

The Impact of the Covid-19 Pandemic on SMEs in BRICS Economies: Current Findings and Future Research Opportunities

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ABSTRACT: The Covid-19 pandemic has significantly and adversely influenced the operations of small-to-medium enterprises (SMEs) worldwide. Even though SMEs are associated with a unique traditional set of non-financial and financial challenges, the Covid-19 calamity shock has been harsh and extensive across SMEs in BRICS countries (Brazil, Russia, India, China, and South Africa), which are the fastest growing major emerging economies. This study examines the influence of the Covid-19 catastrophe on SMEs in BRICS countries and opportunities for future research. A systematic literature review is employed and twenty-six research articles are analysed to answer the research question of interest. The study results indicated that the pandemic affected innovative operational approaches of SMEs, exposed SMEs to financial challenges, influenced SME and stakeholder confidence, threatened the very survival of most SMEs, delayed the resumption of work in SMEs, and influenced market demand and supply and consumption. Further, the study results revealed that the analysis of the influence of the Covid-19 pandemic on SMEs in BRICS nations has some distinctive and uncharted areas since this research field has a reasonably short history. These findings carry significant implications for SMEs by advocating for the introduction of policy initiatives that boost capacity building and encourage work resumption in SMEs during crisis periods.

Keywords: Covid-19 Pandemic, BRICS Countries, SMES, Systematic Literature Review.



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INTRODUCTION

Small-to-medium enterprises (SMEs) are the majority firms in most countries ([Njanike, 2019](#)) ([Y. Sun et al., 2022](#)) ([World Bank Group, 2022](#)). SMEs promote stable economic growth and development, employment, and innovation ([Dev & Sengupta, 2020](#); [Lu et al., 2020](#); [Luo et al., 2020](#); [Y. Sun et al., 2022](#); [World Bank Group, 2022](#)). World Bank Group (2022) underscored that, universally, SMEs are responsible for more than 50% of the total employment and about 90% of corporations. In developing economies, Njanike (2019) proposed that 99% of firms are SMEs and World Bank Group (2022) pronounced that formal SMEs contribute up to 40% of gross domestic

product (GDP). In China, SMEs are responsible for more than 90% of companies, 80% of employment in urban areas, over 70% of technological innovations, 60% of the GDP, and 50% of the country tax, see Y. Sun et al. (2022) and references therein. Cant & Wiid (2013) opined that, in South Africa, SMEs contribute 91% of formal corporations, nearly 60% of total employment and about 51% to 57% of the GDP. Nonetheless, although SMEs are economically significant, they are susceptible to crises such as the Covid-19 catastrophe due to their unique features (Lu et al., 2020), which include the following: dependence on bank loans with high rates of interest; connected to fierce agency problems; small size and scale of business; restricted financial resources; lack access to finance; and high risk of shutting down (Behera et al., 2021; Luo et al., 2020; Y. Sun et al., 2022).

The highly transmittable Covid-19 was a universal public health challenge (Guo et al., 2020; Ma et al., 2021) and was acknowledged a global pandemic by the World Health Organization (WHO) in 2020. WHO introduced procedures for averting Covid-19 transmission. These procedures comprise contact tracing, quarantining, detecting and isolating cases, and social and physical distancing of at least one meter (World Health Organization, 2020). Several countries put stern precautionary health, social, political, and economic measures such as lockdowns, sanitising, putting on personal protective equipment, and washing of hands regularly to restrain the transmission of Covid-19 (Dai et al., 2021). Schools and businesses were closed, curfews and travel restrictions were introduced, and workers were working from home. Although these measures helped manage the spread of Covid-19, some of them were not economically beneficial (Dai et al., 2021; Guo et al., 2020; Mahajan, 2020; Sarkisian-Artamonova & Kalacheva, 2020).

In this study, a systematic literature review was conducted to examine the influence of the Covid-19 catastrophe on SMEs in BRICS countries and the opportunities for future research. This study contributes to the existing literature by assessing the impact of the Covid-19 pandemic on SMEs and articulating the research gaps. To the authors' knowledge, no such a study has been executed before. BRICS countries include Brazil, Russia, India, China, and South Africa, and they represent an economic and political alliance of the major emerging economies experiencing swift economic growth and development, responsible for almost half of the world's population (Chatterjee & Naka, 2022; Gaba & Gaba, 2022). Chatterjee & Naka (2022) further indicated that BRICS economies are associated with flourishing markets for goods, services and capital, and high levels of financial and industrial power. In 2017, BRICS countries contributed 19% of investment inflows in the world (Garcia & Bond, 2019). Moreover, BRICS economies cover 29.3% of the global land surface, encompass 41% of the world population, and are responsible for 24% of the world GDP and over 16% of global trade portion. The study results indicated that the pandemic affected innovative operational approaches of SMEs, exposed SMEs to financial challenges, influenced SME and stakeholder confidence, threatened the very survival of most SMEs, delayed the resumption of work in SMEs, and influenced market demand and supply and consumption. Further, the study results revealed that the examination of the influence of the Covid-19 calamity on SMEs in BRICS nations has some distinctive and uncharted areas since this research field has a reasonably short history. The findings of this study carry significant implications for SMEs by advocating for the introduction of policy initiatives that boost capacity building and encourage work resumption in SMEs during crisis periods.

Literature Review

A crisis is an unexpected, time-bound, and undesirable phenomenon, whose end result is probably equivocal (Glaesser, 2006). It is not a solitary incident but it develops and evolves in stages as time moves. Not surprising, the Covid-19 catastrophe, one of the most substantial public health calamities in living memory, is considered a crisis. Several economies introduced a myriad of strategies and procedures to contain the spread of Covid-19. These strategies and procedures caused a lot of human suffering and a multiplicity of challenges to industries and companies, especially SMEs. Fundamentally, the Covid-19 has been a fierce health and economic problem.

