a plan" (Caponigro, 2000). A study of Guatemalan small business managers found that they are not that concerned about crisis issues because they experience fewer crisis events relative to larger organizations and thus, their perceived need to plan for a crisis is not as strong as large business managers (Spillan and Ziemnowicz, 2007). Simbo (1993) noted that businesses lack effective crisis management plans because they have not even acknowledged any major crisis events that could impact them. Their managers do not have the tools needed for a crisis event. There are four typical assumptions within some of the smaller organizations:

- Crisis events only happen to other organizations or are somehow protected from crisis (Mitroff, Pauchant, Finney, and Pearson, 1989).
- Insurance policies cover losses or interruptions that a crisis may cause (Mahul, 2001).
- Managers do not have the resources or the time to establish plans or readiness requirements (Barton, 1993).
- Potential crises can be varied and challenging, making it difficult for organizations to plan for tomorrow's uncertainties (Caponigro, 2000).

In business practice, strategic and crisis management processes are often context-specific (Balamir, 2002; London and Hart, 2004; Ouedraogo, 2007; Ralston, Holt, Terpstra, and Kai-Cheung, 2008; Reid, 2000; Zhang, Zhang, and Liu, 2007; Zhou, Tse, and Li, 2006). Beyond related organizational crises, there are also broader events that affect smaller enterprises in developing nations. How managers in emerging countries view crisis management and why their perceptions may differ from those in developed economies is significant. Evidence suggest that perceptions about and previous experience with organizational crises are vital determinants in the steps which managers take to prepare for them (Herbane, 2013). Studies conducted in Africa are often focused and overwhelmed with the continent's numerous major problems, to the point of describing

the nations as being in constant crises (Hope, 2002). These studies also focus on crisis management approaches related to the development and the public health, security, food, or military sectors. Continuing violence, political uncertainties, economic shocks, social tensions, environmental problems, and demographic shifts are potential broad-based crisis occurrences in Africa (Lewis and Harbeson, 2016; Olsen, 2011). However, African nations also have diverse attributes and capabilities to cope with or mitigate these dire circumstances. Their needs for capacity building for crisis management have been acknowledged (Garuba, 1998). However, research and preparedness efforts have been focused primarily on regional organizations and national governments to develop mechanisms and adapt their structures to respond to crises (Faria, 2004). Less documentation is available for indigenous organizations and their managers.

The influence of culture in management effectiveness is well documented, especially in leadership, strategic management, motivation, organization structure, organizational learning, and conflict management (Bass, 1990, 1996; James, Wooten, and Dushek, 2011; House, Wright, and Aditya, 1997; Parnell, Crandall, Xihui, and Long, 2007; Wasti, Tan, Brower, and Önder et al., 2007; Wright and Aditya, 1997). Moreover, culture at the organizational level is a key influencer of an organization's response to a crisis (Mitroff, 1988; Parnell et al., 2007). Marked cultural distinctions in Ghana are clear, most notably in two of Hofstede's (1991) cultural dimensions. Ghana scores very high on Power Distance Index (PDI) with a score of 80, but very low on Individuality (IDV) with a score of 15 (Hofstede, 1980, 1991). Power distance has been linked to crisis response effectiveness in cross-cultural studies (Koc, 2013).

Investigating businesses in different nations also provides valuable insights into some of the worst-case scenarios that are part of the crisis management process. This study provides insights on crisis management from a developing country perspective. Importantly, this paper contributes to the literature by emphasizing that multinational company (MNC) involvement in developing nations also enhances the skill set of indigenous managers to deal with crises. Three questions can be evaluated:

- Has the crisis event occurred in the recent past?
- What is the current level of concern for that particular crisis?
- Are there any unique characteristics of the country that would increase the likelihood of a particular type of crisis?

A crisis that has occurred in the recent past can become a candidate for future worst-case scenario planning. Characteristics specific to a region may dictate what types of

crises should be included in worst-case scenario planning. Such considerations range from natural events such as storms and earthquakes to human-induced crisis events such as raids on businesses by US Immigration and Customs Enforcement (Shapiro, Contreas, and Blanchard, 2019; Leyro and Stageman, 2018). Therefore, crisis research in other nations can broaden perspectives concerning how different types of events can provide for better preparation and resiliency for decision-makers facing arduous conditions. This includes examining systemic barriers to deal with crisis events within developing countries that may include the status quo of depending on the central government for taking actions or using “paramilitary” methods in disaster management (Al-Nammari and Alzaghal, 2015).

Managers in developing nations such as Ghana need to deal with numerous problems and challenges within their organizations (Acquaah, 2011). The objective of this study is to evaluate crisis perception and management approaches. The first section of this paper summarizes the crisis management literature and the Ghanaian management context. Next, we present details of a survey of Ghanaian managers, followed by findings and conclusions.

## **OVERVIEW OF GHANA**

Formerly called Gold Coast, Ghana is a politically stable West African nation bordering the Gulf of Guinea, a few degrees north of the Equator, with Togo on the east, Cote d'Ivoire on the west, and Burkina Faso on the north. Ghana's location provides access to large seaports, creating routes for imports and exports markets. Ghana is endowed with natural resources with a per-capita GDP of about twice that of its neighbors.

The Ghanaian economy includes a growing formal economy and a traditional, informal economy of street sellers. The most prevalent trading center is the Accra-Tema metropolitan area, which is also Ghana's most populous area, with about 3.5 million people. Capital is becoming more widely available but remains elusive to many small- and medium-sized businesses. Most retail outlets are individual proprietorships, although franchising has experienced a widespread increase in recent years. The development of a stable, multiparty democratic system along with a commitment to market reforms is attracting investors and promoting private sector growth (US Department of State, 2019). Ghana's government is committed to implementing policies to encourage investor

confidence. This program includes 100% foreign ownership, privatization in critical economic sectors, and infrastructure development. Although Ghana's industrial sector is still emerging, it is more developed than its sub-region counterparts. Adopting quality management programs has promoted increased technical proficiency and productivity in Ghana (Fening, Pesakovic, and Amaria, 2008). The financial sector is also developing quickly.

Mining, manufacturing, construction, and electricity account for about one-third of Ghana's GDP. Ghana's primary minerals and other national resources include gold, diamond, manganese ore, bauxite with gold, and timber. Cocoa provides about a third of the nation's export revenues. Other prominent exports include palm oil, shea butter, coconuts, and coffee. Ghana enjoys quota-free access to the United States and European Union markets. Support from foreign governments and non-governmental organizations (NGOs) has promoted export growth in producing other agricultural products such as pineapples, pepper, and cashews. Petroleum exploration and related industries have received considerable attention since a significant discovery of oil off the Ghanaian coast (BBC News, 2007). As a result, Ghana is becoming one of the oil producers in the region, which contributed to an increase in the industrial sector.

## **CRISIS AND CRISIS MANAGEMENT IN GHANA**

A diverse body of scholarly work has been published on crisis management due to the interdisciplinary nature of this area of research (Piotrowski, Watt, and Armstrong, 2010). Our definition, however, follows Coombs (2007). Thus, a crisis is an unpredictable event perceived to negatively impact an organization's performance and its stakeholders. Notwithstanding the low probability of occurrence, crisis events tend to be unexpected (Barton, 1993; Pearson and Mitroff, 1993; Sellnow and Seeger, 2001), very damaging (Irvine and Millar, 1997), and costly (Newkirk, 2001). The incidence of a crisis, therefore, requires a quick and decisive action (Crandall and Menefee, 1996; Greening and Johnson, 1996; Marra, 1998; Seeger, Sellnow, Ulmer, 1998)—since a firm's actions during a crisis could affect its reputation, financial performance, and survival (Coombs and Holladay, 2006).

Effective crisis management requires sufficient planning to address a few critical issues: (1) the knowledge of the essential crisis concerns of the entity and (2) whether the

business has experienced a crisis. Addressing these issues enhances managerial preparedness and facilitates the development of feasible plans to forestall the incidence of a crisis (Parnell et al., 2010). Identifying potential risks could make managers more proactive in developing steps to reduce their likelihood and, if encountered, also facilitating its mitigation (Somers, 2009) and severity. A manager without sufficient information about a crisis cannot develop a plan to address it suitably (Wester, 2009).

Crisis management and readiness, however, differ between developed and emerging nations. For instance, in the developed world, open communication with journalists is the norm and highly desirable (Evans and Elphick, 2005; Gupta, 2011; Mullins, 2005), while the press and social media outlets are often restricted to information when crises occur in emerging nations. As a result, different cultures will require different responses in the incidence of a crisis (Parnell et al, 2007).

Strategic and crisis management processes are therefore context specific. Investigating other nations, such as Ghana, provides new perspectives where managers may be wise to plan contingencies for particular events. Infrastructure deficiencies and limited resources typical in developing countries such as Ghana mean that there is a higher risk and potentially more damage during natural disasters or crisis situations. An example of these problems includes the collapse of the less than one-year-old multi-story Melcom shopping center in Accra's Achimota area. Inferior design and construction contributed to this crisis, while a lack of necessary permits and safety inspections added to the loss of lives (BBC News, 2012).

An example of gaps in crisis preparation was a questionnaire of crisis management preparedness conducted by Ahorlu (2014) within a Ghanaian research institute. Many respondents were not aware of any crisis management team or plan in the organization, yet many could identify a potential crisis in the organization (Ahorlu, 2014). Research by Conill (2013) examined the information flows and communication channels in Ghana concerning disaster management environments and the low level of trust that the public places in Ghana's crisis management authorities such as the National Disaster Management Organization (NADMO). The objectives of NADMO include enhancing the capacity of society to prevent and manage disasters (NADMO, 2020).

The International Monetary Fund (IMF) noted a particular concern at the national level in 2013. The IMF reported that the Ghanaian government lacks a comprehensive crisis management plan, and the national authorities do not have full bank resolution powers to deal with a macro-economic financial exigency (Bax and Dontoh, 2014). In

2005, the nation's debt was cleared as part of a global relief agreement for developing nations (Bax and Dontoh, 2014). The Ghanaian economy performed relatively well following the global financial crisis that began in 2008 (Ghana Business Forecast Report, 2010). However, by 2014, West Africa's second-largest economy encountered problems. Ghana's currency fell over one-third against the US dollar because of a looming current-account deficit (estimated to be 10% of the GDP) and the government's inability to cut spending, forcing the nation to seek assistance from the IMF (Bax and Dontoh, 2014; Parnell, 2018).

According to Conill (2013), Ghana faces recurring natural disasters that most often include flooding and some instances of epidemics. Flooding is common due to the heavy seasonal rainfall along with associated run-off compounded by drought and problems with the dams in both Ghana and in Burkina Faso to the north and tidal waves along Ghana's Atlantic coastline. Lake Volta, the largest artificial lake by surface area in the world, changed climate patterns in Ghana (Andah, van de Giesen and Biney, 2003). The deforestation, water surface area, and dams that dried up rivers affected agriculture and caused a migration to Accra with an associated increase in poor-quality unplanned settlements in the path of potential flash floods. Moreover, the demand for water by industries (hydropower generation, agriculture, mining, and domestic and industrial consumption) is increasing along with environmental pollution problems (Almoradie, de Brito, Evers, Bossa, Lumor, Norman, Yacouba, and Hounkpe, 2020).

Water supplies are severely stretched along with increasing pollution and environmental degradation. The situation worsens with population and urbanization growth, along with increases in the standard of living. Moreover, mining operations are expanding using more water while rainfall amounts have decreased over the years due to longer dry seasons, drying some of the tributaries and the main rivers. The impacts of climate change on its water resources and food security will require Ghana and its farmers to develop strategies to adapt and reduce adverse effects on people and the environment.

Compounding these problems is the low level of public trust in disaster management authorities. Oteng-Ababio (2013) found that Ghana's crisis management authority, NADMO, has a top-down approach with low cooperation, collaboration, and coordination with stakeholders, leading to devastation and destruction occur before actions are taken. The view should be that practitioners wean themselves from managing disasters and take to managing risk, requiring changing NADMO's framework and an

approach that unites Ghana beyond competing loyalties to ethnicities, tribes, and political entities (Oteng-Ababio, 2013).

Ghana is facing a crisis in electrical power due to economic growth outpacing the supply of electricity in the nation (Kumi, 2017). The low reservoir levels in Akosombo Dam compound the problems to increase electricity generation, and the Electric Corporation of Ghana (ECG) is building conventional generating plants. According to Laary (2014), Ghana is facing an energy crisis that negatively affects business operations and further economic growth. Erratic power supply and uncoordinated outages are widespread, affecting business operations and damaging electronic and other electrical machinery or equipment. The constant outages and power transmission losses mean an additional loss of income for ECG with numerous technical and operational crisis problems. This historically unreliable energy supply or blackouts nicknamed “Dumsor,” a term coined by Ghanaians due to the irregularity and unpredictability of power supply in the country, has impacted the hospitality industry (Boakye, Twenefour, and McArthur-Floyd, 2016) and several aspects of the economy (Danso-Wiredu, Dadson, and Amoako-Andoh, 2017), especially the private sector. Overall, estimates of the economic impacts of these load-shedding practices exceed US\$2 million each day, with incalculable costs incurred to social development Ruitter (2016). These practices can cause a significant retrenchment of the country’s economic growth since the energy sector is a dominant state-owned enterprise, and hence remains an important growth engine for the economy (Ohemeng, Oboubisa Darko, and Amoako-Asiedu, 2019; Diawuo and Kaminskic, 2017; Eshun and Amoako-Tuffour, 2016; Kumi, 2017).

Risks and crisis events are inherent in many industries, such as mining, but they tend to be higher in developing nations. A case study (Agyemang, 2003) focusing on causes of crises and management in the Ghanaian mining industry and at Bogoso Gold Limited found that the company could deal with risk and handled crisis events effectively in the past. However, Agyemang noted that the Ghanaian mining industry should be better prepared to deal with potential crises due to the illegal small-scale mining and the local artisanal gold miners (i.e., galamsey).

Other types of potential crisis events in Ghana include the following: pest and insect infestation (armyworm, anthrax, blackfly, locust, larger grain borer), geological/nuclear radiological (earthquakes, tsunamis, gas emission, landslides), fires and lightning disasters (bush or wildfires, domestic, commercial, industrial fires), diseases and epidemics (cholera, yellow fever, cerebrospinal, meningitis, pandemic influenza, etc.),

human-induced disasters (social conflicts, vehicular and aviation accidents, lake/boat accidents, marine, and railway disasters, etc.). In public health emergency preparedness alone, many disparate laws and jurisdictions create systemic and administrative impediments to effective crisis management and prevention programs (Norman, 2009).

## **HYPOTHESIS DEVELOPMENT**

The present study examines crisis perception and management approaches among managers in Ghanaian organizations. We begin by assessing the relationship between a crisis in an organization and its internal functionality or crisis readiness and examining specific crises and the perceived likelihood they will occur in the organization. Two hypotheses test the relationship between (1) crisis and internal functionality and (2) crisis and the perceived likelihood of the crisis.

### **Crisis management internal functionality**

The critical components of an organization's internal functionality and whether it could be prepared or unprepared to deal with crisis events are shown in Figure 1. Typically, managers have eight tangible or imaginary scales regarding the following variables: perception of crises, experience with past crisis events, management planning efforts, patterns of organizational communication, availability of resources to address a crisis event, and the organizational structure and culture. Thus, achieving quick and effective responses when facing an actual crisis situation depends on the degree of concern within the organization that potential crisis events may occur (See Figure 1).

**Figure 1. Organizational internal functions affecting crisis preparedness**



Adapted from: Parnell, Koseoglu, and Spillan (2010)

The development of the hypothesis for this study follows Parnell et al. (2010). It is generally accepted that successful organizations are aware of potential crisis events, practiced some scenarios or established procedures, and developed communication strategies critical to surviving a crisis (Gupta, 2011). This heightened managerial attentiveness is directly associated with two factors:

- Top management promotes a crisis-oriented culture (Dadzie et al., 2012), including support for the Crisis Management Team (CMT) (Marra, 1998; Smith, 1990).
- Past crises serve as learning exercises and prompt managers to become more concerned about future ones.

In general, organizations in emerging nations are not as prepared as their counterparts in developed countries to address crises (Deniz and Sağlam, 2007; Uzun, 2001).

As such, we posit that:

- *H1: Managers in Ghanaian firms report relatively lower internal functionality than their counterparts in the developed world.*

### **Crisis concern**

A crisis event can be traced to three elements: (1) A trigger event that creates a significant change in the organization, (2) perceived ability among managers to cope with the change, and (3) a direct threat to the organization's survival and essential performance capabilities. A proactive approach is critical (Pearson and Mitroff, 1993; Penrose, 2000; Shrivastava, 1993).

Occasionally, effective crisis responses may help mitigate negative influences and lead to positive outcomes (Fearn-Banks, 1996). When managers view them as opportunities, they tend to see them as more controllable and involve more members in the resolution process (Jackson and Dutton, 1988; Lalonde, 2007). Perceiving a crisis as a threat typically increases crisis concern and reduces information availability and sharing. Hence, how a crisis is perceived can influence how an organization is willing to allocate appropriate resources and executive crisis management activities. Moreover, firms that have experienced a serious crisis tend to display higher attentiveness and concern for crisis events and are more likely to establish and support CMTs. Also, crisis events are more common in emerging economies like Ghana (Arpan and Sun, 2006).

Therefore, we expect that:

- *H2: Managers in Ghanaian organizations perceive the likelihood of a crisis to be higher than do their US counterparts.*

Previous crisis experience by managers is a significant influence on their concerns concerning a future crisis. In other words, experience serves as motivation for establishing crisis management responsiveness systems.

## **METHODS**

This study uses a modified crisis readiness scale developed and tested by Rousaki and Alcott (2007). This scale was developed to study crisis management among hotel managers in the UK, a developed country. Because of its applicability, along with a lack of specialized instruments designed for developing nations, we have modified it for analyzing the conditions in Ghana. The eleven-item scale assesses the organization's internal functionality (OIF), including the organization's ability to provide a quick response to a crisis, its access to crisis management resources, and the presence of adequate strategic crisis planning (See Table 1).

**Table 1: Scale items and factor loadings: organization internal functionality**

Variable	Item narrative	Factor loading *
OIF 1	I have high accessibility to crisis management resources	.746
OIF 2	The organization has an adequate budget in its strategic plans in case of a crisis situation	.787
OIF 3	The organization has an adequate crisis management plan	.799
OIF 4	I am well informed about the resources and tools allocated for crisis response	.758
OIF 5	The organization views crisis management as a corporate goal	.794
OIF 6	The members of the organization are trained to handle a crisis situation	.753
OIF 7	The organization will quickly recover after a crisis situation	.775
OIF 8	The organization rewards employees for their part in detecting and reporting potential crisis signs	.771
OIF 9	Key employees of the organization are well informed about the resources and tools allocated for crisis response	.630
OIF 10	I am authorized to use the budget of the organization in order to cope with a crisis	.360
OIF 11	The organization's culture will encourage its ability to manage a crisis	.833

\* Coefficient alpha = .913; 54.5% of the variance was explained by one factor.

Survey adapted from: Parnell, Koseoglu, and Spillan (2010)

The survey instrument also included demographic and personal questions (age, gender, management, organizational experience, and position in the firm).

A total of 251 surveys were included in the sample. We collected data from managers located in the Accra-Tema metropolitan area. The sample included small and large organizations, domestic and global enterprises, and manufacturing and service firms. The surveys were distributed by hand and collected in person.

Males and females were equally represented (121 each; 9 did not respond). The large number of females is intriguing given the higher proportion of males in the workforce. Respondents were across management levels in both genders, with lower and middle comprising the most prominent groups. The average age for the composite sample was 24 years, with respondents reporting six years of management experience and five years of experience with their present organization. Only 39% and 42.6% of respondents were aware of a crisis team and a crisis plan in their organizations, respectively. Interestingly, 23.1% and 28.7% of respondents did not know if their organizations had a crisis team or a crisis plan, respectively. We provide a summary of sample data in Table 2.

**Table 2. Sample grand total = 251**

Variable	Number	% of total	Variable	Number	% of total
<b>Gender</b>			<b>Crisis team in the organization</b>		
Males	121	48.2	Yes	98	39.0
Females	121	48.2	No	95	37.8
Not reported	9	3.6	Do not know	58	23.1%
<b>Management</b>			<b>Crisis plan for the organization</b>		
Non-managers	46	18.3	Yes	107	42.6
Lower managers	62	24.7	No	72	28.7
Middle managers	102	40.6	Do not know	72	28.6
Top managers	35	13.9	<b>Owned by foreign firm</b>		
Not reported	6	2.4	Yes	78	31.2
			No	172	68.8
			Not reported	1	0.4
<b>Descriptive data</b>			<b>Mean (years)</b>		<b>Std. deviation (years)</b>
Age (n = 240)			24.0		22.2
Management experience (n = 236)			6.0		5.5
Experience with organization (n = 239)			5.0		5.0

## FINDINGS

It was necessary to assess the reliability of the OIF scale before proceeding to test the hypotheses. Table 1 displays the results of strong support for the OIF scale when responses were assessed individually. All items produced factor loadings above .700 with only two exceptions while only one item loaded below .500. The coefficient alpha for the scale was .913.

Table 3 ranks the average concern for a variety of potential crises. The greatest concern was associated with fraud and operational crises. The least concern was associated with natural disasters.

**Table 3. Factor analysis results: crisis readiness scale**

Category and Variable	Crisis	Mean	Std. Deviation
Fraud 2	Corruption by management	3.31	1.413
Fraud 1	Embezzlement by employee(s)	3.27	1.479
Fraud 4	Theft of company property or materials	3.08	1.540
Operational 3	Lost records permanently due to computer breakdown	2.96	1.343
Operational 1	Theft or disappearance of records	2.93	1.454
Operational 8	Breakdown of a major piece of production/service equipment	2.92	1.413
Fraud 5	Employee violence at the workplace	2.90	1.499
Fraud 3	Corporate espionage	2.88	1.444
Operational 5	Major industrial accident	2.86	1.470
Operational 2	Lost record permanently due to fire	2.83	1.539
Operational 6	Major product/service malfunction	2.68	1.299
Natural disaster 1	Flood	2.50	1.500
Operational 9	Internet site disrupted due to hacker or some other act of vengeance	2.40	1.457
Legal 1	Consumer lawsuit	2.38	1.444
Publicity 2	Product sabotage	2.36	1.342
Legal 2	Employee lawsuit	2.36	1.439
Legal 3	Government investigation	2.35	1.554
Legal 4	Product recall	2.32	1.501
Operational 4	Computer system invaded by hacker	2.31	1.353
Operational 7	Death of a key executive	2.25	1.460
Publicity 3	Negative media coverage	2.24	1.384
Publicity 1	Boycott by consumers or the public	2.14	1.299
Natural disaster 4	Hurricane	1.82	1.472
Natural disaster 5	Earthquake	1.73	1.259
Natural disaster 2	Tornado	1.59	1.230
Natural disaster 3	Snowstorm	1.51	1.187

Definitions adapted from: Parnell, Koseoglu, and Spillan (2010)

We asked respondents to rate their concern for each of 26 crisis events on a scale of 1 (low) to 5 (high). They were also asked if they have experienced the crisis during the previous year or three years. We conducted t-tests to determine if the level of concern for each crisis was associated with experience with that crisis. Composite results in Table 4 provide support for a link between a crisis during the past year and crisis concern in all 26 events. They also support a link between a crisis occurring during the past three years and crisis concern in 23 of the 26 events.

**Table 4. Results of t-tests assessing crisis concern and crisis occurrence**

Category and variable	Crisis occurred in past year (F-value)	Signif. level	Crisis occurred in past 3 years (F-value)	Signif. level
Operational 1	5.436	.000	3.035	.018
Operational 2	16.982	.000	7.717	.000
Operational 3	15.996	.000	9.626	.000
Operational 4	28.102	.000	21.554	.000
Operational 5	13.720	.000	15.190	.000
Operational 6	21.503	.000	11.819	.000
Operational 7	5.258	.000	22.205	.000
Operational 8	11.242	.000	21.505	.000
Operational 9	4.165	.000	6.122	.000
Publicity 1	4.956	.001	1.223	.302
Publicity 2	10.330	.000	7.341	.000
Publicity 3	9.162	.000	8.417	.000
Fraud 1	29.728	.000	18.610	.000
Fraud 2	16.373	.000	13.621	.000
Fraud 3	22.718	.000	8.569	.000
Fraud 4	16.131	.000	0.730	.572
Fraud 5	22.979	.000	6.093	.000
Natural disaster 1	34.418	.000	31.888	.000
Natural disaster 2	4.256	.002	3.598	.007
Natural disaster 3	4.116	.003	1.726	.145
Natural disaster 4	20.360	.000	18.639	.000
Natural disaster 5	6.192	.000	1.026	.000
Legal 1	19.162	.000	9.644	.000
Legal 2	7.709	.000	8.430	.000
Legal 3	21.705	.000	5.492	.000
Legal 4	16.322	.000	10.643	.000

The OIF was not significantly associated with management experience, organizational experience, number of employees in the organization, or annual revenue. However, OIF was significantly associated with the age of the organization, with a correlation of .150 and a significance level of .028. Analysis of variance (ANOVA) tests was conducted to assess the associations between OIF and management level of the respondent, existence of a crisis team, existence of a crisis plan, and firm ownership status. We found significant in all instances (See Table 5). The OIF was highest among middle and upper managers, among respondents who were aware of a crisis plan and a crisis team in the organization and in organizations owned by foreign firms.

