


The Effect of Information Technology on The Performance of MSMEs During the Covid-19 Pandemic

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ARTICLE INFO

Article history:

Received February 02, 2022

Revised February 05, 2022

Accepted May 11, 2022

Available online May 25, 2022

Kata Kunci:

Covid-19, Teknologi Informasi, Kinerja UMKM

Keywords:

Covid-19, Information technology, MSME Performance



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ABSTRAK

Usaha Mikro, Kecil dan Menengah (UMKM) memiliki peran penting dalam meningkatkan perekonomian suatu bangsa. UMKM memiliki kemampuan untuk bertahan dalam kondisi ekonomi yang menurun dan juga memiliki kemampuan menyerap tenaga kerja dalam jumlah besar. Namun pandemic covid-19 memberikan dampak pada perekonomian global. Penelitian ini bertujuan untuk menganalisis pengaruh variabel teknologi informasi terhadap kinerja UMKM selama masa pandemi Covid-19. Jenis penelitian ini yaitu kualitatif dengan pendekatan literature review. Beberapa artikel yang mengaitkan teknologi informasi dan kinerja UMKM digunakan sebagai referensi. Hasil yang diperoleh UMKM sangat merasakan dampak positif dari peran teknologi informasi di masa pandemi Covid-19. Penelitian selanjutnya diharapkan dapat mengkaji peran teknologi informasi berbasis sektor UMKM secara spesifik. Misalnya UKM di bidang pangan, sandang, dan lain-lain. UKM harus memilih adaptasi teknologi yang sesuai dengan kegiatan usaha yang dilakukan dan menyesuaikan dengan kemampuan finansial yang ada. Pemerintah harus membantu menciptakan adaptasi pelaku UMKM di masa pandemi Covid-19, seperti memberikan pelatihan dan penyediaan infrastruktur teknologi yang memadai.

ABSTRACT

Micro, Small, and Medium Enterprises (MSMEs) are essential in improving a nation's economy. MSMEs can survive in a declining economic condition and also have the ability to absorb a large number of workers. However, the COVID-19 pandemic has had an impact on the global economy. This study aims to analyze the effect of information technology variables on the performance of MSMEs during the Covid-19 pandemic. This type of research is qualitative with a literature review approach. Several articles relating to information technology and MSME performance were used as references. The results obtained by MSMEs feel the positive impact of the role of information technology during the Covid-19 pandemic. Further research is expected to examine the role of information technology in the MSME sector. For example, SMEs in food, clothing, and others. SMEs must choose technology adaptations from the business activities and adjust to their existing financial capabilities. The government must help create adaptations for MSME actors during the Covid-19 pandemic, such as providing training and adequate technology infrastructure.

1. INTRODUCTION

The growth of the business world today is felt because of the development of technology, especially the internet. The utilization of information technology (website) has begun to be realized. Using website technology makes it easier for business actors to perform and communicate better forms of service to customers (Chan et al., 2019; Wang & Huang, 2022). The website must be designed with careful planning to suit the target market. Information technology in social media is also developing rapidly, such as Facebook, which is slowly becoming a different platform (Harmon & Tomolonis, 2019; Mäihäniemi, 2022). Tracking engines like Google continue to evolve from one platform to a more advanced one, so technology slowly becomes an absolute necessity to enlarge a region or network (Gajic & Budinski-Petkovic, 2013; Šola et al., 2022). Novice entrepreneurs can take advantage of a free website and its features that can be used to strengthen their business. Business actors no longer have to understand the mechanics of creating a complicated website. Web applications have developed rapidly so that users can

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make modifications according to their individual needs (Alidoosti et al., 2022; Si et al., 2022). Therefore, if entrepreneurs or independent entrepreneurs want to maximize existing websites for positive activities, their business performance will increase. The same applies to the use of social media. Customer relationship management will be straightforward with social media. One of the businesses that are affected by technological developments is MSME.

Micro, Small and Medium Enterprises (MSMEs) have an important role in improving the economy of a nation (Guevara & Thiagarajan, 2019; Mendoza et al., 2021). MSMEs have the ability to survive in a declining economic condition and also have the ability to absorb a large number of workers. Based on data from Trading Economics (March, 2021), Indonesia has the highest unemployment rate, at 7.7 percent, compared to India (6.5 percent), the United States (6.3 percent), and China (5.2 percent). High unemployment, as happened in Indonesia, opens up opportunities to create wider job opportunities (Irawan et al., 2019; Marufi et al., 2018). One way to overcome the problem of unemployment is to create jobs through entrepreneurship. Entrepreneurship can produce entrepreneurs in the MSME sector (Rizky & Yasa, 2018; Shafi et al., 2020). Entrepreneurship in the MSME sector is one of the best breakthroughs to solve the problem of educated unemployment. A country will prosper when 2 percent of its population become entrepreneurs. Indonesia with a population of 234.2 million people needs 4.4 million entrepreneurs, but so far it has only 400,000 entrepreneurs (0.18 percent of the population). During the Covid-19 pandemic, the condition of MSMEs in Indonesia and also in the world felt the impact.

