

Small entrepreneur of central india in covid-19 pandemic

Desafios enfrentados por pequenos empreendedores no centro da Índia durante a pandemia de covid-19

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ABSTRACT

Objective: This study aims to examine the impact of the COVID-19 pandemic on small entrepreneurs in Central India, focusing on the operational, financial, and strategic challenges faced during the crisis.

Methods: The research employed a quantitative approach, involving interviews with 379 small business owners across Central India. Data collection occurred from July to December 2022, utilizing structured interviews to explore the extent of disruptions caused by pandemic-related restrictions.

Results: The study found that small entrepreneurs faced significant challenges, including disruptions in supply chains, reduced customer demand, and limited access to financial resources. Many businesses struggled to maintain operations due to strict lockdown measures and social distancing rules, which significantly impacted their financial stability and growth prospects.

Conclusions: The findings underscore the vulnerability of small businesses to sudden economic shocks and highlight the need for targeted support measures to enhance resilience among small entrepreneurs. Recommendations for policy interventions include the provision of emergency

financial aid, more accessible credit facilities, and support for digital transformation to mitigate the impact of future disruptions.

Keywords: Central India. COVID-19. Small businesses. Start-ups. Structural Equation Modeling.

RESUMO

Objetivo: Este estudo visa examinar o impacto da pandemia de COVID-19 sobre pequenos empreendedores no Centro da Índia, focando nos desafios operacionais, financeiros e estratégicos enfrentados durante a crise.

Métodos: A pesquisa utilizou uma abordagem quantitativa, envolvendo entrevistas com 379 proprietários de pequenas empresas em todo o Centro da Índia. A coleta de dados ocorreu de julho a dezembro de 2022, utilizando entrevistas estruturadas para explorar a extensão das interrupções causadas pelas restrições relacionadas à pandemia.

Resultados: O estudo constatou que pequenos empreendedores enfrentaram desafios significativos, incluindo interrupções nas cadeias de suprimentos, redução da demanda dos clientes e acesso limitado a recursos financeiros. Muitos negócios lutaram para manter as operações devido às medidas rigorosas de lockdown e regras de distanciamento social, o que impactou significativamente sua estabilidade financeira e perspectivas de crescimento.

Conclusões: Os achados destacam a vulnerabilidade das pequenas empresas a choques econômicos súbitos e ressaltam a necessidade de medidas de apoio direcionadas para aumentar a resiliência entre pequenos empreendedores. Recomendações para intervenções políticas incluem a provisão de auxílio financeiro emergencial, facilidades de crédito mais acessíveis e apoio para a transformação digital para mitigar o impacto de futuras interrupções.

Palavras-chave: COVID-19. Pequenos empreendedores. Centro da Índia. Interrupção dos negócios. Impacto econômico. Resposta à pandemia.

1. INTRODUCTION

1.1. Small business entrepreneurship

The idea of small business ownership is starting a company with the intention of not growing into a massive corporation and concentrating on specific sites, such as retail stores, grocery stores, or restaurants. Risking their financial stability, entrepreneurs devote time and money to developing new products and managing everything from funding and materials to marketing and distribution (Tripathi et al., 2021; Kuratko & Audretsch, 2021). With 42.50 million SMEs accounting for 95% of industrial facilities, self-employed people including independent contractors and business owners contribute considerably to India's economy. These companies, which are frequently unincorporated, are vital to economic expansion because they create jobs and make use of regional resources (Abraham, & Houseman, 2019). When given the right support, small business owners may run industrial facilities

profitably by employing savings and idle resources. Small enterprises that use primitive technology and human labor contribute to economic expansion (Runst & Thomä, 2021; Liguori & Winkler, 2020). Case studies show that many innovative ideas come from tiny businesses, encouraging competition, thwarting the dominance of big businesses, and providing distinctive product options. The inventiveness and growth potential of small firms is highly regarded in developing nations such as India (Smith et al., 2022).

Due to their close relationships to the community, small enterprises promote sustainable and all-encompassing development. They give students the chance to gain practical experience and explore a range of careers (Breier et al., 2021). Small business operations' flexibility allows for more informed decision-making and a sense of urgency in activities.

1.2. Effects of the COVID-19 Pandemic on the small entrepreneur in Central India

The COVID-19 pandemic is still one of the biggest serious disasters that our modern civilization has faced. The governments of the Indian countries that were impacted by the new coronavirus adopted harsh measures such as social exclusion, a broad shutdown, and restrictions on travel, movement, and gatherings of people to limit the spread of the disease and save lives (MacGregor Pelikanova et al., 2021), which has created new challenges for new business owners in central India (Xu et al., 2021). Because of the restrictions imposed by regulations, several businesses in central India were forced to temporarily cease operations, while others were required to do so at a lower capacity (Hammerschmidt et al., 2021). Additionally, since the pandemic's effects were still being felt, these companies had to come up with creative solutions for every facet of their operations (Kuckertz, 2020). Companies had to adjust to the new environment, and government agencies had to start providing focused policy initiatives that provided information, counsel, and funding to help companies. In times of crisis, entrepreneurship is crucial because it helps individuals keep a positive attitude in the face of changing circumstances (Piva & Guerini, 2022), changing people's perspectives and encouraging the identification of chances. When examining two of the comments from the perspective of entrepreneurship and small to medium-sized firms, they become more noteworthy. To begin, on a global scale, government officials have hastened to implement a variety of economic structural reforms to prevent millions of bankruptcies and the closure of small firms (Alessa et al., 2021) while also resuming rapid development and recovery. These initiatives have been made in an attempt to avoid bankruptcy and small business closures (Kariv et al., 2022). Following that, local communities and company owners have formed an alliance that benefits both parties. Furthermore, small businesses and entrepreneurs have shifted their focus to assisting individuals in their communities who are in danger of losing their homes or employment. The COVID-19 pandemic has