**Table 5. ANOVA results for OIF**

Variable	Cases*	Mean
Management level (F-value = 5.504; significance level = .001)		
Non-managers	43	-.434
Lower managers	54	-.095
Middle managers	91	.104
Top managers	33	.431
Crisis team in the organization (F-value = 8.866, significance level = .000)		
Yes	89	.255
No	81	-.354
Do not know	54	.110
Crisis plan for the organization (F-value = 5.686, significance level = .004)		
Yes	100	.194
No	59	-.348
Do not know	65	.017
Organization owned by foreign firm (F-value = 20.261; significance level = .000)		
Yes	72	.419
No	152	-.199

\* A small number of cases could not be included in each ANOVA test because of missing data.

## DISCUSSION

Several findings warrant additional discussion. Resources and the planning required for crisis management may not be a primary consideration for Ghanaian managers. Turbulent and dynamic environments provide decision-makers with experience and practice that suggests preventive action may not be possible or effective. Still, a prompt response is typically the best course of dealing with crises (Parnell, 2021). Nevertheless, even with a comprehensive plan in place, an organization's responses to a particular crisis cannot be foreseeable nor made universal.

The broad concern for crises associated with fraud is intriguing. The prevalence of fraud may be attributable to the existence of weak corporate governance, poor accounting practices, procedures, and policies, the lack of client due diligence, ineffective internal control systems, policies and procedures, perverted social values, slow and circuitous judicial process, and the fear of negative publicity (Dhitima, 2016). In the absence of adequate and appropriate checks and balances, corrupt managers and employees exploit the system and vulnerable customers using shady schemes that include manipulative

financial deception. This deception for one's gain at the expense of others is often in the form of theft, corruption, conspiracy, embezzlement, asset misappropriation, money laundering, bribery, and a position of trust or fiduciary relationship (Bonsu, Dui, Muyun, Asare, and Amankwaa, 2018). It is not surprising that of the fraud variables corruption by management, embezzlement by employees, and the theft of company property or materials were rated relatively higher.

While the deleterious effect of fraud on any economy is quite apparent, for a small developing country like Ghana, it could result in job and income loss for many households, which could plunge the economy into a recession. For example, a study found that besides macroeconomic instabilities and panic withdrawals, the collapse of several microfinance institutions was due to unduly risky, unethical, or illegal practices as well as simple mismanagement and disregard for due diligence (Boateng, Nortey, Asamanin Barnie, Dwumah, Acheampong, and Ackom-Sampene, 2016). This had a significant impact on the livelihood of many workers in the financial sector, perhaps explaining the heightened concern expressed by participants in the study.

The relatively low concern for crises associated with natural disasters is understandable, as the likelihood of such crises are typically linked to geographical considerations (e.g., snowstorms are not a concern in hot climates). However, a few regions of the country are located in earthquake-prone zones. Commodity shortages (including foreign exchange), currency and exchange rate instability, risk of inflation, disease outbreaks, political upheavals, intermittent power outages, and other external forces tend to create more business crises than natural disasters. Organizational management planning efforts are therefore often geared toward such events. Nonetheless, more than half of the managers surveyed reported not having a CMT or plan in place to mitigate a crisis event. This deficiency does not bode well for businesses in Ghana since crises are inevitable. While there is no infallible method to avoid a crisis, the ability to perceive a crisis and the readiness or preparedness of management to address its incidence or curb its impact on a firm's performance and reputation is key to business survival.

## **CONCLUSIONS**

This study surveyed the perceptions and experiences of Ghanaian managers concerning crisis events and crisis management. It supports the notion that managers in Ghanaian

organizations perceive the likelihood of crisis events differently from their counterparts in many Western organizations. Only 39.0% of the Ghanaian respondents in this study reported that their organization had formed a CMT.

The findings demonstrated that multinational firms operating in Ghana are more likely than domestic firms to prepare for crisis events. Organizations in Ghana do not tend to establish management functions to address impending or existing crises in the same fashion as those in developed nations. It appears that smaller businesses experience fewer crisis events relative to larger organizations and their perceived needs to plan for a crisis is not as strong. In general, smaller companies are not that concerned about crisis issues, and subsequently few have CMTs. Although Ghanaian firms may have recognized the need for crisis preparation, they do not tend to invest time, energy, and resources consistent with Western firms.

This study recommends that all Ghanaian businesses should adopt crisis management plans, form CMTs, identify worst-case scenarios, and practice mock disasters. With rapid economic changes in recent years, emerging economies like Ghana have attracted MNCs to set up local operations. Their influence is likely to have a positive effect on improving the crisis management process in Ghana. When a crisis occurs, concern for that crisis increases within the organization. This observation is intuitive. However, Ghanaian managers' lack of confidence about their crisis preparedness may be associated with the lack of resources or management traditions that exist within Ghanaian firms as well as an inadequate awareness of the potential damage that may result from their mishandling a crisis. Organizational life in Ghana fluctuates rapidly because of changes in both the global and domestic environments. Hence, the fact that Ghanaian managers constantly grapple with crises may explain why their crisis perception level is relatively high.

Other findings include dealing with the culture and the political or governance that often create obstacles in crisis preparation and also managing with disasters. This often requires necessary changes at the national level and within national-based organizations as well as local authorities. In Ghana, this includes raising trust, expanding communication, and improving the operations of NADMO. For example, the crisis conditions with energy production and maintenance of the distribution grid are critical. The national ECG needs to focus on service delivery to provide individual and commercial customers with reliable power. Increasingly low reservoir levels are also part of the droughts that create many crisis conditions in agriculture and all industrial sectors that use electricity. This major

challenge, along with other nature-based crisis events such as flooding, means the nation needs to develop sincere and trustworthy long-term contingency plans for dealing with climate change. Recurrent crisis events such as floods as well as industrial accidents force managers in Ghana to deal with them, but there seems to be an inadequate perception among them as to the costs of mismanaging these crises. This finding is also borne out by the experience of consultants to developing nation governments when they observe the pattern of the same disasters repeating and creating greater costs than would be the resources needed to prevent them.

When a crisis occurs, concern for that crisis increases. This observation is intuitive. However, the lack of confidence Ghanaian managers express regarding crisis preparedness may be associated with the lack of resources or management traditions in local Ghanaian firms. Organizational life in Ghana fluctuates rapidly because of changes in both the global and domestic environments. This is compounded by the chronic day-to-day business problems faced by Ghanaian organizations along with their managers' limited capacity and resources for incorporating crisis management.

Although Ghanaian firms may have recognized the need for crisis preparation, they do not tend to invest time, energy, and resources consistent with Western firms. With rapid economic changes in recent years, however, emerging economies like Ghana have attracted many MNCs. This influence is likely to have a positive effect on the crisis management process. The literature concerning the benefits of international business and MNC collaboration with indigenous firms is replete with positive examples for local employment as well as facilitating technology transfer and management know-how to developing nations. This study also demonstrates that MNC involvement in Ghana enhances the nation's crisis management skills. This benefit is particularly important during the increasingly challenging times of the pandemic as well for dealing with traditional crisis events in Ghana.

We identified several limitations of the current study. Although there are common management principles and similar crisis events, there are differences between nations and among developing countries regarding crisis management. We examined crisis perceptions and preparation in only one nation. Given the wide range of cultural and economic differences within Africa and between the African continent and other parts of the world, the findings in other emerging nations would likely differ. Hence, these findings are exploratory as to Ghana and should not infer links between strategic orientation and crisis

management in other parts of the world. More research is needed in Ghana, and this study should be replicated in Sub-Saharan Africa.

Investigations in other emerging economies may confirm factors that are common or unique to such developing nations. Increased investment and trade within African nations and Ghana as well as other nations (e.g., the United States, China, and India) will likely broaden the significance and effect of crises that occur.

Our results also come from only a moderately sized sample and a simple statistical analysis. The findings show significant differences exist between both the expectations and the experiences of the survey respondents. A larger data set drawn from a broader cross-section of enterprises would strengthen our findings and conclusions.

The results of this study identify some of the perceptions, experiences, and problems that Ghanaian managers expressed in the area of crisis management, but more research is needed to provide additional solutions and practical approaches to better prepare and assist them in dealing with disasters.

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Shubhangi Mishra and Bharati Jadhav

## RELATIONSHIP BETWEEN CUSTOMER SATISFACTION AND SERVICE QUALITY IN PRIVATE BANKS OF INDIA

### ABSTRACT

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This study attempts to analyze the extent of service quality and customer loyalty in private banks. For any bank to grow and develop sustainably, they need to ensure their customer's satisfaction in which service quality plays a decisive role. Satisfied customers, similarly, provoke customer's loyalty towards their banks that can then enhance the profitability of Banks. With the help of the SERVQUAL Model, the study also traces various factors considered when measuring customer satisfaction. The primary data were collected with the help of a standardized questionnaire on the said topic, which conveniently collected a sample of 200 respondents accessing private banking services in different cities of India. The collected data are analyzed with the statistical tools of Factor Analysis, Reliability, and Validity tests with the help of SPSS.

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*Key Words: Digital banking, Service quality, Responsiveness, Customer satisfaction, Customer loyalty*

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## INTRODUCTION

The nature of the development of the banking system in India was evolutionary. A bank performs several functions, offers different products and services depending on the customer's needs and requirements. Hence, its multitude of functions cannot be encapsulated into a single definition. The origin of the word 'bank' is traced back to the German word 'banck' which means heap or mound or joint-stock fund. The Italian word 'banco' was derived from this to mean a heap of money.

A bank is commonly understood as an institution that accepts money in terms of deposits and then lends it to other customers to make profits. It plays a vital role in maintaining the economic stability of a country. The major function of a bank includes the management of idle funds; it accepts idle funds from customers in the form of deposits and then makes the same available to others to make investments. This maintains the cash cycle in the economy and bridges the gap between savers and borrowers. In current days, when there is cut-throat competition in the banking industry and there is so little to compete as several players are offering homogeneous products and services, delivering a great customer experience remains one of the crucial ways for banks to stand out. Service quality is the strategic tool to reinforce competitive advantages and increase profitability, hence, banks put in lots of efforts providing quality service to retain their existing customers and also to consolidate and increase their customer base (Tam, 2004). Apart from ensuring the trust of customers, banks must also focus on providing advanced techno-friendly services for easy access and instant delivery of products or services (John, 2017).

Although modern-day banking has become more user-friendly, all the banking services and products are customized as per the customer's demand. Therefore, banks nowadays are focused to create customer value for their business. This crucial shift to value creation is nothing but the result of fierce competition in the banking sector and also the outcomes of globalization, privatization, and liberalization (Priyanath and Anjalika, 2018). Modern-day banking is entirely dependent on technology which promotes paperless banking operation and sustainable development. Such innovations have made the customer transaction seamlessly convenient and dynamic (Bakhtiar and Waqarul, 2012). In the past few years, we can see that the Indian banking system is not limited to urban and metropolitan cities anymore as they have now extended their reachability to every corner of the country. This has only become possible because of the innovations and constant technological advancements. In earlier days, customers had to travel for the banking services

but today we can see an impeccable development of the banks, which now have extended their service areas to every small village and un/under-developed areas. Advancements such as electronic fund transfers, clearing systems, cheque truncations, and other assistant techniques in the banking, financial services and insurance (BFSI) industry have made the bank employee's work easier; it also ensures convenience and safety to the customer. Along with it, new initiatives in the field such as banking representatives and bank kiosks have also taken place in recent times which are proved to be beneficial for both customers and banks. It saves the customer's time and has made everything available on the doorstep; for the banks, it is the best way of enhancing their reachability and expands their customer base (Mishra and Sahoo, 2010). While analyzing the customer satisfaction in the study, the parameters in terms of branch banking, the digital banking segment namely; internet banking and mobile banking were also taken into consideration.

This study of the relationship between customer satisfaction and service quality in private banks of India was proposed to identify the various determinants of customer satisfaction in private banks and its relationship with the service quality offered by them. The study provides observed evidence as regards various factors which are associated with customer satisfaction in banks as well as the other possible strategies that can be adopted and implemented by the banks to enhance their banking experience. All these findings will facilitate further policy-making of private banks which will facilitate them to survive and sustain in the growing competitive environment without compromising with their customers' satisfaction. The study will provide a comprehensive framework for service quality dimensions concerning customer satisfaction and customer loyalty. The purpose of this study is to analyze the satisfaction level of the customer towards the services provided by the various private banks in India. The research addresses the customer's opinions on banking services which will provide helpful guidance for further development and growth of the banking industry. This research focuses on the level of customer satisfaction on banking services of private banks in various cities of India. The study is guided by the following specific objectives:

- To study service quality in private banks of India.
- To study customer satisfaction in private banks of India from a customer's perspective.
- To study the relationship between service quality and customers satisfaction in private banks.

- To study the relationship between service quality and customer's loyalty in private banks.
- To establish strategies and provide suggestions to enhance customer satisfaction in private banks based on the findings of the study.

### **Research questions**

- a. What is the relationship between the level of customer satisfaction and the service of the private banks?
- b. What is the relationship between level the customer's loyalty and customers satisfaction in private banks?

### **Research hypotheses**

For banks to sustain and achieve long-term growth and profits and growing economic returns, retentions of valuable customers act as a base pillar (Yeung, Ging, Sschumann, Gardial, and Bums, 1991). Customers prefer to continue their association with those banks which provide good service quality. And a satisfied customer generally connects with a single and trustworthy bank which becomes the single-stop for all the products or services (Sureshchandar, Rajendran, and Ananthraman, 2003). That is how a satisfied customer becomes a loyal customer. Retention of customers is so economical than acquiring new customers that banks prominently focus on enhancing the product or service experience for their customers, frequent feedbacks, customer relationship management, deals and offers, quick and hassle-free services, phone banking, Etc. By keeping these points in mind, the following hypotheses are developed:

#### *Hypothesis 1*

*H<sub>0</sub>: There is a significant relationship between customer satisfaction and service quality of private banks*

*H<sub>1</sub>: There is no significant relationship between customer satisfaction and service quality of private banks*

#### *Hypothesis 2*

*H<sub>0</sub>: There is a significant relationship between customer satisfaction and the customer's loyalty towards their banks.*

*H<sub>1</sub>: There is no significant relationship between customer satisfaction and the customer's loyalty towards their banks.*

## **LITERATURE REVIEW**

The objectives of (Srinivas and Rao, 2018) study is to discover the perceptions of customers regarding the quality of service delivered by public and private banks, to determine the relevant dimensions of service quality for the banking sector, and to identify the dimensions of SERVQUAL that ensures the maximum satisfaction for customers in the banking sector. The study explores the service quality of the public banks in the Warangal district of Telangana. The dissatisfied customers find responsiveness and empathy dimensions as the twin concept lacked by the bank. So far as the satisfied customers are concerned, there exists a long gap between the expected service quality (what exact types of services the customers expect from the bank) and actual service quality (what services are getting from a bank in the real sense).

The study of Hennayake (2017) evaluates the relationship between service quality and perceived customer satisfaction, identifies the impact of human-related service quality factors on customer satisfaction in the commercial banking sector, and proposes recommendations to enhance perceived customer satisfaction in the banking industry. The finding highlights that the human-related factors of perceived service quality have a greater impact on customer satisfaction whereas reliability and responsiveness are the most influential factors on customer satisfaction. In order to stand out in today's competitive banking industry, there is a need for banks to build customer relationships instead of just offering the products or services; building customer relationships means delivering superior value over competitors to the target customers, this helps in retaining existing new customers and attracting potential customers. Since higher levels of quality lead to higher levels of customer satisfaction, any organisation, which provides a quality product or service, must consider their customer's feedback and satisfaction after availing of the service or using the product.

### **Key concepts**

The study of the relationship between customer satisfaction and service quality of private banks in India requires a clear understanding of some primary concepts. This section of the paper hence introduces the readers to some basic comprehension of the key concepts in the study.

#### *Customer satisfaction*

Customer satisfaction refers to an attitude or evaluation of a customer comparing their actual experiences and pre-purchase expectations. customer satisfaction is a fundamental determinant of long-term consumer behavior. (Mishra and Sahoo, 2010). Delivering customer satisfaction, which is a post-purchase judgment, is at the heart of modern marketing. Customer satisfaction is the valued outcome of good business practice. According to Drucker, the principal purpose of business is to create satisfied customers. It is an individual's perception of the performance of products or services about to the expectations (Schiffman and Kanuk, 2004).

#### *Service quality*

Kumar and Manjunath (2012) defined service quality as the difference between customers' expectations of service and their perceptions of the actual service performance. Service quality is the core concept for ensuring a successful supply of services in general. Private banking involves insubstantial goods requiring the participation of customers in the process (Munusamy and Shankar, 2010). In such a setting, bank services aim to optimize the service quality to attain a superior outcome level. The outcome of service quality, what firms expand by delivering a high-quality service, is the return on a concept of quality and service profit chain.

#### *Customer loyalty*

Customer loyalty can lower costs and increase the profitability of any organization. The cost of retaining a customer is relatively cheaper compared to that of attracting a new customer (Lam and Burton, 2006). In simple words, customer loyalty is generally what a customer reveals to a particular brand and the likeliness of being associated in the future (Uncles, Dowling, and Hammond, 2003). The loyalty of customers is a behavioral aspect, which differs from person to person depending on their perception. For some customers, the priority may be the quality of the service while the availability of services for others. It simply means the customer's likeliness to carry out different operations with the same bank repeatedly.

#### *Variables of the study*

The SERVQUAL model is majorly used as a multi-dimensional research instrument used to measure the service quality experienced by customers and their level of satisfaction

(Parasuraman, Zeithaml, and Berry, 1985). In addition to this, another dimension is added to this model in this study, which is customer loyalty.

- a. Empathy: Empathy is understood as a source of conveying feelings of caring, which makes the customer feel unique and special. It often shows that the banks are paying close attention to their customers while offering them products or rendering services. Prioritizing the customer in the bank is the core of empathy. The study has used security, credibility, and accessibility to avail services to measure empathy.
- b. Assurance: Assurance has been defined as the attitude and behavior of the employees as well as the staff's ability to provide a courteous, cooperative, friendly, and competent service environment to the customers. It means that the employees can tackle the queries with their knowledge and capacity to transfer confidence as well as trust to the customers by keeping them informed and listening to them, regardless of certain barriers like native language, educational level, age, etc.
- c. Reliability: Reliability simply means being trustworthy and honest in consistently performing the actions. Reliability defines the customer's perception with regards to the reclamation of the bank's commitment to rendering the service sincerely, timely, and satisfactorily. It shows that the bank strives to provide services correctly and are being responsible for the results of its actions.
- d. Tangible attributes: Tangibles refer to the physical image, features, and facilities that the customers can access in a bank branch. Privileges such as speed and efficiency of transactions, availability and proper working of equipment, counters in the branch, opening hours, the appearance of the branch are considered as tangibles for measuring tangible attributes.
- e. Responsiveness: Responsiveness is one of the major reasons why customers switch to other banks. It refers to customer's perception of the bank's activities and the willingness of employees to respond to customer's requests. The study has used rendering instant services, making prompt decisions, quickness in attending problems, and speedy grievance redress as a measure of responsiveness.
- f. Loyalty: Customer loyalty can be understood as their likeliness to carry out different operations at the same bank. It is the potential of the relationship between the bank and the customer. Loyalty heavily depends on the behavior and attitude of the customer, the study has used availing all services from the same

bank, recommending their bank to others, and sharing banking relations with one or banks as the variables to measure the customer's loyalty.

## RESEARCH METHODOLOGY

This section of the study explains the methodology of research to answer research questions and to justify the research objectives. Further after addressing these questions, the hypotheses of the study have been developed. Next, a sampling frame and a systematic data collection procedure have been talked through.

The research model is developed to determine the interrelationship between the service quality attributes, customer satisfaction, and customer loyalty in the private banks in India. This research model is illustrated in Figure1 (Research model).

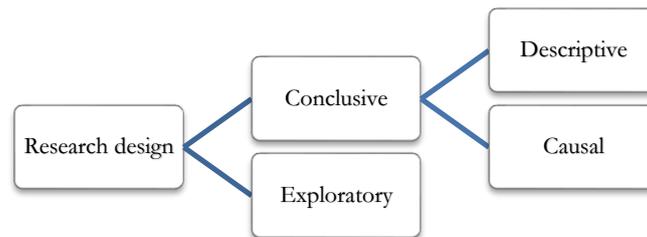
**Figure 1. Research model**



Data collection and empirical context refer to the overall strategy that you choose to integrate the different components of the study incoherently and logically, thereby, ensuring you will effectively address the research objectives, it constitutes the blueprint for the collection, measurement, and analysis of data. The various types of research design layouts are illustrated in Figure 2 (Research design and data collection). The descriptive research was carried out to evaluate the service quality, customer satisfaction, and customer loyalty in private banks of India. Hence, the researcher initially started by searching previous knowledge of the field. This former knowledge is used to identify various dependent and independent variables. The population of a study refers to a specific group of the units such

as individuals, households, organizations, and similar that are targeted for a definite study. For the study, 200 customers of the private bank of different cities in India were identified.

**Figure 2. Research design and data collection**



The non-Probability sampling method was used for collecting data for this study. Under this sampling procedure, a convenience sampling procedure was adopted for this research. The sample size of the study as per the researcher's convenience is 200 respondents. The primary data is collected through the questionnaire method. The respondents are asked to give their opinion relating to the various service quality of the private banks. The first part of the questionnaire comprises demographic variables with optional questions and the second part comprises service quality dimensions.

After collecting the data, questionnaires were checked for completeness. By using SPSS software, at first, variables were developed and data were entered accordingly. For this research multivariate statistical analysis was used. The Likert scale was used for rating responses. Each testimonial is measured by 5- point Likert scale: 1=Strongly disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly agree. Similarly, dependent and independent variables were measured by focusing on Cronbach's alpha (must be above 60%). By using the software program, SPSS, the correlation between service quality dimensions that influence customer satisfaction and loyalty in private banks and the linear regression, and the analysis were done. Customer satisfaction played a role of a mediating variable and customer loyalty is considered to be a dependent variable. Factor and reliability analysis and hypothesis testing are also used to find out the results.

## **DEMOGRAPHIC PROFILE OF THE RESPONDENTS**

### Age distribution

The age distribution of the respondents is illustrated in Table 1. We can see that the majority of respondents, 66% belong to the very first category of below 25 years. This implies that a lot of youngsters belonging to this generation are potential customers of the banks and are using their products and services regularly. The respondents belonging to other categories are given as follows:

**Table 1. Age distribution of the respondents**

Age Groups	No. of Respondents	% of Total
Below 25 years	132	66.00
25 - 35 years	27	13.50
36 - 45 years	21	10.50
46 - 55 years	15	7.50
55 years and above	5	2.50
Total	200	100

### Gender composition

The gender composition of the respondents was 45.50% female and 54.50% male. This shows that even females are empowered enough to independently avail the banking services. It also eliminates the stereotypes that a whole family would rely on a single (family) account, frequently with a name of a male in the family. Contrary to this, nowadays people even started to open their children's accounts when they are minors, just a habit of saving for their children's future. The study also shows that these respondents are associated with various banks to avail different services and products, whereas some customers stick to their single bank for everything.

### Educational qualification

Talking about the highest educational qualifications of the respondents, the majority of the respondents 48% belongs to the post graduate category. Literacy plays a vital role in developing one's personality, an educated individual is more likely to avail the banking services and products. Although the banking staff of every bank helps their customers in all possible manners, even when it comes to a simple task like assisting their customers in form filling etc., the academic qualifications of service users are often associated with the frequency of using bank services. The respondents categorized as per their highest educational qualification are given in Table 2

**Table 2. Educational qualification of the respondents**

Educational Qualification	No. of Respondents	% of Total
HSC/SSC	15	7.00
Under graduate	25	12.50
Graduate	96	48.00
Post graduate	2	1.00
Diploma	14	7.00
Professional	48	24.00
Total	200	100

### **Respondent's location**

The distribution of the 200 respondents as per the location is given in Table 3. The majority of the respondents 52.50% were from Indore and 11% were from Mumbai.