SMEs have been affected by the pandemic in several significant dimensions. Ma et al. (2021), Mahajan (2020) and Guo et al. (2020) indicated that the pandemic exposed SMEs to a multiplicity of challenges that threaten their very survival. These challenges include supply chain disruptions, financial problems, and sharp declines in demand, supply, manufacturing and production of goods. Several authors also indicated that the pandemic brutally impacted SME performance and the general performance of businesses in diverse economies since it resulted in costly production, recession of economies, and threatened lives and livelihoods (T. Sun et al., 2021). (Y. Sun et al., 2022) postulated that a sequence of chain reactions such as stock market collapse, international trade breakdown, and collapse of crude oil have negatively impacted the world economy in general and SMEs in particular. All industries in all economies were adversely impacted by the pandemic, and the pandemic has generated a universal recession risk. SMEs were heavily affected by the pandemic since they have a low capability to withstand the Covid-19 pandemic and other calamities and face practical challenges like lack of funds and insufficient liquidity (Y. Sun et al., 2022).

Like in all other countries, the effects of the Covid-19 calamity have been punitive and widespread across SMEs in BRICS countries. Comparing the influence of the Covid-19 calamity on the performance of SMEs in the first quarter 2020 and the first quarter of 2019 in China, (Y. Sun et al., 2022) propounded that 71.94% of corporates witnessed a reduction in operating revenues. (Dev & Sengupta, 2020) proffered that approximately 50% to 60% of the Chinese SMEs had challenges paying salaries. In the Indian context, Behera et al. (2021) indicated that the small, micro, and medium-sized enterprises (SMMEs) sector witnessed 55% employment loss, fall in production capacity from around 75% to 11%, 17.2% loss of yearly sales loss, raw material delivery delays, challenges in paying wages, shortages of labour, and diminished access to credit.

The Covid-19 pandemic affected different SMEs in different ways. SMEs that depend on the physical presence of customers were substantially adversely impacted by the calamity. SMEs involved in innovating operating procedures such as e-commerce, intelligent manufacturing, social media marketing, and online education were positively influenced by the pandemic (McLellan & Mzini, 2021; Y. Sun et al., 2022). Fundamentally, the world over, the Covid-19 catastrophe accelerated innovation in all industries of all countries. Interestingly, Dladla (2021) specified that the pandemic did not halt creativity and innovation a multitude of small firms. The authors (Dladla, 2021) further articulated that some small corporates grabbed the opportunities brought by the pandemic and repositioned themselves to act in response to the recent economic dynamics and re-establish their disoriented livelihoods. For instance, SMEs that were involved in businesses such as delivery, cleaning material production, manufacturing of face masks, decontamination of

buildings, and entertainment benefited from the pandemic. Therefore, the pandemic can be considered as a disruption with opportunities and challenges. Nonetheless, even though a pandemic brings with it several business opportunities, Belitski et al. (2022) propounded that the Covid-19 catastrophe has been an extraordinary phenomenon for small firms associated with new market prospects and that are naturally underprivileged in their capability to seize the crises' opportunities.

METHOD

In this study, a systematic review of literature was conducted to address this research question: *What are the impacts of the Covid-19 pandemic on SMEs in BRICS countries and the research gaps in existing literature?* A systematic literature review reduces researcher bias when addressing research questions of interest, thereby producing actual and reliable knowledge (Aguinis et al., 2018; Petticrew, 2001). This study implements a methodological approach suggested by Tranfield et al. (2003) and modified by Hansen & Schaltegger (2016). The methodology allows appropriate sources of evidence to be recognized by implementing clear and ordered selection criteria and has six stages:

Keywords were identified and adopted to formulate the search criteria so that appropriate studies which address the research question are selected. These keywords included "impact," "effect," "Covid-19," "SMEs," "BRICS," "Russia," "Brazil," "China," "South Africa," and "India." Search terms were designed using these keywords. To test and make improvements on search terms where essential, a pilot test was conducted. The first five studies retrieved from Google were reviewed as a pilot test. From the pilot test, two more keywords were picked, i.e., "influence" and "Coronavirus." Based on the findings from the pilot test, search terms were fine-tuned fittingly over several iterations. The following final search terms were implemented to retrieve the relevant studies:

- "impact/effect/influence of Covid-19/coronavirus on SMEs in BRICS countries/economies"
- "impact/effect/influence of COVID-19/coronavirus on SMEs in Brazil/Russia/China/India/South Africa"

The initial search generated 38 studies, gathered from multiple databases, i.e., Google Scholar, ScienceDirect, Google, and Scopus. These databases are some of the largest databases of peer-reviewed articles in the universe (Böckel et al., 2021). It is good to retrieve articles from several databases (Weiss & Kanbach, 2022) since it addresses triangulation issues.

Only research articles generated in English and published from 2020 to 2022, and that examined the influence of the Covid-19 catastrophe on SMEs in BRICS countries were reviewed. Articles generated in other languages besides English were omitted from the study. Studies written in English were considered since there was a lack of funds for translations and the reviewed evidence has to be made crystal clear to the common English-speaking parties. Publications with no or little relevance were dropped from the analysis. The start year of 2020 was selected because the outbreak of Covid-19 was professed a universal pandemic by WHO in 2020. Also, procedures to restrict

the transmission of the virus were initially introduced in 2020. The ending year, 2022, is the year this chapter was written.