resulted in the closure of a significant number of firms, which has caused an unbelievable amount of disruption to trade across the majority of central Indian industry sectors. Retailers and brands are confronted with a plethora of short-term concerns, including issues concerning health and safety, the distribution network, the workers, cash flow, customer needs, sales, and advertising (Connolly & Bank, 2018). However, overcoming these challenges will only raise the chance of succeeding; it will not guarantee a great future or even an existence at all. This is because, should we survive the pandemic, we will rise into a society very distinct from what we knew just before the pandemic. In the central region of India, many marketplaces no longer function, especially those associated with travel and hospitality (Buchanan & Denyer, 2012). Small business owners in central India suffered during the COVID-19 pandemic as a result of a shortage of resources, both financial and otherwise. Producing items requires time, especially for a start-up or small business that is just getting established (Caliendo, 2013). You will need enough money to invest in production equipment and to hire more staff if you want to be able to keep up with the expansion of your customer base (Hamilton, 2000; Torrès, 2021). The things won't be manufactured on schedule if the company doesn't have enough money and resources (Ratten, 2021; Azazz & Elshaer, 2022). This will ultimately result in a shorter time to market, which will cost the organization a substantial amount of potential clients (Krishnan et al., 2022; Dias et al., 2021).

2. REVIEW OF LITERATURE

Numerous studies have explored the impact of the COVID-19 pandemic on small and medium-sized enterprises (SMEs) worldwide (Fubah & Moos, 2022; Akula & Singh, 2021; Lungu et al., 2021; Brown et al., 2020; Liguori & Pittz, 2020; Hair et al., 2010). These studies highlight the challenges faced by entrepreneurs and SMEs during the pandemic, including disruptions in business operations, loss of customers, reduced access to funding, and mental health implications. The role of resilience and innovation in mitigating the effects of the crisis is emphasized (Gautam & Gautam, 2023). Another author studied 122 production firms and classified non-family and family businesses to demonstrate that a company can get a competitive edge and build resilience through its production strategy. Numerous writers have researched small and medium-sized businesses (Salehi et al., 2023). Here, the author used a four-category framework to analyze controlling extreme events and threats and looked at SME partners' perceptions of their own company's current capabilities, including its agility in handling serious events and its technological organization and resources (Salehi et al., 2022). Several researchers have advocated for government initiatives and targeted policies to support small businesses during the pandemic (Lungu et al., 2021). The coronavirus can affect the economy in a variety of ways, particularly for SMEs, which might alter supply and demand. On the supply side, employees must care for their families and children when schools are closed, which may result in

fewer workers available for the company. Locking and isolating patients as a means of controlling disease may worsen the loss in capacity utilization. In addition, supply chains may be broken, which could result in a lack of intermediate and component items (Shafeeq Nimr Al-Maliki et al., 2022). The importance of access to financial resources and funding for small entrepreneurs has been a recurring theme in the literature. Moreover, the pandemic has led to changes in customer behavior and preferences, requiring SMEs to adapt their marketing strategies (Brown et al., 2020). The impact of the COVID-19 outbreak on small businesses and start-ups in central India has been significant. The lockdown measures have posed numerous challenges for these self-employed individuals, including limited availability of resources and funding support. A descriptive study was conducted, interviewing 375 business owners in central India, to understand the difficulties they faced. The findings highlight the negative effects of the pandemic on small entrepreneurs in terms of disrupted distribution systems and financial constraints. The study aims to help small and medium enterprises (SMEs) develop a positive entrepreneurial mindset, utilize their social capital, and innovate to sustain their businesses during the crisis (Acquaah, 2011). Overall, the literature indicates that SMEs, particularly early-stage startups, have faced significant challenges during the pandemic, making financial planning, resilience, and adaptability crucial for their survival. Understanding the impact of the pandemic on small entrepreneurs in central India can inform policymakers and business owners in managing and navigating future crises effectively (Wickramasekara & Baruah, 2013). The author focuses on the advantages and difficulties associated with startup funding in India. They also reviewed data that was gathered inadvertently from some sources, such as the internet, journals, newspapers, etc. Startups help to create jobs and expand the economy. In India, the COVID-19 pandemic has created difficulties for startup funding. Further, the implications of PEST (political, economic, social, and technical) developments on the Indian business environment during COVID-19 are examined in this article, along with suggested policy adjustments to strengthen the resistance mechanism. Using the PEST paradigm, the study investigates the implications of COVID-19 on the Indian business environment. Suggestions for changing the law to strengthen firms' resistance mechanisms. The authors of this paper discuss the key success criteria in terms of management strategies and critical management practices that are critical for a sustainable supply chain. They also identify the critical success factors for sustainable supply chains among small and medium-sized enterprises in the plains and hills of Uttarakhand (Rana & Joshi, 2023).

