

E-Commerce Platforms as Business Agility Reinforcement To Compete In The Market: Cases Of Indonesian MSME

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Abstract

Despite having many vulnerabilities for being small, around 99.99% of businesses in Indonesia belong to the MSME category. Many companies consider going digital to face vulnerabilities such as limited resources, fierce competition, and environmental changes. Among all the different approaches to Digital Transformation, adopting a digital business ecosystem like an e-commerce platform is more suitable for MSMEs for its source and cost efficiency. However, only around 19% of the total number of MSMEs in Indonesia have adopted a digital business ecosystem by using e-commerce platforms. This study explores the impacts e-commerce platforms brought to various business aspects in MSMEs and whether e-commerce adoption help reinforce MSMEs' business agility to remain competitive in the market. To reach the aim of the study, we used qualitative research by interviewing six small business owners utilizing e-commerce platforms. The findings of this study show that adopting an e-commerce platform has generated changes that positively impact four business aspects: business operation, organization, marketing, and product development. These changes signify an improvement in agility. By gaining this knowledge, we hoped this study could serve as a guide to motivate more MSMEs to venture into the digital realm through e-commerce platforms.

Keywords: business agility; digital business ecosystem; e-commerce platform; small business.

A. INTRODUCTION

In an era where entering the working field has become a fierce competition, many people resort to self-employment and start their businesses. In Indonesia, the rapid growth of micro, small and medium enterprises (MSMEs) is demonstrated by the data from The Ministry of Cooperatives and SMEs in 2020, stating that about 99.99% of existing businesses in Indonesia comprised MSMEs, where in 2019 number of MSMEs in Indonesia reached 65,47 million, or about 1,98% increase in comparison to the year prior. Despite the continuous growth each year, MSMEs are still relatively vulnerable to many conditions, mainly due to the limited possession of resources, tight competition with local and global businesses, and environmental changes. The prime example of how environmental change can affect the sustainability of MSMEs can be seen from the data of Bank Indonesia during the COVID-19 global pandemic stating that around 87,5% of MSMEs were affected by the pandemic with 93,2% among them negatively impacted, specifically in terms of sales (Saputra, 2021). Not only negative changes but positive changes might also affect the sustainability of MSMEs. With the rapid progress of Industry 4.0, consumer behavior has shifted from offline to more online, affecting how small businesses work. In order to overcome these challenges and avoid an early demise, MSMEs are expected to be agile and transform how they do business accordingly (Faizurrohman et al., 2021). The concept of agility refers to the ability of an organization to respond quickly and adapt to positive and negative changes in the surrounding environment (Ghasemaghaei et al., 2017). Agility has been considered a strategy for a company to retain competitiveness in the ever-changing business environment. In a world that moves toward a more digital approach, digital transformation is one of the suitable approaches for agility. However, implementing digital transformation can be difficult considering MSMEs' limited resources.

According to Tekic & Koroteev (2019), there are different approaches to digital transformation. Some examples are using new technology, changing all the platforms used in the company to digital forms, and changing the company's bureaucratic culture to create a more efficient

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service for their customers (Mergel et al., 2019). Social media and adopting Digital Business Ecosystem (DBE) are examples of digital transformation using new technologies. Digital Business Ecosystem (DBE) is a community where various organizations collaborate to achieve value creation (Senyo et al., 2019). It is deemed a reasonable alternative to be considered by MSMEs due to cost-saving and service time efficiency (Djatna & Luthfiyanti, 2015). For smaller companies with limited resources like MSMEs, DBE should accommodate them with the technological advancement needed to remain competitive.

Among the many varieties of DBE, e-commerce platforms are one of the most common examples. By definition, e-commerce is an electronic mediator facilitating all kinds of financial and non-financial transactions between suppliers and customers (Chaffey, 2009). In Indonesia, the first concept of e-commerce was introduced in 1999 through the online forum called Kaskus (Mustajibah & Trilaksana, 2021). With the increase in people's digital awareness, e-commerce platforms have become a preferred alternative for customers to purchase their goods and for many vendors to market their products. However, there is still some reluctance from many MSMEs in Indonesia to adopt e-commerce platforms, mainly caused by the lack of infrastructure and digital knowledge and the concern about negative content spread by the media (Ariansyah et al., 2021).

