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ADVANCES IN GLOBAL SERVICES AND RETAIL MANAGEMENT

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Dr. Cihan Cobanoglu

Dr. Valentina Della Corte



Co-Editors

Dr. Cihan Cobanoglu, University of South Florida, USA

Dr. Valentina Della Corte, University of Naples Federico II, Italy

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Saving Grace: Digitization to Stay or Address Crisis?

Smitha Vasudevan

School of Sciences Arts, Media and Management
Karunya Institute of Science and Technology, India

Abstract

As the successive waves of lockdown brought the shutters down on all business, small and medium businesses have had to address acute loss of business. The disruptive changes occasioned by Covid 19 pandemic has resulted in the use of digital technologies to mitigate the challenges (Richter, 2020). This paper examines how small retail businesses have integrated digital tools to manage the crisis, and whether this will add long term value for their business. Digitization offers SMEs opportunities to improve efficiency of operations and effectiveness of their customer relationships. Covid-19 has been a shock to the sector, and had a rapid digital learning curve as the normal methods of operations had to be ceased or reduced. This study was conducted among SMEs in India to understand their use of digital technology, and how Covid 19 has impacted the digitization. Response was collected through an online survey. Digitization was accelerated by the pandemic, specifically to access customers and to maintain business operations. On the front end, digital payment options were enhanced for the convenience of customers, just as businesses started leveraging social and messaging platform for accepting orders, and showcasing promotional offers. Digitization was even more pronounced for back-end operations and vendor management.

Keywords: small and medium business, digitization, COVID-19, India, retail, SME

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Introduction

As the second wave of Covid 19 hit India in April, 2021, the cautious optimism that marked retailers have taken a further slide. The industry had been aiming at 85% of the pre-pandemic level of business in 2021 (BusinessToday, 2020), but the local restrictions imposed in many parts of the country would affect this prediction. The retail sector would need extensive support and rapid transformation to weather these repeated onslaughts on its operations. Physical footfalls at the stores have witnessed and is continuing to witness a sharp drop and consumer confidence, which is a major motivator for retail shopping, is low (Huck, 2021). 0.6 million small enterprises are estimated to have shut down in the first two months of the lockdown in 2020, and to prevent a further catastrophe of this dimension, small retailers must digitize their businesses (Kapuria & Nalawade, 2021).

It has been widely acknowledged that sustained growth of small and medium enterprises (SME) are the backbone of local economies. SMEs have therefore attracted policy interventions and support to improve and sustain themselves. They have received research interest as evidenced by academic literature on SMEs. Digitalization, as effected by Covid 19, has not been occasioned by a conscious and structured business transformation process. The need to effect a digital

transformation, in a matter of weeks or days, was the crux of staying operational during the pandemic and its disruptive changes (Priyono, Moin, & Putri, 2020). The adoption of digital technologies by SMEs have been explored in detail by previous researchers, both in deploying the advantages of digitizing their operations (Doyle & Cosgrove, 2019; Nwaiwu, Duduci, Chromjakova, & Otekhile, 2020; Azam, 2015) as well as the use of interactive digital technologies in accessing and maintaining a relationship with their customers (Derham, Craff, & Morrish, 2011; Abu Baker, Ahmad, & Ahmad, 2019; Basri & Siam, 2019; He & Negahban, 2018). However, SME industry has had limited success with the use of technology and has not been able to leverage its advantages completely. The unique acceleration achieved by Covid 19 controls in accelerating digitization is the primary theme of the current study, and differs from previous literature as the process of technology transformation has been different.

As Covid 19 restrictions were imposed in most of the countries from March, 2020, businesses across the world opened their eyes to an uncertain and unprecedented reality. The year ahead had been chartering completely unknown waters for small and medium establishments. During the first period of restrictions, they were largely unable to operate, and then enhanced restrictions made the usual business practices difficult. This has largely necessitated the use of technology for operations as well as customer engagement. It is estimated that one million kirana stores (small retail stores) went digital in India post the pandemic (Shashidhar, 2021). This sector, largely catering to grocery and located in smaller towns and villages, account for close to 90% of the grocery retail sector in India. There is an estimated 12 million kirana stores in India, which are often family run small enterprises (Kapurja & Nalawade, 2021). This study explores the use of technology in the SME sector in India and the impact of Covid 19 on accelerating this change.

