

E-Commerce Adoption Among Malaysian SMEs: Key Drivers and Business Performance Implications

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ABSTRACT

By examining the impact of e-commerce adoption among Malaysian SMEs, this paper contributes to the existing body of knowledge and provides valuable insights for policymakers, business owners, and researchers. The paper aims to identify factors that influence e-commerce adoption and to examine potential impact of these factors on the e-commerce adoption on the performance of small and medium-sized firms (SMEs) in Malaysia. The underpinning theories are based on the Technology Acceptance Model to identify significant factors to e-commerce adoption and the Technology-Organization-Environment Framework to assess the impact of these factors on the e-commerce adoption performance. E-commerce adoption performance is measured by improved business performance, improved cost-efficiency and supported all elements in the business entity. Questionnaires were distributed to 379 respondents who were owners of SMEs in the Southern region of Malaysia and 211 completed questionnaires were returned by respondents. The data were analysed using the SPSS. The independent variables of Technology Acceptance Model, namely, perceived ease of use and perceived usefulness, technological readiness, and organizational readiness. The study results indicate significant relations between three of these variables, perceived ease of use and perceived usefulness, technological readiness, and the e-commerce adoption performance. This substantiates existing evidence on the role played by e-commerce adoption for the performance of SMEs.

Keywords: E-commerce, Performance, Small and Medium Enterprises, Technology Acceptance Model, Technology Organizational Environment

PURPOSE

In early 2020, the COVID-19 epidemic had substantially transformed not only our lifestyles but also to the way businesses had been conducted. The pandemic has affected many aspects of lives, including the economy and social structure. To prevent the virus from spreading, people were forced to change their shopping behaviours, from physical to online shopping. Considering the shift from physical to online shopping, Small and Medium-Sized Enterprises (SMEs) need to embrace e-Commerce to cater for the shifting customer demands. In its entirety, e-commerce or electronic commerce refers to the sale of goods, amenities, and data over computer telecommunications networks, as well as the upkeep of corporate connections.

Adoption of e-commerce for SMEs is costly. Examples of the key costs are initial set up costs, operational costs, training costs, and logistic and inventory management costs. Therefore, studying the relations between factors to adopt e-commerce and the effects of e-commerce on SMEs performance in Malaysia is important to provide evidence on the benefits of embracing technology into business for small medium entities. Undoubtedly, many perceive e-commerce that has grown rapidly in recent years worldwide, can potentially transform various industries, including SMEs. According to the Department of Statistics, SMEs contributed 38.2% of Malaysia's GDP, and 48.0% of national employment as of 2020 [28]. By examining its impact specifically on Malaysian SMEs, this study contributes supporting evidence to the existing body of knowledge

and provides valuable insights for policymakers, entrepreneurs, and researchers. The study findings also provide SMEs with a set of guidelines to secure the implementation of e-commerce properly and completely inside their businesses.

The rapid growth of e-commerce globally has raised questions about its impact on the performance of Small and Medium-sized Enterprises (SMEs) in Malaysia. There are several obstacles which SMEs must overcome to implement e-commerce, which is why so few of them have done so. However, there is a lack of comprehensive research addressing the specific effects of e-commerce adoption on SMEs performance in the Malaysian context.

According to [13], e-commerce adoption has an impact on company continuity, higher sales, and enhanced profitability. Therefore, SMEs adopt e-commerce to reap its vast benefits such as higher sales and lower overheads. It also influences SME business strategies [2], and impacts financial performance. To the contrary, [29] argue that while e-commerce adoption might reduce costs, performance is not always improved. Perceptions of barriers, organizational preparation, and competition pressure are variables that affect the adoption of e-commerce [13]. In addition to management support, perceived direct advantages, perceived indirect benefits, and perceived trust, other factors are investigated for their impact on e-commerce adoption [9]. These elements include competitive pressure and organizational preparedness. Adoption is positively impacted by perceptions of immediate advantages and trust but is negatively impacted by top management support and organizational preparedness [9]. The adoption of social media is also influenced by organizational and environmental factors; however, management has little impact on adoption.