The data provided by The Ministry of Cooperatives and SMEs of Indonesia showed that as of June 2021, about 12 million MSMEs were adopting DBE (Catriana, 2021). Compared to the neighboring ASEAN countries, this number is significantly higher. Asia SME Monitor provided by Asian Development Bank reported that as of 2020, the total number of MSMEs in Thailand was just a little over 3 million enterprises, which made it the second highest number of MSMEs in ASEAN countries after Indonesia (Shinozaki et al., 2021). Comparing that number with the number of Indonesian MSMEs adopting DBE has shown the extent of the digital growth of Indonesian MSMEs. However, compared to the total number of MSMEs in Indonesia, only about 19% have adopted DBE, which is a relatively small number. To understand how e-commerce platforms may affect the agility of MSMEs, we reviewed existing literature on this topic.

First, we need to understand how to define agility. Among different ways to define agility, one defines agility as an organization's ability to generate changes that let the organization be more flexible and quicker with its work. It is measured by either the number of changes generated or the intensity of the change. An organization that can generate a higher degree or number of changes is considered to be more agile (Singh et al., 2013). Many different studies explain the different forms of changes that an organization can generate (Adler et al., 1999; Conboy, 2009; Judge & Miller, 1991; Sanchez & Mahoney, 1996). The changes can be in non-routine tasks, decisions, strategies, and product variety. Then we tried to explore more existing literature about the impact of e-commerce adoption on different business aspects of MSME. A few studies are exploring that topic, highlighting the positive reinforcement that e-commerce platforms can provide to MSMEs (Ramanathan et al., 2012; Tolstoy et al., 2022). Those studies taught us that adopting e-commerce has helped improve business performance by positively affecting operations and marketing. Another study highlighted how using e-commerce platforms with good marketing capability reinforced business performance. However, most previous studies only focused on one or two business aspects of e-commerce adoption. Therefore, this study explores how e-commerce platforms influence various business aspects in MSMEs and whether e-commerce adoption help reinforce MSMEs' business agility to remain competitive in the market. We believe that taking account of more business aspects and finding more positive impacts from e-commerce adoption might help MSMEs understand the benefit of e-commerce and encourage them to consider adopting it.

B. RESEARCH METHOD

In order to gain deeper insight into how e-commerce adoption affects various business aspects of MSMEs, a qualitative research method was implemented using both primary and secondary data. The primary data were obtained through semi-constructed interviews with the owners of six (6) non-digital MSMEs of different sizes. Indonesian MSMEs were chosen as the respondents due to the significant number of them that have already adopted e-commerce compared to the other ASEAN countries, which also serves as evidence of the significantly high digital growth of Indonesian MSMEs. The criteria of MSMEs in Indonesia have never been specifically defined, as there are different definitions provided by

different official organizations (Yazfinedi, 2018). For this study, the criteria used was the one defined by Badan Pusat Statistik (BPS) Indonesia, which categorized MSMEs based on the number of manpower/personnel. According to the BPS definition of MSMEs, the Micro/Household Enterprise should have between 1-4 manpower, Small Enterprise should consist of 5-19 manpower, and Medium Enterprise should have 20-99 manpower.

Table 1. List of Respondents

Company Name	Interviewee Name	Position	Type of product	The Number of Manpower	Category
Gansikjib	MLDZ	Owner	Perishables	2	Micro
Eco Talk	DPP	Owner	Non- Perishables	4	Micro
Pempek Wong Palembang Nian (PWPN)	D	Owner	Perishables	5	Small
Madanara	SC	Owner	Non- Perishables	11	Small
Sunkrisps	SA	Owner	Perishables	34	Medium
Hijab Wanita Cantik (HWC)	FI	Owner	Non- Perishables	36	Medium

Source: research data, 2023

Non-digital MSMEs were specifically chosen as the respondent for this study because we hoped to get some insights from MSMEs that do not require their workers to be well-versed in digital technology. As they are non-digital MSMEs, the products the respondents are marketing are divided into perishables and non-perishables. We chose specifically those two categories because, other than digital MSMEs, most e-commerce platform users are divided into those categories, so having representatives from each category is important. We also chose the MSMEs that produce their products because we feel their overall operation will be more complicated with the added production process than other MSMEs that only re-sell other companies' products. Another thing taken into consideration when inviting these MSMEs as respondent is the age of the company. All six (6) companies are at least four years old, with the latest ones being established in 2018. This will help us gain insights into how e-commerce platforms help these business owners through all the hardships they have faced since their establishment.