MSMEs have an important role in the development of Indonesia's economic growth (Adhitama, 2018; Prajarini & Sayogo, 2021; Sugiri, 2020). This is because MSMEs are productive business fields that stand alone, which can be carried out by individuals or business entities. MSMEs can operate in all sectors of the economy, so they can help Indonesia in wider trade. MSMEs are a vital business segment sector in driving economic growth and progress in Indonesia (W. Laura Hardilawati, 2020; Supardi et al., 2021). MSMEs can play a role in increasing job creation, country development, and distributing development results. In an increasingly competitive global environment. MSMEs have a major impact on the country's economy because of their large number and absorb the workforce involved in them (Listiyowati et al., 2021; Rifai & Meiliana, 2020). In developing countries, MSMEs make up the bulk of business and create the majority of jobs. They have a strong influence on the economies of these countries and are engines of economic growth (Mendoza et al., 2021; Mushidah & Muliawati, 2021). One of the obstacles in the development of MSMEs like what happened in Bali is the lack of entrepreneurial-oriented work programs and limitations in access to technology and information.

However, not all application of technological resources has a significant impact on organizational performance (Bianchi, 2017; Bilgihan & Wang, 2016). Technological resources must be integrated with the company's strategy to achieve optimal results (Gómez et al., 2022; Hoskins & Carson, 2022). Choosing the right technology resources and implementing them properly is important. Researches related to the use of technological resources are relatively rarely discussed as a moderating function of business performance in MSMEs. Instead, the publication of technology resources has not extensively explored the moderating impact of technological resources on the effect of entrepreneurial orientation on service business performance (Tajeddini et al., 2020). The findings of previous research stated that technological resources in business organizations refer to the use of information technology to support the process of achieving certain targets (Mendoza et al., 2021; Pereira et al., 2022). A successful company requires not only capabilities in the areas of corporate, business and functional planning and strategy, comprehensive financial projections, and resource allocation, but also information technology (IT) resources and capabilities. Capability in the IT field includes technical skills, knowledge, and infrastructure that can be used to assist operational processes. The use of technology significantly affects business performance (Amouri et al., 2021; Okundaye et al., 2019). This study aims to analyze the effect of information technology variables on the performance of MSMEs during the Covid-19 pandemic.

2. METHODS

This type of research is qualitative research. The data in this article is qualitative data taken from research articles related to the performance of MSMEs during the Covid-19 pandemic. Articles were collected with the help of websites that archive research results, such as Emerald Insight and Google Scholar. The keywords used in the article search were Covid-19 and the performance of SMEs. After the search results appear, the next step is to analyze the article's publisher, whether a reputable publisher publishes it or not. From the articles found, the results of the articles were mapped. The technique used to analyze the data is descriptive qualitative analysis. The mapping results are used to conclude the role of information technology variables on the performance of SMEs.

3. RESULTS AND DISCUSSIONS

Results

Based on qualitative research using unstructured and semi-structured interviews of 26 respondents taken intentionally from the NIJA database in Nigeria, the results show that there are 16 factors that influence the choice of information technology in marketing. Factors related to the technology context include operational effectiveness, adaptive capability, simplicity, safety and extensibility concerns, while factors related to organizational context include shared understanding, level of business collaboration, and diversity of knowledge. Technology adoption has environmental impacts such as employee training, service delivery, customer satisfaction and competition. Factors related to value anticipation include business growth costs, differentiation, and return on investment (Eze et al., 2019). Factors related to the context of technology indicate that during the Covid-19 pandemic, service delivery can still be carried out with the help of information technology

Another study examines how SMEs with different levels of technological advancement from their offerings (high, medium, low technology) use the internet to support their internationalization process and international customer interactions. These findings suggest that the influence of the internet on the internationalization process and SME customer interactions differs across three main dimensions: the way SMEs invest in and use different internet applications for internationalization and customer relationship support, SMEs' perceptions of the internet as a tool to support communication with customers and SMEs' dependence on a more personal and interactive form of contact with international customers (Tseng & Johnsen, 2011). The Covid-19 pandemic period limits activities between countries or internationalization, but with advances in information technology the internationalization process can still be carried out. The study in Namibia determined that there are a number of obstacles that SMEs face in using commuting information technology (ICT), especially the internet to access business information services. There are several factors that still hinder the full development of e-business in Namibia. The study also determined that in Namibia, the number of business development service organizations providing technology services to small SMEs. It was also determined that service providers felt that low levels of ICT perception among SMEs, investment costs, imports, and maintenance costs contributed to the low use of ICTs. There are various interventions that can be carried out by the government and business service providers to increase the use of ICT by SMEs in Namibia.

