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Rebuilding Operational Risk Management Capabilities: Lessons Learned from COVID-19

Barkha JADWANI¹, Shilpa PARKHI², Kiran KARANDE³, Prashant BARGE⁴,
Venkata Mrudula BHIMAVARAPU⁵, Shailesh RASTOGI⁶

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Abstract

Globally, COVID-19 has significantly impacted many different organizations and people. From the banks' perspective, this pandemic has affected banks' corporate and retail customers. Also, banks had to adjust to distributed workforce model. This paper analyses the lessons learned from the COVID-19 pandemic, which can be effectively used to rebuild banks' Operational Risk Management capabilities. The present study used the survey research methodology, which includes structured questionnaires completed by senior banking professionals to analyze the learnings from COVID-19 and understand the distributed workforce model and remote working effectiveness. Findings: The Pandemic accelerated the pace of digital transformation. The lockdown imposed due to the pandemic led to employees working remotely, which has been effective because of enhanced digital capabilities. However, enhanced monitoring is required to prevent data-related issues, and action needs to be taken to address challenges faced in having a remote distributed workforce model, like negative impact on on-the-job learning, data-related risks, and employee wellbeing. COVID-19 is an unprecedented event that could not have been predicted in any scenario analysis. This crisis has highlighted various systemic drawbacks that need to be addressed. Banks can apply the lesson learned from this Pandemic to become more robust in the future.

Keywords: Operational Risk, Banks, Operational Risk Management, COVID-19

JEL Classification Code: D81, E58, G32

1. Introduction

COVID-19 has had a significant effect on the economies around the globe. This is a new normal situation as popularly known. It can be viewed in both ways i.e., either as difficult times with significant challenges being faced by the various bank customers, employees, and overall economy as a whole, which in turn will impact banks; or as an opportunity where banks can reimagine their operations and reign in a digital economy, support their customers and employees to overcome these difficult times and overall emerge stronger.

In this unprecedented crisis, there has been a significant impact on banks due to the economic slowdown, financial difficulties faced by companies and their potential bankruptcies, a newer operating model including the remote working of staff, and revised ways to handle customer transactions.

Learnings from the pandemic indicated that while digital transformation is the way forward for banks, they also

¹First Author. Research Scholar, Symbiosis International (Deemed) University, India Email: jadwanibarkha@gmail.com

²Professor, Symbiosis Institute of Business Management, Symbiosis International (Deemed) University, India.
Email: shilpapakhi@sibmpune.edu.in

³Assistant Professor, Symbiosis School of Banking and Finance, Symbiosis International (Deemed) University, India.
Email: kiran.karande@ssbf.edu.in

⁴Assistant Professor, Symbiosis Institute of Business Management, Symbiosis International (Deemed) University, India.
Email: bargep@gmail.com.

⁵Corresponding Author. Assistant Professor, School of Commerce and Management, D Y Patil International University, India. [Postal Address: Sector 29, Nigdi Pradhikaran, Akurdi, Pune, Maharashtra, 411044, India] Email: mrudulabhimavarapu@gmail.com

⁶Professor, Symbiosis Institute of Business Management, Symbiosis International (Deemed) University, India.
Email: krishnasgdas@gmail.com

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need to balance between enhancing digital capabilities for tech-savvy customers and providing traditional products for customers who lack digital literacy. Most of the banks are operating on distributed workforce model and staff is working remotely due to COVID-19 Pandemic. While banks have successfully managed to deliver to customers in this new operating model, and remote working has been surprisingly effective for banks, it also has several cons. Remote working coupled with dynamic changes in the operating environment has given rise to new data confidentiality, data privacy, and data leakage risks and is particularly challenging for the surveillance of employees. Additionally, the stress levels of employees have also grown.

COVID-19 is a unique event that could not have been predicted in any scenario analysis. This crisis has highlighted various systemic drawbacks that need to be addressed. Disruption of the pandemic has also exposed banks to a high level of third-party risks which will impact outsourcing arrangements by banks in the future and the governance followed for such arrangements.

This paper analyses the lessons learned from the COVID-19 pandemic using the survey research methodology, which can be effectively used to rebuild the Operational Risk Management capabilities of banks. Responses to 19 statements included in the questionnaire (refer to Annexure I below) have been used to understand the learnings from COVID-19 and the effectiveness of the distributed workforce model and remote working.

In addition to the introduction unit, this paper has six units. Unit 2 articulates the literature review in related areas, unit 3 presents the hypothesis and the analysis of the data. Units 4 and 5 present the COVID-19 impact on banking regulations and the learnings. Unit 6 contains the managerial implications of this study. Finally, unit 7 includes the conclusion.

