

# Navigating the Digitalization Journey of SMEs: Insights from the COVID-19 Pandemic

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## **Abstract**

*The Covid-19 pandemic has disrupted social norms and posed significant challenges for Small and Medium-sized Enterprises (SMEs). This study examines the impact of the pandemic on SMEs' business performance and explores their digital transformation movement as a response to mitigate negative effects and sustain operations in the market. Additionally, the study investigates the role of government support in assisting SMEs during this crisis. A survey questionnaire methodology was employed to collect data from a randomly selected sample group of SME owners in Thailand, representing the digital trends within this vulnerable business sector. The results reveal that SMEs experienced a decline in revenue as the most significant negative impact, followed by difficulties in interacting with customers. To adapt and survive, SMEs turned to digital platforms, motivated by the need to recover revenue, engage with customers, and explore new opportunities. This study sheds light on the digitalization efforts undertaken by SMEs during and post-Covid-19, highlighting the challenges faced, strategies employed, and the supportive role of government initiatives. The findings provide valuable insights for policymakers, SME owners, and industry practitioners seeking to navigate the digital landscape and enhance SME resilience in times of crisis.*

**Keywords:** digitalization, SMEs, performance, Covid-19

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## **1. Introduction**

Digitalization is a vital model that businesses need to embrace in order to survive crises and maintain operations. It involves leveraging technology to improve efficiency, manage data, increase sales, and reduce costs. By investing in technology, businesses can create new platforms or channels to generate sales, advertise, promote, communicate, and share information with customers and stakeholders (Munpao et al., 2021). Small and Medium Enterprises (SMEs) are local businesses with a small number of employees, often family-owned or startups. Unlike larger firms or multinational companies (MNCs), SMEs lack significant capital to easily invest in digital technology (Priyono et al., 2020). Consequently, SMEs are particularly vulnerable during crises such as the COVID-19 pandemic (Gray, 2021).

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However, SMEs play a crucial role in the economy, accounting for a substantial portion of the country's GDP, generating employment, and distributing wealth across regions.

Therefore, digitalization is a critical choice for SMEs to sustain their business operations. Technology today provides accessible entry points for SMEs to engage in digital marketing and sales. While some small businesses had already begun their digital transformation prior to the COVID-19 outbreak, the pandemic has accelerated the process significantly. For many SMEs, adopting digital technology has become a make-or-break situation, with the loss of revenue being the main driving factor. Lockdown measures and other restrictions implemented to curb the spread of the virus have compelled businesses to shift online in order to continue operating (Khair et al., 2020).

## **2. Literature Review**

### **2.1 SMEs during Covid-19**

SMEs are an important aspect of any national economy, providing a significant number of employments and contributing to local livelihoods. They serve as a crucial intermediary in the supply chain, connecting products and services to customers (Udomthanasakul, 2021). The Covid-19 pandemic has severely impacted SMEs, as global supply chains came to a sudden halt. With travel restrictions and decreased customer demand, SMEs faced a sharp decline in customers, leading to wasted products and financial losses. While businesses shifted to online platforms, many SMEs were unprepared to modify their business models and adapt to digital technology. In Thailand, SMEs have been on a growing trend since the pre-COVID-19 period, contributing to the country's GDP, employment, and exports (Charoenrat et al, 2021). SMEs accounted for 99% of total enterprises, contributing 40% to the country's GDP and employing approximately 12 million people (Nitiwong, 2022). However, the pandemic caused a deep impact on the Thai economy, resulting in a projected decline of around 6.2% in the SMEs' GDP sector. Various sectors, including services, manufacturing, and retail, were significantly affected. Studies have shown that over 50% of SMEs reported a reduction of more than 50% in business orders, leading to financial stress, supply chain shocks, and logistics disruptions (Charoenrat et al, 2021). In the early stages of the pandemic, 90% of firms were expected to experience at least a 50% loss in revenue, with the smallest firms being the hardest hit. It was forecasted that 52% of all markets would see SMEs cease operations within three months (UNIDO, 2020). The shift in consumer purchasing patterns and supply chain shocks resulted in decreased sales and revenue for SMEs, leading to increased production costs (Munpao et al, 2021). Cash flow issues became a significant factor driving SMEs to embrace digital platforms, as they struggled to generate revenue. The survival of their businesses depended on transitioning online or risk disappearing from the market. Despite forced closures, SMEs still faced obligations such as wages, rent, and bills. Cash