The authors performed the selection of studies. Firstly, titles and abstracts of the prospective studies were examined. After reviewing the titles and abstracts, six studies were excluded since they do not meet the inclusion criteria, and other two articles were eliminated as duplicates. In some instances, the authors failed to make an informed decision on whether to include or exclude a study after a review of the title and abstract. In such circumstances, they examined the article's introduction and/or conclusion. If the review of the introduction and/or conclusion was not adequate for the authors to decide whether to include or exclude a study, the whole article was reviewed. Of the 30 studies remaining, two were excluded after introduction review and one was eliminated after examining the entire article since they were not relevant, and one was excluded because it was not freely available. Therefore, the ultimate sample of this systematic literature review had 26 articles (see Fig. 1). To get a glimpse of the summary of the reviewed studies, see Table 1.

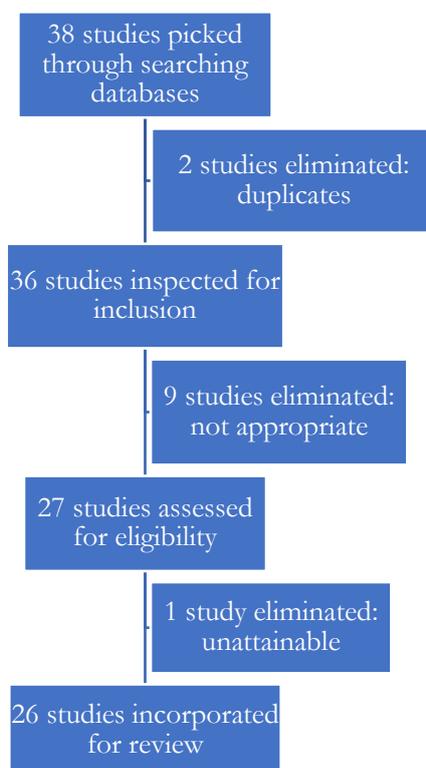


Figure 1. Database search results

Source: Authors' computation

This study checked only peer-reviewed journal articles and conference proceedings papers to promote high quality and valid research outcomes. Peer-reviewed journal articles and conference proceedings papers are considered high-quality and valid sources for academic and scientific research since they go through a thorough peer-review process where specialists in the discipline assess their research methodology, findings and conclusions before they are published, making sure that the work is correct, reliable, and follows academic standards (Böckel et al., 2021;

[González-Albo & Bordons, 2011](#); [Schlosser, 2007](#)). Therefore, journal articles and conference proceedings papers maintain their reputation as trustworthy sources for advancing academic discourse.

Fig. 2 indicate the distribution of studies according to article type and year of publication.
(i)

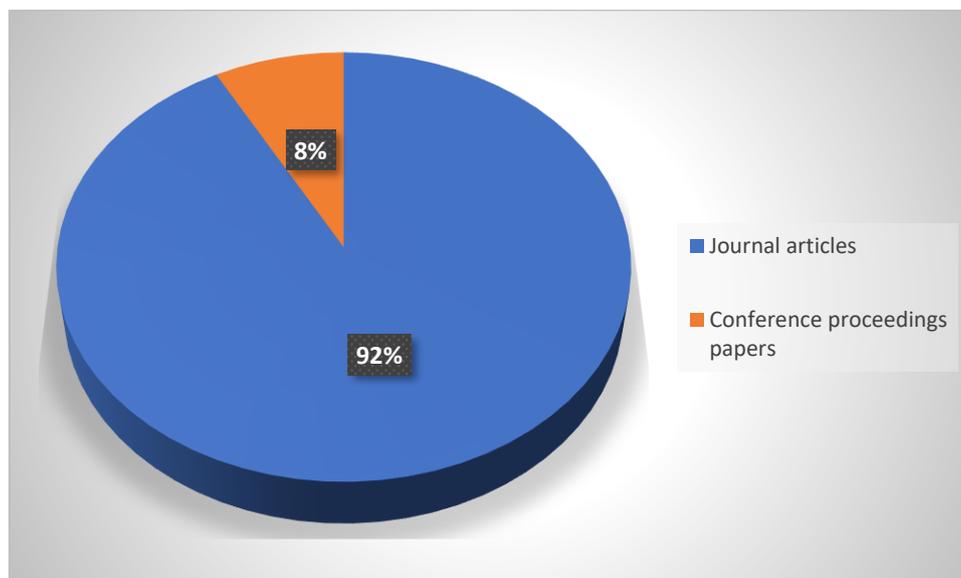
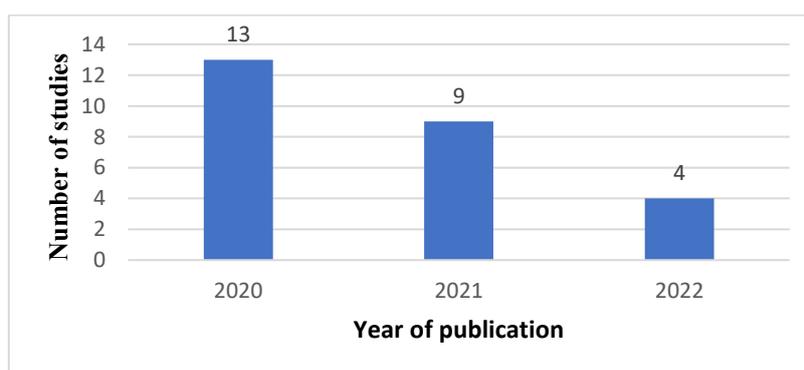


Figure 2. Distribution of studies according to (i) article type, and (ii) year of publication

Source: Authors' computation

(ii)