Literature Review

Small and Medium Business in India

The MSME (Micro, Small and Medium scale Enterprises) sector has contributed to 45% of the industrial production, 40% of the exports and 37.54% to the GDP of India, in addition to its significant impact on employment generation and inclusive growth (SME chamber of India, 2020). Compared to its neighbouring countries, SMEs in India have more access to finance and infrastructural support. However, customs and trade regulations are still seen to require more changes (Khandkar, 2014). Researchers have attributed the success of SMEs to both the influence of the entrepreneur as well as the external and environmental factors like economic conditions and policy framework (Krishnan, 2017). Technological innovation has the potential to drive growth of individual enterprises at the micro level and the impact of both process and product innovations can help accelerate the impact (Subrahmany, Mathirajan, & Krishnaswamy, 2010). Both India's service sector and its MSME business have high potential for future growth with digitization (Maiti & Kalyal, 2017).

Digitization of Small Businesses

Digitization is a major trend that can have impact on the current and future prospects of SMEs (Speece, Tiangsoongnern, & Roenjun, 2018). Organisations are deploying Information and Communication technologies (ICT) for improving operational efficiencies, reducing their spends and enhancing their customer service (Ashrafi and Murtaza, 2008). Digital technologies can assist

SMEs to enhance their competitiveness by extending their reach and improving cost efficiency (Rajagopaul, Magwentshu, & Kalidas, 2020). SMEs can improve their future prospects by investing in technology (Dangol, Chitrakar, & Yoo, 2020).

Digitization can impact multiple aspects of the retailer business. For small business, digitization can help business efficiency through use of point-of-sale (POS) devices, digital payments, and the use of apps to manage operations will be an added bonus (Kapuria & Nalawade, 2021). Digitizing payments can support a cashless existence, and help in a simpler checkout process (Pragay, n.d.). Adoption of technology has aided businesses to create twice as many jobs as SMEs which did not, and had higher growth in turnover than those firms which did not invest, according to a BCG (2013) study in Germany, China, India and Brazil.

Though digitization can affect an improvement of the entire value chain, implementation of this remains slow with regard to SMEs as they have misconceptions regarding its cost and complexity (Kilimis, Zou, Lehmann, & Berger, 2019). Moreover, many retailers do not have the skill sets or manpower to manage this technology shift (Safari, Safari, & Hasanzadeh, 2015). Policy level action has been initiated to digitise this sector and initiatives such as Aadhaar-based biometric systems, the Pradhan Mantri Jan-Dhan Yojana (PMJDY), Bharat Interface for Money (BHIM) app, RuPay cards and the 'Digital India' programme have all made welcome strides in this direction (Kapuria & Nalawade, 2021).

Impact of Covid 19 on Small Business

Covid 19 has had no parallels in terms of its severity and scale. Both the imposed restrictions as well as behavioral changes due to the fear of the pandemic, has led to the collapse in demand for products and services (Gourinchas, Kalemli Özcan, Penciakova, & Sander, 2020). As small businesses typically have private and closely held ownership structure, and limited tangible assets, they are more reliant on internally generated funds. This has meant that the economic lockdown has placed a large number of small business at severe risk of a financial crisis (Cowling, Brown, & Rocha, 2020). SMEs are understood to be less resilient compared to larger firms, and hence will take longer to return to normal operations following a crisis (Juergensen, Guimón, & Narula, 2020). The challenges faced by the SME included decreased purchasing power, supply chain disruption and restrictions on working hours and customer interactions (Priyono, Moin, & Putri, 2020).

The aftermath of Covid 19 controls has been devastating for most SMEs, but those who had relied on digital technologies have reversed the trend by increasing their sales during the Pandemic (OCED, 2020). The crisis had escalated the interest of both retailers and customers on ecommerce during the period of maximum impact, and the customer interest continues to be sustained (Dvorak, Komarkova, & Stehlik, 2021). Though the retail markets are now open in many parts of the world, after the lockdown and control measures, SMEs still remain vulnerable, often unable to maintain social distancing or enforce adequate safety measures (Prasain & Pradhan, 2020).

Though in the initial period of technology adoption, SMEs largely lagged behind major corporations, generally, the decreasing cost of technology, easy access to digital tools and devices and the improved and efficient digital marketing possibilities have been able to bring down the resistance to technology adoption of the SMEs even before the crisis (Stankovska, Josimovski, &

Edwards, 2016). Hence, SMEs were not totally new to using digital possibilities. Digital transformation has been accelerated by the conditions created by Covid 19 (Fletcher & Griffiths, 2020). Retailer willingness to accept digital payments were up after the lockdown, as were their intention for online delivery and supply chain facilitation (EY, 2020).