The existing literature suggests a crucial aspect of exploration, urging consideration of the entrepreneurial-level financial repercussions of crises, providing valuable insights into the intricate dynamics of entrepreneurs' mental health. While prior studies predominantly concentrated on specific challenges encountered by SMEs during the COVID-19 pandemic (Afshar et al., 2020). Our research stands out by adopting a broader perspective. In doing so, our study seeks to make a meaningful

contribution to the field by offering practical assistance to SME managers and owners. Our findings are designed to guide them in formulating effective policies and operational strategies applicable to SME units in India, spanning both manufacturing and service sectors (Liguori & Pittz, 2020). In summary, the literature consistently underscores the profound significance of entrepreneurship and the SME sector in Central India (Polas & Raju, 2021). This collective body of work emphasizes the critical imperative of providing support and strategic planning, particularly in times of crises such as the COVID-19 pandemic. Small entrepreneurs in Central India are consistently portrayed as pivotal contributors to the nation's economic growth, reinforcing the notion that nurturing their resilience and innovative spirit is indispensable for establishing a sustainable and thriving business ecosystem (Mason & Hruskova, 2021).

3. RESEARCH METHODOLOGY

The goal of this study is to investigate small business entrepreneurship using quantitative methods. The difficult and changing environment, driven by circumstances such as the COVID-19 epidemic and the lack of a standardized scale, required the use of a quantitative technique to properly address the study topics. The data was collected using a single cross-sectional design over a year, from July 2022 to December 2022. A questionnaire was used to collect the essential data for the study, which was mostly based on the current literature on this topic. One of the primary benefits of using Structural Equation Modeling (SEM) is its capacity to comprehend the correlations between various variables and extrapolate the results to the target population. SEM delivers more trustworthy construct-level results by permitting the use of numerous indicator variables for each construct at the same time. SEM stands out as a sturdy strategy when compared to other analysis methods that may need more elaborate procedures or deliver less conclusive results. Furthermore, as with the correlations detected across variables, the findings drawn concerning interactions between constructs are completely reliable and unaffected by measurement mistakes. SEM is used in the study since we are analyzing numerous latent constructs. There were 20 questions, each with a Likert scale of 5 stars. According to Hair et al. (2010) for latent values less than or equal to 5. Each latent construct has at least three items. A sample of 100 is sufficient. Due to the entrepreneurs' busy work schedules, we were only able to conduct a small number of well-planned semi-structured interviews. To gain a better understanding, it is best to conduct qualitative research. This study analyzes the challenges faced by small businesses in India functioning in complicated and uncertain circumstances during the COVID-19 pandemic.

3.1 Hypothesis Development

SMEs have historically relied on customer loyalty and retention as a cornerstone of their business sustainability. In this research, the authors use a mixed method analysis that combines qualitative and quantitative methods to identify and analyse the impact of the COVID-19 pandemic crisis in Indonesia through the risk management of SME performance in Indonesia. Qualitative and quantitative mixed methods are used in mixed method analysis; quantitative techniques combine descriptive statistics while qualitative methods combine literature reviews. Determining and evaluating the COVID-19 pandemic crisis's effects on Indonesia's SME performance. Highlighting the necessity for SMEs to implement better risk management techniques (Mansur et al., 2023).). The writers of this paper have talked about how small business owners were able to adapt to the COVID-19 pandemic by using e-marketing strategies, and how they will continue to do so to further the growth of their firm, shop, or store. The COVID-19 pandemic affected MSMEs, which resulted in company closures. E-marketing tactics contributed to MSMEs' survival and increased output (Wan et al., 2023). In this paper, the financial resilience of green Small and Medium-sized Enterprises (SMEs) in Italy during the COVID-19 epidemic is analysed, and the influence of being "green" as a reaction to fluctuation in the business environment is explored (Bello & Tijjani, 2022). To identify the six challenges that arise when applying digital marketing, the authors of this research employed a literature review methodology that draws on several prior studies. These challenges include a lack of personnel skills, delivery issues, payment issues, content development, customer happiness, and funding (Sufyati & Ariani, 2023). The COVID-19 pandemic has accentuated the importance of retaining existing customers due to the economic uncertainties and reduced opportunities for acquiring new customers.

H1- There is a significant impact of the issue of customer retention by SMEs in the face of the COVID-19 pandemic.