Source: Authors' computation

Fig. 2 (i) shows that journal articles were 92% and conference proceedings papers were 8% of the total reviewed studies. This is not surprising since, in various jurisdictions, physical gatherings were banned and movement was restricted to stop the spread of the virus. Hence, authors were using journals more instead of conferences as research outlets. Fig. 2(ii) reveals that 13/26, 9/26 and 4/26 articles were published in 2020, 2021 and 2022, respectively. The implication here is that there was a lot of research output in 2020 than in 2021 and 2022. This trend is expected for an emerging research field. At first the research output was more and it decreased as time moves and

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the field got saturated. The distribution of articles according to nations is as follows: India - 12, China – 6, South Africa – 5, Russia – 2, and Brazil - 1. This indicates that there was no balanced review of nations. Nonetheless, since SMEs have common challenges across countries and BRICS economies have some common features, the study results can be generalised to all BRICS economies and to other emerging countries. Most studies in the final sample generated primary, original data: hence, a few studies attempted to develop upon secondary data.

Data extraction sheet was implemented to pull out data from the chosen studies. The sections of the data extraction sheet were populated with the following information for each reviewed article: author(s), year of publication, article title, the aim of the article, journal name/name of the academic conference, sample, research design, method(s) applied, and results of the study.

To answer the research question, data was synthesised. The information was summarised using a table and a descriptive-analytical method was adopted to reveal the pertinent aspects of this systematic literature review, i.e., the influences of the Covid-19 calamity on the SMEs in BRICS countries and opportunities for future research.

Table 1. Features of the reviewed studies

| Author(s)(Year) | Study aim | Journal title | Sample |
|-------------------------------|---|---|------------------------------------|
| Chernova & Neklyudova (2022) | To evaluate the influence of Covid-19 on SMEs in the Russian Federation | SHS Web of Conferences | SMEs, banks |
| Fubah & Moos (2022) | To examine the Covid-19 problems and ways of coping for SMEs in South Africa's entrepreneurial ecosystem | Sustainability | 15 SME owners |
| Y. Sun et al. (2022) | To assess the influence of Covid-19 on Chinese SMEs | Finance Research Letters | 834 SMEs |
| Xiao and Su (2022) | To analyse the macroeconomic lockdown influences of Covid-19 on Chinese SMEs | Environmental Science and Pollution Research | 313 managers and employees of SMEs |
| Behera et al. (2021) | To determine the SMME contribution in India, and to analyse the problems and challenges met by SMMEs in pre- and during the Covid-19 epidemic era | Small Enterprises Development, Management & Extension Journal | Various sources of secondary data |
| Bouças da Silva et al. (2021) | To analyse the influences of the epidemic on Brazilian | Brazilian Journal of Tourism Research | 14 SMEs |

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| Author(s)(Year) | Study aim | Journal title | Sample |
|-------------------------|--|---|--|
| | SMEs in tourism and to recognize the strategies adopted by these firms in the face of Covid-19 | | |
| Dai et al. (2021) | To analyse the short-term and mid-term influences of Covid-19 curtailments on Chinese SMEs | China Economic Review | 2 508 SMEs |
| Dladla (2021) | To assess the unsettling influence of Covid-19 on South African small businesses, offer lessons learned from the epidemic, and suggest vital policy deliberations in favour of the small firms | Asian Journal of Economics and Finance | Primary literature, legislations, policy papers, media reports |
| Ma et al. (2021) | To analyse the influence of Covid-19 on SMEs in China | PLoS ONE | 234 SMEs |
| McLellan & Mzini (2021) | To examine the impact of the Covid-19 epidemic on SMMEs in G12 region, Joburg South, Johannesburg city, South Africa | The 6th Annual International Conference on Public Administration and Development Alternatives | 6 SMMEs |
| Mkhonza & Sifolo (2021) | To explore SMMEs' viewpoints on the performance of business throughout the Covid-19 era in Johannesburg Central District Municipality, South Africa | International Journal of Entrepreneurship and Business Development | 169 owners and managers of SMMEs |
| Sajan (2021) | To examine SMME performance during the pre-Covid-19 and post-Covid-19 periods and how it influenced the Indian economy | International Journal of Scientific Development and Research | Several secondary data sources, 20 SMMEs |
| T. Sun et al. (2021) | To analyse the influence of Covid-19 on Chinese SMEs' business performance and norms | Economic Research-Ekonomska Istrazivanja | 330 respondents (i.e., managers and workers of SMEs in China) |

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| Author(s)(Year) | Study aim | Journal title | Sample |
|-------------------------------|---|---|--|
| Banu & Suresh (2020) | To assess the effect of Covid-19 on the SMME sector in India | Mukt Shabd Journal | Several secondary data sources |
| Chetia (2020) | To assess the influence of the Covid-19 calamity on the Indian SMME sector | International Journal of Humanities and Social Science Invention | Published literature |
| Dey & Diswas (2020) | To assess the influence of Covid-19 on SMMEs and the government initiatives to support SMMEs to save their existence in India | International Journal of Creative Research Thoughts | Several documents of |
| Duggappa (2020) | To analyse the infl Covid-19 on Indian SMME sector | Intercontinental Journal of Marketing Research Review | Several secondary data sources |
| Indrakumar (2020) | To examine the effect of the Covid-19 lockdown on the economic activities of the SMME sector in India | Manpower Journal | Index of industrial production, studies available in the public domain |
| Lal et al. (2020) | To analyse the influence of Covid-19 on SMMEs in India | International Journal of Multidisciplinary Research and Development | Several secondary data sources |
| Lavanya & Deepika Rani (2020) | To examine the effect of Covid-19 on small-scale firms in Bangalore city, India | International Journal of Innovative Research in Management Studies | 78 firms, various secondary data sources |
| Lu et al. (2020) | To investigate the influence of the Covid-19 catastrophe on SMEs in China | Environmental Hazards | 4 807 SMEs |
| Mahajan (2020) | To analyse the influence of coronavirus on SMEs in India | GIS Science Journal | Secondary data sources |
| Oni & Omonona (2020) | To evaluate the influence of Covid-19 on small retail enterprises in Alice Town, South Africa | The Retail and Marketing Review | 11 owners/managers of small businesses |