The interviews were conducted through online platforms due to COVID-19 restrictions and had a range of duration between 30 to 88 minutes. All interviewees own their respective companies, so they have deeper and more comprehensive knowledge about how the companies work and their experiences with e-commerce platforms. Through the interview, we were hoping to explore the experience of MSMEs before and after utilizing e-commerce platforms and whether adopting e-commerce platforms can help facilitate them in various business aspects to stay competitive in the market. The data were analyzed using the Thematic Analysis method, which beginners in qualitative studies consider easy to learn and understand (Nowell et al., 2017). The thematic analysis method is commonly used to gather key points from the interview with respondents, which is then used to generate themes related to the research purpose (Tisyadi et al., 2021). Following the guidance by Braun & Clarke (2008), there are six steps in performing thematic analysis: data familiarization, initial coding, code analysis and categorization, theme reviews, theme mapping, and report writing.

C. RESULTS AND ANALYSIS

This study explores how e-commerce platforms influence various business aspects in MSMEs and whether e-commerce adoption help reinforce MSMEs' business agility to remain competitive in the market. Thematic analysis was conducted to gain a concise and comprehensive understanding of the phenomenon. Through a deep dive into the data provided by the respondents, there were 13 initial codes gathered, and they were categorized into five main themes. The themes mostly represent the general experience of the business owners in using e-commerce platforms and four main business aspects impacted by e-commerce adoption in Indonesian MSMEs. The result is presented as an analysis narration, including the verbatim quotes from the responding business owners, following the study by Braun & Wilkinson (2003).

Business Operation

During the interview sessions with MSME owners, all the respondents were asked about their experiences adopting e-commerce platforms and whether e-commerce platforms support their business

operations. All the respondents expressed some positive reinforcements that e-commerce platforms have provided for their business operations. Regarding product order management, e-commerce platforms have made the process easier for sellers and customers. Through the application, the customers can easily choose the product to purchase, and by an action as simple as clicking a button, they can complete the purchase. For the sellers, when customers order through an e-commerce platform, the order data is automatically recorded in their database, which can be downloaded and printed easily. The customers will be given several shipping service options during the product order. The application will show the estimated shipping time and price depending on the distance and the products' weight. Once the shipping service is chosen, the fee will be automatically included in the final payment.

Back then (with) Whatsapp or Instagram Direct Message, we usually (had to) make an order format. Not to mention when the customers were too lazy to type and used their format for the order, they did not fill in what items they were ordering, so we need to keep confirming their orders, right? That way, it is definitely easier (to use an e-commerce platform to order). – SA (Sunkrisps)

The system in the e-commerce platform also keeps track of the product's stock so the customers can see the number of products left in stock in real time. The customers can complete the ordering process independently through minimum contact with the sellers. For MSMEs, especially ones with a very small number of employees, the practicality of using e-commerce platforms helps them optimize the time needed to operate. Many steps that used to be done manually and required the presence of human employee can be done automatically through e-commerce platforms, and the operating hours can be more flexible since e-commerce platforms are online for 24 hours, which enable them to receive an order at any time.

Operational time for offline sales is not as flexible as for online sales. With an online system, we can open 24 hours. – D (PWPN)

However, despite being very beneficial to the overall operation of MSMEs, all the responding business owners admitted to continuing conventional operation practices, which most business owners commonly used before e-commerce platforms began to grow and become well-known. Some conventional practices include opening stands or stores to sell the products offline, using social media platforms as marketing tools, and using messenger apps to communicate with the customer personally. Conventional operation is still deemed necessary because many people are still not familiar with e-commerce platforms and how to use them to perform their shopping activities. Another problem also lies in the infrastructure availability, where internet connection is scarce or unavailable in many areas across the country. Other than that, by opening as many channels as possible, the company will be able to cater to various demographics of customers.

The bottom line is that we try to open as many channels as possible to ensure that the customers are not troubled – (SC, Madanara)

Three out of six respondents also mentioned the use of websites. These websites are the store's domain that was created to accommodate their customers, as well as resellers. Some reasonings mentioned by the responding business owners over why they decided to develop a website are because the experience of using a website is, in a way, comparable to using an e-commerce platform since the features added are similar to e-commerce platforms and having their website has enabled them to build their own customers database, allowing them to maintain a better relationship with customers.