### *Employment status (occupation)*

Considering the employment status of the respondents given in Figure 3, it shows that 32.50% are salaried and working in the private sector, 53.50% are students and are currently not working and 6.50% are self-employed.

### *Area of residence*

The area of residence plays a vital role when it comes to bank branches. Earlier there was not a well-developed network of bank branches in rural areas, although, now banking channels and networks have spread to every corner of the country. When it comes to questions about the area of residence of the respondents, 79.50% of them stated that they live in the urban area, while 15.50% said they live in the semi-urban area and the remaining 5% in the rural area.

### *Marital status*

Talking about the marital status of the respondents, 72.50% said they were unmarried, 26% were married and the rest 1.50% belong to the others category.

**Table 3. Location of the respondents**

Cities	No. of respondents	% of Total	Cities	No. of respondents	% of Total
Agra	1	0.50	Mathura	1	0.50
Ahmedabad	1	0.50	Mhow	2	1.00
Ajmer	1	0.50	Mumbai	22	11.00
Aurangabad	1	0.50	Nagda	1	0.50
Barwani	1	0.50	Nagpur	3	1.50
Bhandara	1	0.50	Nashik	1	0.50
Bharatpur	1	0.50	Nellore	2	1.00
Bhilwara	1	0.50	Palia Kalan	1	0.50
Bhopal	5	2.50	Pune	6	3.00
Bhubaneswar	1	0.50	Raipur	1	0.50
Damanjodi	1	0.50	Ranchi	3	1.50
Delhi	1	0.50	Rohtak	1	0.50
Dhanbad	1	0.50	Siliguri	1	0.50
Faridabad	1	0.50	Sonbhadra	3	1.50
Ghaziabad	1	0.50	Surat	3	1.50
Howrah	1	0.50	Trivandrum	1	0.50
Indore	105	52.50	Udaipur	1	0.50
Jabalpur	1	0.50	Ujjain	1	0.50
Jaipur	9	4.50	Vaibhav wadi	1	0.50
Jaunpur	1	0.50	Varanasi	2	1.00
Kolkata	3	1.50	Veraval	1	0.50
Lucknow	3	1.50	Total	200	100

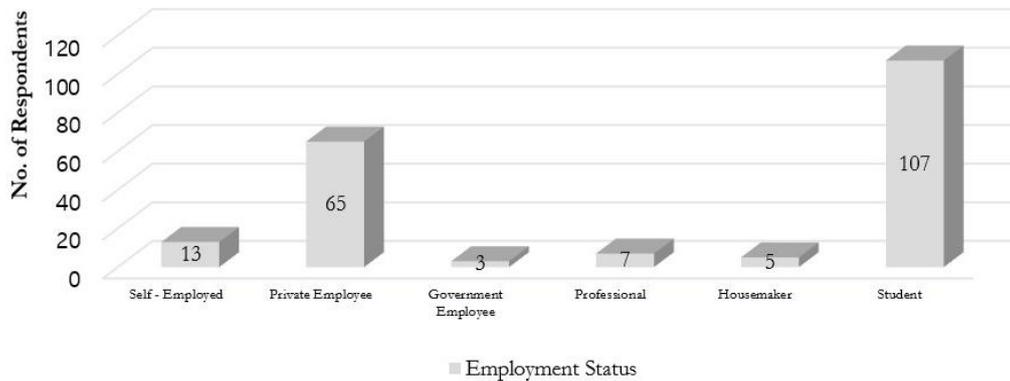
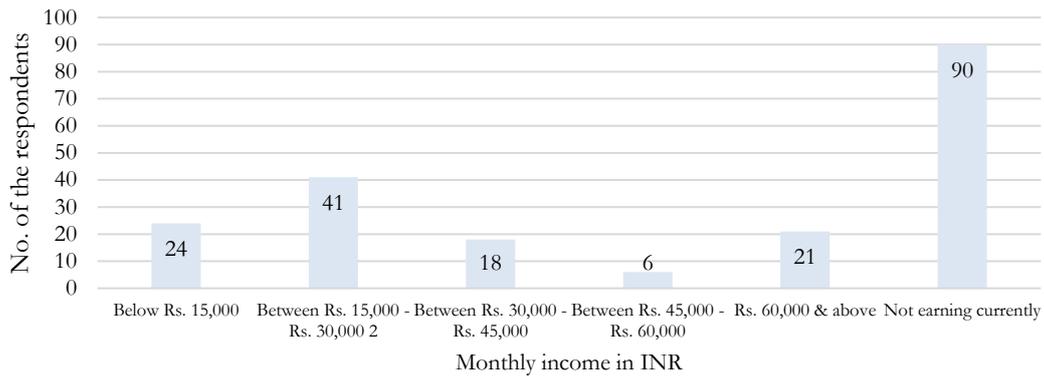
**Figure 3. Employment status of the respondents***Monthly income*

Figure 4 indicates the respondent's monthly income, wherein 20.50% have a monthly income between Rs. 15,000 – Rs. 30,000, the other 10.50% have monthly income above Rs.

60,000 and 45% have said that they are not currently earning (as a majority of them are students).

**Figure 4. Monthly income of the respondents**



## FINDINGS

### Descriptive statistics

To begin with the data analysis and interpretation of the responses, firstly we have performed the descriptive statistics of the study. It helps to summaries and define the characteristics of the huge numbers of data which aims to describe the data's condition. Table 4 (descriptive statistics) shows the minimum and maximum statistic value of all the demographic questions, it also shows the mean statistic, standard deviation statistic and the skewness of all the line items.

**Table 4. Descriptive statistic**

	N	Minimum	Maximum	Mean	St. deviation	Variance	Skewness	
							Statistics	Std. error
<b>Gender</b>	200	1.00	2.00	1.45	0.44	0.24	0.18	0.17
<b>Age distribution</b>	200	1.00	5.00	1.67	1.09	1.18	1.51	0.17
<b>Marital status</b>	200	1.00	3.00	1.28	0.47	0.22	1.24	0.17
<b>Educational qualification</b>	200	1.00	6.00	3.32	1.26	1.59	0.02	0.17
<b>Employment status</b>	200	1.00	6.00	4.23	2.00	4.03	-0.39	0.17
<b>Monthly income</b>	200	1.00	.00	4.14	1.97	3.89	-0.39	0.17
<b>Area of residence</b>	200	1.00	3.00	2.74	0.53	0.29	2.04	0.17
<b>Years of association with the bank</b>	200	1.00	4.00	2.32	1.15	1.32	0.27	0.17
<b>Valid N (listwise)</b>	200	1.00						

Note: All the responses are valid i.e., 200, since there are no missing data in the frequency table.

### Reliability

The reliability analysis helps to determine the extent to which a scale produces compatible and consistent results. Here, with the help of Cronbach's alpha, we have determined the reliability of the variables on SPSS. As shown in Table 5 (reliability statistics) the Cronbach's alpha of the study is 0.870. The generally accepted range is 0.6-0.7, whereas 0.8 and the greater value represents a very good level of internal consistency i.e., items are closely related as a group.

**Table 5. Reliability statistics**

Cronbach ' s alpha	Cronbach ' s alpha based on standardized items	Number of items
0.870	0.872	9

### Factor analysis KMO and Total variance

The Kaiser – Meyer – Olkin measure of sampling adequacy measures the proportion of variance in the variables of the study. It varies between 0 to 1, and any value closer to 1 is better, wherein a value of at least 0.6 is a suggested minimum. According to Table 6 (KMO and Bartlett’s test), the value is 0.836 which is very much suitable.

**Table 6. KMO and Bartlett’s Test**

<b>Kaiser- Meyer- Olkin measure of sampling adequacy</b>	<b>0.836</b>
<b>Bartlett’s test of sphericity approx. Chi-Square</b>	1425.25
<b>Df</b>	171
<b>Sig.</b>	0.000

The communality value decides whether a variable is to be included or not in the factor analysis; any value above 0.5 is considered to be ideal but certain variables with low communality value (i.e., <0.5) are also taken into consideration. Table 7 (communalities) shows the communality value of different variables of the study. Here, we can see that the communality value of all the variables majorly lies above the said value of 0.5, therefore, all these factors are included in the factor analysis.

**Table 4. Communalities**

	Initial	Extraction
Years of association with the same bank	1.000	.542
Availing all services from the same bank	1.000	.528
Recommending your bank to other	1.000	.605
Employee knowledgeably resolve queries	1.000	.550
Employee gives individual attention	1.000	.479
Enough operating branches in the city	1.000	.598
Modern – Looking Equipment (Cash Deposit machine, Passbook Kiosk, fast ICT facilities etc.)	1.000	.660
Visually appealing and spacious interior and exterior of the bank	1.000	.545
Employees are professionally dressed	1.000	.545
Safety in doing mobile/internet banking transactions	1.000	.199
Safety in every transaction with the bank (account maintenance, cash transfer, withdrawals and deposits etc.)	1.000	.614
Speedy service provided by the bank	1.000	.634
Grievance redressal procedure	1.000	.740
Staff handles all problems in a very responsive manner	1.000	.670
Staff is always willing to solve customer problems	1.000	.713
Banking experience as far as charges for services are concerned	1.000	.640
Level of service quality	1.000	.827

Mobile/internet banking menu in Bank's application	1.000	.831
Mobile/internet banking services	1.000	.561

\* Extraction method: principal component analysis

When we look at the cumulative percentage of total variance explained, the acceptable range according to some researchers must be above 50% while some other criteria say that it should be between 70%-80%. In this study, as shown in Table 8 (total variance explained) the cumulative % is 60.429%.

The Table 9 (component matrix) and Table 10 (rotated component matrix) are given, to facilitate understanding of the distribution of the variance after the varimax rotation.

**Table 8. Total Variance explained**

Component	Total	Initial	Extraction	Rotation Sums of Squared Loadings						
		Eigenvalues	Sums of Squared Loadings	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance
1	5.988	31.516	31.516	5.998	31.516	31.516	4.903	25.806	25.806	
2	1.690	8.896	40.412	1.690	8.896	40.412	2.257	11.880	37.686	
3	1.484	7.812	48.224	1.484	7.812	48.224	1.826	9.609	47.295	
4	1.253	6.594	54.818	1.253	6.594	54.818	1.296	6.820	54.115	
5	1.066	5.611	60.429	1.066	5.611	60.429	1.200	6.313	60.429	
6	.996	5.241	65.669							
7	.930	4.897	70.567							
8	.829	4.364	74.931							
9	.680	3.582	78.513							
10	.665	3.497	82.010							
11	.592	3.117	85.127							
12	.486	2.560	87.687							
13	.476	2.503	90.190							
14	.446	2.347	92.537							
15	.410	2.157	94.694							
16	.341	1.793	96.487							
17	.296	1.559	98.047							
18	.213	1.121	99.168							
19	.158	.832	100.00							

Note: Extraction Method: Principal Component Analysis

**Table 9. Component matrix**

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Component matrix	Components				
	1	2	3	4	5
Grievance redress procedure	.818				
Staff is always willing to solve customer problems	.803				
Staff handles all problems in a very responsive manner	.790				
Safety in every transaction with the bank (A/C maintenance, Cash transfers, Deposits and withdrawals etc.)	.761				
Speedy service provided by the bank	.740				
Visually appealing and spacious interior of the bank	.701				
Mobile/internet banking services	.659				
Employees are professionally dressed	.635				
Level of service quality	.559				
Employees knowledgeably resolve queries	.543				
Recommending your bank to others	.512				
Enough operating branches		.654			
Mobile/internet banking menu by bank's application			.55		
Employee gives individual attention				.2	
Years of association with the bank			.54		.7
Availing all services from the same bank				.62	
Safety in doing mobile/internet banking transactions					.3
Banking experience as far as charges for services are concerned				.50	.7
Modern-looking equipment (Passbook kiosk, cash deposit machine etc.)					.58
					.6

\*Extraction method: principal concept analysis

a. .5 components extracted

**Table 10. Rotated Component Matrix**

Rotated component matrix	Components				
	1	2	3	4	5
Grievance redress procedure	.832				
Staff is always willing to solve customer problems	.815				
Staff handles all problems in a very responsive manner	.776				
Safety in every transaction with the bank (a/c maintenance, cash transfers, deposits and withdrawals etc.)	.746				
Speedy service provided by the bank	.777				
Visually appealing and spacious interior of the bank	.653				
Mobile/ internet banking services	.658				
Employees are professionally dressed	.647				
Level of service quality			.829		
Employees knowledgeably resolve queries		.672			
Recommending your bank to others		.696			
Enough operating branches		.675			
Mobile/internet banking menu by bank's application			.887		
Employee gives individual attention					
Years of association with the bank					.710
Availing all services from the same bank					-.655
Safety in doing mobile/ internet banking transactions					
Banking experience as far as charges for services are concerned				.755	
Modern – looking equipment (passbook kiosk, cash deposit machine etc.)		.513			.567

Note: Extraction method: Principal Concept Analysis

a. .5 components extracted

### Chi-square test

The chi-square test is used to check the relatedness of the two categorical variables in the study. It is a nonparametric test that shows whether there exists an association between them or not. For this purpose, the calculation of crosstabs on SPSS has been done between a few factors of customer loyalty and customer satisfaction.

*Years of association with the same bank and mobile/ internet banking services offered by the bank.*  
When we look at the chi-square test of years of association with the same bank and mobile/internet banking services offered by the bank in Table 11 (Chi-Square test for years of association with the same bank and mobile/internet banking services offered by the bank), where years of association with the same bank depicts the “customer satisfaction” and the mobile/internet banking services offered by the bank shows “service quality” attribute, the chi-square statistic is 57.17. The p-value appears to be 0.489 which is greater than the standard alpha value of 0.50, so in this case, we will accept the null hypothesis (H<sub>0</sub>), that there is a significant relationship between service quality and customer satisfaction.

**Table 5. Chi-square test for years of association with the same bank and mobile/internet banking services offered by the bank**

	Chi-square tests		
	Value	df	Asymptotic Significance (2-sided)
Pearson chi-square	57.171 <sup>a</sup>	57	.569
Likelihood ratio	70.947	57	.101
Linear-by-linear association	.220	1	.639
N of valid cases	200		

Not: 70 cells (87.5%) have expected count less than 5. The minimum expected count is .17

		Symmetric Measure			
		Value	Asymptotic standard error <sup>a</sup>	Approximate T <sup>b</sup>	Approximate significance
<b>Nominal value</b>	Phi	.535			.569
	Cramer's V	.309			.569
<b>Internal by internal</b>	Pearson's R	-.033	.072	-.468	.640 <sup>c</sup>
<b>Ordinal by ordinal</b>	Spearman Correlation	-.007	.071	-.101	.919 <sup>c</sup>
<b>N of valid cases</b>		200			

- a. Not assuming the null hypothesis
- b. Using the asymptotic standard error assuming the null hypothesis
- c. Based on normal approximation

*Years of association with the same bank and level of service quality.*

According to Table 12 (Chi-square test for years of association with the same bank and level of service quality), where years of association with the same bank depicts the “customer satisfaction”, the chi-square statistic is 7.496. The p-value appears to be 0.923 which is greater than the standard alpha value of 0.50, so in this case we will accept the null hypothesis (H<sub>0</sub>), that there is a significant relationship between service quality and customer satisfaction.

**Table 12. Chi-square test for Years of Association with the same Bank and Level of Service Quality**

Chi-square tests			
	Value	df	Asymptotic significance (2-sided)
<b>Pearson chi-square</b>	7.496 <sup>a</sup>	12	.823
<b>Likelihood ratio</b>	9.518	12	.658
<b>Linear-by-Linear Association</b>	.000	1	.994
<b>N of valid cases</b>	200		

Note: 8 cells (40.0%) have expected count less than 5. The minimum expected count is .51

Symmetric Measure					
		Value	Asymptotic standard Error <sup>a</sup>	Approximate T <sup>b</sup>	Approximate significance
<b>Nominal value</b>	Phi	.194			.823
	Cramer's V	.112			.823
<b>Internal by internal</b>	Pearson's R	.000	.075	-.007	.994 <sup>c</sup>
<b>Ordinal by ordinal</b>	Spearman Correlation	.025	.074	.352	.725 <sup>c</sup>
<b>N of valid cases</b>		200			

a. Not assuming the null hypothesis

b. Using the asymptotic standard error assuming the null hypothesis

c. Based on normal approximation

*Availing all the services from the same bank and mobile/ internet banking menu provided by bank's application.*

Let us look at the chi-square test of availing all the services from the same bank and bank and mobile/ internet banking menu provided by bank's application in Table 13 (Chi-square test for availing all the services from the same bank and mobile/internet banking menu provided by bank's application). The chi-square statistic is 18.742. The p-value appears to be 0.539 which is greater than the standard alpha value of 0.50, so in this case, we will accept

the null hypothesis (H<sub>0</sub>), that there is a significant relationship between service quality and customer satisfaction.

**Table 13. Chi-square test for availing all the services from the same bank and mobile/internet banking menu provided by bank's application.**

Chi-square tests			
	Value	df	Asymptotic significance (2-sided)
<b>Pearson chi-square</b>	18.742 <sup>a</sup>	20	.539
<b>Likelihood ratio</b>	21.890	20	.347
<b>Linear-by-linear association</b>	1.290	1	.256
<b>N of valid cases</b>	200		

Note: 31 cells (73.8%) have expected count less than 5. The minimum expected count is .31

Symmetric measure					
		Value	Asymptotic standard error <sup>a</sup>	Approximate T <sup>b</sup>	Approximate significance
<b>Nominal value</b>	Phi	.306			.539
	Cramer's V	.306			.539
<b>Internal by internal</b>	Pearson's R	-.081	.073	-1.137	.257 <sup>c</sup>
	Spearman Correlation	-.071	.072	-1.008	.315 <sup>c</sup>
<b>N of valid cases</b>		200			

a. Not assuming the null hypothesis

b. Using the asymptotic standard error assuming the null hypothesis

c. Based on normal approximation

*Availing all the services from the same bank and level of service quality.*

When we look at the chi-square test of Availing all the services from the same bank and level of service quality in Table 14 (chi-square test for availing all the services from the same bank and level of service quality), where availing all the services from the same bank depicts the “customer satisfaction”, the chi-square statistic is 10.559. The p-value appears to be 0.938 which is greater than the standard alpha value of 0.50, so in this case we will accept the null hypothesis (H<sub>0</sub>), that there is a significant relationship between service quality and customer satisfaction.

**Table 14. Chi-square test for availing all the services from the same bank and level of service quality**

		Chi-square tests		
		Value	df	Asymptotic Significance (2-sided)
<b>Pearson Chi-Square</b>		10.599 <sup>a</sup>	19	.938
<b>Likelihood Ratio</b>		12.661	19	.855
<b>Linear-by-Linear Association</b>		.032	1	.858
<b>N of Valid Cases</b>		200		

Note: 28 cells (70.0%) have expected count less than 5. The minimum expected count is .31

		Symmetric measure			
		Value	Asymptotic standard error <sup>a</sup>	Approximate T <sup>b</sup>	Approximate significance
<b>Nominal value</b>	Phi	.230			.938
	Cramer's V	.230			.938
<b>Internal by internal</b>	Pearson's R	-.013	.068	.179	.858 <sup>c</sup>
<b>Ordinal by ordinal</b>	Spearman Correlation	-.024	.068	.339	.735 <sup>c</sup>
<b>N of valid cases</b>		200			

a. Not assuming the null hypothesis  
b. Using the asymptotic standard error assuming the null hypothesis  
c. Based on normal approximation

## Correlation

The correlation between customer loyalty (after computing all the variables) and customer Satisfaction is shown in Table 15 (correlation between customer loyalty and customer satisfaction).

We can see that the p-value is .106, which is greater than ( $>$ ) 0.05. Hence, it provides strong evidence for the acceptance of the null hypothesis ( $H_0$ ), there is a significant relationship between customer satisfaction and the customer's loyalty towards their banks. Therefore, we retain the null hypothesis and reject the alternative hypothesis.

**Table 15. Correlation between customer loyalty and customer satisfaction**

		Correlation	
		Customer loyalty	Customer satisfaction
Customer loyalty	Pearson	1	-.114
	Correlation		
	Sig. (2-Tailed)		.106
	N	200	200
Customer satisfaction	Pearson	-.114	1
	Correlation		
	Sig. (2-Tailed)	.106	
	N	200	200

After conducting the data analysis using SPSS software, the descriptive analysis showed that there are no missing frequencies and the number of valid responses was 200. The skewness as per the descriptive statistics was 0.172 which is between -0.5 to 0.5, hence the distribution is approximately symmetric. As per the reliability test, the Cronbach's alpha of the study was 0.870 where, the accepted range is 0.6 – 0.7, whereas 0.8 and greater represents a very good level of internal consistency i.e., items are closely related as a group. The KMO of the study was 0.836, it measures the proportion of variance in the variables of the study, which varies between 0 to 1, and any value closer to 1 is better. The total variance after the analysis was 60.429%, wherein the acceptable range according to some researchers must be above 50%.

The chi-square test was performed to check the relatedness of the two categorical variables in the study, to decide whether to accept or reject the null hypothesis (H<sub>0</sub>): There is a significant relationship between customer satisfaction and service quality of private banks. After performing the chi-square test for years of association with the same bank and mobile/internet banking services offered by the bank was 0.569. The years of association with the same bank and level of service quality the Pearson Chi-square test was 0.823. Then comes availing all the services from the same bank and mobile/internet Banking menu provided by bank's application, the pearson chi-square test was 0.539. After performing the chi-square test for availing all the services from the same bank and level of service quality was 0.938.

We can see that the p-value in all 4 cases is greater than (>) 0.50. Hence, it provides strong evidence for the acceptance of the null hypothesis (H<sub>0</sub>), there is a significant relationship between customer satisfaction and the customer's loyalty towards their banks.

Talking about the correlation of customer loyalty (after computing all the variables) and customer satisfaction to test the null hypothesis (H<sub>0</sub>): There is a significant relationship between customer satisfaction and the customer's loyalty towards their banks. The correlation calculated was 0.106 We can see that the p-value is .106, which is greater than (>) 0.05. Hence, it provides a piece of strong evidence for the acceptance of the null hypothesis (H<sub>0</sub>), there is a significant relationship between customer satisfaction and the customer's loyalty towards their banks.

Therefore, both the null hypothesis (H<sub>0</sub>) have been retained and the alternative hypothesis has been rejected. The service quality in private banks were studied with the help of attributes; responsiveness, tangible attributes, reliability, assurance and empathy (SERQUAL model).

## **RECOMMENDATION AND SUGGESTIONS**

Existing study aimed at studying the impact of Covid-19 pandemic on household consumption, earning and employment in India. As per the data collected and subsequent After considering various responses for the study and day-to-day experiences, we observe several examples relating to online transaction frauds, wherein especially the senior citizens are vulnerable to lose money as they are not well-versed with the online transactional systems. Here, the Customer service officers can assist them with the online transactions and also counsel them about the prevention against fraudulent phone calls, messages and spam links. So, a better security framework must be implemented to secure online transactions and prevent fraudulent fund transfers. A strong system, with a double security authentication, where you can see the details of the person to whom you're transferring funds to ensure transparency in the transaction must be implemented and practiced.

Customers having small and medium businesses, who deal with cash transactions on daily basis have to spend a lot of time standing in the queue at the teller counters for these transactions along with passbook printing. If cash deposit machines and Passbook Kiosk are installed at the bank branch/ATMs, it becomes convenient for both, the depositor and the banker in terms of time and human resource management. All the available machines and equipment in a bank branch must be in a functional condition, if not, their repair and mend should be the priority concern of the branch.

To learn more and more about the cliental needs and rather than offering everything banks must try to provide what a customer requires. For this purpose, studying the customer needs basing on the given information such as the customer's occupation, family size, the standard of living, etc. is a significant way of offering a sales pitch. Therefore, appointing a customer relationship manager is the wisest decision, as the customer has a point-of-contact in case any difficulty arises, this will also create a goodwill of the bank amongst the customer. Lately, a new term for taking care of customers via the internet, e-CRM (Customer Relationship Management), is recently applied by some organizational and academic communities (Ragins and Greco, 2003). Banks must also pay attention in providing services in a prompt manner and ensuring quick grievance redressal procedures.