2. Literature Review

The numerous research papers given below elaborate on the effects of the pandemic on the economy, employees, and various organizations. Several policy decisions have been taken to help manage uncertainty and help the economy combat the pandemic and bounce back. Research papers that help analyze the impact of operational risk on organizations have also been reviewed for this study.

Effect of the pandemic on the economy and society: Agarwal and Sunitha (2020) have elaborated on the societal impact due to the outbreak of COVID-19 on the international community, such as the usage of personal protective measures, closure of schools and colleges, canceling large gatherings, higher consumption of personal sanitation goods which had occurred due to coronavirus outbreak. Donthu and Gustafsson (2020) have mentioned that all of

society is affected due to this pandemic which has impacted businesses' and consumers' behavior. Jordà et al. (2022) analyzed the longer-term effects in their paper. There are significant macroeconomic repercussions of pandemics that persist for decades and also have an impact on rates of return. Phukon and Borpujari (2020) have attempted to analyze the implications of COVID-19 on the Indian economy for fifteen years with the help of the Keynesian Cross Model with shock. In their study, Sahoo and Ashwani (2020) concluded that the condition demands fiscal-monetary incentives for small organizations to recover. Carnevale and Hatak (2020) discussed the challenges as companies help their staff manage the new normal work situation. Dwivedi et al. (2020) studied the opinions of experts to provide perspective on the major issues affecting companies during COVID-19 and also provided suggestions. Abhayawansa and Adams (2022) in their research paper, have analyzed that the risk reporting on topics such as pandemic and climate risk is quite insufficient and concentrates on the short term instead of the long term.

COVID-19 impact on the supply chain: Sarkis (2021), in their paper, has reviewed the implication of this pandemic from an Operations and Supply chain environmental sustainability viewpoint. Sharma et al (2020a) have provided strategic suggestions for the rebuilding of the supply chain in the future. Dellana et al. (2020) analyzed to develop a model based on the inputs received from supply chain managers. Acioli et al (2021) analyzed the impact of technological developments and their applicability to developing a supply chain that is sustainable in this pandemic situation.

Policy response and managing uncertainty: Sharma et al (2020b) in their research paper identify the various kinds of uncertainty, their backgrounds, and consequences, and the approaches used to handle and reduce their effects. Verma and Gustafsson (2020), based on the findings in their study have proposed that COVID-19 will be the stimulus of several policy amendments and requires the academic and practical attention of researchers.

Impact of operational risk on organizations: Janakiramani (2008), performed an analysis of 20 plus banks in India, highlighting challenges in the management of operational risk. Gupta (2011), in his research, called attention to the point that risk management-related knowledge in corporates in India is deficient. Chernobai et al. (2011) have examined the variables for operational risk-related events amid financial entities. Hemrit and Ben Arab (2012) analyzed the impact on the insurance industry. Ojo (2010) in her paper has concluded that more work is needed to be done in risk-related areas. Jadwani and Parkhi (2021) have analyzed the challenges of managing the Operational risk, which is more complex than the other risks. Ferreira de Mendonça et al. (2012) have looked at the effects of the subprime crisis on well-regulated countries. Fiordelisi et al. (2014) demonstrate that operational loss has a considerable impact on the

reputation as well. Prabhu and Shankar (2017) analyzed the various causal factors of operational risk. Swain and Pani (2016) have reviewed the multiple facets of fraud and provided bank recommendations. Jongh et al. (2013) have taken a deep dive into the financial crisis in 2007/2008 to provide suggestions that can help the banks in any future similar situations. Wang and Hsu (2013) analyzed the impact of the size of the board on the Operational risk. Sturm (2013) reviewed the financial market response to operational events. Dionne (2013) mentioned that despite implementing integrated risk management, it was inadequate to avoid the 2007 financial disaster.