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| Author(s)(Year) | Study aim | Journal title | Sample |
|---|--|---|---|
| Roy et al. (2020) | To assess the influence of the Covid-19 calamity on India's SMME sector | Eurasian Chemical Communications | 15 journal articles, newspaper articles |
| Sahoo & Ashwani (2020) | To do an analysis of Covid-19 on Indian economy by assessing its influence on manufacturing, growth, trade, and SMME sector in India, and to highpoint main policy recommendations to control the conceivable outcome in the economy | Global Business Review | Several secondary data sources |
| Sarkisian-Artamonova & Kalacheva (2020) | To assess the influence of state imposed Covid-19 constraints on SMEs in Russia and analyse the significance of education for specialists in SMEs in contemporary crisis conditions | Proceedings of ADVED 2020-6th International Conference on Advances in Education | Various secondary data sources |

Source: Authors' compilation

RESULT AND DISCUSSION

In this section, the influences of the Covid-19 calamity on SMEs are examined. The study results indicated that the pandemic:

1. Affected innovative operational approaches of SMEs,
2. Exposed SMEs to financial challenges,
3. Influenced SME and stakeholder confidence,
4. Threatened the very survival of most SMEs,
5. Delayed the resumption of work in SMEs, and
6. Influenced market demand and supply and consumption.

The discussion, supported by extensive literature from other sources, is presented in this section. Further, research gaps identified from the reviewed articles are presented as well. These research gaps can be used to direct future research avenues in the areas linked to the study of the influence of Covid-19 catastrophe on SMEs in BRICS nations.

Impacts of the Covid-19 calamity on SMEs in BRICS economies

To improve the discussion of the results, the effects of the pandemic on SMEs were grouped into six classes (as they listed under the result section), which usually overlap.

Innovation

Reviewed literature ([Dladla, 2021](#); [T. Sun et al., 2021](#); [Xiao & Su, 2022](#)) indicated that the Covid-19 catastrophe had a significant positive effect on the innovative operational approaches of SMEs. Akpan et al. (2022) propounded that the levying of diverse limitations on businesses due to the emergence of the Covid-19 calamity has encouraged institutions to recognize innovative new technologies like industrial internet of things, artificial intelligence, big data analytics, and cloud computing to guarantee the efficient flow of their operations under indeterminate conditions caused by the pandemic. Also, it has been documented that firms have to swiftly acclimatize to the new market conditions introduced by the Covid-19 catastrophe and redesign how they function or invent themselves, and ([Galanakis et al., 2021](#)) indicated that the pandemic had enhanced innovation in all industries in all countries worldwide. For instance, some SMEs resorted to social media to improve their businesses and some shifted their businesses to produce other goods and services ([McLellan & Mzini, 2021](#)). In addition, ([Y. Sun et al., 2022](#)) articulated that the growth of the digital economy assisted SMEs in China to decrease the adverse influences of the pandemic on their operations and in some instances, to witness growth.

Interestingly, Xiao & Su (2022), Dladla (2021), Mkhonza & Sifolo (2021) and T. Sun et al. (2021) propounded that the Covid-19 catastrophe substantially positively influenced remote work as issues like online shopping, working from home and home schooling became the order of the day as schools and businesses were closed. This is not surprising since a multiplicity of strict precautionary health, social, political, and economic measures were gazetted to reduce the transmission of the virus ([Dai et al., 2021](#); [Fubah & Moos, 2022](#); [World Health Organization, 2020](#)). On the other hand, Ma et al. (2021) indicated that corporate management was adversely affected and some SME costs increased due to working online. These costs include recruiting costs, online training costs, employee management costs, and costs of online offices.

Financial challenges

Reviewed studies proffered that the pandemic had exposed SMEs to a multiplicity of financial challenges and had a substantial adverse influence on their financial performance ([Banu & Suresh 2020](#); [Behera et al., 2021](#); [Dai et al., 2021](#); [Lavanya & Deepika Rani, 2020](#); [Ma et al., 2021](#); [Mahajan, 2020](#); [Xiao & Su, 2022](#)). Y. Sun et al. (2022), Ma et al. (2021) and Sajan (2021) opined that numerous SMEs suffered from financial problems caused by deteriorating market demand, delays in work recommencement, falling commodity prices, delayed accounts receivable, drop in share prices, fall in stock performances, and constraints on crowd flow and logistics, among other things. Hence, some SMEs witnessed a substantial drop in turnover, earnings per share, net cash flow from operating activities, and operating revenue, leading to a decline in financial performance

([Bouças da Silva et al., 2021](#); [Chernova & Neklyudova, 2022](#); [Indrakumar, 2020](#); [McLellan & Mzini, 2021](#); [Oni & Omonona, 2020](#); [Sarkisian-Artamonova & Kalacheva, 2020](#); [Y. Sun et al., 2022](#)). Ma et al. (2021), Mkhonza & Sifolo (2021), and Lu et al. (2020) postulated that some SMEs witnessed reduced operating incomes, decreased operating profits, prolonged cash shortages, and amplified operating costs for raw materials, management training, labour, time, and logistics channels. Cash flows and sales income for SMEs were negatively affected by the pandemic because numerous SMEs had little or no revenue.