There is a significant need for enhancement of the financial awareness in the citizens. This can be done by making creative videos that connect your customers with the bank heartfully or visually appealing advertisements and tutorial videos/digital templates to make them learn about certain banking operations.

## CONCLUSION

The main objective of this research was to identify the key factors influencing service quality, customer satisfaction, and customer loyalty in private banks of India. The Indian banking sector is the backbone of the Indian economy, which undoubtedly is emerging as one of the leading sectors in terms of technological advancements and customized products and services as per customer's needs. In a rapidly developing country like India, it becomes vital for all its citizens to be provided with adequate financial products and services to meet their growing demands. Throughout the analysis, the question that what customer wants has been answered. They are the personal attention and sense of reliability wherein they can trust their banks while carrying out certain transactions or availing different banking products.

The major limitation to the study was accomplished responses from a relatively smaller number of cities. The attempt of collecting 200 responses to the questionnaire, shared in the format of a Google form was successful. However, the majority of responses were predominantly from two cities; Indore and Mumbai Table 3 (Location of the respondents). The study would have been finer and more diversifiable if more participants from other cities would have taken an initiative to respond. Many such pieces of research

have been previously conducted focusing on other American, African, European, and a few Asian countries, but only a limited amount of data is available when we talk about India. The major outcomes of the study are:

- a) The SERVQUAL dimensions and attributes play a key role in measuring customer satisfaction in private banks.
- b) There exists a significant relationship between customer satisfaction and service quality of private banks.
- c) There exists a significant relationship between customer satisfaction and the customer's loyalty towards their banks.

This means that the various service quality attributes/dimensions (reliability, empathy, responsiveness, assurance, loyalty and, tangible attributes) are positively related to customer satisfaction. And a satisfied customer is likely to be loyal to the bank.

The private banks must retain their existing customers along with converting the new potential ones. With the emergence of fintech partnerships and the entry of payment banks, the survival of existing banks has been questionable. Technological advancements in the banking sector have proved to enhance the customer's convenience in banking operations. The Covid-19 pandemic had a silver lining as it slightly pushed the people towards digitization of payment habits. More and more people are now becoming comfortable in using digital banking platforms.

The study suggests that the components of the SERVQUAL model; reliability, empathy, responsiveness, assurance, tangible attributes and loyalty are of utmost importance to attract and retain customers and banks must give focus on these factors to enhance customer satisfaction, as a satisfied customer is likely to be loyal towards the bank. The private banks must retain their existing customers along with converting the new potential ones (Babakus and Gregory 1992). New customers are digitally savvy and are well-versed with digital banking platforms, but in the case of existing customers, still there is a substantial customer segment that is reluctant or unable to adopt digital platforms for banking operations. In such a scenario bank should come up with segment-specific strategies which are relevant to their customers. More transparency and prompt customer redressal can give more confidence to the customers. Individual need based products and customer services are also required along with the technological advancements in the banking sector to enhance the customer's experience in banking operations. The Covid-19

pandemic had a silver lining as it slightly pushed the people towards digitization of payment habits. But, at the same time, it is limiting the home banking services, i.e., going door to door. The private banks have to take cognizance of this scenario and strategize for a happier and more satisfied customer base.

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## **COVID-19, LOCKDOWN AND ITS EFFECT ON CONSUMPTION BEHAVIOR OF HOUSEHOLD: EVIDENCE FROM MAHARASHTRA STATE, INDIA**

### **ABSTRACT**

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The purpose of this paper is to assess the effect of COVID-19, nationwide lockdown, and measures taken by the central bank to adjust the consumer behavior of households in Maharashtra, India. This study used a structured questionnaire to achieve the objectives with a sample size of 221 and statistical tools like Logistics regression, Kruskal Wallis Test, Wilcoxon Signed Rank Test, and Chi-Square Test. The results indicate that COVID-19 decreased the consumption of the household and that there was a significantly positive relationship between the level of consumption during lockdown and age, gender, number of dependents, income, education level, and region. People tend to lower their consumption for non-essential categories and increase for essential ones. The current study is considered the first of its kind conducted in Maharashtra, India. To the best of our knowledge, there were no such studies regarding measuring the impact of COVID-19 on household consumption.

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*Keywords: COVID-19, Consumption, Household, Spending*

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## INTRODUCTION

The 2019–20 coronavirus pandemic is an ongoing pandemic of coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus. The first case was identified in Wuhan, China, in December 2019 and declared to be a public health emergency of international concern on 30 January 2020, and recognized as a pandemic by the World Health Organization on 11 March 2020. As of 14 April 2020, more than 1.92 million cases of COVID-19 have been reported in 210 countries and territories, resulting in more than 119,000 deaths. More than 453,000 people have recovered, although there may be a possibility of relapse or re-infection. The case fatality rate was estimated to be 4 percent in China, but varies significantly between countries.

The virus is mainly spread between people through close contact, often via small droplets produced during coughing, sneezing, or talking. While these droplets are produced when breathing out, they usually fall to the ground or onto surfaces rather than being infectious over large distances. People may also become infected by touching a contaminated surface and then their face. The virus can survive on surfaces for up to 72 hours. It is most contagious during the first three days after onset of symptoms, although spread may be possible before symptoms appear and in later stages of the disease. Common symptoms include fever, cough, and shortness of breath. Complications may include pneumonia and acute respiratory distress syndrome. The time from exposure to onset of symptoms is typically around five days but may range from two to fourteen days. There is no known vaccine or specific antiviral treatment. Primary treatments are symptomatic and supportive therapies. Recommended preventive measures include:

- Hand washing,
- Covering one's mouth when coughing,
- Maintaining distance from other people and
- Monitoring and self-isolation for people who suspect they are infected.

Authorities worldwide have responded by implementing travel restrictions, quarantines, curfews, and stay-at-home orders, workplace hazard controls, and facility closures.

The pandemic has led to severe global socioeconomic disruptions, the postponement or cancellation of sporting, religious, political, and cultural events, and shortages of supplies exacerbated by panic buying. Schools, universities, and colleges have closed either on a nationwide or local basis in 210 countries, affecting approximately 99.9

percent of the world's student population. Misinformation about the virus has spread online, and there have been incidents of xenophobia and discrimination against Chinese people and against those perceived as being Chinese or as being from areas with high infection rates. Due to reduced travel and closures of heavy industry, there has been a decrease in air pollution and carbon emissions. The objectives of the study are as below:

1. To study the impact of the pandemic on household consumption.
2. To study the impact of COVID-19 pandemic on earning and employment of individuals.
3. To study the prospects of individuals in the post COVID-19.

## **ORIGIN**

Health authorities in Wuhan, China (the capital of Hubei province), reported a cluster of pneumonia cases of unknown cause on 31 December 2019, and an investigation was launched in early January 2020. The cases mostly had links to the Huanan Seafood Wholesale Market, and the virus has been thought to have a zoonotic origin. The virus, which caused the outbreak, has been known as SARS-CoV-2, a newly discovered virus closely related to bat coronaviruses, pangolin coronaviruses, and SARS-CoV.

The earliest known person who had symptoms was discovered later to have fallen ill on 1 December 2019, and that person did not have visible connections with the later wet market cluster. Of the early cluster of cases reported in December 2019, two-thirds were found to have a link with the market. On 13 March 2020, an unverified report from the South China Morning Post suggested a case traced back to 17 November 2019, in a 55-year-old from Hubei province, may have been the first.

### **Measures taken by India to prevent the spread of coronavirus**

Taking rapid actions to limit travel by suspending visas and quarantining all incoming travelers has helped. All international passengers entering India undergo universal health screening. According to health officials, more than 1 million passengers have been screened at airports, limiting the entry coronavirus. The response also mirrors India's reaction to previous disease outbreaks, including Ebola in 2014 and Nipah in 2018, when people were quickly put into quarantine or under surveillance. Indian citizens have been advised to avoid all non-essential travel abroad, and citizens have been evacuated from

Iran, Italy, China, and Japan. Apart from ensuring the safe return of hundreds of Indians from China, Iran, and other countries, the Indian government has taken decisive measures to contain community spread,” said Sriram Gutta, Head of Community Development, India and South Asia at the World Economic Forum. “While these measures will have a short-term economic impact, they will ensure the safety and welfare of Indians.” (Emma, 2020). Prime Minister Narendra Modi’s government was quick to recommend residents avoid or postpone mass gatherings until the virus is contained. The Ministry of External Affairs postponed the Indian cricket league and state authorities are shutting schools, gyms, and swimming pools in the worst-hit regions. A “novel coronavirus” landing page on the Ministry of Health’s website gives the numbers of phone helplines, as well as detailed advice and guidelines. Actions like these have been lauded by the World Health Organization (WHO), which is leading the global charge against the virus. Such responses are “good and impressive,” according to the WHO. “India is doing quite well,” said the WHO representative, Henk Bekedam. Even so, the nation still faces many of the same challenges as other countries, including limiting unauthorized gatherings and debunking fake health messages circulating on social media. The global economic impact will be hard to avoid, with the United Nations trade and development agency predicting the slowdown in the global economy caused by the coronavirus outbreak is likely to cost at least \$1 trillion.

The Director-General of the Indian Council of Medical Research Balram Bhargava said on Tuesday that community transmission of COVID-19 has not yet occurred in India, meaning people who contracted the virus did so from a known source. Even so, officials are preparing for it to happen, with private laboratories authorized to test for the virus, freeing up more capacity for diagnosis and detection. Restaurants are also shutting, with the National Restaurants Association advising members to close at least until May 3, 2020. Under the new measures, all non-essential businesses will be closed but hospitals and other medical facilities will continue to function as normal. Schools and universities will remain shut and almost all public gatherings will be banned. Anyone flouting the new rules faces up to two years in prison and heavy fines.

In his address, Prime Minister Modi also:

- Stressed that the lockdown was "very necessary to break the chain of coronavirus"
- Emphasized the seriousness of the situation and said that even developed countries had faced problems in combating it

- Said that "social distancing was the only way to stop" the virus spreading
- Announced that nearly \$2bn (£1.8bn) would be made available to boost the country's health infrastructure
- Called on people not to "spread rumors" and to follow instructions

His announcement came after several Indian states introduced measures of their own, such as travel restrictions and the closure of non-essential services. India has already issued a ban on international arrivals and grounded domestic flights. The country's rail network has also suspended most passenger services.

## LITERATURE REVIEW

Amory, Markhvida, Hallegatte, and Walsh (2020) concluded that without any social protection, COVID-19 would lead to a massive economic shock to the system. In simulations of a 3-month lockdown, the poverty rate has increased from 17.1% to 25.9% during the crisis. Household savings and consumption drop significantly, and the average recovery time for individuals is almost one year. The long recovery time after the crisis will be further exacerbated by a general decrease in demand, people's change in consumer behavior, and a general slowdown of economic activities

Scott, Farrokhnia, Steffen, Michaela, and Constantine (2020) explored how household consumption was impacted by epidemics, utilizing transaction-level household financial data to investigate the impact of the COVID-19 virus. As the number of cases grew, households began to radically alter their typical spending across a number of categories of goods. Initially spending increased sharply, particularly in retail, credit card spending, and food items. This was followed by a sharp decrease in overall spending. Households responded most strongly in states with shelter-in-place orders in place by March 29, 2020. We explore heterogeneity across partisan affiliations, demographics, and incomes. Greater levels of social distancing are associated with drops in spending, particularly in restaurants and retail.

Silvius, Radu, Sapira, Bratoveanuand, and Mirel (2020) studied that the health of the consumers (purchase of medicines or visit to the physician), procuring food, or financial activities at the banking units are the main motivations for leaving the residences. By comparison, the demands for visiting sports activities or family members were plunged. A segment of consumers, an advocate of traditional commerce, has been forced to appeal

to modern trade methods based on online shopping, and the specialists' estimations provide the maintenance of the trading behavior

Haiqiang, Qian, and Wen (2020) found that daily offline consumption—via bank card and mobile QR code transactions—fell by 32%, or 18.57 million RMB per city, during the twelve-week period. Spending on goods and services were both significantly affected, with a decline of 33% and 34%, respectively; within finer categories, dining & entertainment and travel saw the greatest dip of 64% and 59%. The consumption decrease is prevalent across cities with the largest drop occurring in the epicenter Wuhan (by 70%). Consumption responded negatively to the day-to-day changes in epidemic severity while distancing measures remained stable. Consumption had rebounded back to the baseline level by the end of March 2020 but dropped to -20% in early April 2020 due to the elevated risk of a second wave of infections. We infer that China's offline consumption decreased by over 1.22 trillion RMB in the three-month post-outbreak period or 1.2% of China's 2019 GDP. Our estimates suggest a significant economic benefit of containing the virus through a lessened consumption decrease and a faster consumption recovery.

A large literature finds the economic consequences of diseases are significant (Fan, Dean, and Lawrence, 2016). Specifically, large-scale viral diseases have a significant long-term impact on GDP and per-capita income (Bloom and Ajay, 1997; Sachs and Pia, 2002), human capital accumulation (Almond, 2006; Bleakley, 2007; Young, 2005), house prices, and urban landscape (Ambrus, Erica, and Robert, 2020). Given the glaring concern over the COVID-19 pandemic, economists have started to identify and estimate the potential economic impact (Atkeson, 2020; Barro, José, and Joanna, 2020; Gormsen and Ralph, 2020). We use high-frequency transaction-based consumption data to quantify the aggregate consumption impact of COVID-19 and relate it to the epidemic severity both in the cross-section and over time. The draft includes estimates for 30 countries, under different scenarios.

The report shows the economic effects of the outbreak are currently being underestimated, due to over-reliance on historical comparisons with SARS, or the 2008/2009 financial crisis.

At the date of the report, the duration of the lockdown, as well as how the recovery will take place is still unknown. That is why several scenarios are used. In a mild scenario, GDP growth would take a hit, ranging from 3-6% depending on the country. As a result, in the sample of 30 countries covered, we would see a median decline in GDP in

2020 of -2.8%. In other scenarios, GDP can fall more than 10%, and in some countries, more than 15%.

Fernandes (2020) studied that service-oriented economies will be particularly negatively affected and have more jobs at risk. Countries like Greece, Portugal, and Spain that are more reliant on tourism (more than 15% of GDP) will be more affected by this crisis. This current crisis is generating spillover effects throughout supply chains. Therefore, countries highly dependent on foreign trade are more negatively affected. The results suggest that on average, each additional month of crisis costs 2.5-3% of global GDP.

Saraswathy (2021) stated that the COVID-19 outbreak in India and the subsequent nationwide lockdown from March 25 2020 altered the landscape of the country's employment sector. With close to 10.9 million jobs being lost across sectors, 2020 was termed the worst-ever year for the job market in India.

Davis (2021) concluded that consumption, time allocations, and health outcomes have all been significantly affected by the pandemic and ensuing policy responses, but the responses have been rather heterogeneous across regions, individuals, and outcomes.

Arpit, Anup, and Bartek (2021) estimated large and heterogeneous drops in income, with ambiguous effects on inequality. While incomes of salaried workers fell 35%; incomes of daily laborers fell 75%. The consumption of food and fuel fell less than consumption of durables such as clothing and appliances.

Paula and Liviu (2014) found that the association between consumption and income is stronger in low- and high-income countries, compared with middle-income countries, a logical conclusion since the high-income countries allocate more capital to investments and are intensely specialized in research and development activities.

## **HYPOTHESES**

Based on the existing literature and its subsequent analysis, it is found that there is certain empirical evidence based on which following hypothesis is drawn. As per Paula and Liviu (2014), it is found that there is an association between consumption and income in mostly low- and high-income countries. On the basis of this argument, we hypothesize that there is a positive significant relationship between the level of

consumption and age, gender, employment status, number of dependents, incomes, and education levels during COVID-19 (H1).

Scott et. al. (2020) found that as the number of COVID cases grew, households began to radically alter their typical spending across a number of categories of goods. Hence, we theorize that the pandemic will adversely affect household consumption (H2).

Arpit et. al. (2021) estimated that there was a drop-in income of salaried and daily laborers and the consumption of food and fuel fell less than consumption of consumer durables. Based on this, we argue that the household consumption post COVID-19 pandemic will be significantly lower than pre COVID era (H3).

Saraswati (2020) and Arpit et. al. (2021) argued that the COVID-19 pandemic has impacted the earning as well as employment in the country. That forms the basis for H4 and H5.

## **Hypotheses**

*Hypothesis 1: There is positive significant relationship between level of consumption and age, gender, employment status, number of dependents, incomes and education levels during COVID-19*

*Hypothesis 2: COVID-19 pandemic will adversely affect consumption pattern of individuals*

*Hypothesis 3: The household consumption post COVID-19 will be significantly lower than pre COVID-19 era.*

*Hypothesis 4: COVID-19 pandemic will adversely impact individual earning*

*Hypothesis 5: COVID-19 pandemic will adversely impact the individual employment*

## **RESEARCH METHODOLOGY**

### **Questionnaire design**

A structured questionnaire was used by researchers to analyze the impact of the COVID-19 pandemic and lockdown on household consumption behavior during and after the lockdown. In the current study, only objective measures and closed-ended questions were used to assess this impact.

The questionnaire consists of 16 questions of which 7 were related to demographic and socioeconomic information like age, gender, employment status, number of

dependents, incomes, education levels, and regions. Among the 16 questions, 3 questions, of which each contain 12 categories of household consumption, were asked to find the consumption before, during, and after the lockdown due to COVID-19 pandemic. The consumption categories were based on several studies that have attempted to examine household consumption/spending in various countries. The other 3 questions were included to understand the perception of respondents towards potential loss of job/business or earning due to pandemic. One of the important decisions taken by Reserve Bank of India (RBI) was regarding allowing moratorium on term loans up to 3 months hence 3 questions were also asked to know the respondent's decision and priorities to the debt repayment.

The questionnaire is divided into five parts. The first part covers socioeconomic and demographic factors. The second part identifies respondents' consumption behavior based on 12 consumption categories (food, personal spending, medical and healthcare, transport, entertainment, education, utilities, housing, insurance, saving, investing, debt payments) during lockdown using the 5-point Likert scale ranging from 1 (very low consumption) to 5 (very high consumption). The third part is devoted to comparing pre and post lockdown consumption levels of respondents. Pre-lockdown consumption included questions related to consumption on 12 categories on the 3 point Likert scale ranging from 1 (Low) to 3 (High). For the comparison, questions were included to know whether the consumption of each category is likely to increase, decrease, or remain constant in the future (post lockdown) considering 12 months period. The fourth part included questions to know the perception of respondents regarding the possible loss of job or income due to the pandemic and decisions that they will make in such a case. The last part was about the decision regarding opting for the moratorium on term loans. The questionnaire was piloted on 30 respondents. Accordingly, the researchers made changes and reformulated some questions.

### **Sampling and data collection**

The study was focused on working professionals and businessmen in Maharashtra State, India. Given the wide socio-economic diversity, the sample was drawn from five regions of the state (Marathwada, Vidarbha, Khandesh, Konkan, and West Maharashtra).

Data was collected through a survey in April 2020 by using Google form through convenient sampling. The survey was sent to 758 people (through E-mail) and though the target sample size was 300, after preliminary analysis of the data, the usable sample, with

information on all dimensions and variables, was reduced to 221 whereas remaining were excluded because of incomplete data or response bias of extreme values. Table 1 presents the detailed distribution of the sample across various attributes.

### Regression model

To identify the effect on the level of consumption of each of the following independent variables: age, gender, employment status, number of dependents, incomes, education levels, and regions, the ordinal logistics regression model was used. The coefficients represent the effect of each subgroup compared with a reference group, which is arbitrarily selected. For example, gender is coded as 1 for female, and as 0 for male. For gender, the reference group is female participants. For age, the reference category is respondents (coded as 0) above 55 years of age. For incomes, the reference group is respondents with more than Rs. 1,00,000 monthly salary. For education variables, the reference category is respondents with post-graduate degrees. For the number of dependents, the category with more than 5 is the reference group and for the region, Paschim Maharashtra is taken as the reference category.

The logistic regression model is as follows:

$$\begin{aligned} \ln\left(\frac{p}{1-p}\right) LC = & \beta_0 + \beta_1(GEN_1) + \beta_2(AGE_1) + \beta_3(AGE_2) + \beta_4(AGE_3) + \beta_5(AGE_4) \\ & + \beta_6(INC_1) + \beta_7(INC_2) + \beta_8(INC_3) + \beta_9(INC_4) + \beta_{10}(INC_5) \\ & + \beta_{11}(EDU_1) + \beta_{12}(EDU_2) + \beta_{13}(EDU_3) + \beta_{14}(EDU_4) \\ & + \beta_{15}(DEP_1) + \beta_{16}(DEP_2) + \beta_{17}(DEP_3) + \beta_{18}(DEP_4) + \beta_{19}(DEP_5) \\ & + \beta_{20}(DEP_6) + \beta_{21}(REG_1) + \beta_{22}(REG_2) + \beta_{23}(REG_3) \\ & + \beta_{24}(REG_4) + e_i \end{aligned}$$

Where:

- LC = Level of consumption during lockdown
- p = Probability of respondent with relatively more level of spending
- $\beta_0$  = Intercept
- $\beta_1$  to  $\beta_{24}$  = Coefficients
- $GEN_1$  = 1 if respondent is male, 0 otherwise
- $AGE_1$  = 1 if respondent is in age group of 18-25, 0 otherwise
- $AGE_2$  = 1 if respondent is in age group of 26-35, 0 otherwise

- AGE<sub>3</sub> = 1 if respondent is in age group of 36-45, 0 otherwise  
AGE<sub>4</sub> = 1 if respondent is in age group of 46-55, 0 otherwise  
INC<sub>1</sub> = 1 if respondent is in income group of 10000 or less, 0 otherwise  
INC<sub>2</sub> = 1 if respondent is in income group of 10000 to 25000, 0 otherwise  
INC<sub>3</sub> = 1 if respondent is in income group of 25000 to 40000, 0 otherwise  
INC<sub>4</sub> = 1 if respondent is in income group of 40000 to 60000, 0 otherwise  
INC<sub>5</sub> = 1 if respondent is in income group of 60000 to 100000, 0 otherwise  
EDU<sub>1</sub> = 1 if respondent is below high school, 0 otherwise  
EDU<sub>2</sub> = 1 if respondent has done HSC/vocational course, 0 otherwise  
EDU<sub>3</sub> = 1 if respondent has done diploma, 0 otherwise  
EDU<sub>4</sub> = 1 if respondent has done graduation, 0 otherwise  
DEP<sub>1</sub> = 1 if respondent has 0 dependents, 0 otherwise  
DEP<sub>2</sub> = 1 if respondent has 1 dependent, 0 otherwise  
DEP<sub>3</sub> = 1 if respondent has 2 dependents, 0 otherwise  
DEP<sub>4</sub> = 1 if respondent has 3 dependents, 0 otherwise  
DEP<sub>5</sub> = 1 if respondent has 4 dependents, 0 otherwise  
DEP<sub>6</sub> = 1 if respondent has 5 dependents, 0 otherwise  
REG<sub>1</sub> = 1 if respondent is from Maharashtra region, 0 otherwise  
REG<sub>2</sub> = 1 if respondent is from Vidarbh region, 0 otherwise  
REG<sub>3</sub> = 1 if respondent is from Khandesh region, 0 otherwise  
REG<sub>4</sub> = 1 if respondent is from Konkan region, 0 otherwise  
e<sub>i</sub> = Residual/Error term

## RESULTS AND DISCUSSION

### Profile of respondents

The questionnaire asked respondents to provide demographic and socio-economic data that included age, gender, employment status, number of dependents, incomes, education levels, and regions. Table 1 provides descriptive statistics for the respondents' characteristics.