Objective

The specific disruption of Covid 19 created an external stimulus unlike any before it. The fundamental business assumptions of operation were challenged during the restrictions. The need to use more digital tools were the only option for most retailers who did not operate in the essential products and services sector. Hence, the objective of this study is to understand

- A. What were the digital tools used by SME sector during the period prior to Covid 19?
- B. What were the digital tools which began to be used because of Covid 19?
- C. How has Covid 19 impacted the digitalization of retail SMEs in India?

Methods

The small and medium scale retail business owners were included in the scope of the study. The study was conducted in the state of Kerala in India during March, 2021, a year after the first lockdown was announced. The respondents were invited to complete an online questionnaire on the usage of digital technology in their businesses. The businesses were identified based on the search results on leading information directory websites on the Internet (Justdial, Quickerala). The businesses were contacted on their WhatsApp numbers. A total of 500 businesses were sent the questionnaire and 252 responded, with an average response rate of 50%.

We explored the digital adoption of the business on digital payments, digital marketing, online delivery, automation of operations, digital inventory management, digital billing and accounting, digital processing of payroll and supplier remittances. We also examined the businesses' use of ICT tools such as SMS, Instant messaging solutions and use of social media to better engage with their customers.

The scale development was based on the studies by previous researchers (Oh, Teo and Sambamurthy, 2012; Hossain, Xi, Nurunnabi, & Hussain, 2020) and modified to suit the current study. Multiple options were given for the respondents to record their responses. The respondents also provided business and personal demographic data for analytical purposes. No personally identifiable data was collected considering the sensitivity of financial and business information. We had also explored the digital adoption motives of the firms through open items.

Findings

SMEs are defined based on employee size or sales and investment volume. As both sales and investment volumes were deemed to be more sensitive information than employee size and could lead to respondent resistance, this study measured SME size by employee size. World Bank defines Small and Medium Enterprises (SMEs) as enterprises which employ maximum 99 workers; enterprises employing 1 to 19 workers are defined as 'small enterprises' and enterprises employing 20 to 99 workers are defined as 'medium enterprises' (Khandker, 2014) and this definition has been used in the current study and the data collection has been designed accordingly.

Table 1: Category of Business in the Study

Category of business	Percent
Small Enterprise	70%
Medium Enterprise	30%

Table 2: Extend of Use of Digital Tools in Business

Use of digital tools	Percent
Not at all	0%
To less extend	10%
To average extend	40%
To greater extend	50%
To maximum extend	0%

Table 3: Use of Digital Tools in Business

Use of digital tools	Post Covid 19	Pre Covid 19
Payment facilitation	90%	80%
Digital Marketing	80%	80%
Digital offers	80%	70%
Digitised operations	80%	50%

Digitization of payments was where most businesses had invested in even before the Pandemic. This is a reflection of customer behavior with many customers using digital options for transactions even before the Pandemic hit. Even for businesses which did not use other cashless options, this became imperative during the Lockdown and the following period. Most business mentioned adding more payment options such as bank transfers, digital wallets etc. post the lockdown period.

Most businesses started leveraging opportunities of Instant messaging with WhatsApp during the Pandemic and saw traction even after. As this is no cost medium for many retailers who are using personal accounts, this has become a part of promotion and communication with customers. Most of the retail SMEs used a combination of WhatsApp, email and Facebook for order fulfillment and promotions. Google was used only by a limited set of users. Many businesses also started showcasing the inventory additions and special offers on digital media post the lockdown, and has mentioned increase in the number of posts per week after. Facebook and WhatsApp are primarily used for the same. The businesses also accepted orders on WhatsApp.

A number of tasks, which used to be manual, were supplemented or substituted by additional digital tools post the lockdown. These included software for inventory management, invoicing and payroll management. Though many businesses were using some tools, especially for billing, this was extended to other areas of operations to support work from home and managing the number of employees on premise. Most of the firms in this study was in the category of non-essential services and saw disruption of their regular business during the pandemic. They had relied on existing or new technological tools to continue their operations. The adoption imperatives can be categorised on two broad streams.