A study in Bangladesh was conducted with the main aim of comparing human and technological barriers to entry into foreign markets for SMEs in developing countries. To achieve this goal, a model has been developed and validated through empirical data. The results of this study will help policy makers and SME owners to know which behaviors they need to prioritize when they internationalize their business and what process resources are important in ensuring success. The results suggest that policy makers need to consider human and technological and innovative practices when they design and implement economic growth and development ideas targeting SMEs in emerging economies.

Discussion

Information technology (IT) has various motives to examine its role, influence and relationship to competitive advantage. The rapid development of technology is used by companies to manage their managerial and operational activities (Indiyarningsih et al., 2020; Machmud et al., 2021; Park et al., 2020). This condition causes the existing research to be filled with explaining the basic drivers of IT for corporate performance and competitive advantage. Today companies invest a large amount of financial resources in IT. This requires the integrated planning and execution of IT strategies and applications to create a competitive advantage. Although IT is one of the largest areas of capital expenditure representing a strategic opportunity for some business organizations, it can also become nothing more than an unwanted expense, as a source of frustration or a barrier to change for others, if not used properly (Bilgihan & Wang, 2016; Okundaye et al., 2019). Businesses must constantly examine the strategic opportunities that technology offers and use technology as a competitive method to differentiate and create a competitive advantage (Gupta, 2022; Musarra et al., 2022). Consequently, there is a need to develop a conceptual framework to understand technology-induced competitive advantage and its drivers.

The growth of the business world today is felt due to the development of technology, especially the internet (Elia et al., 2021; Garcia et al., 2020). Utilization of information technology (website) has started to become an awareness. By utilizing website technology, it is easier for business actors to carry out and better communicate forms of service to customers. The website must be designed with careful planning to suit the target market (Chan et al., 2019; Wang & Huang, 2022). Information technology in the field of social media is also rapidly developing, such as Facebook which is slowly turning into its own platform. Tracking engines like Google also continue to evolve from one platform to a more advanced platform so that technology slowly becomes an absolute necessity to enlarge a region or network. Novice

businessmen can actually take advantage of a free website and its features that can be used to strengthen their business. Business actors no longer have to understand complicated website creation mechanisms. Web applications have grown rapidly so that users can make modifications according to their respective needs (Gajic & Budinski-Petkovic, 2013; Šola et al., 2022). Therefore, if entrepreneurs or independent entrepreneurs want to maximize the existing website for positive activities, then their business performance will increase. The same applies to the use of social media. Customer relationship management will be very easy with the existence of social media.

The MSME sector in Indonesia is also experiencing the impact of the Covid-19 pandemic. The most felt impact is a decrease in sales, difficulty in capital, product distribution barriers, and difficulties in raw materials. The government has issued policies in order to empower MSMEs in the COVID-19 pandemic situation, such as first, providing social assistance to poor and vulnerable MSME actors (Bisnis et al., 2020; Meinarni et al., 2021). Second, tax incentives for MSMEs. Third, relaxation and credit restructuring for MSMEs. Fourth, expansion of MSME working capital financing. Fifth, placing ministries, state-owned enterprises and regional governments as a buffer for MSME products (Adhitama, 2018; Prajarini & Sayogo, 2021). Sixth, e-learning training. The development of information technology supports online training (Sugiri, 2020). In uncertain times during the Covid-19 pandemic, earning and maintaining the trust of customers, partners, and employees is the key to success. Companies can earn this trust by implementing a business continuity plan, by upholding their obligation to protect and by communicating transparently. Transparent communication during the Covid-19 pandemic can be done by utilizing new information technology (Cruz-Cárdenas et al., 2019; Saputra et al., 2021). Advances in technology, now we have technology that makes employees work from home and avoid physical contact. Companies that have such technology should prefer to adopt it as much as possible. Such a strategy will also help companies to reduce some of the direct costs involved in office physical work such as property costs, utilities, and others (Shafi et al., 2020).

In the midst of this Covid-19 pandemic, consumers are more careful in using goods and services and there is a decline in consumer confidence in the goods and services sold by business actors. In addition, the limitations of consumers in making direct purchases also have an impact on a significant reduction in the number of consumer purchases. For this reason, MSME actors must improve product quality to increase consumer confidence and intensively communicate product quality (W. L. Hardilawati, 2020). Utilization of information technology like this can be obtained on the condition that the technology infrastructure must also be adequate. SMEs must choose technology adaptations that are in accordance with the business activities carried out and adjust to existing financial capabilities. The government should help create adaptations of MSME actors during the Covid-19 pandemic, such as providing training and providing adequate technology infrastructure.

4. CONCLUSION

The Covid-19 pandemic has caused MSME activities to be carried out in limitations. Advances in information technology are able to reduce limitations in business such as service processes to customers, communication with customers and reduce waste in the production process. There are several recommended survival strategies that MSMEs can do to be able to maintain their business, namely first, selling through e-commerce because many people are now turning to online shopping. Second, Marketing products by utilizing digital technology (digital marketing) to reach more consumers. Third, improve product quality and quality and type of service. Fourth, conduct customer relationship marketing to create consumer trust and foster customer loyalty.

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