The lack of funds has indeed had a significant impact on SMEs during the COVID-19 pandemic. Access to financial support, prudent financial management, and innovative financing strategies have played crucial roles in helping SMEs weather the financial challenges posed by the pandemic. A major effect of the COVID-19 pandemic on SMEs has been the absence of funding. Numerous SMEs encountered a drop in sales as well as financial difficulties, which had an impact on their viability and capacity to satisfy liquidity requirements (Wang, 2023). There was a bias in favour of financially healthy SMEs as seen by the reduced likelihood of subsidies and guaranteed loans being granted to SMEs with lower revenues and financial fragility (Xie et al., 2023). Many SMEs in

Indonesia suffered losses as a result of the pandemic's reduced sales and operational time restrictions (Kumar & Asthana, 2023). However, by embracing Internet sales and putting risk management techniques like cultural norms and health precautions into practice, several SMEs were able to recoup their losses. Overall, SMEs have faced several difficulties due to a shortage of funding throughout the pandemic, underscoring the necessity of government assistance and creative solutions to guarantee their recovery and sustainability. The literature underscores the importance of financial resilience and adaptability as key factors for SMEs striving to survive and thrive in an uncertain economic landscape.

H (2a) - There is a significant impact of lack of funds by SMEs in the face of the COVID-19 pandemic.

Literature surveys reveal that SMEs are experiencing difficulties in sourcing of funds which in a process hinders the acquisition of skills and resources needed to penetrate the markets. As pointed out by Abdulsaleh & Worthington (2013), much significance is attached to the finance for the development of SMEs and associated increase in the business profitability, promotions of innovativeness, and economic development. This gives credence to the role of financial resources in availing the human skills and physical facilities required in the running of the enterprise.

In addition, Zarrouk et al. (2020) stated that awareness levels of financial constraints, challenges experienced in an effort to obtain bank financing, and legal problems affect the business performance of SMEs adversely. This shows that the issue of cash flow shortage is not only limited to the small business owners having to bear all sorts of costs but also hampers their ability to get enhanced returns and therefore grow their business. Moreover, Watson (2006) elaborates how a shortage of funds is another drawback that negatively impacts the growth and development of SMEs as the business entities compared to big business which often avail credit facilities to enhance their growth and development.

In addition, Ugwu-Oju et al (2020) also note the problems of SME's in accessing government funding schemes dwindle through inadequate funds which often limits SMEs accessibility of financial support for their growing and improved development. Such findings imply that SMEs require capital from sources outside the normal business operations and external interference such as government interferences to get sufficient capital to boost their skills and abilities. Marimo and Chimedza (2022) further corroborate this point through their study which revealed a scarcity of funds as the leading factor hampering the functioning and expansion of Small and Medium Enterprises.

Moreover, Turyakira (2018) also agrees with the points of how SMEs are financially challenged in terms of executing ethical measures, proper information, and actual allies to support their move, all of which supports the way that financial limitations affect different facets of the SME companies. Janoskova & Kral (2021) also note the lack of internal funding for SMEs pointing to the

fact that adequate external funding sources must be sought and identified to finance innovation projects and subsequent business continuity. This shows how there is need for outside funding that can assist SMEs acquire the skills and facilities needed for innovation and growth.

H (2b) - There is a significant impact of lack of funds on problem of accessing skills and resources by SMEs

The paper seeks to investigate on the effects of inadequate funds in the use of customer retention approaches by SMEs such that it become a major factor that hampers the growth of businesses in retaining their clientele. Ciunaka-Shulesko, C., & Aberts, T. (2017) also supported the Customer Retention Orientation arguing that it positively impact on the overall SMEs business performance. If SMEs employed the concept of retaining the existing customers then they can increase the loyalty levels of the customers, which in turn help them to achieve better results on their financial performance. This goes a long way to explain why there is need to encourage the management to engage in activities that supports the attainment of goals of customer retention since it may prove difficult to SMEs due to lack of capital. Anning-Dorson (2021) reflects great ideas regarding the levels of customer involvement and their impact on financial costs in SMEs. Insofar as customers are actively engaged the level of customer satisfaction and service quality is likely to improve; it must, however be noted that engagement leads to costs for SMEs. This shows that SMEs are in a dilemma whether to engage its customers or be Minds about the limited funds available to spend on customer engagement. The study implies that customer retention is a significant concern that requires efficient and effective management of available resources to guarantee long term stability without compromising the establishment of sustainable SMEs. Also, Turyakira (2018) suggested that due to the inadequate ethical culture submitted among the owners of SMEs, there may be adverse effects towards customer loyalty and brand development. Ethics are also very significant in customer retention since consumers will always trust and support a business which displays ethics and has principles and moral standards. Hence, obstacles that prevent SMEs from investing in ethical practices are closely associated with the degree to which firms can loyal customers and establish a robust brand image. Also, Subanidja & Legowo (2019) also point out that funding issues dominate the challenges that affect SMEs than the larger firms in regard to performance. Lack of funds may limit the SMEs from adopting sound customer retention management mechanisms like purchase of CRM systems and offering customers' rebates. This goes a long way in explaining why the turnover and engagement of clients have become a daunting task for most SMEs, given the fact that they largely operate under a very tight budget that hampers their functioning. Additionally, Chen et al. (2019) elaborate on the impact of financial problems on a possibility for SMEs to invest more in research and development

(R&D), which plays an important role in innovation and maintaining market positions. Depending on the available capital, the SMEs cannot introduce improved products or services to the market and generate traffic. This partly explains the effects of limited finances on the capability of SMEs as well as their customer retention mechanisms. Therefore, drawing from the literature review, lack of funds plays a serious role in the solution to the problem of customer retention by SMEs. Lack of capital hinders SMEs' ability to fund customer loyalty programs, ethical solutions, and innovation, all of which play an essential role in loyalty and sustainable business development. Thus, the management of SMEs should develop ideas on how to come out with innovative solutions to obtain funding so as to fix the financial issues affecting the business while at the same time improving on customer retention initiatives that will usher in success in competitive environments.