flow was crucial for maintaining business operations. In Malaysia, more than 50% of SMEs reported earning no revenue at all due to lockdown measures (Adam et al, 2021). Traditional SMEs, primarily operating brick-and-mortar stores in their local neighborhoods, often lack digital literacy and struggle to adapt quickly to changing business models (Akpan, 2020). The limited human capital and technical knowledge within SMEs hinder their ability to embrace Internet platforms. Unemployment rates surged during the pandemic, leading to job losses and income reductions. Some individuals turned to the gig economy, self-employment, or part-time work to compensate for the loss of income (Aladejebi, 2020). Existing businesses attempted to reduce costs by temporarily closing, relocating, or downsizing their workforce (Fuchs, 2022). Governments imposed lockdowns and regulations that severely restricted social interactions, leading to economic downturns and recessions. To support SMEs, governments offered policies, budgets, and initiatives to facilitate digital implementation, employee retention, and entrepreneurial information on digital innovation (Adam et al, 2021). However, the aid provided by the government may not cover every SME in need, leaving many businesses with limited resources such as capital, digital literacy, human resources, and knowledge (Gray, 2021). SMEs often rely on their accumulated savings, which may only sustain them for a limited period, particularly during lockdowns (Adam et al, 2021). The loss of income becomes a critical factor driving businesses to adopt digital technology. In Thailand, SMEs operate in various sectors, with a significant presence in the food and service industries. Restaurants and hotels were heavily affected by COVID-19 due to their reliance on tourism and in-person spending (Fuchs, 2022). These SMEs needed to adjust their operations to comply with lockdown protocols, leading to a drastic decline in customers and tourists. The ability to adjust and survive is not solely determined by capital availability but also the operational leaders' skills (Khai et al, 2020). The concept of the "new normal" emerged, describing the new way of life that people had to adapt to during the crisis. It involved social distancing, remote work, and reduced transportation (Cueto et al, 2022). The surge in online customers during lockdowns was part of this new normal progression, as people turned to online platforms for their essential needs, including food (Lashgari et al, 2022). The new normal forced businesses to explore new ideas and strategies, such as implementing e-commerce platforms, contactless deliveries, and online marketing, to stay afloat. Digital transformation became a crucial step for SMEs to survive and recover from the pandemic's impact. It involved embracing technology and integrating it into various aspects of business operations, from inventory management and online sales to customer engagement and marketing (Nitiwong, 2022). Many SMEs started using social media platforms, developing websites, and partnering with e-commerce platforms to reach a wider customer base. Through these digital channels, SMEs could continue generating revenue even during lockdowns and restrictions. Government initiatives played a significant role in supporting SMEs' digital transformation. They provided financial assistance, grants, and subsidies to help SMEs adopt digital technologies and enhance their online presence (Akpan, 2020). Training programs and workshops were conducted to

improve digital literacy among SME owners and employees. Governments partnered with private organizations and industry experts to offer guidance and resources to SMEs during the transition. Apart from government support, collaborations between SMEs themselves also emerged. SMEs joined forces and formed networks or associations to collectively navigate the challenges and share resources (Munpao et al, 2021). These collaborations allowed SMEs to pool their strengths, share knowledge and best practices, and collectively negotiate with suppliers and distributors, leading to cost savings and improved bargaining power. As the world slowly recovers from the pandemic, SMEs that successfully embraced digital transformation are in a better position to adapt to the changing business landscape. The shift to online platforms has opened up new opportunities for growth and expansion, as SMEs can now access a broader customer base beyond their local markets (Cueto et al, 2022). E-commerce platforms provide SMEs with the potential to reach national and even international customers, increasing their sales and revenue potential. Moreover, the data generated from online transactions and customer interactions can be leveraged to gain insights into customer preferences, improve products and services, and tailor marketing strategies. However, challenges remain for SMEs in their digital transformation journey. Limited access to capital, technological infrastructure, and skilled human resources can hinder their progress (Gray, 2021). SMEs need continuous support and guidance to overcome these barriers and fully leverage the benefits of digital technology. Governments, industry associations, and private organizations must continue to provide assistance, training, and resources to ensure that SMEs can thrive in the digital era.

In conclusion, the Covid-19 pandemic has had a profound impact on SMEs worldwide, including those in Thailand. The crisis accelerated the need for digital transformation, as SMEs faced significant disruptions in their traditional operations. The shift to online platforms and the adoption of digital technologies became crucial for survival and recovery. Governments and other stakeholders played a vital role in supporting SMEs through financial assistance, training programs, and collaborations. The successful digital transformation of SMEs not only helped them survive the crisis but also opened up new opportunities for growth and expansion in the post-pandemic world.

## **2.2 SMEs Digitalization**

The survival of SMEs through the crisis depends on their ability to adjust, adapt, or innovate to create a competitive edge or exit point from the problems. Digitalization is the way to boost business revenue back from the crisis. Digitalization refers to the use of technology to help businesses operate their firms (Udomthanasansakul, 2021). Digitalization involves many functional aspects of the firms such as marketing, selling, advertising, production communication, and data collection. Firms can fully digitalize all their functions via technology or partially digitalize the business operation. SMEs with limited resources are promoted to partially digitalize their model with a focus on selling and advertising to attract