This paper aims to fill the abovementioned gap by examining the effect of e-commerce adoption on SME performance in Malaysia. Despite the growing importance of e-commerce, there is limited empirical evidence on how it influences various performance indicators, such as sales revenue, profitability, market share, cost efficiency, customer satisfaction, and competitive advantage among Malaysian SMEs. Understanding these effects is crucial for policymakers, industry stakeholders, and SME owners to make informed decisions and develop effective strategies to leverage e-commerce for enhanced performance. Addressing this research gap will also contribute to the knowledge base and understanding of how e-commerce adoption affects SME performance in Malaysia. This research provides valuable insights for policymakers, industry associations, and SME owners to develop strategies, policies, and support mechanisms that foster e-commerce adoption among Malaysian SMEs and maximize its benefits while mitigating potential challenges.

There are three objectives of this study. First, it aims to identify the important factors of E-commerce adoption that can affect SME performance. Second, it intends to analyse the relationship between the factors of e-commerce adoption that can affect SME performance. Third, it examines the most significant factors that influence e-commerce adoption that affect SME performance. Studying how e-commerce affects the performance of SME is important for several reasons.

Theoretical Framework

The term SMEs and their use of e-commerce are based on a quick overview of electronic commerce and its development. E-commerce success criteria and safety variables for SMEs are identified and explained. A thorough analysis of the literature is done with an emphasis on e-commerce, SMEs, success, and security models for information systems to pinpoint the elements. A conceptual approach for e-commerce security is then put out. This section summarises findings from prior studies related to e-commerce, Small and Medium Enterprise (SME), the Conceptual frameworks, namely the Technology Acceptance Model (TAM) and the Technology-Organization-Environment (TOE) framework.

The Role of E-Commerce and SMEs

In Malaysia, small and medium enterprises (SMEs) are referred to as "Small and Medium Enterprises" as defined by the Small and Medium Enterprises Corporation Malaysia (SME Corp Malaysia). SME Corp Malaysia is an agency under the Ministry of International Trade and Industry (MITI) that focuses on the development and promotion of SMEs in the country. SMEs in Malaysia contribute significantly to the

country's economy. They account for a substantial portion of employment opportunities, stimulate innovation, enhance productivity, and foster entrepreneurship. They are active in various sectors, including manufacturing, services, agriculture, and construction.

The government of Malaysia has implemented various initiatives to support and promote the growth of SMEs. These include financial assistance programs, capacity-building programs, market access facilitation, technology adoption incentives, and regulatory simplification. The aim is to enhance the competitiveness of SMEs, encourage their participation in domestic and international markets, and contribute to the country's economic development. Additionally, SME Corp Malaysia provides advisory services, training programs, networking platforms, and resources to help SMEs overcome challenges and improve their capabilities. They also collaborate with other agencies, financial institutions, and industry associations to create an enabling environment for SMEs to thrive.

Overall, SMEs play a vital role in Malaysia's economy by driving innovation, generating employment, and contributing to the country's economic diversification. The government's focus on supporting SMEs demonstrates their recognition of the importance of this sector and their commitment to fostering its development.

E-commerce adoption in Small & Medium-Size Enterprises (SMEs)

In recent years, digital transformation and technology adoption have become increasingly important for SMEs in Malaysia. The government has placed emphasis on supporting digitalization initiatives, promoting e-commerce, and providing access to digital tools and platforms to help SMEs leverage technology for growth and competitiveness. E-commerce platforms and digital marketing strategies enable SMEs to reach potential customers who may not have been accessible through traditional brick-and-mortar operations. This expanded market reach allows SMEs to tap into new customer segments and diversify their customer base, ultimately leading to increased sales and revenue. E-commerce levels the playing field for SMEs, allowing them to compete with larger businesses in Malaysia. With e-commerce, SMEs can showcase their products or services alongside larger competitors, gaining equal visibility and accessibility to potential customers. Moreover, e-commerce fosters innovation by providing a platform for SMEs to experiment with new business models, product offerings, and marketing strategies. The digital nature of e-commerce enables quick iteration and adaptation based on customer feedback, fostering a culture of innovation within SMEs.