We are expanding our website, so many (of our customers) are being guided to visit our website. – (SA, Sunkrisps)

Organization

Through the interview with the owners of MSME, we found out that e-commerce platform reinforces MSMEs positively. Using an e-commerce platform, some operational steps can be performed

automatically through the system. Other than time-saving, in terms of the company organization, having some of the jobs being done by the system means that the company can operate without too many employees. When we talked about the organization of each company and how they divided the responsibilities to each staff member, the respondents were divided into two different stances. The first half, which consisted of companies with less than ten staff members (Ecotalk, Gansikjib, and PWPN), generally did not have a defined organizational structure. Most of the time, the owners will work hand in hand with the staff members and are directly involved in labor work. Each company member works on multiple tasks and does not have specific job descriptions. The owner did All decision-making processes without involving the staff members. It is also worth noting that the staff members are mostly the owner's family in all the micro-sized companies. With the help of an e-commerce platform, some of the work can be done by the e-commerce system, so the staff members have fewer tasks to do. Most of the time, the owner will be in charge of the e-commerce accounts, but an employee can usually navigate through the e-commerce app to cover for when the owner is unavailable.

Since (using) e-commerce, we sell our products from home, other than being more laid back, we do not need to rent a space, and it is less tiring, right? Before (using e-commerce), we had to move our equipment back and forth between our stall and home; then, we had to pay for workers, right? Now we have people at home who work whenever an order arises. – (D, PWPN)

Subsequently, the other half of the respondents, companies with over ten employees (Madanara, HWC, and Sunkrisps), organize their staff members differently. They divided the staff members into different teams/departments where they were assigned certain work responsibilities, so most of the time, each employee could focus on their responsibility. However, despite having separate departments for different work aspects, the responsibility of managing the e-commerce accounts usually is given to one of the departments; there is no specific assigned department for e-commerce management. One of the respondents mentioned that the responsibility was given to the sales department, while another respondent stated that the owner is the one managing the accounts.

We ended up dividing the handles (for e-commerce), one person does not handle every platform, but only two (e-commerce platforms), so (the load) is not too much because each platform is different. However, regarding business analytics, the e-commerce platform is very helpful because they have a business analytic dashboard for official stores, so monitoring (our) performance is very helpful. We must first recap and calculate the data if it is being done manually. - (SA, Sunkrisps)

Most respondents shared that special training is not required to manage e-commerce accounts. They mostly learned how to do it independently by exploring the app themselves or following some tutorial video shared by other e-commerce platform users. The platform has some channels and social media accounts that provide tips and tricks and tutorial videos on optimally navigating and using the platform. The ease of learning and navigating the platform gave MSMEs the time-saving benefit.

No (not difficult); even though the marketplace (apps) is a little complicated but it is not that difficult; we can still work it out. Not to mention lately, many people are sharing (tips) on Tiktok or something like that, and many sellers share (their tips). – MLDZ (Gansikjib)

Marketing

Marketing is an essential aspect of every business. To be able to introduce their products to a broader set of audience might be a challenge to MSMEs, whose resources are limited. Every responding business owner also mentioned the roles of e-commerce platforms in product promotion. Most respondents agreed that the e-commerce platform had become a bridge to help boost their exposure to the public. Generally, e-commerce platforms will offer many promos and campaigns beneficial to sellers and customers.

So they (e-commerce platforms) have programs every month, whether they are promotional programs or a program to add (our store) into their banner, or we can also apply, for example, when we want to launch our products and offer which value that we want to trade, we can do that too. – (SA, Sunkrisps)

The other responding business owners also spoke about the search feature that the customers can utilize to find products and stores in the e-commerce apps. Using keywords or hashtags, customers can easily find the products they need and a list of stores selling them. However, with the rising number of MSMEs marketing their products through e-commerce platforms, some platforms also take advantage of the competition to reap some profit by offering extra benefits to sellers willing to spend extra budget. However, with the rising number of MSMEs marketing their products through e-commerce platforms, some platforms also take advantage of the competition to reap some profit by offering extra benefits to sellers willing to spend extra budget.

In e-commerce (platform), people do not have to know Ecotalk; they search for the product and then find our store, so we do not have to do too much marketing; even though marketing is very important, there is a possibility that people who do not know Ecotalk search for stainless straw and (our shop) appear so they buy it. – (DPP, Ecotalk)

However, just as in the operational aspect, even though e-commerce platforms offer some promotional options, all the respondents still rely on a more conventional promotional method, such as taking advantage of social media platforms to introduce their products to the general public. To broaden the audience reach, some respondents also seek to collaborate with other brands and pursue endorsement from social media influencers. However, endorsement can be rather costly and is not always effective; therefore, some respondents chose to rely on word-of-mouth from their loyal customers.