customers and generate income (Adam et al., 2021). Digitalization gives the opportunity for firms to reach even larger consumers than their traditional model (Kala'lembang, 2021). It also provides a larger stakeholder availability through the vast number of several supply chain providers either vertically or horizontally. Digitalization provides firms with more effectiveness of operation together with the reduction of cost. Digitalization reduces the spatiality of big and small firms as the internet allows customers to reach several firms more evenly (Jankornsteads, 2021). SMEs just need to be ready to change or agile and flexible enough to transform their operations to catch the flow of the markets. With the advance of technology, many platforms are already available for SMEs to cooperate or partner with to deliver business to consumers. The most used platforms include Facebook, YouTube, Instagram, and Twitter to promote sales and advertise their products (Adam et al., 2021). The Live Streaming systems allow direct communication between sellers and buyers to communicate or order the product easily. Moreover, intangible services are being delivered via the streaming model; local music bands offered online shows to generate revenue during the lockdown period (Dunlee, 2022). These platforms generate a perception of easiness of access and usability to customers. Another technology used is Chat commerce. Customers have a chance to communicate with firms just like in-store experience; information can be explained thoroughly, and transactions can be done safely. These platforms include WhatsApp and Line (Rattanawicha et al., 2021). Chat commerce allows employees to hold the jobs as they must explain the information, manage stocks, and pack for delivery. Many SMEs use this strategy of Omnichannel or hybrid channel to service customers as well as facilitate fast delivery (Choi et al., 2021).

Digitalization provides firms with larger customer bases because everyone is accessible to the internet. Especially during this pandemic, people adopt shopping online to avoid going outside. E-commerce platforms allow SMEs to promote their products and conduct business on platforms like Amazon or Lazada. Not only are consumers getting into digital platforms, but many new entrepreneurs and SMEs are jumping into the markets as it allows everyone to compete for the larger markets (Sneader et al., 2021). More than half of online transactions come from social media systems, showing that digitalization is the latest trend for the post-COVID-19 era (Rattanawicha et al., 2021). The integrated model of new business strategy gives birth to a number of delivery companies that allow SMEs to partner with these platforms and create a smooth logistic system from producers to consumers. Food and goods delivery companies give the opportunity to SMEs to reach customers so cheaply due to more than four service providers competing in the markets. SMEs reconsidered their business activity to focus on the issue of the new-normal environment and to make sure that their product and service are in the supply chain of the delivery company (Leenoi, 2021). Digitalization allows several payment systems to the markets. Online payment systems are preferable as they were developed to the point of security that people trust the platform and were used for financial transactions, as people carry less cash and promote cashless societies (Muangmee et al., 2021). The use of social media is the most preferred channel as it

requires less knowledge to finish setting up than store websites or internet blogs. Another area that requires effort is financial transactions, which need to be established with the help of banking systems; it is still the lagging issue of SMEs. Traditional retailers or SMEs have advanced themselves into digital platforms that are available in the markets as well as continuing their SMEs operation. This model of business allows them to provide transactions both online and offline. The available stores that are faced with lesser sales are turning into inventory and distribution premises for the delivery of products (Fortuna et al., 2021).

Digital entrepreneurs and hybrid entrepreneurs are appearing in SMEs markets. People find the COVID-19 era a harsh period to continue with a single job employment. Employees were forced to have lower pay and job security, leading them to explore new avenues for income generation. Many individuals have started their own digital businesses, leveraging online platforms and technologies to sell products or services (Lee et al., 2021). These digital entrepreneurs are often able to operate their businesses from home or small office spaces, reducing overhead costs. Similarly, hybrid entrepreneurs are individuals who maintain their traditional employment while also engaging in digital business activities on the side (Tirgil et al., 2021). In addition to selling products or services online, SMEs can also benefit from digital marketing strategies to reach a wider audience. This includes search engine optimization (SEO) techniques to improve visibility on search engines, social media marketing to engage with customers and build brand loyalty, and content marketing to provide valuable information and attract potential customers. By utilizing these digital marketing tactics, SMEs can effectively promote their offerings and compete with larger businesses. Furthermore, data-driven decision-making plays a crucial role in the digitalization of SMEs. Collecting and analyzing relevant data allows businesses to gain insights into customer behavior, market trends, and operational efficiency (Kongprasert et al., 2021). This data can help SMEs make informed decisions regarding pricing, product development, marketing strategies, and resource allocation. By harnessing the power of data, SMEs can optimize their operations and stay competitive in the digital landscape. It is worth noting that digitalization alone may not guarantee the survival of SMEs. Other factors such as financial management, adaptability to changing market conditions, and the ability to offer unique value propositions are equally important. However, embracing digitalization and leveraging available technologies can significantly enhance the resilience and growth potential of SMEs in the face of crises and beyond.