Through online interactions, SMEs can collect customer information, preferences, and purchase history. This data can be leveraged to personalize marketing efforts, provide targeted promotions, and enhance customer experience. Furthermore, e-commerce platforms often offer features such as customer reviews and ratings, which can build trust and credibility among potential customers. By leveraging e-commerce tools for effective customer relationship management, SMEs in Malaysia can foster long-term customer loyalty and repeat business. Overall, the impact of e-commerce on SME performance in Malaysia is multifaceted, encompassing improved market reach, increased sales, enhanced operational efficiency, improved customer relationship management, and enhanced competitiveness and innovation. Adopting e-commerce strategies can help SMEs thrive in the digital era and contribute to their long-term growth and success.

The research framework

The Technology Accepted Model (TAM) and The Technology Organization Environment (TOE) are two of the concepts that are combined to create the theory used to identify factors that influence the acceptance of e-commerce. The TAM hypothesis is based on how society and consumers respond to emerging technologies. The two responses are perceived usability and perceived ease of use [8], [10] and [23].

Technology Organization Environmental (TOE) was developed to assess the impact of contextual variables that explain and foretell the potential outcomes associated with the adoption of innovation [23]. The choice of technology variable readiness and organizational readiness are both based on the TOE principle. These two factors are inherent components of the potential outcomes that follow the acceptance of innovation. The perceived trust variable was used by several researchers to investigate, among other things, the characteristics

that affect the adoption of e-commerce [9], [2] and [23]. This justifies the exclusion of the perceived trust variable from this research.

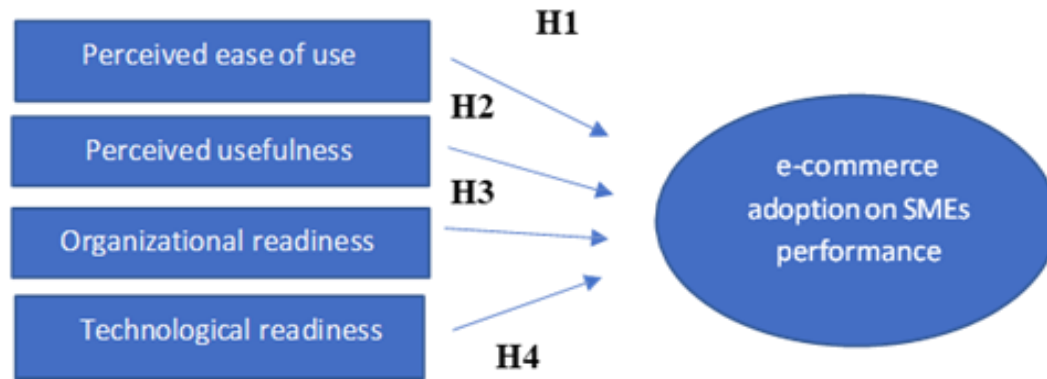


Fig. 1 The Conceptual Framework

The Research Hypotheses

E-commerce adoption performance is measured by improved business performance, improved cost-efficiency and supported all elements in the business entity [18].

Perceived Ease of Use (PEOU)

According to the study findings of [10] and [9], the acceptability of new technology is determined by how easy it is to use. A component of the TAM Theory is perceived ease of use [8]. In this instance, e-commerce's adoption represents the acceptance of technical innovation. This leads to the following testable hypothesis:

H₀: There is no significant relationship between (PEOU) and the effect of e-commerce adoption on SME performance

H₁: There is significant relationship between (PEOU) and the effect of e-commerce adoption on SME performance

Perceived Usefulness (PU)

Based on considerations of the advantages of technology adoption, perceived usefulness is the user's response in the form of perceptions or sentiments about the grounds for embracing or rejecting the novelty of technology [8], [10] and [23]. It is useful for promoting goods and services [9] and speeds up sales transactions [9], [22] and [29]. The TAM Theory includes the perceived usefulness as a variable (David, 2006). In this instance, e-commerce's adoption represents the acceptance of technical innovation. This leads to the following testable hypothesis:

H₀: There is no significant relationship between (PU) and the effect of e-commerce adoption on SME performance

H₂: There is significant relationship between (PU) and the effect of e-commerce adoption on SME performance

Organizational Readiness (OR)

SMEs struggle to completely integrate e-commerce due to several issues, such as a lack of organizational preparation or inadequate managerial support [13]. The adoption of e-commerce by Malaysian SMEs is influenced by organizational readiness [16]. Other findings, however, indicate that organizational readiness does not influence SMEs' adoption of the e-market [9]. Based on all of this, the following hypothesis is to be tested:

H₀: There is no significant relationship between (OR) and the effect of e-commerce adoption on SME performance

H₃: There is significant relationship between (OR) and the effect of e-commerce adoption on SME performance

Technological Readiness (TR)

According to [2], technological superiority in terms of compatibility ready has an impact on the adoption of e-commerce [1], [2] and [13] claim that access devices are readily available. The adoption of e-commerce by SMEs is also influenced by performance expectations, business expectations, and assisted technology. This leads to the following hypothesis:

H₀: There is no significant relationship between (TR) and the effect of e-commerce adoption on SME performance

H₄: There is significant relationship between (TR) and the effect of e-commerce adoption on SME performance

The literature claims that e-commerce adoption has a substantial effect on small businesses. The market is shifting, and more businesses are realizing that implementing electronic technology is essential in a globalized environment. At the same time, it is obvious that e-commerce does not alter the nature of the business; rather, it is a tool that supports the entire plan and improves the operation of the company. The key challenge for small businesses is to get over the obstacles and achieve the advantages, but doing so takes time and there is no magic solution. Small businesses may encounter several obstacles because of the various forces influencing the adoption of internet commerce. It may take some time before the potential advantages are realized. A greater awareness of the possible advantages is lacking in small businesses. The level of comprehension is crucial. The performance of the organization may suffer if the advantages are not realized.

METHODOLOGY

To determine the effect, risks, and problems as well as suggestions for SME to improve their performance in the future, this research used quantitative research method. Data was obtained via a questionnaire. There were two sections of the questionnaires that were used and developed based on the literature review. Using a nominal scale, Section A was for demographic data and Section B required respondents to rate their agreement or disagreement with each item on a five-point Likert-type scale; 1 (strongly disagree), 2(disagree), 3(neutral), 4(agree) and 5(strongly agree). The questionnaire included questions regarding the perceived usefulness, perceived ease of use, organizational readiness, and technology readiness characteristics. To guarantee the validity of the data, numerous items were used to measure each variable.

TABLE I No. of SMEs in malacca, malaysia

Sector	No. of SMEs	%
Agriculture	452	1.4
Mining & Quarrying	17	0.1
Manufacturing	1,479	4.7
Construction	1,437	4.6
Services	27,976	89.2

According to Malaysian States Analysis 2020, there are an approximately 31,361 SMEs in Malacca, Malaysia. Many SMEs were likely faced operational difficulties due to the Movement Control Order (MCO) period between the year 2020 to 2021. This study chose one state in Malaysia as its study sample. For a population of more than 30,000 in Malacca, [15] recommends a sample size of 379 business entities. Hence, a total of 379 questionnaires was sent to the intended respondents. The respondent was chosen randomly from the list of SMEs in Malacca. The dispersed and equitable respondents help this study to obtain relevant data and a fair

impression of the individuals from SMEs on their opinions regarding the adoption of e-commerce and how it impacts the performance of their businesses.