Access to Customers

The common problems addressed by the firms were that customers could not access them at their premises. Alternative means of contact had to be established digitally. Though business continuity

was the defining objective of using digital tools, there is also indications that though this has been occasion by induced circumstances, the experience would trigger both continued use of technology as well as additional deployment of technology.

Customers were unable to come to the shop. There was no way they could order replacements and though they tried contacting the business phone, the premise too was shut. That is why we had to start a Facebook and Instagram page, to publicize our new numbers. But soon, customers were placing not just orders but asking for information on these. WhatsApp also works well for us. We have added new customers also.

Maintaining Operations

Many of the firms also faced problems of mobility of their staff and had to find work from home options for their processes. The investments have been cost effective as this has reduced the workload of manual receipts and billing and has also become more efficient.

Many of our employees rely on public transport. There was no public transport for a few months, and even when it has been restored, it is still not as extensive as it had been before. Many of the employees are also not comfortable at using this as the Covid cases are still high here. So, we had to invest in some digital software, for accounting and supply chain management.

We cannot have lots of staff in the premises as there are controls. So, we are focusing on letting only front-line staff come to office. The rest of the back-end staff work with the new software that we have procured. I think we will continue with this even after the situation improves.

Table 4: Demographic Variables and Impact on Adoption of Digitization: Age

Age of respondent	Digital Payment	Digital Marketing	Supply chain Management	Social Media	Operational Software	Digital Payroll
25-35	100%	80%	50%	100%	100%	60%
35-45	100%	100%	70%	100%	100%	70%
45-55	100%	100%	70%	100%	80%	60%
55-65	100%	80%	50%	80%	100%	100%
65+	0%	60%	50%	50%	80%	80%

Table 5: Demographic Variables and Impact on Adoption of Digitization: Education

Education of respondent	Digital Payment	Digital Marketing	Supply chain Management	Social Media	Operational Software	Digital Payroll
Non graduate	100%	70%	50%	100%	100%	60%
Graduate	100%	60%	50%	100%	100%	60%
Post Graduate	100%	100%	100%	100%	80%	80%
Professional	100%	100%	100%	100%	100%	100%
Other	80%	70%	50%	80%	80%	70%

The analysis of the demographic variables of the respondent has also shown some interesting insights, but as digital adoption has been initiated by a crisis, this does not correlate with age or education. Digital payment options such as digital wallets and bank account transfers were readily adopted by most respondents as this was a business imperative. Social media, digital marketing and supply chain management were more readily adopted by 35-55 age demographic. It could be that the under 35 respondents may also have been reporting to more senior family members for approval for digital adoption. The level of decision-making authority of the respondents in terms of technology adoption could be an important qualifier. This need to be an additional factor which can be probed in future research.

Analysis of the educational qualification of the respondents also gave a clear indication of the level of education and ease of technology adoption. Post graduate and professionally qualified respondents had higher levels of adoption in multiple areas. The propensity to use digital tools was higher among professional respondents, especially in operational tools.

Table 6: Age of Business and Impact on Adoption of Digitization

Age of Business	Digital Payment	Digital Marketing	Supply chain Management	Social Media	Operational Software	Digital Payroll
Less than 1 Year	100%	100%	80%	100%	100%	100%
1-5 Years	100%	100%	80%	100%	80%	70%
5-10 Years	80%	80%	80%	100%	80%	80%
10-20 Years	100%	60%	50%	80%	100%	60%
20+ Years	100%	80%	80%	80%	100%	60%

An analysis of the age of business is also an important metric to understand whether the longevity of current business practices could be a deterrent to adoption of new technology. Businesses which were launched in the Covid year had near complete adoption of digital tools, as the businesses would have adopted these tools from the beginning as their ‘normal’. Businesses which were more than 10 years old readily accepted crisis management measures such as digital payments, but were not as quick to adopt other measures such as digital payrolls and supply chain management. However, businesses which had adopted the digital tools before the Pandemic continue to use them during and after.

Conclusions

The study has revealed that the SME retail business had been digital adopters in their business practices, and all the firms in the study used digital tools in one form or the other. The pre-Covid investments had been in digitizing some aspects of the business. Digital marketing technology were not used to a great degree in pre-Covid times. Most of these were necessitated by a changed customer behavior pattern during the pandemic, such as the need for contactless delivery and payment. The digital literacy of the customers, mostly local in case of the retailers in the study, had significantly increased during the pandemic. The investments, both in technology and reskilling, had been to maintain sales during the enforced restrictions and even afterwards as customer behavior had not reverted to pre-Covid patterns. However, sustaining these digital adoptions or investing in more of the options will remain to be seen as to whether they would be considered useful for the business after the current pandemic concludes.