### **3. Methodology and results analysis**

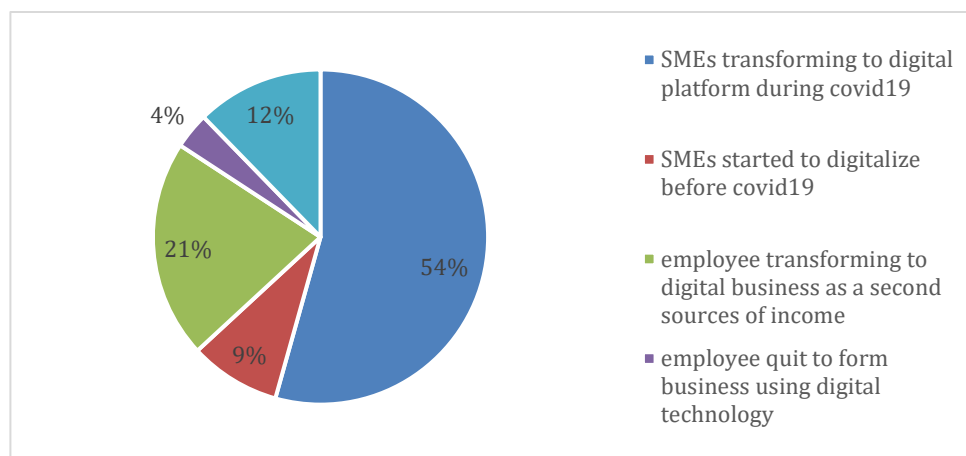
The research employed a survey methodology to gather data, specifically utilizing questionnaires distributed among a randomly selected sample of small and medium-sized enterprise (SME) business owners. The study focused on examining the digital transformation process of SMEs. A total of 71 respondents participated in the survey by completing the questionnaires. These respondents were chosen based on a selective random sampling technique, which aimed to ensure representation of

the SME sector in the study. The questionnaire served as the primary instrument for data collection, allowing the researchers to gather valuable insights into the digitalization efforts undertaken by the SMEs under investigation.

### Analysis

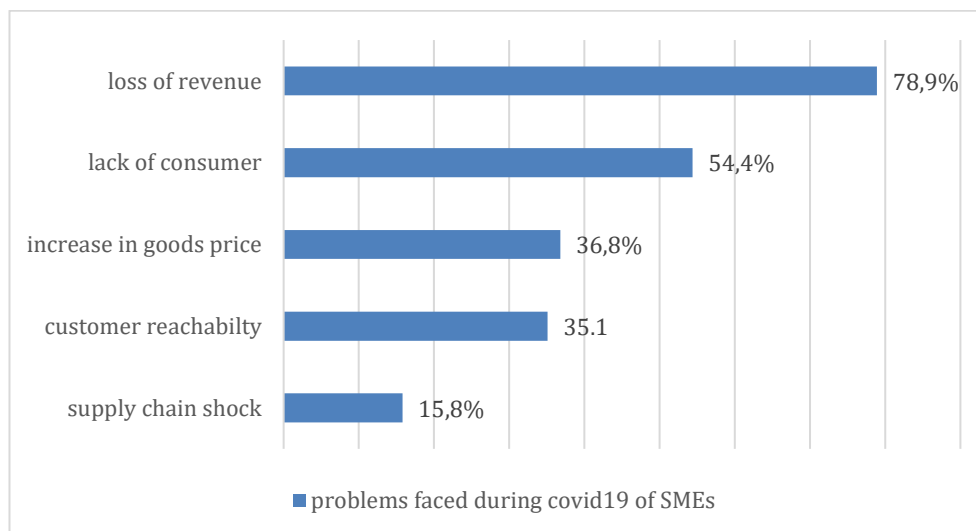
The demographic profile of the respondents who participated in the study reveals a distribution of 56% female and 43.66% male participants. Regarding age groups, the respondents were categorized into distinct ranges, with 36.8% falling between 20-25 years old, 29.8% between 25-35 years old, and 33.3% above 35 years old. An analysis of the educational background of the respondents indicates that 21.1% had completed at least a high school education, 70.4% possessed a diploma or undergraduate degree, and 8.4% held a Master's degree or higher qualification. These findings provide insight into the gender, age, and educational composition of the respondent pool, thereby contributing to a comprehensive understanding of the characteristics of the study's participants.

The respondent composition of the questionnaires includes micro enterprises, accounting for 66.7% of the sample, followed by small entities at 26.3%, and medium-sized enterprises at 7%. Examining the age of operation for the participating firms, it is observed that 40% of the entities have been operating for a period ranging from 1 to 3 years. The study also found that 33% of the firms had been in operation for more than 5 years, while 14% fell within the 3–5-year range. The smallest proportion of respondents, constituting 12% of the sample, represented businesses that had recently commenced operations within the past year. The distribution of respondents across these categories sheds light on the representation of different enterprise sizes and the duration of their operational presence, enhancing the understanding of the study's sample characteristics.