Risk Management practices followed by banks: Tandon and Mehra (2017), Rehman et al. (2020), Tan et al. (2021), Marzuki et al. (2020), and Puspitasari et al. (2021) reviewed the methods followed by banks in India to manage Operational Risk vi-a-vis the various banks globally. Bilal et al. (2013), Singh et al. (2020), and Sidhu et al. (2022) concluded in their research that banks are continuously improving the risk-related structure according to the regulatory guidelines. (Barakat & Hussainey, 2013; Bhimavarapu et al., 2022; Rawal et al., 2022; Rastogi et al., 2021) have analyzed the impact of governance and oversight on risk disclosure. Hora and Klassen (2013) have highlighted that the industry bodies have an important part in the promotion of knowledge sharing about the learnings from previous operational incidents (Kundu & Banerjee, 2022; Gautam et al., 2022; et al., 2021; Shingade et al., 2022; Rastogi et al., 2022) in their research have compared public and private sector banks and have found that private sector banks are more efficient from an operational perspective whereas the public sector banks are to a greater extent capable from a policy perspective. Goswami and Gulati (2022) in their study on Indian Banks have analyzed the efficiency behavior and understand their response to both internal and external crises.

3. Methodology and Results

The current study utilizes a questionnaire-based study on the learnings from COVID-19 and understanding of the distributed workforce model and remote working effectiveness. These statements were used to ask experienced bankers to point out, based on their interpretation, on the Likert scale (five-level: ‘strongly agree’ to ‘strongly disagree’). The questionnaire responses have been collected from 37 experienced bankers. The majority of the respondents (32 out of 37) who have completed the questionnaire have banking experience of more than 10 years. The responses to these 19 statements have been analyzed to understand the complexities and the practices to manage Operational Risk by banks in India. This study analyses if there are any differences in the means of impact due to the learnings from COVID-19 and the effect of remote working environments

based on demographic variables such as age, gender, and banking experience. There are 9 questions for analyzing the effect of the learnings from COVID-19. Following is the first hypothesis.

***H1:** There are no significant differences in the means of impact due to the lessons from the COVID-19 Pandemic as per the banking work experience/ gender of the respondent.*

The first three questions are related to the impact of digitization on banks. The summary of responses synchronizes with the lesson learned by banks through this pandemic situation that they need to focus more on digital acceleration in a balanced manner and also spread digital literacy. The fourth and fifth questions are connected to the effect of COVID-19 on outsourcing arrangements in the future. The majority of the respondents believed that due to the lessons learned from COVID-19 it would lead to reduced outsourcing arrangements in the future. The sixth, seventh and eighth question is for analyzing how the future strategy of banks concerning reliance on internal data, pandemic playbook, and plans for employees in the new normal scenario has been impacted. This unprecedented crisis has highlighted that internal data alone is insufficient to manage the Operational Risk. An earlier study by Janakiramani (2008) concluded that data and modeling-related difficulties are the key constraints.

Organizations need to adopt new methods for managing such Pandemics, such as the pandemic playbook, and need to have modified plans to take care of the employees in the new normal scenario. The last question refers to the impact on fraud and money laundering risk, which has increased due to this pandemic.

Table 1 below shows the results of the differences in means of impact due to the learnings from COVID-19 as per the banking work experience of the respondent. The null hypothesis has been rejected for the need for a Pandemic playbook, and the null hypothesis is accepted for all the other variables. Respondents with higher work experience (21 years and above) appreciate the need for a Pandemic playbook more than the other work experience categories (1–10 years and 11–20 years).

Table 2 below shows the results of the differences in means of impact due to the learnings from COVID-19 as per the gender of the respondent. The null hypothesis has been accepted for all variables.

There are 10 questions to analyze the understanding of the distributed workforce model and remote working effectiveness. Following is the second hypothesis.

***H2:** There are no significant differences in the means of impact of the remote working environment in banks as per the age/gender of the respondent*

Table 1: Analysis of Differences in Means as per the Banking Work Experience

Test Statistics ^b									
	COVID-19 Lesson: Digital Capability Balancing	COVID-19 Lesson: Digital Capability Enhancing	COVID-19 Lesson: Vulnerable Customer Risk	COVID-19 Lesson Learned: Reduced Outsourcing	COVID-19 Lesson Learned: Increased Outsourcing	COVID-19 Lesson Learned: Insufficient Internal Data	COVID-19 Lesson Learned: Need for a Pandemic Playbook	COVID-19 Lesson Learned: Modified Plan For Employee Wellness	COVID-19 lesson learned: Increased Fraud and Money Laundering Risk
Chi-Square	0.420	10.413	0.773	20.158	40.264	20.515	60.449	0.819	0.620
Df	2	2	2	2	2	2	2	2	2
Asymp. Sig.	0.810	0.493	0.680	0.340	0.119	0.284	0.040	0.664	0.733

a. Kruskal Wallis Test; b. Grouping Variable: Banking Work experience.