Theoretical Contribution

This paper contributes on the literature on digital maturity of small and medium scale businesses in a developing economy. Despite the fact that technology exists, many businesses have struggled with keeping pace and making the organizational transformation required to make the necessary transformation (Kljajić, Borštnar, & Pucihar, 2021). The digital maturity of small and medium businesses in India have often been confined to the use of a few tools, and the Pandemic has extended their use of digital tools. Analysis of the age of business and pre and post pandemic use of technology is useful for further researchers to understand their interlinkages.

Digital adoption literature has been analysed previously from a business transformation perspective and this paper adds to the growing research on pandemic induced digital business transformation and technology adoption. The adoption of technology has been considered previously on a linear scale, while the study contributes to the knowledge base by focusing on the adoption initiated by environmental pressures and customer and supplier behavior alteration. This paper also belongs to the emerging literature on the crisis fueled digital adoption (Golinelli, Boetto, Carullo, Landini, & Fantini, 2020; Lee & Trimi, 2021; Baig, Hall, Jenkins, Lamarre, & McCarthy, 2020). The crisis-initiated approach often supersedes previously established technology adoption models such as Technology Acceptance Model (Davis, 1989), Theory of Planned Behavior (Ajzen, 1991), Innovation Diffusion Theory (Rogers, 1995) and Theory of Reasoned Action (Ajzen & Fishbein, 1980).

Practical Contribution

The study will help SMEs identify the measures that have been most effective for adoption, during and post the pandemic period. The imperative to digitization is to ensure that sales are salvaged by digital platforms so that the business can sustain. This study will help to choose the areas of business where digital has been able to contribute towards the overall health of the business. In many instances, it will not be possible for an SME to digitise all aspects of their business, even if they see value in it. This will possibly be not just an investment decision as skilled manpower would also be a challenge for these firms. Selective adoption of technology decisions can be taken based on the experience of the firms in the study.

Investment decisions can be based on a hierarchical investment plan where the benefits can be progressively derived, without the requirement to stretch beyond the financial and manpower capabilities of the firm. From the study, the initial investments can be in digitizing key processes and management of supply chain and customer relationships. Digital channels can then be leveraged to access new customer segments or service existing ones. Social and Mobile solutions can be an area of investment to grow business when traditional models are being challenged, as is the case in the ongoing crisis. In the later stage of investment, digital tools such as data analytics and talent management can offer even more tools for the organizational leadership to direct future investments. As this study reveals, each segment of investment can offer tangible evidence of impact before scaling to the next. From computational automation to business strategy interventions would be a step-by-step technology growth curve for most businesses.

Crisis led investments are major turning points for the management of SMEs as they are already vulnerable having little resources to manage a prolonged period of non-operation. They are typically cash intensive, low margin operations, funded by the family and have financial obligations to fulfill. The demonetization initiative in 2018 has heralded the use of more cashless operations by the small business sector, another contingency led disruption. Digital investments by the SME sector can also be accelerated by suitable policy led financial grants and support.

Digitizing Small business imperatives by the Government has to be made widely available to the sector by extensive promotions within trade bodies. Educating the owners of SMEs about digital tools will have to be the first step to build awareness. Digital payment platforms, billing and inventory management software, cloud hosting for digital apps, digital marketing assistance etc. can be offered by the Government sector to enable the digital transition for the sector. Moreover,

virtual training and onboarding support can be offered to the staff of the SMEs to upskill themselves and manage the digital platforms. Concerted effort has to be made with Public-Private Partnerships to ensure that the SME sector is able to digitize its operations without further financial and logistical burden.

Even in the SME sector, the micro enterprise sector would require additional support in digitization. For the micro enterprise, even high-speed internet and uninterrupted power supply would need precede digitization. Hence, these essential hygiene factors would need to be ensured before digital value can be built in. The technology required for micro enterprises may be different from those which can be deployed in larger SMEs. Hence, the need for micro payments in digital technology can also help to bring in the benefits to the micro enterprise segment.