**Figure 1. Impact and effect of Covid-19 on the performance of SMEs**

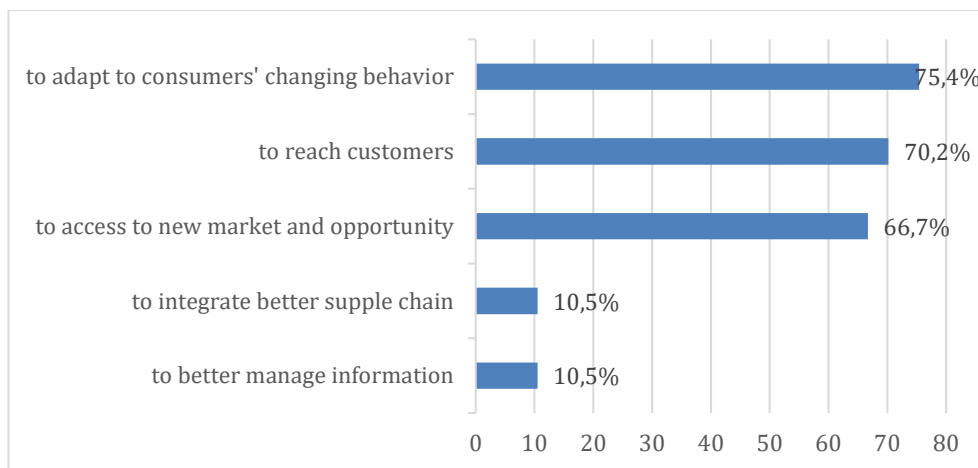
Figure 1 depicts the status of small and medium enterprises (SMEs) at the onset of their digitalization efforts. The paths followed in the business digital transformation process vary depending on the pre-COVID-19 background of the entrepreneurs. The COVID-19 pandemic has significantly disrupted markets, compelling firms to explore new operational models to sustain their presence (Akpan, 2020). While some businesses have faced immense challenges and exited the market, others have emerged by seizing new opportunities. Among the SMEs that embarked on digitalization, 54% initiated the process during the COVID-19 outbreak. Additionally, 21% of respondents were individuals who, due to the difficulties faced during the pandemic, began engaging in business activities as a secondary source of income. Furthermore, 12% were unemployed individuals who initiated business ventures amidst the COVID-19 outbreak. Both employees and unemployed individuals have utilized the opportunity to establish supplementary careers alongside their primary occupations. The rising cost of living during the pandemic has necessitated the pursuit of additional income sources to maintain pre-COVID-19 living standards, thereby driving the establishment of new SMEs (Santee, 2021; Cueto et al., 2022; Aladejebi, 2020). Moreover, 8.8% of SMEs had already transitioned to digital technology prior to the pandemic, while 3.5% of respondents were employees who quit their jobs to pursue full-time business ventures with the aid of digital technology. The "new normal" has fostered an environment conducive to online activities across various sectors, motivating businesses to adopt electronic-based systems. Furthermore, the increasing trend of e-commerce has facilitated entrepreneurial endeavors, as it offers exceptionally low barriers to entry for new businesses (Dunlee, 2022).



**Figure 2. Challenges during Covid-19**



Figure 2 presents the findings that aim to investigate the impact of the COVID-19 pandemic on business operations, subsequently leading to the adoption of digitalization. Within an academic framework, the results indicate that 78.9% of the surveyed firms identified the loss of revenue as the most prominent concern resulting from the pandemic. This was closely followed by 54% of businesses reporting a decrease in the number of consumers and 36% highlighting an increase in the prices of goods. The implementation of measures to restrict social movement, enforced in an effort to contain the spread of the coronavirus, underpins the rationale behind the decline in customer numbers. The customary patterns of social interaction have been disrupted by the introduction of the "new normal." Furthermore, 35% of respondents cited challenges in reaching customers as a significant issue faced during the COVID-19 pandemic. Many businesses have had to temporarily close their doors, while those that remain open have experienced a reduced customer base. Consequently, business revenue has undoubtedly declined, while several costs have persisted (Udomthanasansakul, 2021). It is worth noting that customers have opted to stay at home for safety reasons, engaging in online learning and remote work arrangements. This change in behavior has resulted in reduced spending to ensure financial stability in the face of unforeseen risks and uncertainties (Lashgari et al., 2022).



**Figure 3. Reasons for SMEs to implement digitalization process**

Figure 3 presents empirical evidence highlighting the driving factors behind the adoption of digital systems by small and medium-sized enterprises (SMEs). Within an academic context, the findings reveal that 80% of the respondents indicated that the implementation of digital technologies was motivated by the desire to increase sales and generate revenue. This observation aligns with the research conducted by (Adam et al., 2021), which emphasizes the crucial role of revenue generation as a primary and early focus of digitalization efforts among firms. Furthermore, 75% of the participants acknowledged the necessity of adapting to

changing customer behavior and identified digitalization as a means of effectively reaching and engaging with customers. Additionally, 66.7% of the responses underscored the importance of accessing new markets and opportunities as a driving force behind the adoption of digital technologies. The COVID-19 pandemic has accelerated the digital transformation process, compelling firms to move away from reliance on single-channel, particularly offline platforms. Consumers have shifted their spending behavior due to restrictions imposed during the pandemic and have recognized the convenience and efficiency offered by digital platforms. Consequently, online businesses have created enhanced opportunities by establishing a multichannel ecosystem (Fortuna et al., 2021).