Table 2: Analysis of Differences in Means as per the Gender

Test Statistics									
	COVID-19 Lesson: Digital Capability Balancing	COVID-19 Lesson: Digital Capability Enhancing	COVID-19 Lesson: Vulnerable Customer Risk	COVID-19 Lesson Learned: Reduced Outsourcing	COVID-19 Lesson Learned: Increased Outsourcing	COVID-19 Lesson Learned: Insufficient Internal Data	COVID-19 Lesson Learned: Need for a Pandemic Playbook	COVID-19 Lesson Learned: Modified Plan For Employee Wellness	COVID-19 lesson learned: Increased Fraud and Money Laundering Risk
Mann-Whitney U	121.00	129.50	110.00	107.000	121.000	128.000	117.00	132.50	126.00
Wilcoxon W	472.00	480.50	176.00	173.00	472.00	194.00	183.00	483.50	477.00
Z	-0.826	-0.507	-10.220	-10.270	-0.761	-0.545	-0.972	-0.376	-0.598
Asymp. Sig. (2-tailed)	0.409	0.612	0.222	0.204	0.447	0.586	0.331	0.707	0.550
Exact Sig. [2*(1-tailed Sig.)]	0.481 ^b	0.658 ^b	0.285 ^b	0.242 ^b	0.481 ^b	0.635 ^b	0.402 ^b	0.731 ^b	0.589 ^b

a. Grouping Variable: Gender; b. Not corrected for ties.

The first three questions are related to analyzing the effectiveness of remote working and the availability of technological solutions for implementing remote working. Most respondents believe that remote working has been effective and technological solutions have helped enable the same. The fourth and fifth were related to whether remote working is the temporary or permanent phase. Most respondents believe it is temporary and cannot say if it would be a permanent solution going forward. The next five questions were related to various challenges faced in having a distributed workforce model working remotely, like negative impact on on-the-job learning, data-related risks, surveillance of employees, and employee wellbeing. Based on the analysis of the responses, it can be said that the majority agree that the remote working and distributed workforce model has led to many challenges. On-the-job learning, work-life balance, and surveillance of employees are convenient in a traditional office setup. Similarly, there needs to be enhanced monitoring to prevent various data-related issues such as data confidentiality, data privacy, and data leakage.

Table 3 below shows differences in the means of impact of remote working environments in banks as per the respondent's age. The null Hypothesis has been rejected for only data-related issues, so there is a substantial divergence in the means. Most of the people responding in the age bracket of 41 years and above agree that remote working has caused data-related issues. In contrast, more than 50 percent of the respondents in the age bracket of 21–40 either disagree or cannot say if the remote working environment has caused data-related issues. For all the other variables, the null hypothesis has been accepted.

Table 4 below shows differences in the means of impact of the remote working environment in banks as per the gender of the respondent, respectively. Based on the analysis of the results, there is a substantial divergence in the means for the variables of job training and long-run sustainability; hence null Hypothesis has been rejected for these 2 variables and accepted for all the other variables. Most of the females who responded agree that remote working negatively impacts on-the-job learning and is not sustainable in the long run.

Additionally, 7 statements regarding the distributed workforce model and remote working (not effective, temporary phase, negative impact on on-the-job training, data issues, surveillance challenges, increased stress levels, and not sustainable in the long run) were used to perform an exploratory factor analysis and test the following third hypothesis.

H3: *There are no latent underlying structures and all variables of remote working are loaded equally.*

We have utilized Cronbach's Alpha to test the reliability. The alpha of 0.796 which indicates that these variables can pool together to generate key factors and that this research

Table 3: Analysis of Differences in Means as per the Age of the Respondent for the Impact of Remote Working

		Test Statistics									
		Remote Working: Tools And Solutions Available With Banks	Remote Working: Effective	Remote Working: Not Effective	Remote Working: Temporary Phase	Remote Working: Permanent Solution	Remote Working: Negative Impact on On-the-Job Learning	Remote Working: Data Issues	Remote Working: Surveillance Challenges	Remote Working: Increased Stress Levels	Remote Working: Not Sustainable in the Long Run
Mann-Whitney U		123.500	133.500	140.500	129.500	147.500	142.500	79.000	109.000	151.500	155.000
Wilcoxon W		214.500	224.500	440.500	429.500	447.500	233.500	170.000	200.000	451.500	246.000
Z		-1.216	-0.757	-0.519	-0.883	-0.284	-0.449	-20.633	-10.589	-0.155	-0.033
Asymp. Sig. (2-tailed)		0.224	0.449	0.604	0.377	0.777	0.653	0.008	0.112	0.877	0.974
Exact Sig. [2*(1-tailed Sig.)]		0.306 ^b	0.479 ^b	0.626 ^b	0.404 ^b	0.790 ^b	0.672 ^b	0.013 ^b	0.141 ^b	0.888 ^b	0.987 ^b

a. Grouping Variable: Gender; b. Not corrected for ties.