References

- Abu Bakar, A. R., Ahmad, S. Z., & Ahmad, N. (2019). SME social media use: A study of predictive factors in the United Arab Emirates. *Global Business and Organizational Excellence*, 38(5), 53-68.
- Ashrafi, R., & Murtaza, M. (2008). Use and impact of ICT on SMEs in Oman. *Electronic Journal of Information Systems Evaluation*, 11(3), 125-138.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. NJ: Prentice Hall.
- Azam, M. S. (2015). Diffusion of ICT and SME performance. In Quaddus, M., & Woodside, A. G. (Eds.), *E-services adoption: Processes by firms in developing nations* (pp. 7-290). United Kingdom: Emerald Group Publishing Limited.
- Baig, A., Hall, B., Jenkins, P., Lamarre, E., & McCarthy, B. (2020). The COVID-19 recovery will be digital: A plan for the first 90 days. McKinsey Digital.
- Basri, W. S. M., & Siam, M. R. (2019). Social media and corporate communication antecedents of SME sustainability performance: A conceptual framework for SMEs of Arab world. *Journal of Economic and Administrative Sciences*, 35(3), 172-182.
- Boston Consulting Group (BCG) (2013) Ahead of the Curve: Lessons on Technology and Growth from Small Business Leaders, Retrieved from http://www.bcg.com.cn/en/files/publications/reports_pdf/BCG_Ahead_of_the_Curve_Oct_2013.pdf
- Businesstoday. (2020, December 28). COVID-19 impact: Indian RETAILERS hopeful of 85% revival by June 2021B. Retrieved from <https://www.businesstoday.in/current/economy-politics/coronavirus-impact-indian-retailers-hopeful-of-85-revival-by-june-2021/story/426269.html>
- Cowling, M., Brown, R., & Rocha, A. (2020). Did you save some cash for a rainy COVID-19 day? The crisis and SMEs', *International Small Business Journal*, 38(7), 593-604.
- Dangol, J., Chitrakar, S., & Yoo, K. S. (2020). Impact of COVID-19 on Nepalese small and medium enterprises. *Journal of Business and Social Sciences Research*, 5(2), 1-14.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319- 340.
- Derham, R., Cragg, P., & Morrish, S. (2011). Creating Value: An SME and social media. *PACIS*, 53, 1-9.
- Doyle, F., & Cosgrove, J. (2019). Steps towards digitization of manufacturing in an SME environment. *Procedia Manufacturing*, 38, 540-547.
- Dvorak, J., Komarkova, L., & Stehlik, L. (2021). The effect of the COVID-19 crisis on the perception of digitization in the purchasing process: Customers and retailers' perspective. *Journal of Entrepreneurship in Emerging Economies*. Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/JEEE-07-2020-0260>
- EY (2020). Sentiments of India – pulse of the country, Kiranas. Retrieved from https://assets.ey.com/content/dam/ey-sites/ey-com/en_in/topics/consulting/2020/07/kirana/ey-sentiments-of-india-pulse-of-the-country.pdf
- Fletcher, G., & Griffiths, M. (2020). Digital transformation during a lockdown. *International Journal of Information Management*, 55, 102185.