**The most preferred business function that was digitalized**

**Table 1**

Business function	Percentage of respondents
Sales	78.9
Marketing and advertisement	66.7
Financial transaction	66.7
Communication	54.4
Data management	12.3

*Source:* author conception

Another significant aspect is the identification of specific operational functions that firms chose to digitalize in order to operate in the digital world. Table 2 provides an overview of the business functions that were selected for digitalization. The findings indicate that 79% of the respondents prioritized the digitalization of sales functions. This emphasis on sales is driven by the need to engage with customers and generate income, thereby safeguarding the business from potential disruptions during times of crisis (Priyono et al., 2020). Following sales, marketing and advertising functions were chosen for digitalization by 66% of the participants. Social media platforms have emerged as a prevalent means of advertising products and services due to their ease of use and absence of financial obligations. Online marketing and advertising enable complex engagement, facilitating not only marketing efforts but also direct and rapid communication with customers (Priyono et al., 2020). Financial transaction operations were the third most commonly digitalized function, also at a rate of 66%. Technological advancements have provided secure and swift financial activities, leading individuals to opt for digital financial transactions instead of visiting physical bank branches. Banking and related non-banking financial applications offer users various money management options, thereby facilitating business activities (Priyono et al., 2020).

Communication functions accounted for 54.4% of the digitalized functions. Chat applications that enable simultaneous interaction have become a crucial tool for businesses to engage with customers without the need for physical presence.

Chat-commerce has emerged as a significant achievement in business operations, as all stakeholders effortlessly embrace and understand these systems. The perceived ease and usefulness of digital communication functions have been among the most evident benefits for SMEs during the COVID-19 pandemic (Rattanawicha et al., 2021). Data and information management emerged as the least preferred function for digitalization, accounting for 12.4%. Managing data requires specialized expertise, and SMEs, with limited capital and knowledge compared to larger firms, were less motivated to adopt functions that did not directly generate revenue during the urgent period of the pandemic (Priyono et al., 2020). The perceived complexity of data management may also contribute to its lesser utilization among SMEs (Khai et al., 2020).

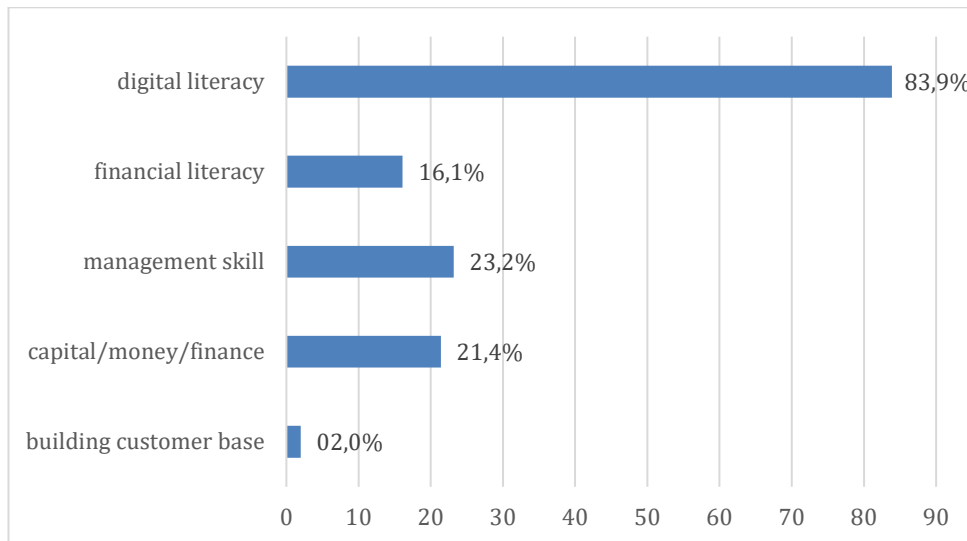
**The preferred categories of application among SMEs**

**Table 2**

<b>Function</b>	<b>Application</b>	<b>Ranking</b>
<b>Advertise and marketing</b>	Facebook, Instagram, YouTube, and TikTok	1
<b>Communication</b>	Line, Messenger and WhatsApp	2
<b>Financial application</b>	Banking application	3
<b>Delivery</b>	Delivery company application	4
<b>E-commerce system</b>	Shopee and Lazada	5