Table 4: Analysis of Differences in Means as per the Gender of the Respondent for the Impact of Remote Working

Test Statistics										
	Remote Working: Tools and Solutions Available with Banks	Remote Working: Effective	Remote Working: Not Effective	Remote Working: Temporary Phase	Remote Working: Permanent Solution	Remote Working: Negative Impact on On-the-Job Learning	Remote Working: Data Issues	Remote Working: Surveillance Challenges	Remote Working: Increased Stress Levels	Remote Working: Not Sustainable in the Long Run
Mann-Whitney U	119.500	140.000	136.500	91.500	117.000	78.500	124.000	140.500	103.500	65.500
Wilcoxon W	185.500	491.000	487.500	442.500	183.000	429.500	475.000	491.500	454.500	416.500
Z	-0.919	-0.105	-0.227	-10.793	-0.906	-2.241	-0.679	-0.088	-1.425	-2.673
Asymp. Sig. (2-tailed)	0.358	0.916	0.820	0.073	0.365	0.025	0.497	0.930	0.154	0.008
Exact Sig. [2*(1-tailed Sig.)]	0.441 ^b	0.935 ^b	0.832 ^b	0.087 ^b	0.402 ^b	0.031 ^b	0.544 ^b	0.935 ^b	0.192 ^b	0.009 ^b

a. Grouping Variable: Gender; b. Not corrected for ties.

Table 5: Total Variance Explained

Component	Initial Eigenvalues		Extraction Sums of Squared Loadings		Rotation Sums of Squared Loadings	
	Total	% of Variance	Total	% of Variance	Total	% of Variance
1	3.200	45.711	3.200	45.711	2.668	38.114
2	1.416	20.227	1.416	20.227	1.948	27.823
3	0.842	12.035				
4	0.514	7.342				
5	0.407	5.816				
6	0.348	4.974				
7	0.273	3.895				
		Cumulative %		Cumulative %		Cumulative %
		45.711		45.711		38.114
		65.937		65.937		65.937
		77.972				
		85.314				
		91.131				
		96.105				
		100.000				

Extraction Method: Principal Component Analysis.

Table 6: Rotated Component Matrix^a

	Main Factors	
	Challenges Related to Remote Working	Remote Working Feasibility
Remote working: Not effective		0.836
Remote working: Temporary phase		0.885
Remote working: Negative impact on on-the-job learning	0.787	
Remote working: Data issues	0.795	
Remote working: Surveillance challenges	0.677	
Remote working: Increased stress levels	0.748	
Remote working: Not sustainable in the long run	0.588	

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. ^aRotation converged in 3 iterations.

has a reliable data set. To explain the reliability statistics – Cronbach’s Alpha is 0.796 for $N = 7$ items (Table 5).

Using the responses to these 7 statements, we have carried out an exploratory factor analysis. It is used to make the information concise and pull out important factors to explain the linkage among the variables. We have performed KMO and Bartlett’s test, and the KMO value is 0.732. Bartlett’s test of Sphericity significance is less than 0.05, indicating that factor analysis can be performed. There were a total of 7 variables that have been utilized in this study and these are now generated as two broad factors. The explaining power of this two-factor solution is 65.937 which is considered good. The first factor i.e., Remote working feasibility reflects that the highest loading is for the temporary phase (0.885) followed by not effective (0.836). The second factor i.e., challenges related to Remote working reflects that the highest loading is for data issues (0.795) followed by a negative impact on on-the-job learning (0.787) and increased stress levels (0.748) (Table 6).

For Hypothesis 3, the null hypothesis is rejected which means that there are latent underlying structures and that all variables of remote working are not loaded equally. To elucidate KMO and Bartlett’s Test results-Kaiser-Meyer-Olkin Measure of Sampling Adequacy (0.732); Bartlett’s Test of Sphericity Approx. Chi-Square is 84.691; degrees of freedom is 21 at a significance value of 0.000.

4. COVID-19 Impact on Banking Regulations

There were various actions taken by the Reserve Bank of India to lessen the burden of debt servicing on corporates. To give an example, as per the RBI circular “COVID-19 – Regulatory Package” dated March 27, 2020, for all term loans, banks were allowed to permit a moratorium of three months on payment of all installments from March to May

2020. As per the above RBI circular, such rescheduling will not qualify as default reporting, thus taking care of the companies and ensuring that this does not impact their credit history.