Even though the pandemic substantially reduced their revenues, SMEs were still required to meet their regular statutory obligations and fixed expenses (e.g., social security, rent, salaries, wages, and loan repayments) ([Lu et al., 2020](#); [Ma et al., 2021](#); [Sajan, 2021](#)). Several SMEs had inadequate or no available cash to pay these regular obligations and expenses ([Dai et al., 2021](#); [Fubah & Moos, 2022](#); [Lavanya & Deepika Rani, 2020](#); [Lu et al., 2020](#)). These costs amplified the funding gaps of SMEs, thus further worsening their cash flows ([Lu et al., 2020](#)). The funding gaps of SMEs were further magnified by episodes of financial markets illiquidity and lack funding to some SMEs ([Lu et al., 2020](#); [Ma et al., 2021](#)). Xiao & Su (2022) postulated that the calamity had an adverse influence on SME access to finance. Consequently, several SMEs witnessed severe shortages of working capital ([Duggappa, 2020](#); [Indrakumar, 2020](#)).

Moreover, the Covid-19 pandemic negatively influenced the profitability levels of some SMEs; thereby exposing them to inevitable losses ([Dladla, 2021](#); [Ma et al., 2021](#); [Oni & Omonona, 2020](#); [Sajan, 2021](#); [T. Sun et al., 2021](#); [Xiao & Su, 2022](#)). In China, Y. Sun et al. (2022) indicated that the proportion of SMEs that witnessed a drop of greater than 20% in operating revenue was 45.92%, in net cash flow from operating activities was 29.26%, in net profit was 49.16%, and in earnings per share was 52.64%. In India, Behera et al. (2021) articulated that “as per the survey of 5 000 SMMEs by the All India Manufacturers Organization, The Hindu reported that 71% of firms are not able to pay salaries to their employees.”

On the other hand, Y. Sun et al. (2022) articulated that some SMEs benefitted during the calamity. Their net cash flow from operating activities, net profit, and earnings per share increased due to several reasons, which include amplified market demand (e.g., demand for medical material and personal protection equipment), preferential tax benefits, and developing digital economy. Behera et al. (2021) proffered that SMMEs dealing with essential items (e.g., hand sanitisers, face masks) were positively affected by the pandemic. Further, in some jurisdictions, the number of firms increased due to changes in the patterns of market demand. In China, Y. Sun et al. (2022) postulated that 11.75%, 5.52%, 10.67%, and 13.19% of SMEs witnessed an upsurge of more than 50% in net profit, operating revenue, earnings per share, and net cash flow from operating activities, respectively, in quarter one of 2020 as compared to quarter one of 2019. ([Chernova & Neklyudova, 2022](#)) propounded that, in Russia, the quantity of medium-sized firms amplified by 3.4% in 2020 compared to 2019 and by 5.5% in 2021 compared to 2019.

SME and stakeholder confidence

Banu & Suresh (2020) proposed that the pandemic introduced many uncertainties in all business areas. SME confidence was adversely influenced by the epidemic. Lu et al. (2020) proffered that the SMEs' confidence substantially fell due to the pandemic and SMEs were pessimistic regarding the conditions of the economy and their businesses. Dai et al. (2021) proffered that SMEs showed high anxiety levels, and increased anxiety levels motivated them not to reopen their doors. Further, T. Sun et al. (2021) discovered that the calamity had a significant adverse influence on SME stakeholder satisfaction and safety. Lu et al. (2020) propounded that the damaged client confidence gravely impacted the scale of client satisfaction with the present situation of Covid-19 and near-future prospects, especially short-term development prospects. Xiao & Su (2022) revealed that the catastrophe negatively impacted customer satisfaction.

Existential issues

The pandemic has been threatening the very survival of most SMEs since it had an adverse impact on the operational performance of a multitude of SMEs. Many SMEs suffered from declines during the pandemic (Behera et al., 2021). These declines were in production, receipt of raw materials, employment, annual sales, ability to get access to credit, and ability to meet obligations such as wages as they fall due, among other things. Duggappa (2020) articulated that some SMMEs were operating below capacity due to shortages of inputs and intermediates and McLellan & Mzini (2021) indicated that SMMEs faced chronic low productivity levels. The calamity adversely influenced the performance appraisal results of SMEs and the skills development of workers (Mkhonza & Sifolo, 2021). High death rates reduced the quantity of skilled and competent labour force. Some employees were laid off, and some worked for reduced hours, leading to amplified SME costs. McLellan & Mzini (2021) postulated that SMEs were forced to allow their employees to work for flexible working hours due to mobility restrictions. The deterioration of the labour market due to the pandemic adversely affected the economic recovery of SMEs (Ma et al., 2021). In India, Behera et al. (2021) proffered that the SMMEs sector witnessed a 55% loss in employment, approximately 17.2% loss in annual sales, and a fall in production capacity from an average of 75% to 11%.