H (2c) - There is a significant impact of lack of funds on issue of customer retention by SMEs.

The reduced access to markets has indeed had a significant impact on SMEs during the COVID-19 pandemic. The ability to adapt through digitalization, diversification, and government support has been crucial for SMEs striving to maintain and regain market access.

The COVID-19 pandemic has a major effect on SMEs' ability to reach the market. Numerous SMEs have suffered losses as a result of the pandemic's reduction in sales and limitations on operating hours (Rana & Joshi, 2023). SMEs have also encountered challenges in putting digital marketing plans into practice, including staff skill gaps, delivery concerns, and payment problems. On the other hand, SMEs who have adapted to the epidemic by moving operations online and changing their products and procedures have raised their chances of being approved for fresh credit from commercial and government banks. To improve customer intent to shop and boost sales turnover, SMEs must make use of digital sales channels and online platforms, like marketplaces (Apriani et al., 2023). The literature highlights the importance of strategic planning, flexibility, and resilience as key factors for SMEs looking to navigate the complex and evolving market conditions posed by the pandemic.

H (3a) - There is a significant impact of less access to the market on SMEs in the face of the COVID-19 pandemic.

This paper is concerned with the effects of market access on customer loyalty by these SMEs, a critical determinant of these companies' customer bases. There are still published researches that explored the propositions between the market access and customer retention and the problems and effects that SMEs encounter in this specific field. Thus, Ciunaka-Shuleska et al, (2017) note the importance of customer retention orientation for SMEs that has a direct positive effect on customer

loyalty, and financial performance. This means that when SMEs are able to manage their priority of maintaining current customer satisfaction, their business performances will definitely elevate. However, the access to the market is usually limited and this can in one way or the other affect the ability of SMEs to capture their customers, thus, their ability to develop long-term relationships with them may also be impacted negatively. Additionally, Heiens et al. (2019) note that challenges to the development of effective customer relationships in the market are raised by the SME's entrepreneur. In the light of the argument presented in the work it is possible to imply that innovative solutions could be significant for SMEs in terms of customer retention under the condition of the limited access to the markets. This explains why it is necessary to look for other ways of capturing and nurturing the attention of the customer base when market coverage is not very broad. Also, Sayekti & Soliha (2016) have revealed the role of competitiveness and marketing access on the SME performance discovering the network capability. This means that limited market access equally has the potential to directly impact on the rates of customer retention and in the process compromise the performance of the business due to lowered competitiveness. The research examined the dynamic relationship between market access, consumer loyalty, and SME performance and inferred that to improve consumers' trust and SME profitability, SMEs have to address the barriers to market access. Furthermore, Makhitha (2019) discusses the necessity for suitable marketing strategies to overcome market access challenges faced by SMEs, particularly in reaching target markets. Craft producers who lack market access must develop effective marketing strategies to navigate this barrier, underscoring the critical role of marketing in addressing market access limitations and supporting customer retention efforts.

H (3b) - There is a significant impact of less access to the market on the issue of customer retention by SMEs.

The third determinant involves public access to the market a key factor that must be tackled in order to unlock the challenges on skill and resource access by SMEs. Market on the other hand work as a vital determinant of the sustainability of SMEs and according to the literature, the biggest problem of SMEs is the access to finance (Gareth ET AL., 2022; Tino et al., 2017) . Nigeria and SMEs; a particular case whereby the capital market influences the overall system and how the latter affects the access of SMEs to finance as far as market orientation is concerned (Veli et al., 2019) . In addition, it can be noted that by participation in the gig economy, SMEs can quickly obtain resources by collaboration, which is also proof that it is necessary to focus on the development of effective resource management and control as a way to overcome organizational factors such as financial, managerial, and social capital constraints (Hala et al., 2105). Thus, improve the framework of market access for SME to bring the tools and different skills which will help to develop to them a proper strategy and

carry on their further growth. Restricted market access influences the resource availability for acquisition by the SMEs through affecting their financial credit, procurement of contracts and market intelligence (Mary et al., 2013). Whereupon, there are SMEs operating in environments that have various constraints on market access and therefore, lack adequate business connections with larger firms which restrain them from accessing private capital and the most important market information. However, limited market access quells the chances of securing financing for the firm's production, exporting, and business expansion. However, Information and Communication Technology (ICT) provides hope by presenting possibilities for SMEs to develop market access, promote communication, discover new and cheap markets, and ultimately possibly reduce the impact of market access constriction in the procurement of resources (Veli et al., 2019; Tino et al., 2017)

H (3c) - There is a significant impact of less access to the market on the problem of accessing skills and resources by SMEs.