Additionally, RBI has come up with various measures to reduce the stress on small borrowers and individual borrowers, such as there was a limited window up to September 30, 2021, for permitting lending institutions to implement resolution plans for individual borrowers and small businesses up to aggregate exposure of INR 0.5 billion while classifying the same as standard.

This pandemic is also leading to newer operating models in the long term, for which suitable regulatory reforms would be needed. Unprecedented measures were taken to combat the pandemic situation, like compulsory lockdown, travel restrictions, and various other restrictions imposed during this pandemic worldwide. The staff of the different banks, financial institutions, and their customers were forced to work from home and support business and transactions in this new operating model. The historical risk management models did not envisage this kind of situation. Based on the experience of handling this situation, it can now be said that banks, financial institutions, and their customers have been able to continue operations in this model for a much longer time than expected and were able to manage the volumes.

The economic conditions have been very dynamic, making it difficult for regulators to assess the banks’ health and customers’ health. Communication flow from banks to the regulators and vice versa is crucial to ensure that timely action is taken by the dynamic environment. This led to the regulators coming up with newer ways to perform supervisory analysis for banks and asking for different ad-hoc data to assess the health of the banking loans and other facilities. There were several industries like tourism, hotel, transportation, etc. which were severely affected by this

crisis, and based on the analysis of their earnings and balance sheet, it is important that such information is passed on to the regulators and they take cognizance of this while framing the policy measures. Combating a crisis of this level is only possible with enhanced engagement between banks and their regulators. In addition to analyzing the information provided by banks, regulators should also use information from other sources such as credit information companies, etc. All this will lead to the regulators having a complete and fair picture of the financial position of the bank and its customers so that they can come up with suitable measures to take care of the impact of this pandemic.

Regulatory bodies and governments worldwide have taken a lot of proactive action to reduce the effect of this unprecedented crisis. The most important challenge was to ensure the stability of the financial markets, and institutions to remain resilient, prevent insolvency and overcome this crisis. Such policy stimulus must be kept going till the economy bounces back and there is sufficient vaccination coverage to help build resilience. However, while support is needed to help organizations come on the path to full recovery, it cannot be extended for a very long term to avoid the risk of adverse consequences of perpetually unprofitable firms. Bank's exposures to sovereigns and other non-bank financial intermediaries also pose a big risk.

5. Lessons Learned from COVID-19

Following are some of the lessons learned from the COVID-19 Pandemic which can be implemented by banks to become more resilient in the times to come.

- 1) **Reviewing the Management of Risk:** Banks will need to review to evaluate if the risk management controls are robust enough across all aspects of risk in the new normal situation. This pandemic provided a real-life stress testing scenario. There are several aspects of banking procedures that have been manual intensive along with manual controls. With minimal staff in the office, both for banks and their clients, this very premise has been challenged. Banking procedures in the future will be adapted to fit into the digital and remote working situation. Similarly, the control environment in the future would need to be suitably redesigned to embed preventative and automated controls instead of manual and detective controls. The future risk models need to be more forward-looking and perform scenario analysis of such similar events which could disrupt the economy (for e.g., widespread digital frauds or supply chain disruptions caused due to economies of certain countries being affected adversely due to pandemics,

war, or any other similar disruptions. Accordingly, mitigants would need to be built.

The risk landscape for clients has also undergone changes and banks need to come up with newer tools for managing these risks. For managing Credit Risk, COVID-19 has indicated that earlier risk models will need to be relooked at and adapted to analyze the clients in newer working models. Similarly, Operational risk management needs to be enhanced to adapt to a more digitized world and be able to detect and prevent risks that could arise from paperless transactions. Protection of customer information would be key for banks. Cyber security would become one of the most important risks to manage. To manage such risks, banks need to have suitable analytics tools which can leverage the information stored digitally and highlight exceptions/aberrations for further investigation. Banks need to keep a close watch on the health indicators of customers' businesses and review the risk dashboards to identify any trends or early warnings. This will ensure that the bank is resilient and able to withstand this crisis.