The questionnaire was distributed and collected via online platform. The online questionnaire removes distance and time barriers in the collection of data and the simplicity and user-friendly design of the Google survey make it more practical and popular. The emphasis is on businesses that are linked to their performance and have a real e-commerce presence. The emails are sent to SMEs' owners to get their feedback on how to use e-commerce successfully and securely. Although paper copies are sometimes utilized for the pilot test of the questionnaire, the online form is used for the actual sampling procedure. A total of 211 questionnaires were returned and used for the analysis. The data gathered from the questionnaire was validated, and observational data was then used to confirm the data. The Statistical Package for the Social Science version 20.0, was used to analyse the data.

KEY FINDINGS

A total number of 119 male and 92 female from SME business in Malacca, Malaysia had participated in this study by filling up the Google Form which was equivalent to 56.4% and 43.6% respectively. The number of males respondents was slightly higher than the number of females by 27 responses. The highest number of respondents were from the age group of 30-40 years old with the frequency of 116 respondents, equivalent to 55%. Then followed by the age range of 18-29 years old and 41 years old and above, which represented the same frequency of 47 respondents with 22.3%. It was found that the least number of respondents were from the age group of below 17 years. By race group, the highest number of respondents were Malay with the frequency of 158 respondents, equivalent to 74.9%, followed by Chinese and Indian which their frequency was 48 (22.9%) and 5 (2.4%) respectively. The sample consisted no respondent from the other Bumiputera race group such as Orang Asli, Iban, Dayak and others.

What type of e-commerce platform that used in the business

211 responses

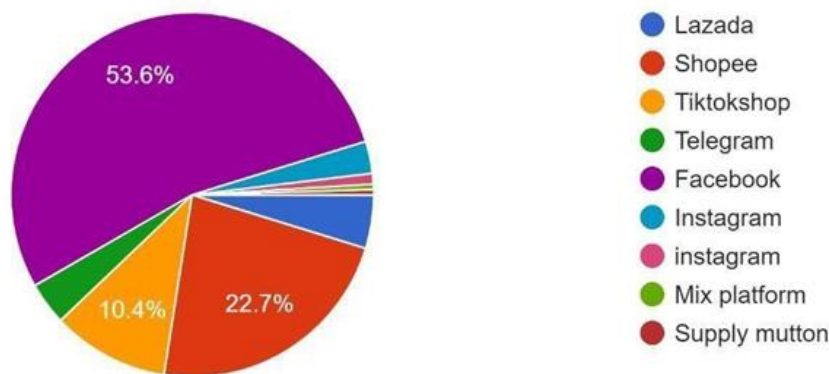


Fig. 2 Types of e-commerce platform

Fig. 2 shows the type of e-commerce platform that is used in business by SME companies in South of Malaysia. The most common platform by ranking was Facebook, Shopee, TikTok shop, Lazada, Telegram, and Instagram. Several SMEs used more than one platform for selling and marketing.

TABLE 2 Reliability Analysis of All questionnaire Items

Cronbach's Alpha	N of Items
.958	25

Table 3 presents the reliability analysis of the data collected through the online survey. the reliability value was based on 25 items (without the demographic item). The value of Cronbach's Alpha was 0.958 which is significantly higher than 0.70. According to [15], the Cronbach Alpha value less than 0.60 is considered not reliable. Thus, the 25 items were considered highly acceptable as it was more than ≥ 0.70 .

TABLE 3 Coefficients for the Regression Model

Dependent Variable (effect of e-commerce Adoption on SME performance)	Unstandardised Coefficients		Standardised Coefficients		
	β	Std. Error	Beta	t	Sig.
Constant	6.092	0.886		6.879	<0.001***
Perceived Ease of Use (PEOU)	0.237	0.078	0.290	3.027	0.003***
Perceived Usefulness (PU)	0.276	0.083	0.336	3.310	0.001***
Organizational Readiness (OR)	0.012	0.062	0.016	0.195	0.845
Technological Readiness (TR)	0.134	0.073	0.170	1.825	0.069*