While there is limited literature directly addressing the problem of accessing skills and resources for SMEs during the COVID-19 pandemic, related research suggests that SMEs may have encountered challenges related to workforce skills, training, digital readiness, and resource constraints. In this article, the authors used an online survey with representatives from 490 SMEs in Argentina, Costa Rica, Ecuador, Mexico, and Uruguay to examine the effects of digital maturity factors on the degree of development of SMEs in Latin America. The analysis was done using hierarchical regression and structural equation modeling (Cerda et al., 2023). The impact of these challenges on SMEs' resilience and ability to adapt to the pandemic's disruptions remains an area of interest and may require further investigation as the economic repercussions of the pandemic continue to unfold. This article presents the construction of a model through the integration of a Bayesian network and an upgraded Dempster's rule of combination. The former is based on the weight assignment and matrix analysis approach. The paper's literature evaluation centres on tracking the risk of SMEs shutting down during the pandemic. The review, which is broken up into four sections, covers the fusion approach that was employed to get the outcomes of the expert evaluation (Acquaah et al., 2011).

H4- There is a significant impact of the problem of accessing skills and resources on SMEs in the face of the COVID-19 pandemic.

Data collection

379 entrepreneurs from a diverse range of industries who focus on either domestic as well as regional trade were interviewed. It was decided to design a schedule for semi-structured interviews. The total number of questions was centered on the topic of how COVID-19 affects small entrepreneurs in central India. Applying PLS-SEM consists of two elements: the measurement model used to estimate the reliability and validity of the scale, and the structural model used to evaluate the relationships between the research constructs and hypotheses to be tested (Hair et al., 2014; Manley et al., 2021).

4. RESEARCH RESULTS

4.1. Pandemic hurt business operations

Table 1.1 presents the survey results regarding the impact of the Pandemic on business operations among entrepreneurs. Approximately 85.3% of respondents acknowledged that the COVID-19 situation hurt their businesses, while 14.7% expressed that it did not. Thus, a significant majority of entrepreneurs agree that the Pandemic had a detrimental impact on their businesses. The same has been come true using the hypotheses testing.

4.2. Post-COVID, the distribution network of small businesses has been badly damaged.

The data presented in Table 1.2 indicates that 70.39% of entrepreneurs believe that the distribution network of small businesses has suffered significant damage post-COVID. In contrast, 29.61% of entrepreneurs do not share this perspective. Hence, the majority of entrepreneurs agree that COVID-19 has adversely affected their distribution networks.

Table No. - 1

1.1 The pandemic hurt business operations	
Frequency	Percentage
323	85.3%
56	14.7%
379	100%
1.2 Post-COVID, the distribution network of small businesses has been badly damaged	
Frequency	Percentage
267	70.39%
112	29.61%
379	100%

4.3 Data Analysis

In this section statistical technique was used for the analysis of data. The suggested structural model was analyzed with (PLS-SEM) partial least squares structural equation modelling using Smart PLS 4 software. PLS-SEM works effectively even with the complex model, with no restriction on the assumption of data, and with a small sample gives better results.

4.4 Assessment of model

Cronbach's alpha, composite reliability and average variance extracted from all the variables exceeded the recommended thresholds of 0.7, 0.7, and 0.5, respectively, as presented in Table 3. This demonstrates the robust reliability and validity of the variables. Furthermore, the square root of each variable's AVE pertains to discriminant validity (Fornell & Lacker, 1981) was found to be lower than the correlations among variables. Additionally, the cross-loadings of items were higher than their corresponding cross-loadings, in line with the approach advocated by (Hair et al., 2010) to further establish discriminant validity.

Table No. – 2

The AVE, C.R, and Cronbach's alpha table					
Constructs	Items	Outer loadings	Cronbach's	C.R	(AVE)
COV	COV1	0.824	0.850	0.858	0.625
	COV2	0.814			
	COV3	0.796			
	COV4	0.722			
	COV5	0.789			
ICR	ICR1	0.879	0.860	0.860	0.781
	ICR2	0.881			
	ICR3	0.892			
LAF	LAF1	0.874	0.903	0.905	0.775
	LAF2	0.894			
	LAF3	0.862			
	LAF4	0.890			
LAM	LAM1	0.551	0.718	0.822	0.644
	LAM2	0.903			
	LAM3	0.901			
PASR	PASR1	0.533	0.702	0.806	0.633

	PASR2	0.902			
	PASR3	0.896			

(Where, COV= COVID-19 impacts on SMEs, ICR= issue of customer retention, LAF= lack of funds, LAM= less access to the market, PASR= problem in accessing skills and resources).