Reviewed studies indicated that the Covid-19 plague brutally disrupted trade and supply chains (Behera et al., 2021; Chetia, 2020; Dai et al., 2021; Dey & Diswas, 2020; Duggappa, 2020; Lal et al., 2020; Lu et al., 2020; Ma et al., 2021; Mahajan, 2020; Oni & Omonona, 2020; Roy et al., 2020; Sahoo & Ashwani, 2020; Sajan, 2021; T. Sun et al., 2021). Countrywide shutdowns led to paralysed transportation systems across countries, asynchronous work recommencement on downstream and upstream industrial chains, and cross-regional and cross-provincial logistics problems that substantially influenced supply chains and caused a crisis in downstream and upstream SMEs (Lavanya & Deepika Rani, 2020) (Lu et al., 2020) (Ma et al., 2021). Getting new orders and guaranteeing service and product deliveries became a challenge to SMEs since supply and demand channels adopted by SMEs for their operations were disrupted (Lu et al., 2020). Raw material shortages and a massive backlog of orders of inventory placed a drag on the whole supply chain process (Banu & Suresh, 2020; Fubah & Moos, 2022; Lal et al., 2020; Ma et al., 2021). Several

SMEs failed to meet the demand for products due to a lack of raw materials ([Fubah & Moos, 2022](#)) and found it difficult to procure raw materials at affordable rates ([Roy et al., 2020](#)). In some cases, SMEs remained with excessive inventories ([Lal et al., 2020](#)) ([Ma et al., 2021](#)), which forced business storage and maintenance costs to go up. Basically, studies reviewed, see, for instance, Dai et al. (2021), postulated that SMEs were less capable of shielding themselves to supply chain disruptions, and as a result, some of them were prohibited by these disruptions from opening. In China, Y. Sun et al. (2022) discovered that 5.79% of SMEs suffered from logistics and crowd flow restrictions, and 3.24% of SMEs suffered from accounts receivable postponement.

Further, universal supply chains were substantially interrupted as both exports and imports were jammed ([Behera et al., 2021](#); [Chetia, 2020](#); [Guo et al., 2020](#); [Lal et al., 2020](#); [Sahoo & Ashwani, 2020](#)). Export SMEs were hurt more by the pandemic than non-export SMEs in the areas of restarting production and satisfying orders ([Dai et al., 2021](#)), since export businesses were substantially reduced ([Mahajan, 2020](#); [Sahoo & Ashwani, 2020](#)), leading to amplified default of export orders. Dai et al. (2021) specified that export SMEs were more affected by the challenges related to raw material shortages, supply chain disruptions, contract breach risk, the decline in external demand, and logistics blocks. Supply chain disruptions interrupted SMEs recoveries. ([Y. Sun et al., 2022](#)) discovered that the negative influences of the catastrophe have been more significant on growth-type SMEs than on value-type SMEs and have been more influential on non-state-run SMEs than on state-run SMEs that get assistance from the government. In some cases, several informal and small enterprises in the industries that were confirmed to offer essential products and services lost the privilege to company-owned huge chain stores and supermarkets to sell their services and products ([Dladla, 2021](#)). Consequently, several SMEs closed their doors permanently and some downsized ([Chernova & Neklyudova, 2022](#); [Dai et al., 2021](#); [Dey & Diswas, 2020](#); [Dladla, 2021](#); [Fubah & Moos, 2022](#); [Indrakumar, 2020](#); [Oni & Omonona, 2020](#); [Roy et al., 2020](#)).

On a positive note, Bouças da Silva et al. (2021) articulated that the pandemic strengthened the relationships between micro and small firms and their external stakeholders, allowing micro and small firms to rethink their business models, benchmark practices and witness legal changes that benefit businesses. Employees of these micro and small firms get opportunities to acquire professional qualifications during the pandemic era ([Bouças da Silva et al., 2021](#)).

Delays in the resumption of work

The pandemic delayed the resumption of work in SMEs, which placed them under much pressure as far as their survival is concerned, since obligations had to be settled ([Dai et al., 2021](#); [Lu et al., 2020](#); [McLellan & Mzini, 2021](#)), and exposed them to significant economic losses ([Lu et al., 2020](#)). For instance, in China, ([Y. Sun et al., 2022](#)) found that 33.80% of SMEs suffered from delays work resumption. Dai et al. (2021) and Lu et al. (2020) articulated that the deferral of the recommencement of work was chiefly due to numerous employees not being able to return to work (as a result of physical mobility restrictions, resignation, panic/anxiety, and quarantine requirements), drop in market demand, disturbed supply chains, cash flow deficiency, lack of raw materials, and governments protocols on pandemic management (e.g., some SMEs had no

adequate personal protective equipment to comply with the high pandemic averting requirements gazetted by the governments). The recruitment and employment of new employees were also adversely affected due to physical restrictions on movements. Therefore, SMEs witnessed a reduction in the labour force due to the catastrophe ([Xiong et al., 2020](#)). The scarcity of human resources and the upsurge in the cost of human resources resulting from the low worker re-work rate placed extraordinary burden on the SME operations and production ([Lu et al., 2020](#)).

Market demand and supply, and consumption

Reviewed studies ([Bouças da Silva et al., 2021](#); [Dai et al., 2021](#); [Duggappa, 2020](#); [Lal et al., 2020](#); [Lavanya & Deepika Rani, 2020](#); [Ma et al., 2021](#)) revealed that the Covid-19 calamity reduced the internal and external demand for most goods and services of SMEs. The most affected sectors include tourism and hospitality, manufacturing, transport, energy equipment and services, and agriculture. The reduced demand was attributed to, among other things, physical mobility restrictions, client anxiety and panic, labour force shortage, loss of client confidence, and reduced consumption. ([Behera et al. 2021](#); [Fubah & Moos, 2022](#); [Lu et al., 2020, 2020](#); [Ma et al., 2021](#)) stated that services that require physical contact witnessed a severe demand setback due to the extensive infection fear during such contact. The momentous lack of demand for SME products caused a steep fall in their revenues. Ma et al. (2021) opined that reduced consumption forced SMEs to have restricted levels of daily working capital since SMEs usually depend on internally generated liquidity. Lu et al. (2020) postulated that the calamity adversely influenced seasonal consumption, causing SMEs in service sectors such as transport and tourism to suffer severe losses, which could be unbearable to recover after the calamity is over.