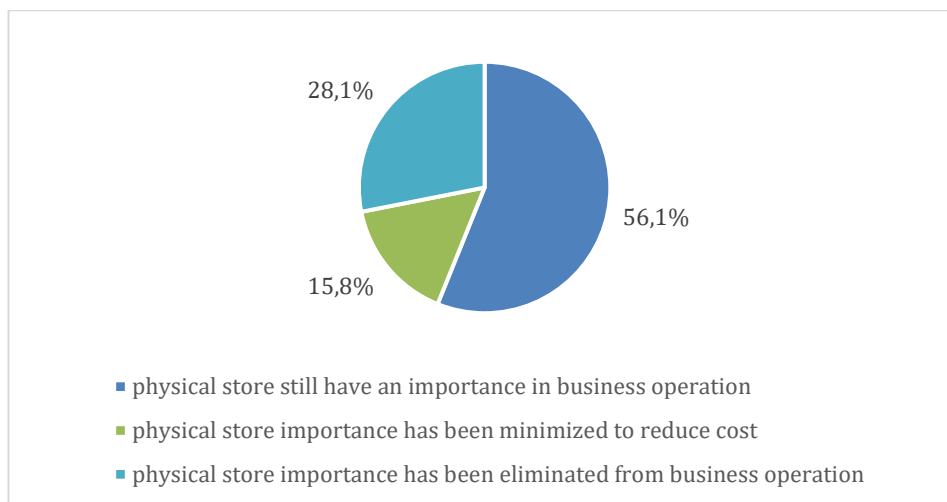
*Source:* author conception

Table 2 provides a comprehensive overview of the applications utilized by SMEs in the digital environment. The most frequently used applications for conducting business operations can be categorized into four subgroups. In the social media category, Facebook was the most popular application, utilized by 73.3% of the surveyed SMEs. Instagram followed closely behind at 54%, while YouTube was used by 3.5% of the firms. For banking and financial transactions, 68.4% of the SMEs reported using specific applications in this category. In terms of communication applications, Line and Messenger were utilized by 35% of the firms, while WhatsApp was used by 7%. The last category pertained to delivery partner applications, with a utilization rate of 36.8%. Notably, the Thailand Development Research Institute identified Facebook, Line chat-application, GrabFood, and FoodPanda as the most commonly used platforms among SMEs in Thailand (Kiatisak, 2021). Additionally, SMEs also utilized other minor applications such as information management systems, e-commerce shopping platforms like Shopee and Lazada, as well as the website business model, Google. These applications collectively reflect the diverse technological tools and platforms employed by SMEs to navigate and thrive in the digital business landscape.



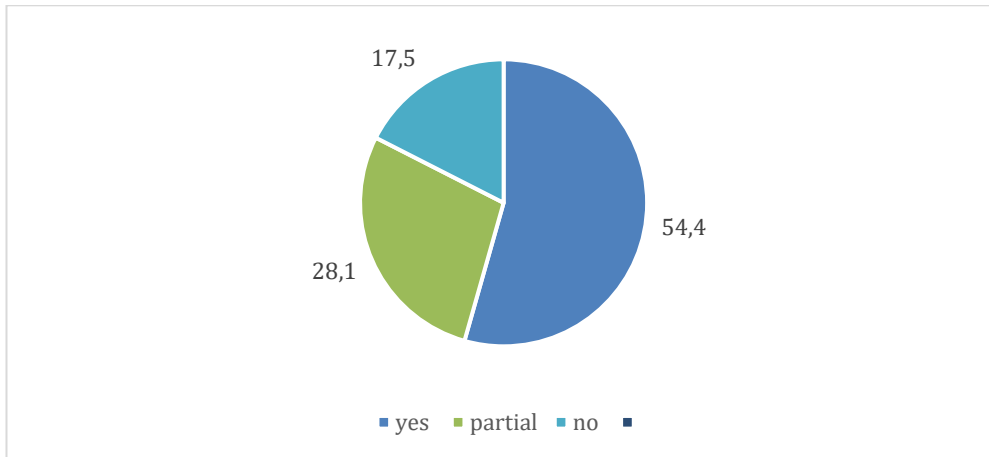
**Figure 4. The primary challenge encountered during the implementation of digitalization**

When examining the challenges faced during the implementation of digitalization in businesses, a prominent obstacle is the lack of digital literacy, which was identified by 84% of firms as the most significant difficulty in terms of non-financial obstacles. Many SMEs have been accustomed to operating in traditional ways for an extended period, making it challenging for them to adopt abrupt changes. Moreover, a considerable number of businesses are managed by older adults who are unfamiliar with digital technologies. The characteristics of small businesses, such as their dependence on traditional business models, limited capital, and management functions, further hinder their transformation into digital enterprises (Nitiwong, 2022). However, 66.7% of SME respondents indicated that their digital transformation did not require significant initial financial investment. Instead, they opted for common methods such as social media marketing, chat-commerce, and utilizing delivery partners, all of which can be carried out using smartphones, thereby expanding their service channels (Janteads, 2021). Financial obstacles related to investment and initial payment were identified by 33% of firms. These obstacles include the need to purchase hardware such as smartphones or credit card payment machines. Business owners must coordinate with banks to obtain these machines and establish store-specific QR code systems. The lack of hardware expertise hinders many firms from implementing digital services (Supari et al., 2022). Furthermore, 24% of firms indicated the need to pay for software and applications to facilitate various business functions, while 14% of respondents reported investing in courses to acquire knowledge about digital business operations. These financial commitments highlight the costs associated with acquiring and utilizing the necessary tools and knowledge for digitalization (Supari et al., 2022).