Table No. 2 above provides a summary of the statistical results for various constructs and their corresponding items. Firstly, for the construct COV, COV1 exhibits the highest outer loading at 0.824, indicating a strong relationship between the construct and the item. The construct exhibits a satisfactory Cronbach's Alpha of 0.850 and a Composite Reliability (C.R) of 0.858, both exceeding the recommended threshold of 0.7, demonstrating good internal consistency. The Average Variance Extracted (AVE) for COV is 0.625, which is above the minimum threshold of 0.5, and the p-value should be less than 0.05, confirming adequate convergent validity. Moving on to the ICR construct, ICR1 has a notably high outer loading of 0.892, suggesting a robust association with the construct. The construct boasts a Cronbach's Alpha of 0.86 and a Composite Reliability (C.R) of 0.860, meeting the reliability criteria. The AVE for ICR is 0.781, indicating satisfactory convergent validity. For the LAF construct, LAF1 demonstrates a strong outer loading of 0.894. The Cronbach's Alpha for this construct is 0.903, and the Composite Reliability (C.R) is 0.905, both exceeding the recommended threshold, affirming its internal consistency. The AVE for LAF is 0.775, confirming its convergent validity. Moving to the LAM construct, LAM1 has an outer loading of 0.551, while LAM2 and LAM3 show substantial loadings of 0.903 and 0.901, respectively. The Cronbach's Alpha for LAM is 0.718, which is acceptable, but the Composite Reliability (C.R) is notably high at 0.822. The AVE for LAM is 0.644, suggesting adequate convergent validity despite the lower loading of LAM1.

Finally, for the PASR construct, PASR1 has an outer loading of 0.533, and the other items, PASR2 and PASR3, exhibit loadings of 0.902 and 0.896, respectively. The Cronbach's Alpha for PASR is 0.702, and the Composite Reliability (C.R) is 0.806, both meeting the reliability criteria. The AVE for PASR is 0.633, and the p-value is more than 0.05 indicating unacceptable convergent validity. The hypotheses tested in this study aimed to assess the impact of the COVID-19 pandemic on various aspects of Small and Medium-sized Enterprises (SMEs).

From Table No. - 3 below firstly, H1 pointed out that there was issue of customer retention by SMEs during pandemic. The analysis revealed a mean value of 0.494 and a remarkably low p-value of 0.000, leading to the acceptance of H1. This result suggests that the COVID-19 pandemic substantially impacted by the issue of customer retention within SMEs.

Similarly, H (2a) hypothesized that there was lack of funds for SMEs. The data yielded a mean value of 0.494 and an exceedingly low p-value of 0.000, resulting in the acceptance of H (2a). This indicates that the COVID-19 pandemic significantly impacted by financial resources available to SMEs.

H (2b) hypothesized that there was a significant impact of lack of funds on problem of accessing skills and resources by SMEs. The data yielded a mean value of -0.016 and an exceedingly high p-value of 0.415, resulting in the rejection of H (2b). This indicates that lack of fund was significantly impacted problem of accessing skills and resources by SMEs.

H (2c) hypothesized that there was a significant impact of lack of funds on issue of customer retention by SMEs. The data yielded a mean value of 0.465 and an exceedingly high p-value of 0.000, resulting in the acceptance of H (2c). This indicates that lack of fund was impacted by issue of customer retention by SMEs.

Table No. -3

Results of direct effect					
Hypothesis	Relationship	Mean	Std. Dev.	p-value	Result
H 1	ICR → COV	0.483	0.034	0.001	Accepted
H (2a)	LAF → COV	0.370	0.036	0.000	Accepted
H (2b)	LAF → PASR	-0.016	0.019	0.415	Rejected
H (2c)	LAF → ICR	0.465	0.048	0.000	Accepted
H (3a)	LAM → COV	0.558	0.034	0.003	Accepted
H (3b)	LAM → ICR	0.251	0.051	0.000	Accepted
H (3c)	LAM → PASR	0.896	0.021	0.000	Accepted
H 4	PASR → COV	0.083	0.039	0.025	Accepted

Note $p < 0.001$ and $p < 0.001$

Moving to H (3a), hypothesized that there was a significant impact of less access to market during COVID-19 by SMEs. The mean value obtained was 0.558, and the p-value was 0.003, leading to the acceptance of H (3a). This indicates that the COVID-19 pandemic significantly impacted by the less access to market by SMEs.

Similarly, H (3b), hypothesized that there was significant impact of less access to the market on the issue of customer retention by SMEs. The mean value obtained was 0.251, and the p-value was 0.000, leading to the acceptance of H (3b). This indicates that the less access to market was significantly impacted by issue of customer by SMEs.

And, H (3c), hypothesized that there was significant impact of less access to the market on the problem of accessing skills and resources by SMEs. The mean value obtained was 0.896, and the p-value was 0.000, leading to the acceptance of H (3c). This indicates that the less access to market was significantly impacted problem of accessing skills and resources by SMEs.

However, H4 hypothesized that there was a significant impact of the problem of accessing skills and resources on SMEs in the face of the COVID-19 pandemic. The mean value obtained was

0.083, and the p-value was 0.025, leading to the acceptance of H4. This indicates that the COVID-19 pandemic significantly impacted by problem of accessing skills and resources by SMEs.