- 2) **The Accelerated Pace of Digitisation:** Technological capabilities currently is one of the reasons the economy as a whole was able to sail through this COVID-19 Pandemic. This situation has also made banks more aware that they should bring about a change strategy and need to focus more on digital acceleration as a way forward, along with the concentration on cost and efficiency. Such digital channels enable the banking services to be remotely accessible by the bank's customers, round the clock, 365 days a year. Acceptance and widespread adoption of digital channels has happened during this pandemic due to the various risks associated with meeting in person and because customers of the bank had their employees working from home. This situation also presents an opportunity for banks to push for digitization which will benefit both the customers and the bank. However, banks with technological infrastructure and capabilities could utilize this opportunity only. Also, there needs to be proper governance for such digital technologies to avoid any data privacy and similar risks.
- 3) **Outsourcing Governance:** Several banks have various activities outsourced to third-party service providers. This has many cost and efficiency benefits. The COVID-19 Pandemic has made banks realize that there is a need to relook at the relationships with third-party providers as the disruption highlighted the risks faced by these entities. Therefore, in addition to cost, facilities provided, and efficiency,

other considerations such as data leakage risks, cyber security, geographical concentration, business continuity, and how the outsourced activities impact the overall risk of the bank need to be also considered while making these decisions. These qualitative aspects would also have a lot of weightage, including the cost considerations. There is also a possibility of the supply chain getting suitably modified considering these considerations. Banks need to look at newer operating models as there would be a lot of focus on costs. However, thorough due diligence and detailed analysis must be performed considering all the above factors to avoid intensifying third-party and outsourcing risks. Additionally, it is important that during such times of stress, banks must demonstrate solidarity, maintain regular communication and assess the changing dynamics in an agile manner with all third-party service providers.

- 4) **Manage Distributed Work Force Model:** A hybrid working model was adopted by many organizations during this pandemic. The success of this hybrid model may lead to banking customers consciously embracing digital working models. Additionally, such working models can lead to savings in real estate costs and employee travel time and reduce the carbon footprint. The success of the hybrid model during this period can lead to organizations reviewing this as a sustainable working model for the future. So, then there is a possibility that corporates would try to re-engineer the corporate office requirements. Working from home is quite different from working from the office. Therefore, leaders may need to learn new skills to engage team members working remotely and successfully inspire them to achieve the objectives and targets (KPMG, 2020). While there are several concerns and challenges in working remotely, technological progress and capabilities are important contributors to the success of this distributed workforce model.
- 5) **Focus on Employee Wellbeing:** When employees work remotely, it may lead to increased burnout and amplified stress levels. The work pressure has also increased, considering there could be some staff away from work due to prolonged COVID illness, and additional controls could be implemented to mitigate the risks of a remote working environment. There are various family pressures, and challenges that are faced due to the various uncertainties created by this situation, lack of help in taking care of children/elder family members is adding to these stress levels. There is no doubt that there would be cost savings and improvement of efficiency in the

remote working setup. However, the question that arises to do with the emotional wellbeing of the employee and whether it is sustainable in the long run. Working from the office is the best way to imbibe the corporate cultures with the employees, enhance the inclusion and the feeling of belongingness among employees, and ensure better on-the-job learning, monitoring, and governance. Human interactions help develop individuals and enable them to grow, a key ingredient missing in the remote working setup. This can have an adverse impact in the long run. There is a lack of clarity to ascertain whether instant messages and video conferencing will help become a complete substitute for the traditional office experience, plus there are apprehensions of it hurting employee wellbeing.

- 6) **Prevent Data Issues:** There are many significant challenges in the remote working environment and data-related issues are at the top of the pyramid. Issues such as data confidentiality, data privacy, and data leakage need to be monitored and suitably dealt with for the staff of the organizations and third-party employees. Employees need to access sensitive applications while working from home using the home internet, which could have lesser security protocols, thereby exposing banks to cyber security and data privacy risks. Organizations need to come up with a suitable control mechanism as a response game plan. Adequate training, constant reiteration, and making them accountable for their actions would be suitably included in this game plan to ensure compliance with these rules.
- 7) **Prevent Money Laundering and Fraud risks:** There has been a significant increase in money laundering and fraud risks due to this pandemic. The pandemic has led to widespread acceptance of digital payment modes due to the imposed lockdowns. While this has various benefits such as increasing the ease of doing financial transactions, furthering financial inclusion, etc; however, the flip side is that it has resulted in fraudsters coming up with different modus operandi, especially for the common people who have very limited digital literacy and are new to using these digital modes of payment. Nowadays fraudsters are coming up with innovative ways to trick such people. Banks need to ensure that they come up with solutions to combat such fraud by building such fraud scenarios for thoroughly analyzing them and then taking steps to mitigate such fraud risks with the help of analytics and customer education. Banks should also strengthen their new account opening checks and controls to prevent

fraudsters from misusing the banking system and prevent them from performing Know your customer (KYC) related frauds. Additionally, banks should leverage data analytics and artificial intelligence to devise preventative controls that will help detect such frauds even before the transaction processing is complete.