**Figure 5. The degree of importance of physical stores to SMEs after the digitalization process**

Figure 5 provides an overview of the relationship between SME operations and the significance of traditional physical stores following the digitalization process. The integration of digital technology has enabled certain firms to reduce costs by either decreasing or completely eliminating their reliance on traditional physical stores. However, 56% of the surveyed SMEs emphasized that physical stores still hold significant importance in their overall business operations. This is particularly evident in sectors such as hotels and accommodation, where the provision of services, such as production, cannot be fully migrated to an online platform. Conversely, 28.1% of the respondents stated that physical stores no longer hold any importance after the digitalization of their business models. This category primarily consists of product resellers and distributor agents who find no necessity for physical stores in their operations. Some food and beverage businesses have fully transitioned to an online model, utilizing delivery agents to distribute their products. Additionally, certain service providers can perform their activities from home through digital platforms, eliminating the need for physical spaces. Furthermore, 15.8% of the firms expressed that the importance of physical stores has been minimized to reduce costs, but they still play a role in their business operations. Restaurants, food and beverage establishments, and grocery stores are among the respondents who have adopted a hybrid channel model. To reduce fixed costs such as rental fees, these establishments have minimized their physical footprint and shifted towards online food delivery with the assistance of delivery partner platforms (Kiatisak, 2021). Overall, the degree of importance attributed to physical stores by SMEs varies depending on the nature of the business and the extent of digital transformation achieved. While some businesses still heavily rely on physical stores, others have successfully transitioned to digital channels or adopted hybrid models to optimize costs and adapt to changing consumer preferences.



**Figure 6.** Government support

Figure 6 provides insights into the perceptions of SMEs regarding government support during the COVID-19 crisis. The aim is to examine whether the government's response in terms of aiding business operations and minimizing costs has effectively supported the performance and survival of SMEs. Among the respondents, 55% indicated that government economic stimulus packages had notably contributed to revenue gains. The Thai government, for instance, provided payment support to lower-income individuals to purchase essential goods, thereby stimulating household spending and benefiting SMEs during this crisis. To facilitate transactions, SMEs had to establish QR-code payment systems and invest in card payment machines. Customers utilized the supported subsidies from the government, leading to increased business activities and revenue generation for SMEs (Udomthanasansakul, 2021). In relation to the previous question, over 76.8% of the responses confirmed that government support had prompted them to transform either a part or the entirety of their business models onto digital platforms. However, 28% of SMEs provided unclear responses regarding their revenue increase with the assistance of government stimulus packages. Some firms pursued digitalization processes to access new opportunities but did not participate in the government's package schemes. Additionally, certain firms' products and services were not deemed essential during the COVID-19 period. Approximately 17% of firms stated that there was no apparent evidence of their business performance being affected by government economic packages. Concerns raised by SMEs included the limited number of support packages, lack of inclusiveness in the criteria, complex qualification processes, and delayed crisis response.

These findings suggest that government support, in the form of economic stimulus packages, has had a positive impact on SMEs, leading to revenue gains and encouraging digital transformation. However, there are cases where the effectiveness of the support packages is unclear or insufficient. SMEs have expressed grievances about the limited availability of support, difficulties in qualifying for assistance, and delays in crisis response. These observations highlight the importance of continuous evaluation and improvement of government intervention measures to ensure comprehensive and timely support for SMEs during crises.

## Conclusion

In conclusion, small and medium-sized enterprises (SMEs) have proven to be particularly susceptible to change during times of crisis. The inherent limitations of resources and capital place small firms at a disadvantage compared to larger corporations. The COVID-19 pandemic has significantly altered people's lifestyles and disrupted business activities and interactions due to movement restrictions and changes in consumer behavior. Many small businesses struggled to adapt to these changes, leading to the closure of some firms that could not keep up with evolving societal trends. The loss of revenue, cash flow shortages, and remaining costs pose significant threats to the survival of small businesses.

Digital technologies have emerged as potential solutions during these crises. SMEs have been compelled to transform their business models by leveraging digital platforms to reach customers, advertise, communicate, and facilitate sales. Social media platforms, chat applications, and financial applications have played a crucial role in enabling firms to digitalize their operations with minimal costs, leading to gains and better resilience during the pandemic. The low barriers to entry associated with digital technology have also led to an increase in digital entrepreneurs, as individuals have sought alternative sources of income or ventured into new businesses during the COVID-19 era. Furthermore, delivery companies have gained importance in ensuring timely product delivery, offering firms multiple service channels to recoup losses experienced during the pandemic.

Governmental support packages have played a vital role in sustaining the survival of SMEs during the pandemic and the associated social lockdowns. These support measures have incentivized small businesses to embrace the digitalization process, enabling them to adapt to changing consumer behaviors and participate in stimulus programs. However, it is important to note that not all firms have been covered by these stimulus and cost-subsidy packages, highlighting the need for continued efforts to ensure equitable support for all SMEs.

Overall, the integration of digital technologies, combined with governmental support, has provided SMEs with opportunities to navigate crises, enhance their resilience, and capitalize on changing market dynamics. However, ongoing efforts are necessary to address the diverse needs of small businesses and ensure comprehensive support for their digitalization initiatives.

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