We make product launch campaigns on Instagram, supported by influencers, Facebook and Instagram ads, and through e-commerce campaigns in Shopee, Tokopedia, and Lazada. – (FI, HWC)

Product Development

The need for MSMEs to develop products always exists, despite the company being small and having limited resources. The main purpose of product development is to attract new customers and keep old customers interested. Product development can be done by creating an entirely new product or improving existing products. Product development was mentioned during the interviews with the MSME owners. All the owners of the companies being interviewed stated that they had done product development, whether it was to improve old products or create new products. Through the interview process, we learned that in smaller companies with less than ten employees, the owners themselves are the ones deciding to develop products without involving the other staff members; as for the small and medium-sized companies, almost all the owners stated that they have an assigned team who is responsible for product development.

As for new products, it usually happens rather suddenly, like, for example, when there is a new product that we launch; usually, the idea comes up suddenly, like "Hey, let us just sell this menu!" – D (PWPN)
We have a division (responsible for innovation) – (SA, Sunkrisps)

The idea for product development can come from different sources. From the conversation with the MSME owners, we uncover some common sources of ideas for the companies' product development. In micro-sized companies, where the existing staff members already have so many responsibilities, the frequency of new product releases is irregular. Most of the time, new products are launched when there are some demands from the customers or whenever an idea strikes. The other owners mentioned watching the trend in social media to gauge some of the popular items the public is currently interested in. A regular product release period is possible for medium-sized companies or companies with over ten employees since they usually have assigned departments to oversee product development. The idea for new products came after brainstorming between the owner and the product development team. However, besides discussing the ideas internally, they received customer feedback and used them to inspire product improvement and creation.

Customers' feedback also affects product development. Often when customers requested (a new product), we tried to produce them. For example, we had one cardigan item for adults; then we received some feedback asking us to make them for children. Well, we ended up making them. - (SC, Madanara)

Customers' feedback comes through different mediums. Some feedback comes from the store's communication channels; others come from the store's social media channels. One of the interviewees mentioned yearly surveys conducted by the company to learn about customers' experience with their products and their interest in new products. E-commerce platforms also provide a medium for customers to leave feedback. The most common form of feedback in e-commerce platforms is the star-rating system. Customers can leave one to five stars for the products they bought, with one star signifying the lowest satisfaction level and five stars signifying the highest level of satisfaction.

Along with the star-rating system, customers can also write some comments regarding the products. Most of the time, the customers would write short reviews about the products they bought or complaints about whatever problem they had with them. Ideally, this feedback system can help MSMEs gain the information needed for product development. From the star-rating system, they should be able to see which products can use some improvements, and from the comment section, they can pinpoint which aspect of the product needs to be improved. However, the e-commerce feedback system has not been used to the maximum capability. According to some respondents, some customers failed to understand the star-rating system and mixed the ranking up, thinking that 1 star indicates high satisfaction and five stars indicate low satisfaction with the products bought. As for the comment section, the customers rarely voice their requests for new products on the e-commerce platform; most requests come through the store's social media channels instead.

Analysis

Past studies have shown positive impacts on some business aspects. One example is a study by Ramanathan et al. (2012), which highlighted the improvements in the efficiency of SMEs' business performance as the effects of e-commerce adoptions towards business operation and marketing. After exploring the empirical evidence through the interview with six (6) MSME owners, we tried to gather similar themes from all the respondents regarding the relationship between e-commerce adoption and various business aspects. The finding shows that four (4) main business aspects are affected by the use of e-commerce in MSMEs. The aspects are business operation, organization, marketing, and product development. Through proper analysis of the interview about business operation, we gathered that e-commerce platforms have helped MSMEs gain better time efficiency and flexibility regarding operating variables such as time and place. The automatic system covers some of the manual work so the workers can save some time to do other work, and by constantly operating for 24 hours, it allows any business to receive customers' orders anytime and anywhere, even from the confines of their own home.

Regarding organizational aspects, e-commerce platforms allow MSMEs to have leaner organizational structures. Small-sized companies can hire fewer staff and save costs by eliminating manual work. In marketing, e-commerce provides several options for MSMEs to market their products through algorithms and promotional programs that enable them to reach broader audiences and utilize different promotional methods. Products from different stores can be displayed not only on the e-commerce platforms but also across social media platforms belonging to the e-commerce company. However, some additional fees are required to fully take advantage of all the marketing features in the e-commerce platform.