**Table 1. Respondents' Profile**

<b>Variable</b>	<b>Number</b>	<b>Percentage</b>
<b>Sample size</b>	<b>221</b>	<b>100%</b>
<b>Gender</b>		
Female	36	16.29%
Male	185	83.71%
<b>Age (in Yrs.)</b>		
18-25	44	19.91%
26-35	70	31.67%
36-45	66	29.86%
46-55	33	14.93%
Above 55	8	3.62%
<b>Employment status</b>		
Own Business	33	14.93%
Retired	2	0.90%
Salaried (Govt/Semi Govt)	46	20.81%
Salaried (Private)	84	38.01%
Self Employed	56	25.34%
<b>Monthly income (in Rs.)</b>		
10,000 or less	30	13.57%
10,000-25,000	48	21.72%
25,000-40,000	39	17.65%
40,000-60,000	40	18.10%
60,000-1,00,000	39	17.65%
Above 1,00,000	25	11.31%
<b>Education</b>		
Below High School	4	1.81%
Diploma	6	2.71%
Graduation	51	23.08%
HSC/Vocational Course	7	3.17%
Post-Graduation	153	69.23%
<b>No of dependents</b>		
0	28	12.67%
1	11	4.98%
2	39	17.65%
3	47	21.27%
4	41	18.55%
5	28	12.67%
More than 5	27	12.22%
<b>Region</b>		
Khandesh	5	2.26%
Konkan	4	1.81%
Marathwada	173	78.28%

Paschim Maharashtra	25	11.31%
Vidarbha	14	6.33%

### Consumption pattern during lockdown

The initial nationwide lockdown due to COVID-19 in India began from 22 March 2020 for three weeks, i.e., till 14 April 2020. Thereafter it was extended till 3 May 2020. The citizens were required to remain at home unless there is an emergency. Only essential services like hospitals, medical shops, grocery stores, clinics, ambulances, vegetables, etc. were permitted to remain functional whereas all other establishments like schools, colleges, industries, transport services, rail, airlines, hotels, religious places, etc. were closed.

The consumption pattern during lockdown was studied by collecting responses on the level consumption of respondents on 12 major categories of spending. The levels consisted of 5-point Likert Scale starting with very low consumption, lower than normal consumption, normal consumption, higher than normal consumption and very high consumption. The responses were collected in the second week of April.

Table 2 presents the level of consumption of respondents during this lockdown period.

**Table 2. Level of consumption during lockdown**

Categories	Level of Consumption				
	Very Low	Lower than Normal	Normal	Higher than Normal	Very High
Food	21	50	123	25	2
Personal spending	163	20	32	6	0
Medical and healthcare	57	54	95	11	4
Transport	159	30	25	5	2
Entertainment	29	42	77	47	26
Education	115	41	58	5	2
Utilities	15	31	127	37	11
Housing	42	23	144	10	2
Insurance	54	23	132	10	2
Saving	73	41	95	9	3
Investing	129	17	63	10	2
Debt payments	84	23	104	6	4

The levels for which more than 50% of responses were received for a particular category are highlighted in the table depicting a higher level of consumption for that category. The results demonstrate that the consumption level for food, utilities, housing, and insurance categories has remained unchanged. Four categories observed very low consumption, namely personal spending, transport, education and investment. Of these, the first 3 categories were obvious since they were not permitted during lockdown but the investment category was not restrained in any manner since all banks, stock exchanges, mutual fund units, and other investment channels were still open for investment but still, people preferred to spend very low on investment. This implies the tendency of people to keep money in safe and highly liquid instruments like a savings account or cash. Additional information shows a medium impact on consumption on categories like medical and healthcare, savings and debt payment. Few respondents preferred to spend very little on savings (33%) and debt payment (38%).

Notably, no category attracted significantly higher than normal spending during the lockdown and this signifies that overall spending during the lockdown period has decreased. We can hence conclude that a pandemic like COVID-19 and lockdown decrease the consumption of households.

### **Effects of demographic variables on the level of consumption**

H1 tries to assess the impact of demographic variables on the level of consumption during the lockdown. The level of consumption of each category is used in the logistics regression model as a dependent variable which is explained simultaneously by all the independent variables.

A cumulative odds ordinal logistic regression with proportional odds was run to determine the effect of age, gender, employment status, number of dependents, incomes, education levels and regions, on the level of consumption during the lockdown. Since employment status violated the assumption of collinearity ( $VIF > 10$ ), the variable was dropped from further analysis. There were proportional odds, as assessed by a full likelihood ratio test comparing the fitted model to a model with varying location parameters,  $\chi^2(24) = 30.875$ ,  $p = .157$  (Refer to Table 3). The deviance goodness-of-fit test indicated that the model was a good fit to the observed data,  $\chi^2(324) = 219.701$ ,  $p = 1$ , but most cells were sparse with zero frequencies in 63.6% of cells (Refer to Table 4). However, the final model didn't statistically significantly predict the dependent variable

over and above the intercept-only model,  $\chi^2(24) = 24.523$ ,  $p = .432$  (Refer to Table 5). The odds of males' level of spending was 0.8311, (95% CI, 0.357 to 1.9328) times that for non-business owners,  $\chi^2(1) = 0.184$ ,  $p = 0.668$ . Income had a statistically significant effect on the prediction of whether the level of spending was more,  $\chi^2(5) = 10.877$ ,  $p = 0.05$ . The odds of the level of spending of 26-35 age group was 6.665 (95% CI, 0.66 to 7) times that of above 55 age group  $\chi^2(1) = 2.589$ ,  $p = 0.108$ . The odds of spending of less than Rs. 10000 monthly income group was 0.15 times that of more than Rs. 1,00,000 monthly income, a statistically significant effect  $\chi^2(1) = 6.800$ ,  $p = 0.009$ . The odds of spending of less than 5 number of dependents was less than 1 times that of more than 5 dependents. The odds of spending of the Marathwada region were equal to that of Paschim Maharashtra and the odds of spending of Konkan were 2.30 times that of Paschim Maharashtra (See Table 4).

**Table 3. Assumption of Proportional Odds**

Test of Parallel Lines <sup>a</sup>				
Model	-2 Log Likelihood	Chi-Square	df	Sig.
Null Hypothesis	244.609			
General	213.734	30.875	24	.157

The null hypothesis states that the location parameters (slope coefficients) are the same across response categories.

a. Link function: Logit.

**Table 4. Goodness-of-Fit**

	Chi-Square	df	Sig.
Pearson	427.012	324	.000
Deviance	219.701	324	1.000

Link function: Logit.

**Table 5. Model Fitting Information**

Model	-2Log Likelihood	Chi-Square	df	Sig.
Intercept Only	269.133			
Final	244.609	24.523	24	.432

The coefficients of GEN and INC are negative and statistically significant at the 5 percent for INC1 and 10% for INC2 whereas statistically insignificant for GEN, are positive for AGE but statistically insignificant, are negative for DEP, and partially positive for EDU and REG. These results partially confirm H1 of a positive significant relationship between the level of consumption during lockdown and age, gender, number of dependents, incomes, education levels, and regions.

**Table 6. Ordinal logistic regression results of the impact of age, gender, number of dependents, incomes, education levels and regions on level of consumption**

Parameter Estimates					
	Category	Estimate ( $\beta$ )	Wald Chi-Square	df	Sig.
<b>Threshold (Consumption)</b>	Low	1.001	.513	1	.474
	Normal	5.185	11.102	1	.001
<b>Location</b>	<b>Gender</b>				
	Male	-.185	.184	1	.668
	Female	0 <sup>a</sup>		0	
	<b>Age (in Yrs.)</b>				
	18-25	1.806	2.215	1	.137
	26-35	1.897	2.589	1	.108
	36-45	1.740	2.203	1	.138
	46-55	1.606	1.830	1	.176
	Above 55	0 <sup>a</sup>		0	
	<b>Monthly income (in Rs.)</b>				
	10,000 or less	-1.892	6.800	1	.009
	10,000-25,000	-1.079	3.640	1	.056
	25,000-40,000	-1.005	2.905	1	.088
	40,000-60,000	-.162	.085	1	.771
	60,000-1,00,000	-.216	.153	1	.695
	Above 1,00,000	0 <sup>a</sup>		0	
	<b>Education</b>				
	Below High School	-19.281		1	
	HSC/Vocational Course	.365	.143	1	.706
	Diploma	-.750	.408	1	.523
	Graduation	.401	1.088	1	.297
Post-Graduation	0 <sup>a</sup>		0		
<b>Number of dependents</b>					
0	-.493	.575	1	.448	
1	-.357	.170	1	.680	
2	-.761	1.725	1	.189	
3	-.845	2.392	1	.122	
4	-.986	2.970	1	.085	
5	-.452	.577	1	.448	

COVID-19, LOCKDOWN AND ITS EFFECT ON CONSUMPTION BEHAVIOR OF HOUSEHOLD:  
EVIDENCE FROM MAHARASHTRA STATE, INDIA

More than 5	0 <sup>a</sup>		0	
<b>Region</b>				
Marathwada	.048	.010	1	.921
Vidarbh	-.569	.470	1	.493
Khandesh	-.880	.482	1	.487
Konkan	.834	.532	1	.466
Paschim Maharashtra	0 <sup>a</sup>		0	

Link function: Logit.

a. This parameter is set to zero because it is redundant.

### Consumption after lockdown

The impact of COVID-19 on consumption after the lockdown was measured using a 3-point Likert scale where respondents were supposed to state whether their consumption of a particular category is going to increase, decrease or remain constant after lockdown. 1 was coded for a decrease in consumption, 2 for status quo, and 3 for the increase in consumption for each category. In the end average of all categories for each respondent was taken to identify overall consumption after lockdown. The results suggest that mean of consumption after the lockdown was 1.87 signifying an overall decrease in consumption after lockdown. Additional details are mentioned in Table 7.

**Table 7. Consumption after lockdown**

Category	Decrease	Constant	Increase	Mean
Food	59	111	51	1.9638
Personal spending	143	34	44	1.5520
Medical and healthcare	56	81	84	2.1267
Transport	114	46	61	1.7602
Entertainment	102	57	62	1.8190
Education	65	86	70	2.0226
Utilities	74	80	67	1.9683
Housing	70	97	54	1.9276
Insurance	66	100	55	1.9502
Saving	102	54	65	1.8326
Investing	108	57	56	1.7647
Debt payments	90	77	54	1.8371
			<b>Average</b>	<b>1.8771</b>

One of the hypotheses (H2) of the study is to know whether this pattern of consumption after lockdown is different for individuals based on age, gender, employment status, number of dependents, incomes, and education levels. The dependent variable, in this case, is the pattern of consumption after lockdown whereas independent variables/factors are all the socio-economic variables as mentioned above.

A Kruskal-Wallis H test was run to determine if there were differences in the pattern of consumption after lockdown between 7 socio-economic variables. Distributions of the pattern of consumption after lockdown scores were similar for all groups, as assessed by visual inspection of a boxplot. The median pattern of consumption after lockdown scores were not statistically significantly different between groups (Table 8). The results confirm H2.

### Comparison of the pre- and post-lockdown consumption

The events like recession occur periodically after 8-12 years and many studies have been carried out on its impact on household consumption. The studies have revealed that the events like recession have an adverse impact on household consumption (Gabriela, 2010; Gittins and Luke, 2012; Quelch, 2008; Quelch and Jocz, 2009; Suraju, Aminu, and Oyefesobi, 2018). However, an event like COVID-19 pandemic and lockdown is witnessed by the world for the first time therefore it would be interesting to know how it will affect consumption. This is stated in H3 (The household consumption post COVID-19 lockdown will be significantly lower than pre-pandemic lockdown).

**Table 8. Result of Kruskal-Wallis Test**

Hypothesis Test Summary

<b>Null Hypothesis</b> (The distribution of consumption after lockdown is the same across categories of)	<b>Sig.</b>	<b>Decision</b>
Gender	0.258	Retain the null hypothesis
Age group	0.370	Retain the null hypothesis
Employment status	0.212	Retain the null hypothesis
Income	0.780	Retain the null hypothesis
Education	0.873	Retain the null hypothesis
Number of dependents	0.480	Retain the null hypothesis
Region	0.848	Retain the null hypothesis

Asymptotic significances are displayed. The significance level is 0.05

To assess whether COVID-19 made any adverse impact on consumption, information about the pre- and post-spending was collected. In pre-lockdown, respondents were asked to specify their level of spending on 12 categories on a 3-point Likert scale starting with low, medium, and high. Then under post-lockdown, they were asked to state whether their spending on a particular category is likely to increase, decrease or remain constant after lockdown. This way, a comparison could be made whether a particular category encounters an increase or decrease or no change of spending.

A Wilcoxon signed-rank test was conducted to determine the effect of the COVID-19 pandemic on change in consumption. The difference scores were approximately symmetrically distributed, as assessed by a histogram with the superimposed normal curve. Data are medians unless otherwise stated.

The results of the test reveal that the lockdown due to COVID-19 is likely to make a statistically significant adverse impact on personal spending ( $p < 0.05$ ), transport ( $p < 0.05$ ), entertainment ( $p = 0.002$ ), savings ( $p = 0.004$ ), investment ( $p < 0.05$ ) and debt payment ( $p = 0.003$ ) category. However, the consumption of food ( $p = 0.446$ ), education ( $p = 0.067$ ), utilities ( $p = 0.556$ ), housing ( $p = 0.151$ ) and insurance ( $p = 0.317$ ) categories are likely to remain unaffected. The lockdown is likely to make a favorable impact on the Medical and Healthcare category which is statistically significant ( $p = 0.018$ ). The results are partially consistent with the studies and thus partially confirm H3.

The results indicate that people tend to lower their consumption for non-essential categories like personal spending and entertainment. The adverse impact was observed in the transport category and although it is essential, the impact may be adverse since people restrain from travel to avoid virus contamination. Savings, investment, and debt payments were observed to be adversely affected. The possible reason could be likely loss of income or job due to the economic downturn as a result of the COVID-19 pandemic. Favorable impact on the medical and healthcare category confirms that people give priority to health and well-being than others.

**Table 9. Result of related-samples Wilcoxon signed rank test**

Hypothesis test summary

<b>Null hypothesis</b> (The median of differences between pre-lockdown and post lockdown consumption of)	<b>Sig.</b>	<b>Decision</b>	<b>Impact</b>
Food category equals 0	0.446	Retain the null hypothesis	No
Personal spending category equals 0	0.000	Reject the null hypothesis	Adverse
Medical and healthcare category equals 0	0.018	Reject the null hypothesis	Favorable
Transport category equals 0	0.000	Reject the null hypothesis	Adverse
Entertainment category equals 0	0.002	Reject the null hypothesis	Adverse
Education category equals 0	0.067	Retain the null hypothesis	No
Utilities category equals 0	0.556	Retain the null hypothesis	No
Housing category equals 0	0.151	Retain the null hypothesis	No
Insurance category equals 0	0.317	Retain the null hypothesis	No
Saving category equals 0	0.004	Reject the null hypothesis	Adverse
Investment category equals 0	0.000	Reject the null hypothesis	Adverse
Debt payment category equals 0	0.003	Reject the null hypothesis	Adverse

Asymptotic significances are displayed. The significance level is 0.05

The categories experiencing no or low impact on consumption like food, education, utilities, housing, and insurance are of the essential type whose consumption can neither be avoided nor postponed.

### Impact on earning and employment

The ongoing COVID-19 outbreak has not only resulted in job cuts but also resulted in pay cuts across the world. (Goel, Mahesh, Nikhil, and Furquan, 2020; Simmon, 2020). Retailers expect around 80,000 job losses due to lockdown (PTI, 2020). Fed estimates that job losses due to COVID-19 could total 47 million and the unemployment rate may hit 32% (Jeff, 2020). In India, according to a CII CEOs Snap Poll, the majority of the firms are expecting a significant decline in revenues, falling demand and job losses. (PTI2, 2020). Estimates released by the National Sample Survey (NSS) and Periodic Labour Force Surveys (PLFS), on March 31, suggested that over 136 million non-agricultural jobs are at immediate risk. Workers without formal employment contracts, casual laborers, those who work in small companies, and the self-employed, are the most vulnerable. Over 1.5 lakh people across India's various IT firms are expected to lose their jobs in the coming months (Swathi, 2020). All these articles suggest that earning and job scenario around the globe is uncertain.

Of the 221 participants recruited to the study, 112 expect that COVID-19 outbreak will negatively impact their earning, 68 expect positive impact while 41 assume no change. A chi-square goodness-of-fit test was conducted to determine whether the outbreak will adversely impact their earning. The minimum expected frequency was 73.3. The chi-square goodness-of-fit test indicated that the expectations of respondents concerning earning (positive, negative or no change) were statistically significantly different ( $\chi^2(2) = 34.869$ ,  $p < .05$ ) and thus confirms H4 (Table 10).

**Table 10. Impact on earnings**

Test statistics	
	Impact on earning
Chi-Square	34.869 <sup>a</sup>
Df	2
Asymp. Sig.	.000

The impact of lockdown on the employment was measured using the chi-square goodness-of-fit test. Whereas 22 expected to lose their job, 123 are confident of retaining their current job and 76 are unsure. This implies that people are expecting a reduction in earning in their current job. The minimum expected frequency was 73.3. The chi-square goodness-of-fit test indicated that the expectations of respondents regarding job (retain, lose, or unsure) was statistically significantly different ( $\chi^2(2) = 69.348$ ,  $p < .05$ ). However, the result is statistically significantly different but the impact is not adverse (123 respondents expect to retain job) hence does not confirm H5 (Table 11).

**Table 11. Impact on Employment**

Test statistics	
	Impact on job
Chi-Square	69.348 <sup>a</sup>
Df	2
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 73.7.

Additional information about earning and employment reveal that 59% of respondents are ready to work at lower remuneration and they give priority to spending on healthcare and low priority to investment. The majority of the businessmen (more than 50%) say that they will protect their cashflows, make most of their current clients and focus on core competencies to tackle adverse business conditions that may arise out of COVID-19.

### **Adoption of debt moratorium**

Reserve Bank of India vide circular RBI/2019-20/186 dated March 27, 2020, permitted all commercial banks, co-operative banks, and NBFCs to grant a moratorium of three months on payment of all installments falling due between March 1, 2020, and May 31, 2020, in respect of all term loans. Interest, however, shall continue to accrue on the outstanding portion of the term loans during the moratorium period (RBI, 2020). The deference of payment will not impact the borrower's credit score. In this regard, researchers tried to know the respondents' decision of opting for debt moratorium.

Out of 221 respondents, 54% of respondents had some types of term loans. Out of these, 51% had home loans, 39% had personal loans, 29% had car loans, 24% had business loans and rest had other loans like education loans, gold loans, credit card loans, etc. Regarding the decision of option for the moratorium, 28% were interested in extending loan Equated Monthly Instalments (EMIs), 46% were not interested and 26% were undecided. The results indicate that the majority respondents are ready to pay their EMIs during this tenure.

## **CONCLUSIONS**

Existing study aimed at studying the impact of COVID-19 pandemic on household consumption, earning and employment in India. As per the data collected and subsequent analysis it is found that there is a significant decrease in the consumption of households, earning and employment of individuals. Economic recovery seems longer than expected that necessitates us to adopt certain measures to protect economically vulnerable peoples. Therefore, we propose the need of social protection and universal basic income to the most economically vulnerable section of the society. The present paper also highlights and adds to the existing literature the relationship between COVID-19 and its effect on

various socio-economic parameters. It will help to understand the parameters that need to be focused during pandemic and a suitable measure can be taken accordingly.

In this study, the effect of COVID-19 and lockdown was studied on the consumption behavior of households during and after the lockdown in Maharashtra State, India. The results suggest that during a countywide lockdown due to COVID-19 in India that began from 22 March 2020 for six weeks, the level of consumption of food, utilities, housing, and insurance categories remained unchanged whereas personal spending, transport, education and investing witnessed sharp fall in consumption. The research signifies that overall spending during the lockdown period decreased significantly. The results partially confirm a positive significant relationship between the level of consumption during lockdown and age, gender, number of dependents, incomes, education levels, and regions. The results reveal that when compared to pre-lockdown consumption, the lockdown is likely to make a statistically significant adverse impact on personal spending, transport, entertainment, savings, investments, and debt payment. However, the consumption of food, education, utilities, housing, and insurance is likely to remain unaffected. The lockdown is likely to have adverse effect on the savings, consumption and average recovery time for individuals. The long recovery time along with effects on earning and employment of individuals will necessitate us to have social protection without which there will be favourable impact on increasing medical and healthcare expenditure indicating the priority of people to health and well-being.

The study was limited by sample size which was not evenly distributed across the regions and since many experts fear that COVID-19 will result in severe job cuts, further research can be conducted to study the impact of COVID-19 outbreak on employment and job in sectors like IT, transport, travel and tourism, aviation, hospitality, and automobiles.

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**Sabat Kumar Digal, Yashmin Khatun, and Braja Sundar Seet**

## **COVID-19 IMPACT ON NIFTY BANKS: AN EVENT STUDY METHODOLOGY**

### **ABSTRACT**

The financial sector, because of its catalytic role in the economy, has always been in the eye of the storm in economic difficulties. Due to the pandemic, the stock market had lost about 27 percent by April 2020 and bank nifty has had a lion's share in pushing the index down to this level. Uncertainty arose as the containment of the disease and the availability of vaccines remain uncertain; this contributed to the plunge in investor confidence. Because of the central role of banks in the development initiatives of the governments, COVID-19 has become a significant threat to the sustainability of the banks globally, especially in developing economies. However, we believe every downfall brings in new opportunities for the investors. Therefore, the present study attempted to study both the gloom and boon and observed that there were short-term abnormal returns to the investors of nifty banks in two different periods - the detection of the first case of COVID-19 in India and the lockdown periods in India. The impacts of both the events are calculated by applying Market and Risk Adjusted model, Market Adjusted Return model and Mean Adjusted Return model. The paper concludes that the impacts were insignificant during the first period and was quite significant in the subsequent period. Nifty banks have earned negative abnormal returns during the pre-lockdown period and positive abnormal returns during post lockdown period which indicates that the markets reacted positively as India implemented the first lockdown.

*Key Words: COVID-19, Indian banks, Nifty, Share price reaction, Event study*

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## INTRODUCTION

On 31st December, the world bumped into the most devastating epidemic COVID-19. The disease, which was originated from the Wuhan city of China, has spread all over the globe sparing none. Though the epidemic is not new to human beings as history is replete with their encounters with the epidemics with high mortality rate like Cholera, Ebola, SARS, etc., yet what makes COVID-19 (SARS-CoV-2) lethal is its ability to be easily transmitted from humans to humans, even among the asymptomatic patients (World Health Organization). Though the vaccine has been rolled out and jabs being given to the people, vaccine has not yet completed its final trial and many consider it is in its trial phase only. Many countries have reservations to the doses and with the emergence of the second streak in the UK and South Africa, many believe that it cannot be market-ready before the winter of 2021. Therefore, it is not judicious to pin our hopes on vaccines now, but follow the social distancing stringently to keep the disease at bay. However, on the other hand, the practice of social distancing and lockdowns so far have been disastrous on the finances. As per the IMF report, the global economy is going to shrink by over 3% in 2020, the steepest fall after the 1929 Great Depression that led to unemployment, poverty, and starvation. As per the Centre for Monitoring Indian Economy (CMIE), during the early phase of the lockdown in 2020, India's unemployment rose up to 23% from 8.75% as of March 2020.

World economies share the three main common goals: growth, high employment, and price stability. And these economic goals can be achieved when any country is financially healthy and sound (Mahajan, 2020). After the World Health Organization declared COVID-19 as a pandemic, investors started withdrawing capital from the stock market, which resulted in the crash of the world stock market. The crash affected most industries with the worst hit on aviation, hotel, and tourism sectors. During the slowdown, the Banking and Financial Services and Insurance (BFSI) sector not only played a vital role in safeguarding the global economy but, in the process, it bore the maximum brunt and was one of the worst hits. To make the situation even worse, the COVID-19 outbreak came at a time when India's economy was already slowing, due to the persistent weakness of the financial sector (Mahajan, 2020). Due to COVID-19, nifty index declined by 27.7 percent and bank nifty index dipped by 40.1 percent throughout March, April, and May 2020. However, despite any extents of economic costs, human lives are precious. Saving human lives have always been the priority over saving the economy. There is no dilemma because lives and money cannot be equated. And therefore, global lockdowns were enforced to save human lives. But

the lockdowns brought in challenges like demand-supply disequilibrium of consumer goods, survival problems for Micro, Small, and Medium Enterprises (MSMEs), livelihood problems for the poor people, etc. To solve the economic problems, the government and regulators have brought in different fiscal and monetary policies to help people and businesses to survive the pandemic.

“Financial institutions are at great risk due to COVID-19 as there could be lower business for lending institutions with private investments and consumption continued to decline both during the pandemic or even after it is over” (Barua, 2020). In line with the central banks of different countries, the Reserve Bank of India (RBI) has also taken various measures to revive the Indian economy from the slowdown by decreasing the bank rate, injections of liquidity, moratorium benefits in lockdown for the lenders, etc. Decreasing in bank rate helps the banks to provide loan to the customers at a lower rate which will help the business to cover their operating expenses and survive in the lockdown periods. Due to the less economic activities, there was a shortage of liquidity in the economy as a result of that RBI injected liquidity to safeguard the economy. RBI has also introduced a moratorium for credit for which the holders did not have to pay Equated Monthly Instalment (EMI) for a certain period. Such benefits helped people facing financial problems during the lockdown. These services were provided by the banks, and the banks, in turn, also expected some relaxations in areas like assets classification to ease the burden of increasing Non-Performing Assets (NPA), which directly affects the banks’ performance and quarterly results.