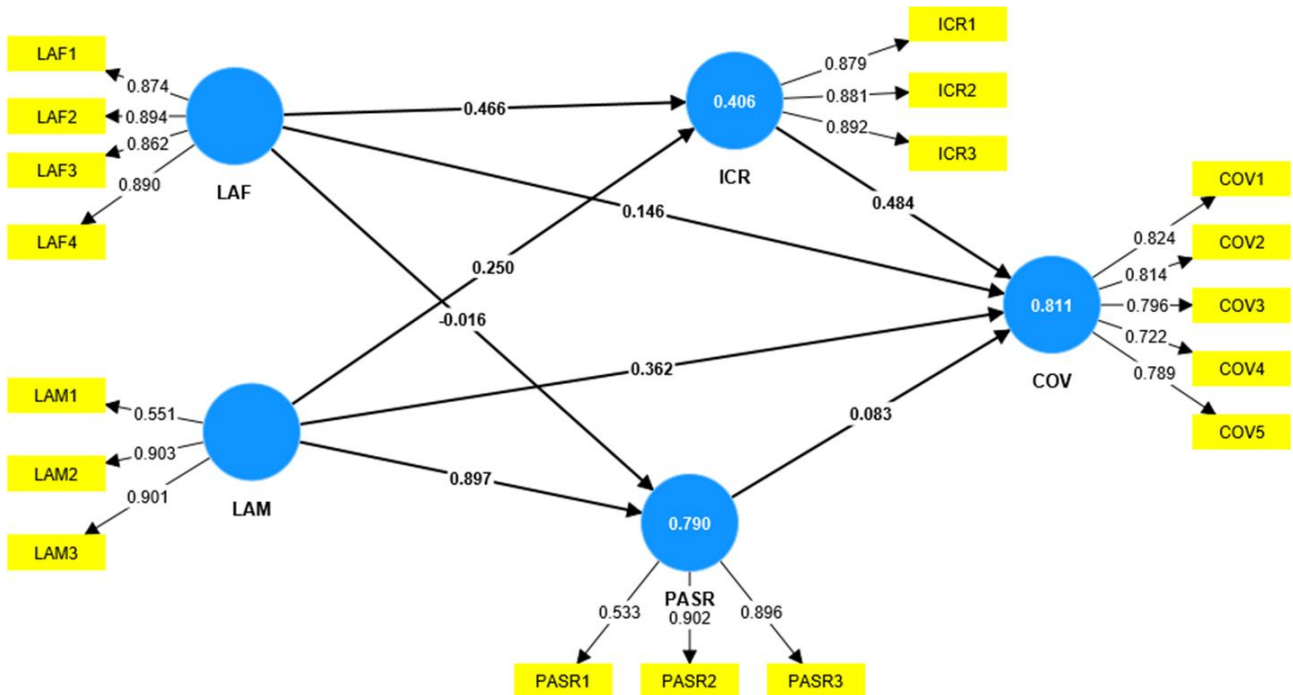


Figure 1- Result model

5. DISCUSSION

The COVID-19 pandemic had a profound impact on small and medium-sized enterprises (SMEs) in Central India, bringing them closer together as they struggled to cope with the unprecedented challenges it posed. During the pandemic, SMEs faced a multitude of short-term issues, including difficulties in managing their distribution networks, cash flow, customer needs, and marketing strategies. This made it exceedingly challenging for small business owners to grow their companies during the pandemic, with cash flow emerging as a significant concern and the backbone of their operations (Brown et al., 2020).

Compared to larger firms with ample resources, small business owners were more vulnerable and faced greater difficulty in covering their daily running expenses. The effectiveness of their distribution channels was compromised during the pandemic, resulting in issues with customer retention. Many small entrepreneurs found it hard to sustain their businesses during and after the pandemic due to a lack of finance and restricted access to the market. Only those with sufficient financial reserves managed to stay afloat (Mason & Hruskova, 2021; Lungu et al., 2021).

6. CONCLUSION

Our study reveals that nearly 85.3% of small entrepreneurs in central India were negatively affected by the COVID-19 pandemic. It highlights the crucial role of access to finance, market access, compliance challenges, skills and resource accessibility, and customer retention in determining the impact of the pandemic on entrepreneurs. This study contributes to the advancement of science and knowledge, as it is the first to examine the specific effects of COVID-19 prevention and panic on entrepreneurs in central India. Understanding the relationship between the pandemic's impact and various factors affecting entrepreneurs will be beneficial for them and can aid in devising strategies to support SMEs during times of crisis. We presented five hypotheses, and our findings support four of them. First, consider how financing affects marketing decisions. During the COVID-19 epidemic, enterprises relied heavily on technology to survive of Bido et al. (2014). According to our findings, there are issues with accessing skills and resources (PASR) and customer retention (ICR). Through the deployment of technologies during and after the COVID-19 epidemic, entrepreneurs feel a stronger commitment to future generations.

7. RESEARCH LIMITATIONS

The study was conducted in central India which makes its applicability in other parts of the country a bit difficult.

The study samples are only small entrepreneurs from central India, based on its result we cannot predict the outcome of medium entrepreneurs of the same nature (manufacturing or services). The time for the study was limited (i.e. July 2022 to December 2022).

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