When it comes to the fourth business aspect, which is new product development, e-commerce platforms also provide a medium for small businesses to receive feedback from the customer that can be taken as inspiration to either improve the old products or develop new products that are following customers' demands. Based on what we learned from the study by Singh et al. (2013), the ability to generate changes that allows them to be more flexible and efficient in different business aspects is a sign of agility. The more changes generated means that the company is more agile. When we consider all the findings from the data, we can deduce that the utilization of e-commerce platforms has helped MSMEs create more positive changes in the four main business aspects we gathered from the findings. In business operations, e-commerce platforms helped create different operational time, duration, and location options. In the organization aspect, they generate a variety of work responsibilities to have a leaner organizational

structure. In the marketing aspect, e-commerce platforms provide many choices of promotional methods and platforms. While in product development, they produce varieties of new ideas to improve old products and create new products. The relationship between MSMEs and e-commerce platforms can be represented by the proposed model in Figure 1. It shows that through the challenge of vulnerabilities, MSMEs can transform digitally by adopting a digital business ecosystem in the form of e-commerce platforms which facilitates changes in different business aspects. These changes positively drive MSMEs to become more flexible and efficient, leading to better business agility.

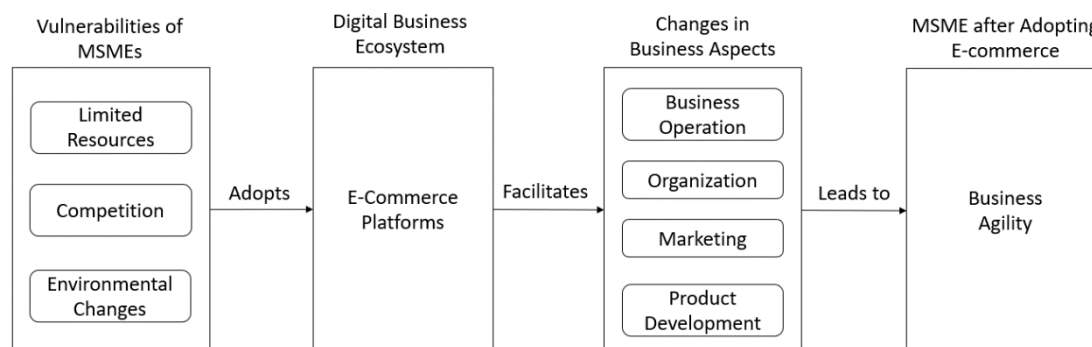


Figure 1. E-commerce to Business Agility Model

D. CONCLUSION

This study explores how e-commerce platforms influence various business aspects in MSMEs and whether e-commerce adoption help reinforce MSMEs' business agility so that they can remain competitive in the market. We gathered several findings from what we have learned through the interviews with six non-digital MSMEs. Firstly, four (4) main business aspects are impacted by e-commerce platforms. Those aspects include business operation, marketing, organization, and product development. Utilizing e-commerce platforms mostly gave MSMEs positive impacts in all four business aspects. Some of the positive benefits gained by the MSMEs are time and cost savings, operational flexibility, broader promotional reach, and new ideas for the future development of the products. Concerning agility, we concluded that the positive impacts achieved by utilizing e-commerce platforms generated changes in the four business aspects. Some older studies mentioned the relationship between agility and changes, where companies that can generate more or more changes are deemed more agile. Aligning the findings of this study with the older studies led us to conclude that e-commerce platforms have indeed supported MSMEs to become more agile by generating changes in many business aspects.

The findings of this study have shown that e-commerce platforms have generated positive changes in MSMEs to help them remain agile in facing many vulnerabilities. This knowledge should help appeal to more MSMEs to utilize e-commerce platforms in the digital business ecosystem. Following the findings of this study, we recommend some cooperative movements from both the government and e-commerce platforms to help guide many small businesses to go digital through e-commerce platforms. The government can create a training program in different regions of the country with e-commerce platforms to highlight the benefits of using e-commerce platforms and guide them on navigating the platforms. It is especially important to be done in smaller cities or areas with small businesses producing local products so that their products can be marketed to a wider audience, which will also help the overall economy of that area. It is also important for e-commerce platforms to provide information regarding how to navigate the app in media platforms that are easy to access by the public. Although most respondents' sentiments are positive, some aspects are criticized, like the rising administration fees and long cash withdrawal process from the platforms to the seller. Future studies can also focus on the negative sentiments that small business owners have regarding e-commerce platforms. It will provide a better understanding of what aspects of e-commerce platforms can be fixed and developed for a better and satisfactory user experience.

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