In a developing country like India, the role of banking institutions in mobilizing the resources and converting the deposits into productive investments to maintain a sound and sustainable economy cannot be undermined. Nowadays, banking institutions face many problems. And staying profitable to provide better banking services to customers is one of the major problems that Indian banks are beset with today. The unexpected outbreak of COVID-19 marks an opportunity to evaluate the impacts of COVID-19 on Indian Banks and their preparedness for such future exigencies. Unusual events always affect the share price and investor sentiment. Later, investors faced with fear and anxiety start withdrawing their money from the market which leads to changes in portfolio return. Therefore, in this article, we have analyzed the impact of the outbreak of COVID-19 on the security prices of Indian banks traded in the National Stock Exchange (NSE) by applying event study methodology.

The rest of the article is divided into four sections. The related theoretical and empirical literature on COVID-19 and its impact on the economy and performance of banks during financial crises are analyzed in section 2. Detailed discussion about the data and methodology are discussed in section 3 followed by the empirical evidence provided in Section 4. In the end, the paper summarizes the major findings of this research in section 5.

## **REVIEW OF LITERATURE**

While considerable data analyzing the impact of COVID-19 on the Indian economy is available, there is limited research that analyzes the impact of COVID-19 on the banking industry. And it is even less and often found to be new area of analysis with regard to event study methodologies. The lack of studies in this line is indeed an opportunity to explore the unknown. Therefore, the current study is undertaken to throw more light and contribute to the existing scant literature in the field. The available literature reviews in the area are categorized into two sub-sections.

### **COVID-19 outbreak and the economy**

The economy has widely been affected due to the COVID-19 outbreak. As the disease spread, the markets responded by weighing the economic consequences (Ramelli and Wagner, 2020). To measure the impact of COVID-19 on the overall economy, many actions viz., tax deferrals, cash transfers, extended unemployment benefits and social assistance and fiscal policy are required to be taken to maintain employment and wages (Mahajan, 2020). In a similar line, many have (Ozili, 2020) also recommended the use of fiscal policy to support individuals and businesses to revive the economy and financial assistance like this is a lifeline to vulnerable households and firms. Like in every pandemic, younger and less-educated workers or new entrants will, unfortunately, suffer to the greatest extent. Therefore, the government policies should focus more on redressing the liquidity problems of SMEs, support vulnerable ones under financial distress, and help those secure jobs (Fernandes, 2020). Along similar lines, Singh (2020) added that the impact of COVID-19 on poverty and unemployment can be dealt with by providing credit facilities to migrant laborers and marginal farmers and wage subsidies to the informal sectors. He also recommended agricultural reforms, maintenance of law and order and keeping corruption under check for the successful implementation of policies. Though other researchers have focused more on

the negative impacts of the pandemic, researchers like Jamir (2020) have found a positive impact of COVID-19. He pointed that the COVID-19 could promote the digital transformation of the economy and bring in increased transparency which can push FDI flows resulting in economic growth. Since, information about both the transacting parties is available online, digital transactions are more transparent and can contribute to the growth of the economy. As when the pandemic would end remains uncertain, what is important now is to plan and implement aggressive as well as ground-breaking policy to avoid its worst impacts (Barua, 2020). Business is one of the important elements which can help in the growth of the economy (Rakshit and Paul, 2020). Therefore, the focus should be on the impacts of COVID-19 on the business and important measures (Political, Economic, Social, Technological, Ecological and Legal) should be undertaken for the business organizations along with continuous internal analysis and steady move to digitization. Though the COVID-19 seems pervasive yet its impacts depend on social discipline, the effectiveness of the healthcare system, and progressive virtualization of economic and social life (Sulkowski, 2020).

The stock market is one of the many indicators to examine the growth and effectiveness of an economy. COVID-19 has impacted both the Indian and global stock markets (Alam, Alam, and Chavli, 2020) conducted a study to identify the responses of stock markets during the lockdown periods by applying event study methodology and found that the stock markets reacted negatively in the pre-lockdown period and positively in the post-lockdown period. Ashraf (2020) found that stock markets across the world reacted negatively to news of growth in a number of cases than growth in a number of deaths, as compared to Heyden and Heyden (2020), who in their study found that announcement of the first case had no impact on stock prices but the announcement of first death had a significant impact on share prices. Naidenova, Parshakov and Shakina (2020) conducted the study in similar lines and found that initial news of confirmed death had an insignificant impact but later social distancing led to a negative impact on financial markets. Liu, Manzoor, Wang, Zhang, and Manzoor (2020) added that stock markets of Asian countries reacted more swiftly to the epidemic and confirmed cases of COVID-19 only contributed towards the investor's fear which could be the reason behind such negative impacts. Therefore, it can be said that if the pandemic is not countered with effective jobs, the global financial system would possibly face the gravest threat seen in the last two centuries (Fernandes, 2020).

### **Performance of banks in the crisis**

Given the over-dependence of developing countries on bank finance, bank performance and the growth of the economy are interrelated. Despite their systemic importance, banks are not immune to external developments such as macro-economic variables like inflation, employment, GDP, etc. or man-made disasters and their performance, to a great extent, is dependent on the developments beyond their control. It is for all to see that the COVID-19 has a considerable impact on the economy and banks could not get away with it. In fact, banks are more exposed to pandemic and crisis because of increased demand for disbursement of more loans to survive and revive the economy, which in turn creates more NPA. Financial institutions are in danger due to COVID-19 and there could be a decrease in activities as private sector investment and funding consumption continues to decline (Barua, 2020). Therefore, banks should focus more on digital services and, with an increased amount of credit default and market risk, banks need to work on their hedging strategies. Kumar and Bhatia (2017) applied event study methodology to measure the impacts of demonetization on banks listed in Bombay Stock Exchange and found both public, as well as private banks, reacted negatively to the news but, post demonetization period, public banks recorded highest average return as opposed to the private banks which registered lower average returns. It was further observed that the banks could survive and required less support during the crisis if they had a non-aggressive business model, strong funding model and balance sheet liquidity (Arjani and Paulin, 2013). During difficult times, banks with sufficient capital dealt with the crisis better than those without or less of it (Berger and Bouwman 2013). Few studies also observed that corporate governance had a huge role to play in crisis situations as a company with good corporate governance could lessen the negative influence of the catastrophes on banks (Peni and Vahamaa, 2011).

## **METHODOLOGY**

### **Data**

A total of twenty most representative banks operating in India (i.e., ten respectively from the private and public sectors) (See Table 1), were selected to evaluate the impacts of the COVID-19 outbreak in the share prices of these banks.

**Table 1. List of sample banks**

<b>Public sector banks</b>	<b>Private sector banks</b>
State Bank of India (SBI)	Industrial Credit and Investment Corporation of India Bank (ICICI Bank)
Bank of Baroda (BOB)	Housing Development Finance Corporation (HDFC Bank)
Central Bank	Axis Bank
Bank of India (BOI)	Bandhan Bank
Canara Bank	Federal Bank
Indian Bank	Infrastructure Development Finance Company First Bank (IDFC First Bank)
Indian Overseas Bank (IOB)	IndusInd Bank
Punjab National Bank (PNB)	Kotak Mahindra Bank
United Commercial Bank (UCO Bank)	Ratnakar Bank Limited (RBL)
Union Bank	South Bank

Keeping the objectives of the study, daily closing prices of these banks listed in the National Stock Exchange have been taken from the website of Yahoo Finance and nifty index share price has been used to calculate the market return.

### **Event study set-up**

Event study methodology has been used to test the impacts of two major events related to COVID-19 on the share prices of nifty banks. The event study is an effective methodology in measuring the effects of a particular event on the behavior of security prices of a company. In addition to this, an event determines whether there is an ‘abnormal’ stock price effect associated with an unanticipated event (McWilliams and Siegel, 1997).

The disease caused by the novel coronavirus was first identified in Wuhan, China. The disease was declared as a pandemic by WHO on 31<sup>st</sup> December 2019. On 30<sup>th</sup> January 2020, the first case was identified in India, which represented the first event in our study. As before this event, the high-level expert group leader of the National Health and Fitness Commission of the People’s Republic of China, Zhong Nanshan, opined in an interview that the new coronavirus could be transmitted among people, which led to wide public attention (Liu et al., 2020). So, the study attempts to assess if the news of 1<sup>st</sup> confirmed case of the disease had any influence on the returns of the banks listed in NSE. Considering the faster contagion of the disease, each country has taken steps to contain the spread of the disease. Central government announced a complete lockdown for 21 days in India, in the first phase. This news broke the headlines on the night of 24<sup>th</sup> March 2020 and the complete

lockdown started from 25<sup>th</sup> March 2020. The complete lockdown in a country halts the movements of people and vehicles, causing a great deal of economic distress. So, it is another event that can impact the share price. That is why it is taken as the second event for the purpose of the study. Therefore, it is attempted to assess each event and its impact on the share prices of nifty banks

The event window for both events has been selected as -10 through zero to +10, where zero represents the event day and -10, and +10 are the period before and after the event day. We have taken 90 days as the estimation window. It is because a long window may not give accurate results due to uncertainty in the stock market. In order to assess the significance of the events, t-test has also been applied.

### **Test models**

Abnormal returns can be estimated by using statistical relationship models (i.e., Market and Risk Adjusted Return Model, Market Adjusted Return Model, or Mean Adjusted Return Model or on theoretical economic models like Capital Asset Pricing Model or Arbitrage Pricing Model). Statistical relationship models of event study have been used in this study in order to obtain abnormal returns. Using the abnormal returns variables, for abnormal returns, charts are generated showing the positive and negative impacts of the events. Abnormal returns result when an event is unanticipated. Security is able to earn an abnormal return when the performance of the security is different from what has been expected from the security.

#### *Market and risk adjusted return model*

This model is also known as OLS market model as this model considers market return as well as the market risk in calculation of abnormal returns of the security.

Abnormal Returns (AR) can be calculated as follow:

$$AR_{it} = R_{it} - E_{it} \tag{1}$$

Where  $AR_{it}$  is abnormal return for firm  $i$  for day  $t$ ,

$R_{it}$  is actual return for firm  $i$  for day  $t$ ,

And  $E_{it}$  is the expected return which can be calculated as:  $\alpha + \beta * R_{mt} + \epsilon_{it}$  (2)

$\alpha_i$  = Intercept or alpha coefficient for security  $i$

$\beta_i$  = Slope or beta coefficient for security  $i$

$R_{mt}$  = Actual returns of market (nifty) at time  $t$

$\epsilon_{it}$  = Error term of security  $i$  at time  $t$

*Market-adjusted return model*

This model does not consider market risk factor in calculation of AR of the security.

$$AR_{it} = R_{it} - R_{mt} \tag{3}$$

$R_{it}$  and  $R_{mt}$  have been defined in market and risk adjusted return model.

*Mean-adjusted return model*

This model neither considers the risk factor nor the market return in the calculation of abnormal returns of the security.

$$AR_{it} = R_{it} - R_{xt} \tag{4}$$

Where  $R_{xt}$  is the simple mean of security i at time t.

In this study, the summation of the AR known as cumulative abnormal return is tested along with AR. In order to obtain the Cumulative Abnormal Return (CAR), following equation has been used:

$$CAR_{it} = \sum AR_{it} \tag{5}$$

Each CAR is examined for its association with the unexpected events.

In this study, we have set -10 and +10 event windows for CAR. Where (-) represents before the event day and (+) represents after the event day.

$$AAR_{\tau} = \frac{1}{N} \sum_{i=1}^N AR_{i\tau} \tag{6}$$

Where  $AAR_{\tau}$  is the average of AR of all the firms

N is the total number of firms in the sample

$$CAAR_{t1,t2} = \frac{1}{N} \sum_{t=t1}^{t2} AAR_{i\tau} \tag{7}$$

Where, CAAR is the Cumulative Average Abnormal Return, which is aggregation of AAR.

**Hypothesis**

Null hypothesis of the event study states that the event has no impact on the stock return. On the basis of that, and by studying different literatures like Alam et al. (2020), Liu et al. (2020) and Kumar and Bhatia (2017) eight hypotheses have been formulated stating that the two events of COVID-19 do not have any impact on the AR, CAR, AAR and CAAR of nifty banks. In order to achieve the aim of the study, the following null hypotheses are formulated:

*H<sub>01</sub>: There is no significant AR of nifty banks during the event window caused by detection of first case of COVID-19 in India.*

*H<sub>02</sub>: There is no significant CAR of nifty banks during the event window caused by detection of first case of COVID-19 in India.*

*H<sub>03</sub>: There is no significant AAR of nifty banks during the event window caused by detection of first case of COVID-19 in India.*

*H<sub>04</sub>: There is no significant CAAR of nifty banks during the event window caused by detection of first case of COVID-19 in India.*

*H<sub>05</sub>: Implementation of lockdown has no effect on AR of nifty banks.*

*H<sub>06</sub>: Implementation of lockdown has no effect on CAR of nifty banks.*

*H<sub>07</sub>: Implementation of lockdown has no effect on nifty banks AAR.*

*H<sub>08</sub>: Implementation of lockdown has no effect on nifty banks CAAR.*

We test the statistical significance of ARs and CARs using a simple t-test (Brown and Warner, 1985). AR, CAR, AAR, and CAAR; test statistics have been obtained by using MS Excel Descriptive analysis in order to test the null hypothesis. Acceptance of the null hypothesis will also reveal the insignificant impacts of the events on share prices. If the calculated t-value of AR, CAR and CAAR exceeds the critical t-value at a five or ten percent level of significance, the null hypothesis is rejected. Rejection of the null hypothesis will suggest that the events have a significant impact on the security prices of the nifty banks and it indicates the investors have the opportunity to get an abnormal return from the security.

## **FINDINGS**

The empirical study is summarized in the following tables and graphs. The findings of the study have been divided into two parts. Part I discusses the impacts of event number 1, which is the detection of the first case of covid-19 in India, on the share prices of selected nifty banks. In Part II, the impacts of the measures taken, in the form of the 1<sup>st</sup> lockdown, on share prices of nifty banks in India are discussed.

### **Detection of first case of COVID-19 in India**

Table 2 reports the AR on the event day and one day after the event day by nifty banks. AR of all banks have been obtained by using the market and risk adjusted return model, market adjusted return model and mean adjusted return model. It is evident from the tables that on the event day only Infrastructure Development Finance Company First bank (IDFC First bank) had significant negative AR which means that only IDFC First bank's prices reacted to the news on the event day and no other banks reacted to the event resulting in insignificant effect of the event on the share prices of the nifty banks on the event day. The significance of the event can also be seen from the t-statistics of AR, where t-statistics of all banks, except IDFC First bank, are less than the critical value at 10% and 5% level of significance in all three models. This indicates the acceptance of the null hypothesis (i.e., the event of detection of first case of COVID-19 in India has no significant impact on the share prices of the nifty banks). Bank of India (BOI) and State Bank of India (SBI) have reacted to the aforesaid event on one day after the event as both the banks have significant AR as its t-statistics is less than the critical value. Later Axis bank, Bandhan bank, Federal bank, IndusInd bank, and Kotak bank also reacted on the 4<sup>th</sup> day after the event. It can be inferred that only a few bank's share prices reacted on event day and one day after the event. But overall, the event had no significant impact on the bank's share price as t-statistics is less than the critical value for all the event windows. Thus, the null hypothesis cannot be rejected which indicates the aforesaid event does not have any impact on the share prices of nifty banks.

**Table 2. AR and T-statistics of AR**

Model	Market and risk adjusted return model				Market adjusted return model				Mean Adjusted Return Model			
	on the event day		one day after the event		on the event day		one day after the event		On the Event Day		One Day After the Event	
Banks	AR (%)	T-statistics	AR (%)	T-statistics	AR (%)	T-statistics	AR (%)	T-statistics	AR (%)	T-statistics	AR (%)	T-statistics
<b>HDFC</b>	1.19	1.13	0.54	0.51	1.22	1.16	0.57	0.54	0.25	0.24	-0.24	-0.22
<b>ICICI</b>	2.07	1.47	-0.46	-0.33	1.83	1.30	-0.62	-0.44	0.71	0.50	-1.58	-1.12
<b>Axis</b>	0.72	0.62	0.84	0.72	0.18	0.16	0.40	0.34	-0.75	-0.65	-0.38	-0.33
<b>Bandhan Bank</b>	-1.76	-0.60	3.88	1.32	-2.25	-0.77	3.46	1.18	-3.12	-1.06	2.76	0.94
<b>Federal Bank</b>	-0.31	-0.21	-0.44	-0.30	-1.19	-0.81	-1.18	-0.80	-2.09	-1.42	-1.91	-1.30

<b>IDFC First</b>	-6.77	-3.86**	0.71	0.40	-7.01	-4.00	0.49	0.28	-7.84	-4.47	-0.17	-0.10
<b>Indusind</b>	-0.24	-0.11	3.77	1.83*	-1.37	-0.67	2.81	1.36	-2.19	-1.06	2.15	1.04
<b>Kotak</b>	0.01	0.01	4.42	4.04	0.03	0.03	4.44	4.05	-0.93	-0.85	3.64	3.32
<b>Rbl</b>	-1.47	-0.42	0.76	0.22	-3.18	-0.92	-0.65	-0.19	-4.07	-1.17	-0.89	-0.61
<b>South bank</b>	-1.45	-0.87	-1.18	-0.71	-1.54	-0.93	-1.28	-0.77	-1.38	-0.40	-0.74	-0.50
<b>SBI</b>	-0.13	-0.07	3.85	1.99**	-1.04	-0.54	3.11	1.64	-2.03	-1.05	2.29	1.18
<b>BOB</b>	0.79	0.44	0.74	0.41	0.13	0.07	0.18	0.10	-0.72	-0.40	-0.51	-0.28
<b>BoI</b>	1.10	0.64	3.87	2.25**	0.25	0.14	3.15	1.83*	-0.63	-0.37	2.93	1.65*
<b>Canara Bank</b>	-0.02	0.41	2.22	0.87	-0.14	-0.08	0.81	0.47	-1.02	-0.59	0.08	0.05
<b>Central Bank</b>	-0.34	-0.19	-1.37	-0.77	0.78	0.44	-0.41	-0.23	-0.35	-0.20	-1.37	-0.77
<b>Indian Bank</b>	0.52	0.17	1.80	0.59	-0.10	-0.03	1.15	0.38	-0.23	-0.08	1.17	0.39
<b>IOB</b>	-1.51	-0.52	-0.17	-0.06	-1.16	-0.394	0.13	0.043	-2.07	-0.70	-0.62	-0.21
<b>PNB</b>	-0.18	-0.10	2.03	1.17	-0.88	-0.50	1.44	0.83	-1.73	-0.99	0.76	0.43
<b>UCO</b>	-1.14	0.79	0.62	0.88	-1.14	-0.27	0.61	0.15	-1.99	-0.47	-0.07	-0.02
<b>Union Bank</b>	0.09	0.04	0.14	0.06	-0.99	-0.41	-0.78	-0.32	-1.74	-0.73	-1.37	-0.57

\* indicates significant at 10% level of significance.

\*\* indicates significant at 5% level of significance.

**Source:** Author's own estimation

In table 3, CAR and t-statistics of CAR for 10 days before and 10 days after the event day of all three models are given. All the banks had insignificant CAR before the event as -10 CAR of all the banks seems to be insignificant in all three models with t-statistics is less than the critical value at 5% and 10% level of significance. Canara bank had significant +10 CAR in all the models. Whereas, Indian bank, Indian Overseas Bank (IOB), Punjab National Bank (PNB) and South bank had significant +10 CAR in two models i.e., market and risk

adjusted return model and market adjusted return model. Overall, t-values appear to be inconsistently significant before and after event days.

The results of the daily AAR, which are the average of abnormal return of all 20 banks are shown in table 4. By calculating the average returns of all the banks, impacts of the event on the bank performance can precisely be known. The result indicates that all the AARs are insignificant in the event window as t-statistics is less than critical value. The result can also be inferred through the p-value of AAR. It can be evidenced that p values of AAR in all the event windows are more than 0.05 at 5% level of significance and 0.1 at 10% level of significance. This shows that the banks did not reap any abnormal return during the event period. This means that the null hypothesis is accepted i.e., the event has no impact on the share prices of nifty banks.

**Table 3. CAR and T statistics of CAR of 1<sup>st</sup> Event**

Model	Market and risk adjusted				Market adjusted return model				Mean adjusted return model			
	return model		adjusted		return model		return model		return model		return model	
Event Window	-10		10		-10		10		-10		10	
Bank Name	CAR (%)	T-statistics	CAR (%)	T-statistics	CAR (%)	T-statistics	CAR (%)	T-statistics	CAR (%)	T-statistics	CAR (%)	T-statistics
<b>HDFC</b>	0.18	0.05	0.15	0.04	-1.70	-0.45	-0.43	-0.12	-5.39	-1.44	-1.01	-0.27
<b>ICICI</b>	-2.39	-0.5	1.56	0.32	0.05	0.01	0.28	0.06	-5.16	-1.07	-1.82	-0.38
<b>AXIS</b>	-0.66	-0.14	4.61	0.99	0.26	0.06	0.92	0.2	-3.10	-0.67	0.68	0.15
<b>Bandhan</b>	-4.94	-0.66	8.12	1.09	-6.98	-0.94	1.86	0.25	-9.62	-1.29	2.34	0.31
<b>Federal</b>	-0.68	-0.12	-8.03	-1.45	5.84	1.06	-5.54	-1	2.84	0.52	-5.42	-0.98
<b>IDFC First</b>	0.83	0.17	-5.87	-1.17	-0.39	-0.08	-1.00	-0.2	-2.64	-0.53	-0.14	-0.03
<b>Indus Ind</b>	-0.67	-0.1	4.32	0.65	-8.96	-0.22	-1.43	-0.22	-11.17	-1.69*	-0.52	-0.08
<b>Kotak</b>	1.20	0.31	6.21	1.63	-0.37	-0.1	2.35	0.62	-4.00	-1.05	1.83	0.48
<b>RBL</b>	0.11	0.01	2.83	0.29	-2.66	-0.27	-0.32	-0.03	-5.58	-0.57	-0.12	-0.01
<b>South bank</b>	-1.21	-0.26	-14.21	-3.05**	1.75	0.37	-7.66	-1.64*	-2.10	-0.45	-0.12	-0.03
<b>SBI</b>	0.07	0.01	5.84	0.92	-0.69	-0.11	3.89	0.61	-4.54	-0.72	3.15	0.5
<b>BoB</b>	1.64	0.29	-10.19	-1.82	-2.74	-0.49	-6.94	-1.24	-5.26	-0.94	-6.35	-1.13

<b>Cental Bank</b>	-1.10	-0.25	-0.41	-0.09	0.06	0.01	1.05	0.24	-5.16	-1.16	-1.07	-0.24
<b>BoI</b>	-0.57	-0.1	-8.03	-1.39	-2.24	-0.39	-6.01	-1.04	-5.04	-0.87	-5.71	-0.98
<b>Canara Bank</b>	-2.85	-0.49	-18.91	-3.26**	-4.91	-0.85	-11.37	-1.96**	-7.79	-1.34	-11.13	-1.92*
<b>Indian Bank</b>	-0.97	-0.13	-15.84	-2.16**	6.38	0.87	-16.84	-2.30**	11.05	1.51	-9.06	-1.23
<b>IOB</b>	-3.44	-0.5	-18.74	-2.7**	-7.39	-1.07	-8.44	-1.22	-10.48	-1.51	-8.41	-1.21
<b>PNB</b>	-0.45	-0.08	-15.72	-2.83**	-2.19	-0.39	-9.26	-1.67*	-4.67	-0.84	-8.62	-1.55
<b>UCO</b>	-0.5	-0.06	-12.68	-1.3	-0.44	-0.04	-7.67	-0.78	-2.93	-0.3	-7.05	-0.72
<b>Union</b>	-0.22	-0.03	-5.80	-0.83	-0.46	-0.07	-5.71	-0.82	-2.01	-0.29	-4.14	-0.59

\* indicates significant at 10% level of significance.

\*\* indicates significant at 5% level of significance.