- 8) **Helping the customers and economy to bounce back:** COVID-19 pandemic is challenging for the economy as a whole to revive the economy. Banks have a crucial task to restore the financial and business health of the customers. For that, the banks need to understand the needs of their customers and accordingly adapt their strategies and exhibit greater flexibility to suit their customers' needs. This situation has posed a chance for the banks to enhance their digital capabilities to adapt to this crisis (Bellens et al., 2020). This can lead to helping more customers. When banks make positive contributions to help the customers, it will help make a difference to the respective corporates but also help to get the overall economy back on track.
- 9) **Climate Risk:** There is a perception that the pandemic is a consequence of human actions which harmed the environment in the past. Therefore, there is now an increased awareness among banks and corporations to ensure sustainable business operations which do not adversely impact the environment. The focus on green financing has increased substantially for both banks and regulators. Analysis of financial parameters is no longer the only parameter that banks will refer to in the future before providing funding to corporates. In fact, from a sustainability perspective, banks will go forward to evaluate and analyze all the environmental, social and governance-related aspects holistically. Corporations that are conscious of the impact of their actions on the environment and take steps to reduce climate risk and ensure sustainable operations will be in an advantageous position. Banks, while performing stress testing, should consider the different factors of climate risk to achieve an all-inclusive risk analysis, proactively manage the climate risk and avert any crisis in the future.
- 10) **Agile Communications:** The situation during the pandemic had been very dynamic, thereby communication with various stakeholders needed to be tailored and agile. Organizations need to be flexible, responsive, and adaptable to changing circumstances. Regulators were also evaluating the situation and responding to it with appropriate regulatory expectations/instructions

to provide additional adhoc submissions so that they could analyze the pandemic's implications on various organizations and banks. Swift and regular communication with various stakeholders, such as employees, vendors, investors, customers, regulators, etc., was key to managing the uncertainty in this situation and addressing any concerning issues on priority. Both to and fro communication needed to be agile and coherent to overcome the various adverse effects of this pandemic.

6. Managerial Implications

There are several key points noted in this study. Banks need to adjust to a dynamic control environment in the future and focus on strengthening preventative and automated controls instead of manual and detective controls. Additionally, banks need to accelerate the pace of digitization. A thorough due diligence and detailed analysis considering all the aspects of contingency planning, data related issues is vital to avoid intensifying third-party and outsourcing risks. Thanks to the technological capabilities, banks, and their customers have been able to successfully implement the distributed workforce model. However, this does not undermine the importance of human interactions, which help the employees develop and grow. Organizations need to come up with a suitable control mechanism as a response game plan to mitigate data-related risks. Banks can contribute and help the economy bounce back by adapting their strategies to suit their customers' needs.

Analysis of the responses to the questionnaire reflected the following:

- a. Respondents with higher work experience (21 years and above) appreciate the need for a Pandemic playbook more than the other work experience categories (1–10 years and 11–20 years).
- b. Most of the people responding in the age bracket of 41 years and above agree that remote working has caused data-related issues, whereas more than 50 percent of the respondents in the age bracket of 21–40 either disagree or cannot say if the remote working environment has caused data related issues or not.
- c. Most of the females who responded agree that remote working negatively impacts on-the-job learning and is not sustainable in the long run.

The research findings can be useful to bankers, and regulators to strengthen the Operational Risk Management capabilities of the banks. This analysis can also be useful for

conducting further research on the impact of these lessons learned on the social and behavioral impact of employees post-pandemic.

7. Conclusion

COVID-19 is an exceptional situation that impacted banks and companies around the globe due to the economic slowdown. There are various lessons learned and banks have come up with newer operating models including the remote working of staff to handle customer transactions. These lessons would come in handy and help rebuild the Operational Risk Management capabilities of the banks. There are various measures taken by the regulator to revive the economy, and it is essential that banks continue playing a major role in helping their customers get back on the road to recovery. Based on the analysis, it is expected that remote working is a temporary phase, and the majority of the respondents believe that it is not very effective due to the various challenges such as data-related issues, negative impact on on-the-job learning, adverse impact on the long run on the employee wellbeing and increased stress levels. Banks and their customers have now accepted digital technologies more and more, so accordingly the control environment in the future would need to be suitably redesigned with newer controls.

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