- Golinelli, D., Boetto, E., Carullo, G., Landini, M. P., & Fantini, M. P. (2020). How the COVID-19 pandemic is favoring the adoption of digital technologies in healthcare: a rapid literature review. *MedRxiv*. Doi: 10.1101/2020.04.26.20080341.
- Gourinchas, P. O., Kalemli Özcan, S., Penciakova, V., & Sander, N. (2020). Covid-19 and SME failures (No. w27877). National Bureau of Economic Research.
- He, X., & Negahban, A. (2018). The effects of consumer engagement behavior on the growth of social media brand community: Evidence from an SME. In *Social media marketing: Breakthroughs in research and practice* (pp. 557-578). Pennsylvania: IGI Global.
- Hossain, S. F. A., Xi, Z., Nurunnabi, M., & Hussain, K. (2020). Ubiquitous role of social networking in driving M-Commerce: Evaluating the use of mobile phones for online shopping and payment in the context of trust. *SAGE Open*, 10(3), 1-11.
- Huck, R. (2021). How has COVID-19 affected the Indian retail sector in 2020? Retrieved from <https://www.99acres.com/articles/how-has-covid-19-affected-the-indian-retail-sector-in-2020.html>
- Juergensen, J., Guimón, J., & Narula, R. (2020). European SMEs amidst the COVID-19 crisis: Assessing impact and policy responses. *Journal of Industrial and Business Economics*, 47(3), 499-510.
- Kapurja, P., & Nalawade, H. S. (2021). Digitizing indian retail: Analysing challenges and exploring growth models. Observer Research Foundation, 304, 2-31.
- Khandker, A. (2014). Constraints and challenges of SME development in the developing countries: A case study of India, Pakistan and Bangladesh. *International Journal of SME Development*, 1(1), 87-118.
- Kljajić Borštnar, M., & Pucihar, A. (2021). Multi-Attribute Assessment of Digital Maturity of SMEs. *Electronics*, 10(8), 885.
- Kilimis, P., Zou, W., Lehmann, M., & Berger, U. (2019). A survey on digitalization for SMEs in Brandenburg, Germany. IFAC-PapersOnLine,
- Krishnan, L. (2017). Entrepreneurial competencies and contextual determinants of successful SME business startups in Bangalore, India. *International Journal of Engineering and Management Research*, 7(6), 1-15.
- Lee, S. M., & Trimi, S. (2021). Convergence innovation in the digital age and in the COVID-19 pandemic crisis. *Journal of Business Research*, 123, 14-22.
- Maiti, M., & Kayal, P. (2017). Digitization: Its impact on economic development and trade. *Asian Economic and Financial Review*, 7(6), 541-549.
- Nwaiwu, F., Duduci, M., Chromjakova, F., & Otekhile, C. A. F. (2020). Industry 4.0 concepts within the Czech SME manufacturing sector: An empirical assessment of critical success factors. *Business: Theory and Practice*, 21(1), 58-70.
- OCED. (2020). Coronavirus (Covid-19): SME policy responses. Retrieved from www.oecd.org
- Oh, L. B., Teo, H. H., & Sambamurthy, V. (2012). The effects of retail channel integration through the use of information technologies on firm performance. *Journal of operations management*, 30(5), 368-381.
- Prágyay, I. (2018). Payment services and digitization. *Economy and Fincance*, 1(5), 72-85.
- Prasain, S., & Pradhan, T. R. (2020). Nepal braces for a return to lock-down life as rise in COVID-19 cases rings alarm bells. The Kathmandu Post. Retrieved from <https://kathmandupost.com/politics/2020/08/12/nepal-braces-for-a-return-to-locked-down-life-as-rise-in-covid-19-cases-rings-alarm-bells>
- Priyono, A., Moin, A., & Putri, V. N. A. O. (2020). Identifying digital transformation paths in the business model of SMEs during the COVID-19 pandemic. *Journal of Open Innovation: Technology, Market, and Complexity*, 6(4), 104.
- Rajagopaul, A., Magwentshu, N., & Kalidas, S. (2020). How South African SMEs can survive and thrive post Covid-19: Providing the right support to enable SME growth now and beyond the crisis. McKinsey & Company.
- Richter, A. (2020). Locked-down digital work. *International Journal of Information Management*, 55, 1021572.
- Rogers, E. (1995). *The diffusion of innovation*. New York, NY: The Free Press
- Safari F., Safari, N., Hasanzadeh A. (2015). The adoption of software-as-a-service (SaaS): Ranking the determinants. *Journal of Enterprise Information Management*, 28(3),400–422. doi: 10.1108/JEIM-02-2014-0017.
- Shashidhar, A. (2021). Over 1 million kirana stores went digital during COVID-19 pandemic in 2020. Retrieved from <https://www.businesstoday.in/current/corporate/over-1-million-kirana-stores-went-digital-during-covid-19-pandemic/story/431917.html>
- SME Chamber of India (2020). SME sector in India. Retrieved from <https://www.smechamberofindia.com/about-msme-in-india.php>

- Speece, M., L. Tiangsoongnern, & J. Roenjun. (2018). Digitization & globalization for the little players: The view from Thai SMEs. *Proceedings of the 43rd Annual Macromarketing Conference*, 743-763, Leipzig, Germany.
- Stankovska, I., Josimovski, S., & Edwards, C. (2016). Digital channels diminish SME barriers: The case of the UK. *Economic research-Ekonomska istraživanja*, 29(1), 217-232.
- Subrahmanya, M. H., Mathirajan, M., & Krishnaswamy, K. N. (2010). Importance of technological innovation for SME growth: Evidence from India (No. 2010/03). WIDER Working Paper.