Source: Author's own estimation

**Table 4 AAR and T-statistics of AAR**

Event Days	Market and risk adjusted return model			Market adjusted return model			Mean adjusted return model		
	AAR (%)	T-Statistics	P-Value	AAR (%)	T-Statistics	P-Value	AAR (%)	T-Statistics	P-Value
-10	-0.05	-0.04	0.97	-0.13	-0.10	0.92	-0.12	-0.07	0.95
-9	-0.54	-0.43	0.67	-0.69	-0.52	0.61	-0.80	-0.43	0.67
-8	1.13	0.91	0.38	0.47	0.36	0.72	-0.65	-0.35	0.73
-7	0.79	0.64	0.53	0.43	0.33	0.75	-0.10	-0.06	0.96
-6	-0.33	-0.26	0.79	-0.72	-0.55	0.59	-1.33	-0.72	0.48
-5	0.34	0.27	0.79	0.50	0.38	0.71	1.02	0.55	0.59
-4	-0.29	-0.23	0.82	-0.15	-0.11	0.91	0.32	0.17	0.86
-3	-1.48	-1.19	0.25	-0.55	-0.42	0.68	-1.70	-0.92	0.37
-2	1.32	1.06	0.30	0.93	0.70	0.49	0.32	0.17	0.87
-1	-1.34	-1.08	0.29	-1.18	-0.88	0.39	-0.65	-0.35	0.73
0	0.64	0.51	0.61	0.12	0.09	0.93	-0.75	-0.40	0.69
1	0.34	0.27	0.79	-0.10	-0.08	0.94	-0.80	-0.43	0.67
2	-1.47	-1.18	0.25	-2.88	-2.17**	0.04	-5.51	-2.97**	0.01
3	-0.28	-0.22	0.83	-0.22	-0.16	0.87	0.09	0.05	0.96
4	-0.91	-0.73	0.47	0.10	0.07	0.94	2.30	1.24	0.23
5	0.25	0.20	0.84	0.57	0.43	0.67	1.39	0.75	0.46
6	0.41	0.33	0.75	0.47	0.36	0.73	0.79	0.43	0.68
7	1.99	1.60	0.13	1.69	1.27	0.22	1.28	0.69	0.50
8	-0.05	-0.04	0.97	-0.46	-0.34	0.73	-1.10	-0.59	0.56
9	-1.35	-1.08	0.29	-1.17	-0.88	0.39	-0.62	-0.33	0.74

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<b>10</b>	-1.32	-1.06	0.30	-1.08	-0.81	0.43	-0.40	-0.21	0.83
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\* indicates significant at 10% level of significance.

\*\* indicates significant at 5% level of significance.

CAAR is the summation of AAR. The t-statistics and p-value of CAAR is presented in table 5. It is clear from the table 5 that the event has not impacted the share prices of nifty banks as t-statistics is less than the critical value and p value is more than 0.05 and 0.1 at 5% and 10% level of significance, respectively. It is also seen that there is no significant influence of the detection of first case of COVID-19 on share prices of both public and private banks. The reasons behind the insignificant impact could be due to the followings:

- Lack of proof regarding the human-to-human transmission of the infectious disease in the early stages.
- Delay in guidelines issued by the WHO regarding the hazardous impact of COVID-19.

**Table 5. T-statistics of CAAR of event 1**

Model	Market and risk adjusted return model		Market adjusted return model		Mean adjusted return model	
	T-Statistics	P-Value	T-Statistics	P-Value	T-Statistics	P-Value
<b>-10</b>	-0.11	0.91	-0.23	0.82	-0.63	0.54
<b>10</b>	-0.61	0.55	-1.18	0.25	-0.44	0.67

\* indicates significant at 10% level of significance.

\*\* indicates significant at 5% level of significance.

Source: Author's own estimation

### Effects of the 1<sup>st</sup> lockdown on share prices of nifty banks

On 25<sup>th</sup> March, 2020, as a preventive measure against COVID-19, Prime Minister announced 21 days lockdown bringing the movements of 1.3 billion populations to a grinding halt. The market reacted positively to the aforesaid event as the AR of not only public banks but also private banks increased. Before the event, most of the banks had negative abnormal returns. Table 6 portrays the AR and t-statistics of all banks, which shows that the aforesaid event has influenced the share prices of most of the banks. On the event day, share prices of Industrial Credit and Investment Corporation of India (ICICI), Axis, IDFC First, Kotak, Canara, Central bank PNB, SBI, Bank of Baroda (BOB), and Indian Bank reacted positively to the news whereas Housing Development Finance Corporation

(HDFC) bank, Bandhan, Federal and IndusInd bank reacted to the news negatively one day after the event. It can be seen that there are significant negative ARs during the pre-lockdown period and positive ARs during the post-lockdown period. The t-statistics of AR of all the banks in a sample is higher than the critical value indicating the rejection of the null hypothesis which means that the event has a significant impact on the share prices of nifty banks.

Table 7 represents the CAR and t-statistics of CAR of the 2<sup>nd</sup> event. The t-statistics of before and after the event are highly significant. CAR is also seen to be significantly negative in the pre-event window. On 11<sup>th</sup> March, 2020, WHO declared the COVID-19 as a pandemic creating havoc among the investors all over the world. Thus, the fear of COVID-19 made investors anxious and they started pulling out their money from the stock markets, which could be the reason for such negative ARs and CARs. While the after-event scenario is completely different from pre-lockdown period as the banks have positive CARs and t-statistics are significant as well. It infers that lockdown announcements did enhance the share prices of banks in the sample.

The results of the daily AAR are shown in table 8. The results indicate that most of the AARs are significant in the event windows as t-statistics is more than a critical value. The results can also be inferred through the p-value of AAR, which is less than 0.05 at 5% and 0.1 at 10% level of significance in all the event windows. This means the banks had earned abnormal returns during the event period rejecting the null hypothesis i.e., the event has no impact on the share prices of nifty banks.

The t-statistics and p-value of CAAR are presented in table 9. It is clear from the table that the event has impacted the share prices of nifty banks as t-statistics is more than the critical value and p-value is less than 0.05 and 0.1 at 5% and 10% level of significance, respectively. There is a significant influence of the implementation of lockdown on the share prices of nifty banks. It can be inferred that the lockdown was viewed positively by the investors as an effective tool to contain the spread of the virus, because the sector earned positive abnormal returns.

**Table 6. AR and T-statistics of AR of 2<sup>nd</sup> Event**

Model	Market and risk adjusted return model				Market adjusted return model				Mean adjusted return Model			
	on the event day	T-statistics	one day after the event	T-statistics	on the event day	T-statistics	one day after the event	T-statistics	on the event day	T-statistics	One Day After the Event	T-statistics
Banks	AR (%)	T-statistics	AR (%)	T-statistics	AR (%)	T-statistics	AR (%)	T-statistics	AR (%)	T-statistics	AR (%)	T-statistics
<b>HDFC</b>	0.07	0.04	8.75	5.58**	12.87	8.21**	6.48	4.13**	-1.03	-0.66	8.95	5.71**
<b>ICICI</b>	4.87	3.08**	4.49	2.84**	20.56	12.98**	1.65	1.04	6.69	4.22**	4.16	2.63**
<b>Axis</b>	6.22	3.85**	4.84	3.00**	21.42	13.27**	1.89	1.17	7.71	4.78**	4.57	2.83**
<b>BAND HAN Bank FEDER AL BANK</b>	1.80	0.74	32.76	13.47**	9.91	4.07**	30.69	12.62**	-3.44	-1.41	33.71	13.8**
<b>IDFC FIRST INDUS IND</b>	7.53	2.21**	-4.54	3.04**	20.73	9.21**	3.69	1.64*	7.11	3.16**	6.44	2.86**
<b>KOTAK</b>	-5.73	-1.22	37.3	14.45**	10.30	3.99**	34.45	13.34**	-3.20	-1.24	37.33	14.5**
<b>RBL</b>	8.51	6.37**	6.72	5.03**	25.15	18.84**	3.74	2.80**	11.25	8.42**	6.22	4.66**
<b>SOUTH BANK</b>	0.44	0.11	3.41	0.83	-0.15	-0.04	3.29	1.51	4.41	1.07	2.69	0.65
<b>SBI</b>	4.42	2.03**	5.59	2.57**	17.95	4.37**	14.90	6.84**	1.37	0.63	6.14	2.82**
<b>BOB</b>	5.81	2.52**	1.19	0.52	17.44	7.55**	-0.96	-0.74**	3.61	1.57	1.59	0.69
<b>BoI</b>	3.10	1.32	-3.19	-1.35	18.83	7.99**	-6.42	-2.72**	5.29	2.24**	-3.59	-1.52
<b>Canara Bank</b>	2.64	1.15	4.57	2.00**	13.90	6.07**	1.84	0.80	0.63	0.27	4.94	2.16**
<b>Central Bank</b>	5.51	2.11**	4.76	1.82*	17.87	6.83**	1.91	0.73	4.52	1.73*	4.94	1.89*
<b>Indian Bank</b>	15.4	9.52**	9.99	6.16**	25.03	15.44**	8.21	5.07**	11.19	6.91**	10.76	6.64**
<b>IOB</b>	6.31	2.81**	3.84	1.71*	14.83	6.61**	1.46	0.65	1.67	0.75	4.69	2.09**
<b>PNB</b>	4.26	1.45	3.97	1.35	15.34	5.21**	1.72	0.58	1.68	0.57	4.44	1.51
<b>UCO</b>	11.2	-2.79**	6.02	-0.72	8.24	3.30**	-5.14	-2.06**	-5.14	-2.06**	-2.13	-0.85
<b>Union</b>	2.79	0.68	1.47	1.68*	9.33	2.26**	0.97	0.24	-4.43	-1.07	3.59	0.87
	2.27	0.55	1.70	1.38	11.88	3.84**	2.43	0.78	-1.45	-0.47	5.49	1.77*

\* indicates significant at 10% level of significance.

\*\* indicates significant at 5% level of significance.

Source: Author's own estimation

**Table 7. CAR and T statistics of CAR of 2<sup>nd</sup> Event**

Event Windows	Market and risk adjusted return model				Market adjusted return model				Mean adjusted return model			
	-10		+10		-10		+10		-10		+10	
Bank Name	CAR (%)	T-Statistics	CAR (%)	T-Statistics	CAR (%)	T-Statistics	CAR (%)	T-Statistics	CAR (%)	T-Statistics	CAR (%)	T-Statistics
HDFC	-6.44	-1.63	13.58	3.43**	-7.37	-1.86*	-1.58	-0.40	-32.74	8.26**	12.35	3.12**
ICICI	-14.85	-3.72**	21.39	5.36**	-18.08	-4.52**	-9.69	-2.43**	-43.11	10.79*	4.57	1.14
AXIS	-33.76	-8.32**	63.17	15.56**	-46.77	11.52*	10.90	2.68**	-70.11	17.27*	26.85	6.62**
Bandhan	-36.48	-6.28**	44.95	7.73**	-58.98	10.15*	8.15	1.40	-78.83	13.56*	27.59	4.75**
Federal	-32.69	-6.18**	19.68	3.72**	-40.26	-7.61**	-7.99	-1.51	-64.29	12.15*	7.28	1.38
IDFC First	-6.49	-1.21	30.54	5.70**	-29.48	-5.51**	-5.73	-1.07	-52.04	-9.72**	11.01	2.06**
Indus Ind	-33.55	-5.54**	62.46	10.31**	-80.82	13.35*	16.96	2.80**	-102.15	16.87*	34.93	5.77**
Kotak	-8.41	2.8**	9.88	4.79**	-6.05	-1.71*	-17.03	-4.82**	-31.39	-8.88**	-3.08	-0.87
RBL	-8.71	-0.93	-44.74	2.38**	-4.22	-0.45	-45.54	-4.87**	-25.95	-2.78**	-27.98	-2.99**
South bank	-12.20	-2.33**	36.18	6.92**	-15.19	-2.91**	1.61	0.31	-36.81	-7.04**	19.29	3.69**
SBI	-13.77	-2.52**	-1.99	0.36	-13.52	-2.48**	-17.37	-3.18**	-38.10	-6.98**	-2.65	-0.49
BoB	-12.02	-2.58**	-14.40	2.15**	2.89	0.52	-29.43	-5.27**	-18.90	-3.38**	-11.93	-2.14**
Cental Bank	-12.49	-3.04**	19.71	4.80**	-30.49	-7.43**	-6.00	-1.46	-55.13	13.44*	8.66	2.11**
BoI	-10.25	-1.86*	24.99	4.54**	1.13	0.21	-7.09	-1.29	-17.96	-3.26**	13.11	2.38**
Canara Bank	-17.13	-2.78**	28.62	4.65**	-16.06	-2.61**	-8.53	-1.39	-35.89	-5.83**	10.94	1.78*
Indian Bank	-18.91	4.48**	24.51	3.46**	-16.12	-2.95**	-8.80	-1.61	-33.94	-6.20**	12.67	2.32**
IOB	-2.99	-0.44	5.51	0.81	7.48	1.10	-13.23	-1.94*	-15.46	-2.27**	3.12	0.46
PNB	-3.23	-0.55	-10.99	1.86*	16.27	2.75**	-22.93	-3.88**	-3.84	-0.65	-3.75	-0.64
UCO	-9.49	-1.01	3.77	0.40	1.60	0.17	-7.71	-0.82	-22.33	-2.38**	7.66	0.81
Union	-6.62	-0.92	14.63	2.02**	4.21	0.58	-8.51	-1.18	-15.33	-2.12**	11.25	1.56

\* indicates significant at 10% level of significance.

\*\* indicates significant at 5% level of significance.

Source: Author's own estimation

**Table 8. AAR of 2<sup>nd</sup> Event**

Event Days	Market and risk adjusted return model			Market adjusted return model			Mean adjusted return model		
	AAR (%)	T-Statistics	P-Value	AAR (%)	T-Statistics	P-Value	AAR (%)	T-Statistics	P-Value
-10	-2.42	-1.26	0.22	-0.88	-0.44	0.67	-3.10	-1.60	0.12
-9	-4.34	-2.26**	0.04	-1.00	-0.49	0.63	-5.73	-2.96**	0.01
-8	-0.60	-0.31	0.76	-0.92	-0.46	0.65	-0.57	-0.29	0.77
-7	5.32	2.77**	0.01	11.29	5.60**	0.00	2.91	1.68*	0.09
-6	-6.45	-3.36**	0.00	-9.42	-4.67**	0.00	-5.39	-2.79**	0.01
-5	-0.16	-0.08	0.94	5.27	2.62**	0.02	-2.35	-1.22	0.24
-4	-4.16	-2.17**	0.04	-2.61	-1.29	0.21	-4.86	-2.51**	0.02
-3	0.64	0.33	0.74	6.08	3.02**	0.01	0.65	0.34	0.74
-2	-1.10	-0.57	0.57	0.40	0.20	0.85	-1.77	-0.91	0.37
-1	-5.43	-2.83**	0.01	-9.80	-4.86**	0.00	-3.84	-1.98**	0.04
0	2.63	1.37	0.19	12.37	6.14**	0.00	-1.24	-0.64	0.53
1	6.51	3.39**	0.00	4.45	2.21**	0.04	7.22	3.73**	0.00
2	2.55	1.33	0.20	-2.35	-1.17	0.26	4.36	2.25**	0.04
3	-1.41	-0.74	0.47	-4.44	-2.20**	0.04	-0.33	-0.17	0.86
4	-5.07	-2.64**	0.02	-5.50	-2.73**	0.01	-5.00	-2.58**	0.02
5	3.94	2.05**	0.05	6.89	3.42**	0.00	2.71	1.40	0.18
6	-2.58	-1.34	0.19	-5.56	-2.76**	0.01	-1.51	-0.78	0.44
7	-0.61	-0.32	0.75	2.05	1.02	0.32	-1.74	-0.90	0.38
8	2.68	1.39	0.18	3.90	1.94*	0.07	2.11	1.09	0.29
9	-2.30	-1.20	0.25	-8.63	-4.28**	0.00	0.06	0.03	0.98
10	4.05	2.11**	0.048	4.13	2.05**	0.04	3.93	2.03**	0.04

\* indicates significant at 10% level of significance.

\*\* indicates significant at 5% level of significance

Source: Author's own estimation

**Table 9 T-statistics and P value of CAAR of 2<sup>nd</sup> Event**

Model	Market and risk adjusted return model		Market adjusted return model		Mean adjusted return model		
Event days	T-Statistics	P-Value	T-Statistics	P-Value	T-Statistics	P-Value	
-10		-3.08**	0.01	-1.69*	0.09	-3.93**	0.00
10		1.71*	0.09	1.15	0.26	1.93*	0.07

\* indicates significant at 10% level of significance.

\*\* indicates significant at 5% level of significance.

Source: Author's own estimation

## **DISCUSSION**

COVID-19 has impacted both the economy and also the psyche of the investors. Therefore, in pandemic, not only does one need to formulate strategies to prevent future public health issues but also plan for financial safety and security. Stock prices carry the potential for future earnings, and investors apprehend that the epidemic may stunt the economic growth affecting their earnings. In a country like India, banking sector has a major role to play in the growth of the economy. Therefore, this study aimed to examine the immediate impact of COVID-19 on stock prices of major banks in India. The study complements the literature by investigating the unforeseen consequences of a dreaded disease on the Indian banking sector. From the perspective of an investor, the outcomes of this study demonstrate the significance of investment risks posed by a sudden occurrence of an event.

Examination of the performance of nifty banks on two important events such as the detection of the first case of COVID-19 and the implementation of the first phase of lockdown, reveals that the first event had insignificant impact on the price of the bank shares as compared to the second event, which had a significant impact on of the bank share price. The impact of the event on the AR and CAR of banks are negative in pre-event period while it is positive in the post-event period. It shows how the fear of unknown and uncertainty, that came in the form of virus, could grip the investors' confidence. However, true to the human resilience and adaptability, investors were not very wary of the lockdowns and they stayed positive. As a result of which both the AR and CAR for post-event period is found to be positive, which can also be evident from the positive AAR and CAAR of the second event for both the public and private banks. Post-lockdown, the market has seen a favorable trend, indicating the news of the lockdown had a beneficial impact on the nifty banks. This suggests that investors could have benefitted from the irregularity in trend and certain positive peaks seen throughout this period.

## **CONCLUSION**

Coronavirus did not only affect the health sector but also brought damages to labor market, goods, services, and the entire industry. This has also impacted the perspectives of people, those of investors, in particular. Though there are vaccines developed by several pharmaceutical companies, the efficacy of these vaccines is always controversial. Moreover,

there have been problems like vaccine diplomacies, short supplies, legal rumbles, and so on. As a result, the outbreak has indeed been a global crisis affecting the entire world economy. Though there is a sign of rebound, in some cases, the stock markets across the globe have been damaged to a large scale. The present stock markets in India are facing sharp volatility due to unanticipated shocks. Banks being the catalyst of growth, “the COVID-19 pandemic poses a significant threat to the sustainability of banks globally and it would be worse in developing and emerging economies, where financial systems are weak” (Barua and Barua, 2020). Therefore, this paper examined the performance of nifty banks during the pandemic by taking two important events in India namely detection of the first case of COVID-19 and implementation of the lockdown. In order to test the impacts of these events, this paper used three different models of event study (i.e., market and risk adjusted return, market adjusted return, and mean adjusted return model) in order to check the robustness of the study. The study found that the first event had an insignificant impact on the share prices of nifty banks, whereas the second event had a significant impact on the nifty banks’ share prices. The AR and CAR of banks in the pre-event period are negative while it is positive for the post-event period. It implies that the markets reacted positively to the news of lockdown, which is similar to the study conducted by Alam et al. (2020). The overall impact of the events was mixed as the AAR and CAAR of the first event are insignificant while the AAR and CAAR of the second event are statistically significant. The CAAR of the pre-lockdown period is significant but negative while it is positive and statistically significant during the post-lockdown period resulting in rejection of the null hypothesis for the second event.

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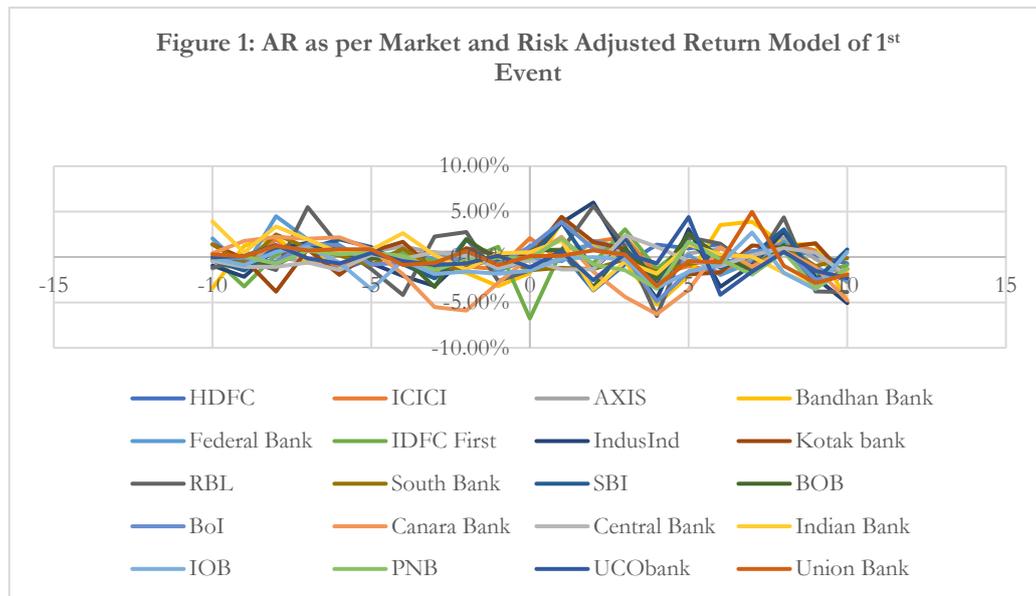
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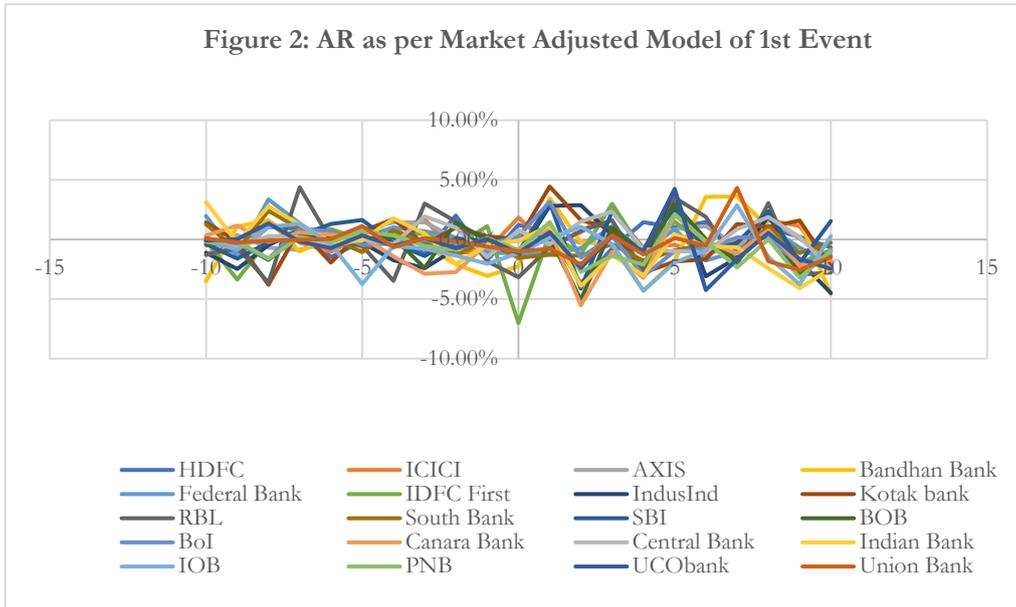
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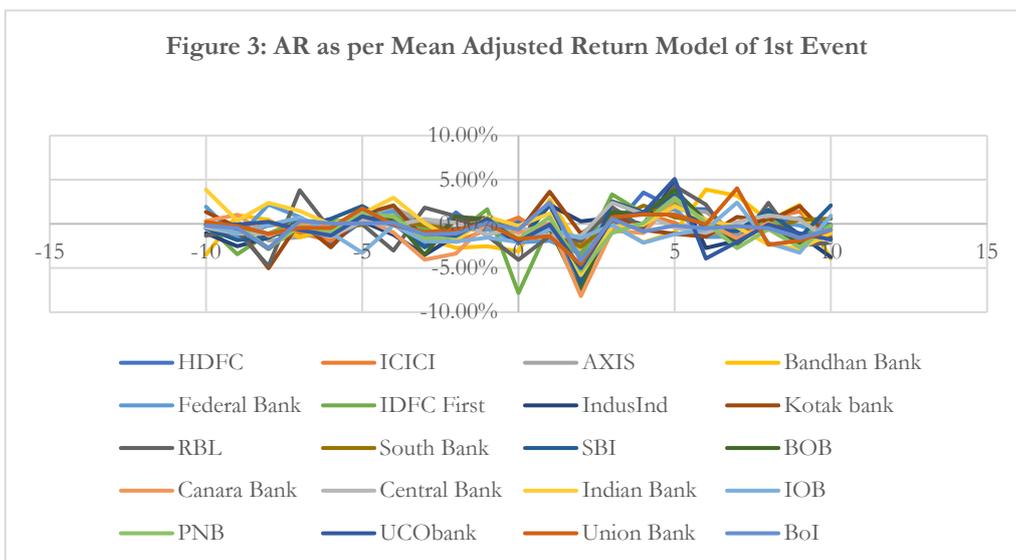
**APPENDIX**