SMEs witnessed supply shocks. Ma et al. (2021) articulated that the decrease in the supply of services and goods due to the pandemic was attributed to, among other issues, uncertain supply of products and unreliable prices and quality. Dai et al. (2021) articulated that even though SMEs witnessed both supply and demand shocks, deficiency of demand instead of supply-side issues forced SMEs to operate below their production capacity. Interestingly, available evidence indicated that there was a deficiency of product demand, forcing businesses to shut their doors, which further influenced the supply-side issues. Moreover, Mkhonza & Sifolo (2021) discovered that the pandemic negatively affected the communication patterns of several firms (leading to interruptions in service and product delivery and in decision making), resolution of customer complaints, quality reputation, and client loyalty (which adversely affected client retention of the firms). The authors ([Mkhonza & Sifolo, 2021](#)) further propounded that the epidemic adversely influenced the market share growth of SMEs.

Research gaps

It has emerged that several studies that examined the pandemic's influence on SMEs in BRICS countries put their attention on the adverse effects of the calamity on SMEs, ignoring the positive influences of the catastrophe, see, for example, Y. Sun et al. (2022). Not all firms were negatively

affected by the catastrophe ([Behera et al., 2021](#)), some were positively affected. For instance, the pandemic promoted the development of the digital economy; hence, biotech SMEs were positively influenced by the calamity. Technological professionals label the catastrophe as a provocation or an occasion to alter models of business or apply novel technology to promote businesses ([Galanakis et al., 2021](#)). Therefore, comprehensive studies that examine both positive and negative influences of the COVID-19 calamity on SMEs in BRICS countries need to be conducted. Further, the advantages and significance of the digital economy to SMEs in crisis periods should be assessed.

Y. Sun et al. (2022) propounded that several studies examining the pandemic's economic effect on SMEs are primarily premised on surveys. Surveys offer up-to-date information at the time they are performed. However, a large chunk of data extracted from them is primarily contingent on the perspectives of respondents, making it difficult to precisely assess the influence of the catastrophe on SMEs ([Y. Sun et al., 2022](#)). Consequently, more sophisticated methods and models need to be implemented when examining the influence of the catastrophe on SMEs in BRICS countries to get improved results.

Several studies analysed the influence of the calamity on SMEs using restricted samples of SMEs confined in particular cities, provinces or some other areas ([Ma et al., 2021](#); [Xiao & Su, 2022](#)). The results of these studies may not be generalisable to the whole country of interest or BRICS economic block since all industries in an economy or economic block may not be equally represented. So, studies that consider vast sample sizes should be conducted in future research ([Ma et al., 2021](#)). Therefore, it is recommended that samples need to be gathered from all over the country or BRICS economic block to generate generalisable results. Under the same line of reasoning, Oni & Omonona (2020) indicated that future research studies should consider the whole nation and use diverse methodological techniques.

The majority of the reviewed articles are qualitative, as is expected for an emerging research field. Quantitative and mixed method studies are restricted. Thus, quantitative and mixed method researches need to be conducted to get conclusive results. In support of this, Xiao & Su (2022) proposed that mixed-method studies need to be conducted to get more conclusive results in further research. Moreover, it has emerged that studies that determine the actual loss, attributed to the catastrophe, to the SMEs should be executed.

Reviewed studies indicated that the economic influence of the pandemic on SMEs was not evenly distributed across industries. For instance, SMEs in the transport, specialty retail, and tourism and hospitality sectors were more vulnerable to the pandemic than SMEs in health care equipment and supplies, communications equipment, and pharmaceuticals sectors since there were more affected by factors such as mobility impairments and social distancing. Nevertheless, many reviewed articles focused on samples comprising all or a number of industries in an economy, and recommendations were not suggested according to the features of a particular industry ([Ma et al., 2021](#)) ([Y. Sun et al., 2022](#)) ([Xiao & Su, 2022](#)). Since the impact of the pandemic was diverse among industries, it is recommended that sector-specific studies should be conducted, and recommendations should be made according to the features of a particular industry ([Ma et al., 2021](#)). Sector-specific studies promote an in-depth examination of the phenomenon.

CONCLUSION

Even though some SMEs benefited from the Covid-19 calamity, the calamity had a substantially adverse influence on most SMEs in BRICS economies. The catastrophe took a heavy toll on the SMEs. In this study, a systematic literature review was conducted to assess the influences of the Covid-19 catastrophe on SMEs in BRICS countries and opportunities for future research. The systematic literature review indicated that the pandemic had affected SMEs in BRICS countries in both positive and negative ways. Specifically, the study results indicated that the pandemic affected innovative operational approaches of SMEs, exposed SMEs to financial challenges, influenced SME and stakeholder confidence, threatened the very survival of most SMEs, delayed the resumption of work in SMEs, and influenced market demand and supply and consumption. Further, the study results revealed that examining the influences of the Covid-19 calamity on SMEs in BRICS economies has some distinctive and uncharted areas since this research field has a reasonably short history. As a recommendation, policymakers should introduce policy initiatives that boost capacity building and encourage work resumption in SMEs. Moreover, the policymakers need to develop the digital economy. Even though the study produced some interesting results, it has some limitations. Since this chapter focused on the influences of the Covid-19 calamity on SMEs in BRICS economies only, it can be extended by focusing on the impact of the Covid-19 calamity on SMEs in a multiplicity of emerging markets or in developing countries in general. Moreover, the measures implemented to identify SMEs and the impact of the Covid-19 pandemic on SMEs vary across sectors and economies. Therefore, systematic literature reviews dedicated to the effects of the pandemic on specific industries and economies need to be performed.

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