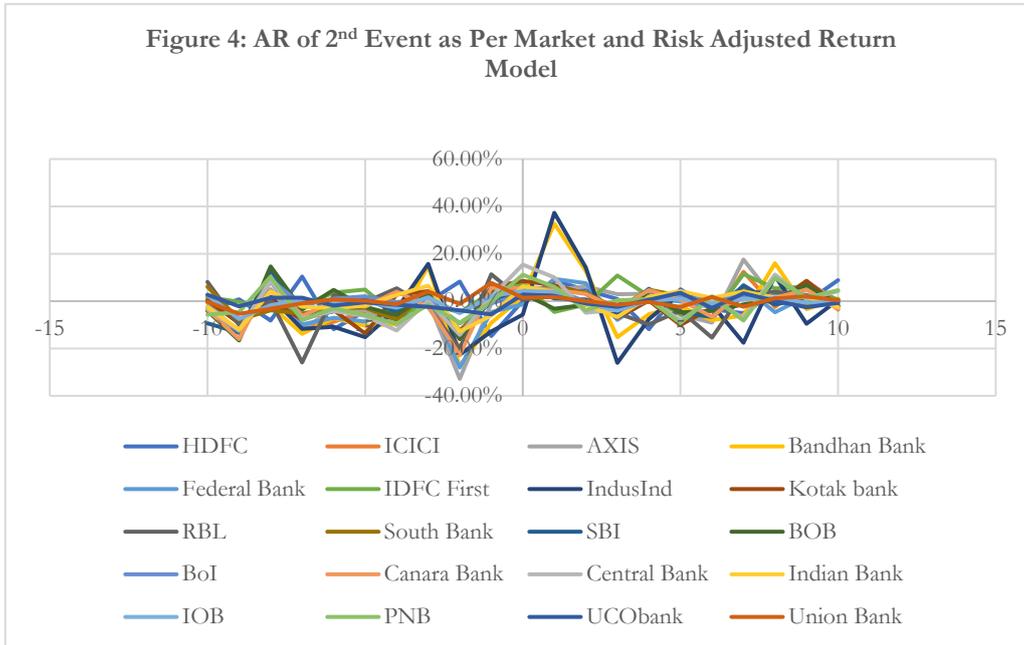
Source: Author's own estimation



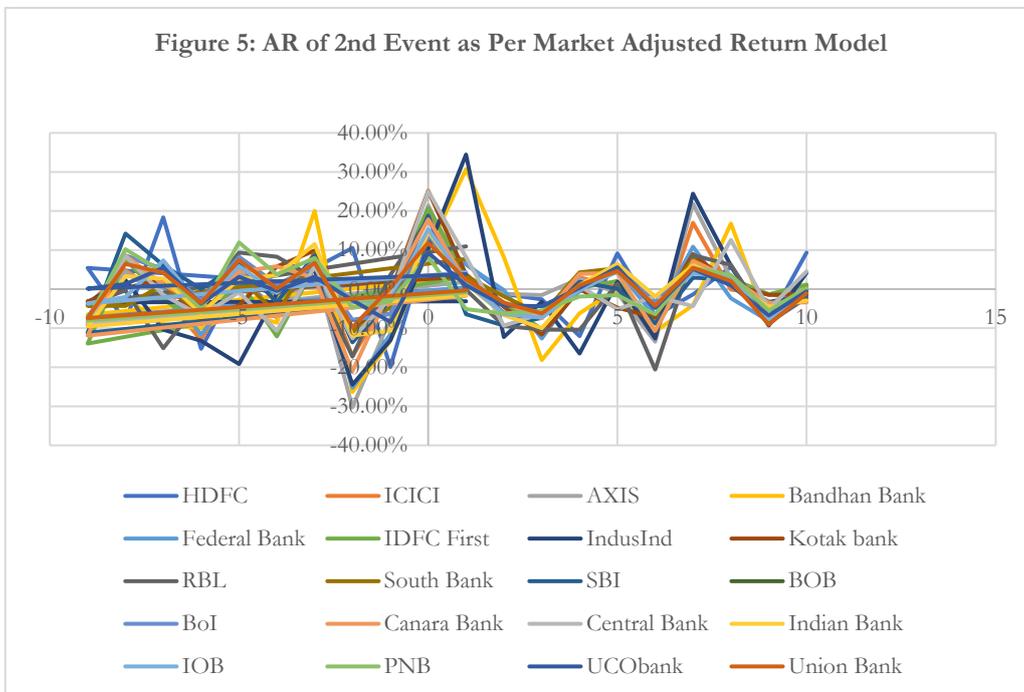
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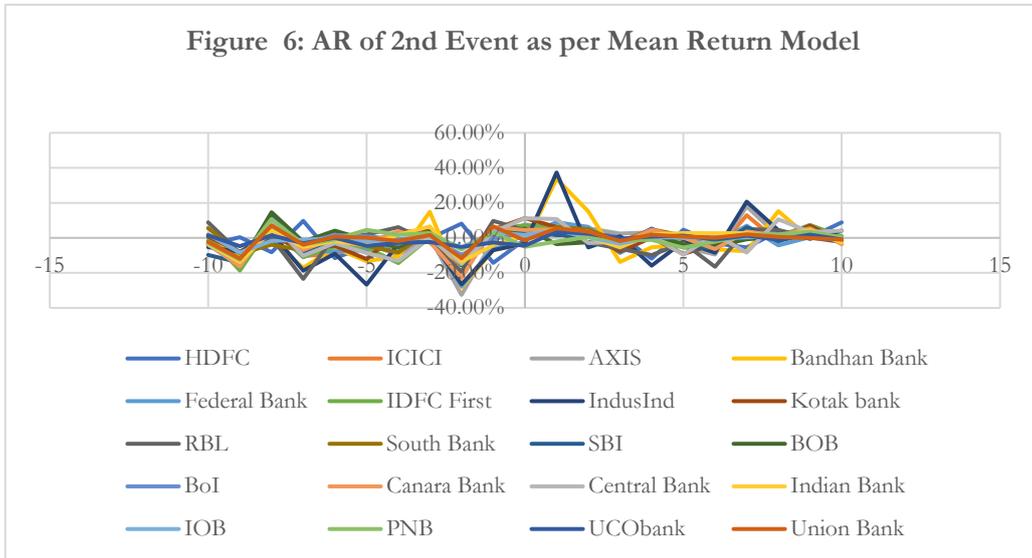
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Shubham Parsoya and Asif Perwej

## THE IMPACTS OF COVID-19 PANDEMIC ON BUSINESSES AND ECONOMIES: GLOBAL PERSPECTIVES

### ABSTRACT

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Different types of industries and businesses are directly and indirectly affected by the coronavirus. The economies of different countries were damaged severely; and the overall performance of such economies gets stepped backward for almost 20 years in terms of growth and development. The aim of the study is to analyze and evaluate the overall impact of the coronavirus pandemic on different types of industries and economies from a global perspective. For the analysis, the secondary sources of data is used which includes different types of articles, research papers, books, and reports published by the authors of different countries. This paper concludes that several types of business functions got severely hampered but there are some types of businesses which had gained advantages in terms of business functionality and scope. Different types of industries encountered different types of situations; most of the businesses had faced extremely bad situations whereas some from the healthcare industry such as, sanitizer, and mask manufacturing, and e-commerce-based businesses gained huge advantages.

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*Key Words: Coronavirus, Pandemic, Industries, Businesses, Impact*

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## INTRODUCTION

The success of any business and economy totally depends on the efficient utilization of the available resources in fulfilling the market demands. But there are several factors that play a major role in generating the favouring business environment which facilitate the functionality of creating business values and maximizing productivity. The external environment of any business and the external factors that affects the functionalities of businesses are significant to promote productivity in business tasks and projects. There are several types of problems which do come in between the path of attending the two points of businesses and economy of production and the fulfilment of the demands of people. In the current situation, the most prevalent problem to the businesses and economies is the outbreak of the pandemic.

With around 190 nations, the world functionality was seriously hampered because of the lockdown situation created by the coronavirus pandemic. And in term it seriously disturb the overall business and economic surroundings. Moreover, it also has created several types of financial complexities which will generate several other business problems and issues for the operations of different types of businesses. The spread of coronavirus significantly impacted the business operations around the world and deteriorated the economic conditions of many countries; many are facing a considerable level of slowing down of the economic growth. All around the world, people seriously faced the challenges derived from the pandemic. And such problematic situations were not tolerable especially for some vulnerable people who are at the risk of losing their jobs. Many people also had lost their lives to the spread of this harmful virus, whereas millions of them were hospitalized.

To safeguard the people from the crisis, several countries' governments declared lockdown for months. But due to the lockdown, the overall human living cost is significantly increased by manifold. And the prices of many necessity goods, such as food and water, increased rapidly, which are unbearable for some people around the world. Due to the lockdown, the business functionality also got seriously hampered and the various had to bear the extensive losses because of the complete shutdown of some industries and businesses for a series of months (during the periods of lockdown). And as we all know that the business operators are direct employment providers for a large amount of population. However, because of the lockdown situation, the employability and the livelihood earnings

of many people got seriously hampered and disturbed, as the industries, which were giving daily livelihood to such people, were shut down for a long period of time.

Because of COVID-19, the government of different countries followed the lockdown mechanism to safeguard the lives of the people from the harmful effect of pandemic and such mechanism helps a lot to break the chain of the spreading of such harmful virus, as the government targeted primarily for making proper check over the spreading of coronavirus and then after focusing toward all the other issues (related to economy and others) coming in the way. Because, it is very important for every country to take some concrete actions for making a control over the spreading of coronavirus in the shortest time possible. But on the other hand, the complete lockdown for several months of time was not good for the businesses which are significant for the supply of goods and services on a daily basis as the lockdown mechanism however shattered the overall base pillars of the businesses and economies. The global trade and the contractual agreement of businesses between several nations which are very important for national development faced a significant interruption in the exchange of goods and services between such countries.

## **LITERATURE REVIEW**

Research conducted by Rashmi Gujarati (2020) and Öğr. Gör. Hayri Uygun (2020) with the research paper titled COVID-19: Impact on Global Economics, published with Amity Journal of Computational Science (AJCS), ISSN: 2456-6616 (Online), Volume 4, Issue 1, (Gujrati, 2020) covers up several significant issues and topics related to the impact of coronavirus pandemic on businesses and economies. As per the author's research, due to the lockdown procedure imposed by several developing and developed nations, the overall imports and exports of such countries are facing a significant level of complexities in terms of delivery of goods and services from the point of origin to the point of consumption. Due to that the industries and the countries which are totally depending upon the exports and imports of such goods and services are facing problematic situations in running their businesses.

Because of the coronavirus pandemic the overall manufacturing industry also faced new problems in continuing its production activities, and on the other hand the produced goods and services also so could not smoothly transport from one place to another because

of the shutting down and the slowdown of overall export and import procedures. The research paper also signifies the problem faced by the tourism industry. Due to the lockdown procedures, the tour and travel mechanism of the different nations are affected significantly and many of such tourists are still facing problems in going back to their home countries in the absence of a proper channel of transportation. A lot of people who are working in such industries lost their jobs because of the lockdown and the shutdown of such Industries' manufacturing units. Because of the shutting down of several industries especially the manufacturing industries, the overall financial crisis and the cost burden on such manufacturing industries increased manifold.

Overall, the governments of several countries had revised their plans for budget allocation according to the current situation, as the large portion of government budgets which were previously invested in manufacturing industries are now invested by the government in the health care industry plans and the procedures through which the government can manage such pandemic situations caused by coronavirus. The research paper signifies the level of negative impacts prevailing upon the retail industries, hospitals, cinemas, malls, tourist destinations, manufacturing units, the education sector, and the transportation sector.

Because of the pandemic, the governments of almost every nation are facing complexities in making decisions regarding their investment priorities between the need of saving lives of the people and creating economic profits. The research paper also signifies the disturbance created by the uneven and unplanned situations taking places in the education sector including schools, universities, and colleges where the students are facing complexities in completing their educational courses and exams, as a lot of examinations were already cancelled and several types of extension have already been taken places, and therefore the students are significantly facing problematic situations in their learning and education.

The research paper also signifies the important steps taken by several industries for resuming the overall operations including the education classes through online mediums including Google Meet, Zoom, etc. Similarly, many companies are allowing their employees to work from their homes amid the implementation of the lockdown. Such adjustment strategies initiated by several industries are expected to encourage and enhance the overall marketplace of online-based education and work from the home system for office works. Such types of strategies are concrete examples of positive steps taken by industries to overcome the negative impacts of lockdowns and pandemic situations.

## **OBJECTIVES OF THE STUDY**

The key objectives of this research paper are as follow:

- To study and know about COVID-19 and to analyze the impacts of it on different businesses.
- To study the impacts of COVID-19 on the global economy and to analyze the negative impacts of coronavirus on several businesses, and to also study the positive impacts of coronavirus pandemic on some of the businesses and economies.
- To evaluate the impacts of COVID-19 on the social, political, and economic factors of the countries and to analyze the impacts of COVID-19 on the quality of life of people.
- To analyze the impacts of COVID-19 on the sustainable development environment of the world and to study the world trade infrastructure.

## **SIGNIFICANCE AND PURPOSE OF THE STUDY**

For analyzing the overall impacts of the COVID-19 pandemic on the economies and the businesses of several industries, it is important to properly understand and study the overall procedures followed by different sectors in different countries, so that we all will be able to find out more appropriate solutions and the methodologies which will be used to formulate the policies and the strategies in economic difficulties. As we all know that our environment is surrounded by various types of factors that are unavoidable, and although they can never be removed, the impacts of such factors can be minimized through the practice of appropriate strategies. Therefore, it is very important for each and every organization and nation to analyze the real ways of dealing with such problems so that each and every nation will be able to take a concrete step towards it, minimizing the overall negative impacts.

This study was conducted on the topic, “The Impacts of COVID-19 Pandemic on Businesses and Economies: Global Perspectives”, which deals with all such study and in-depth analysis of different factors and different ways to evaluate the overall impacts of COVID-19 on different types of businesses and economies. With the proper study and analysis of any problem like COVID-19, our world will be able to make proper strategies to take concrete steps for minimizing the overall negative impacts in the near future.

## **RESEARCH METHODOLOGY**

For the purpose of formulating the methodology for this research, all the useful guidelines and related principles were followed extensively, and for the quality research study of the concerned research paper titled “The Impacts of COVID-19 Pandemic on Businesses and Economies: Global Perspectives”, thorough literature based upon the concerned topic was studied for the purpose of proper analysis and the evaluation. For the in-depth analysis of the stated topic and for obtaining the desired level of information, all the useful studies which are related to the topic and were published from January 2005 to March 2021 were selected. The main objective of selecting such extensively elaborated information-based data is to take helpful steps in reflecting the practices and the policies which were previously taken place in the situations of global recessions and pandemic conditions.

The research conducted for the research paper titled “The Impacts of COVID-19 Pandemic on Businesses and Economies: Global Perspectives” was based upon the secondary source of data which includes the computerized literature-based searches of different articles and research journals from authentic sources which include Google Scholar, ProQuest, Science Direct, MEDLINE (PubMed), Emerald Insight, published research journals, books, newspaper articles, e-books, and other useful information sources.

## **ANALYSIS OF THE NEGATIVE IMPACTS OF COVID-19 PANDEMIC ON BUSINESSES AND ECONOMIES**

With the spread of coronavirus, the majority of the world's economies and businesses are significantly impacted and faced a very long period of shutting down due to the lockdown mechanism followed by almost all the areas and regions of the whole world. There were different types of strategies and policies adopted by different countries for the purpose of coping up with the negative impacts of COVID-19 pandemic and all such strategies and policies were proved to be efficient in safeguarding the lives of many, but on the other hand, the lockdown had severe economic costs on the business world.

As the world economy was not very well prepared for the spread of the COVID-19, almost all industries in the world were significantly hampered. The overall negative impacts of the coronavirus pandemic have ranged from the extreme decrease in the Gross Domestic Product (GDP) of many countries to the multilevel environmental and social-based issues

across the whole world. The social-economic-based activities were completely shut down for a number of months, because of the negative impact of the coronavirus pandemic, especially on the society's health care of nations.

As per the lockdown mechanism of the government of the various countries, millions of people from different countries, who had travelled to other countries for the purposes of tourism, education, and businesses, were not allowed to travel back to their home countries without prior permission from the appropriate authority. On the other hand, the people were also not allowed to travel outside their countries and also from their homes in some extreme cases, due to which they were not able to buy their daily consumable items on a very frequent basis. Such situations were direct impact creator on the overall supply chain mechanism of the daily consumable items.

The demand and supply machinery of the daily consumable items and other significant products was significantly hampered, all because of lockdowns. Although, the overall lockdown measures proved to be a concrete step for safeguarding the lives of billions, but on the other hand, due to the shutting down of several types of industries the overall profitability of such industries and businesses were totally shattered, and it had several types of direct and indirect negative impacts upon the economy of different nations, especially the nations which heavily rely on the exports and imports of different goods and services from all around the world.

The overall education system faced significant interruptions as the overall classes were completely suspended and the students had faced several difficulties in completing their courses. The borders of the nation were shut down and no one was allowed to enter and exit across the national boundaries. On the other hand, such shutting down of boundaries generated several complexities, especially for the shipping industry businesses and the companies which were dealing in the exports and imports of such goods and services on a daily basis. The businesses of such nations were also completely destructed because of the overall unsuccessful financial management and the lack of availability of proper fund, due to the suspension of many business operations.

The transportation industries, which include the cars, trucks, train railways, shippings, and airlines, and all other fields related to such industries such as the travel industries were seriously disturbed. The travel industries were crippled as the buses and the trains were completely shut down because of the coronavirus pandemic lockdown situations, and therefore the demands of transportations of millions of people, who were previously using such services on a daily basis, plunged.

The entertainment industry including cinemas, tour and travel, and many other functions such as hospitality industries which were significantly impacted by the coronavirus; many of such industries based infrastructures such as the hotels and lodges were completely shut down and occupied by the banking units as many of such hotels and infrastructures buildings were not able to cope up with the negative impacts of coronavirus pandemic and they were not able to pay the monthly basis instalments for the interests and loans repayments on a timely basis due to the shutting down of businesses.

Due to the shutting down of various manufacturing units which were giving employments and jobs to millions of people, the overall livelihood mechanism of such people got seriously affected and they were not able to fulfil their daily needs and wants, as several industry-based works were completely shut down and it results in extensive levels of losses which were not born effectively by such industries, many of such industries were not able to pay the salaries to the workers and to the labors who left their jobs and employments because of the lockdown situations generated by COVID-19 pandemic.

## **ANALYSIS OF THE POSITIVE IMPACTS OF COVID-19 ON SOME OF THE BUSINESSES AND ECONOMIES**

Along with the negative impacts of the coronavirus, some of the positive effects do present in some scenarios. Apart from the business and economic point of view, the overall positive impacts of the COVID-19 pandemic on the environment and societies are also very significant. Because of the changes taking place in the working environment of different industries, the overall pollution that the operations of businesses used to generate was subdued for few months.

Such type of improvements in the environment plays a significant role in making the atmosphere and climate helpful and beneficial for the human beings as well as other organisms present on the earth. With the improvements taking place in the environment and climate, there is an extreme level of positive behavioral changes seen in the behavior pattern of people as the overall behavior patterns and the thinking dynamics of people changed in a completely different way and some type of calmness and satisfaction in the thinking level of people can easily be seen after the prevailing situations created and pandemic circumstances generated by COVID-19.

And from the business point of view, with the introduction of the lockdown measures of several governments of the different nations, the overall education and many other administrative tasks were shifted to digitization and computer-based ones. For example, the overall educational courses and educational classes provided by the schools, colleges, and universities were completely turned into online-based teaching programs, which are now completely accepted by almost everyone and function with the help of computer technologies and the internet server in which the teachers and the students are completing their educational activities from their homes and there is no physical interaction that has to take a place in such mechanism.

The office work of the private sector, as well as the public sector, is now performed on a digital basis (Work-from-Home system). Such type of online based working system is truly beneficial and innovative for our society and the economy. As such a type of change in the working pattern has taken a place, this will surely save some costs. For the industries which are providing and managing the platforms of online-based working including Google Meet, Zoom application, etc. the pandemic provided a huge opportunity for them to expand their businesses on online-based communication. Such enhancements in digitization help such companies grow manifolds in the period of coronavirus pandemic.

With the escalation of COVID-19, the medical industries also gained huge market-based profits as demands for medical services proliferated. Along with such medical industries, there are several different types of enhancement and growth that are also taking place in the development and extension of the chemical industries which were the priority in making alcohol-based products, are now engaging themselves in making the sanitizers which were growing extensively after the outbreak of the COVID-19 pandemic.

The mask manufacturing units are also taking advantages of an extensive level of enhancement in the overall consumption of daily-use-based masks. Not only large industries, but also some small-scale business units or even the cottage industries are also taking advantage of such emerging business opportunities. For earning a good amount of profits and for exploring huge possibilities through mask-making business, different people are engaging themselves in making the masks. In such a way there are different types of industries and the businesses that are taking an extensive level of advantages of doing their businesses which are directly fulfilling the overall needs and wants of the people after the outbreak of COVID-19 pandemic situations. And the resourcefulness of providing such essential commodities, which have achieved manifold growth after the COVID-19 pandemic situations, is also giving a better business and earning opportunities to different

segments of the society for not only earning the profits from the business but also providing essential and useful services to the people of the whole world.

## **CONCLUSIONS AND RECOMMENDATIONS**

Although the propensity of increase in coronavirus pandemic is extremely high, there may be chances of some level of enhancements in the growth in the number of cases. The spreading of coronavirus may not be showing any sign of slowing down, and therefore the COVID-19 is likely to continue to disrupt the overall economic activities of several nations for at least for a few more months or even for a few more years. The manufacturing industry as well as the service industry especially are present in the developing nations are facing severe difficulties in terms of managing their businesses because of the uncertainty presents.

It is still unclear whether the pandemic situations are going to unfold the financial crisis within the next couple of months or it will continually impose a substantial level of negative impacts on the global economy. Some of the nations including the United States of America, are considerably focusing on the fact that the coronavirus will potentially inflicting severe economic conditions and will impose a financial cost on the global economy. Because in the current era, where the global level interconnectedness presents, it is extremely difficult and costly for the whole world to escape the business developmental steps, for safeguarding the people from the pandemic situations. But on the other hand, if the businesses will have given complete freedom in terms of running their business in the pandemic situation freely, then there may be chances that the virus will enhance the risk of spreading in various regions.

For ascertaining the fact along with taking concrete steps in the field of making the best possible decision, the global level government bodies decided to invest and take concrete steps in terms of developing vaccines and making a plan for distribution so that the overall businesses and global level economic activities can be recovered within a shorter period with lesser destruction. After all, the outbreak of coronavirus is not showing any sign of disappearing in the near future because the complete suspension of business operations is impossible.

## SCOPE FOR FURTHER STUDIES AND RESEARCH

This study will open up scopes for further research and study in the field of analyzing the overall control mechanism followed by every nation, which consists of taking concrete steps for safeguarding the people from the negative impacts of coronavirus pandemic, and also includes the implementation of strategic policies for economic recoveries. The study will also help in analyzing the mechanism of executing the strategies that play a major role in combating the pandemic situations at the global level.

This study also provides opportunities to the future researchers to analyze the effectiveness of policy in relation to the control mechanism followed by the governments of the different nationalities and for making a comparative study between the strategy followed by the different nations for safeguarding the people of the respective nations along with formulation and implementation of strategic policies for lifting up the economic and business activities in respective nations.

This study also proposes the need to conduct further study to analyze extraordinary enhancement of the online education field and for finding out the ways through which such plan was so successful in terms of functionality. And it may also open different research scopes for ascertaining the future and prospective policies regarding the handling and controlling of all possible prospective pandemic situations like coronavirus pandemic.

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