*Significant

** Very Significant

*** Highly Significant

Table 3 summarises the results from the regression model that examines how e-commerce adoption effects on SME performance is related to perceived ease of use, perceived usefulness, organizational readiness, and technological readiness. All four independent variables were positively related to the perceived effect of e-commerce adoption on SME performance. The highest degree of relation was perceived usefulness with $\beta = 0.276$ and very significant at 1% significant level. Table 3 also shows that two other independent variables were significantly correlated to the e-commerce adoption, namely perceived usefulness, and technological readiness. Based on Table 3, the hypotheses were evaluated as follows;

H₁: There is significant relationship between (PEOU) and the effect of e-commerce adoption on SME performance

The result suggests significant relation between perceived ease of use and e-commerce adoption where the p-value was 0.003 and significant at 1% significant level. There is sufficient statistical evidence that supports the significant relation between perceived ease of use and the effect of e-commerce adoption on SME performance. Thus, H₁ is accepted. This also demonstrated that the perceived ease of use predictor has a significant impact to the effect of e-commerce adoption on SME performance.

Reference [32] found that attitude was strongly correlated with both usefulness and ease of use, and that these qualities in turn affected the likelihood of a customer making an online purchase applying an e-commerce platform. As supported, perceptions of usefulness and ease of use are two factors that are frequently examined in research, and TAM theory proposes that individual behaviours determines an individual's desire to accept new technology [8].

H₂: There is a significant relationship between perceived usefulness (PU) and the effect of e-commerce adoption on SME performance

Table 3 revealed the relationship between perceived usefulness factor and the effect of e-commerce adoption on SME performance. Based on Table 5.14, the significant value of perceived usefulness factor, was significant at $p = 0.001$. This value is lower than 1 % significant level. As a result, H₂ is accepted as the p-value is highly significant, and it is positively influenced by e-commerce adoption that gives effect on SME performance.

This also demonstrated that the perceived usefulness predictor has a significant impact on the effect of e-commerce adoption on SME performance. By learning how IT affects job performance, work speed,

effectiveness, enhanced productivity, and the utility and simplicity of work, perceived usefulness may be evaluated. This hypothesis is accepted as the study demonstrated a significant positive association between perceived usefulness and e-commerce adoption among Malaysian SMEs. Several independent studies have verified that TAM has been established and supported by proof and serves as an ideal theoretical foundation for the use of e-commerce [5], [6] and [30].

H₃: There is significant relationship between Organizational Readiness (OR) and the effect of e-commerce adoption on SME performance

This hypothesis is rejected as the positive relation between Organizational Readiness and the effect of e-commerce adoption on SME performance is not significant. The p-value was greater than 10% which indicated that the Organizational Readiness to e-commerce was not a significant factor that affected the effect of e-commerce adoption on SME performance. Indonesian small and medium-sized enterprises fail to acknowledge the impact of firm size on their e-commerce adoption. A comparable outcome was discovered in [4] and [3] as well. This situation may be explained by the fact that Indonesian SMEs, for the most part, are still implementing e-commerce at a lower rate [23], with the majority having only e-mail or a static or interactive website. The manager's choice to use e-commerce is significantly influenced by the size of the company as well. In Jakarta, the organizational readiness variable with the following indicators encourages employees to think creatively, provides managerial support at all levels, and enables available resources to influence e-commerce adoption [9]. Organizational factors, also known as firm internal factors, are generally represented by size, quality of IS system, management support, and enterprise resources [3].

H₄: There is significant relationship between technological readiness (TR) and the effect of e-commerce adoption on SME performance

Table 5.14 revealed the relationship between technological readiness factor and the effect of e-commerce adoption on SME performance. The $p = 0.069$ is more than 0.05 but less than 0.10. hence, the positive relation between these variables is significant at 10% significant level. As a result, H₄ is accepted but at lower confidence level. It can be inferred that technological readiness is important but having less impact on the perceived effect of e-commerce adoption.

For any business to start using e-commerce there is a need for a business infrastructure that becomes the basis of the e-commerce implementation within the company [12]. [14] state that a business plan, an established organizational structure, business procedures, cost/cast control procedures, advertising, customer interaction strategies, and a payment mechanism are all examples of characteristics of business infrastructure. SMEs, particularly those in Indonesia, may not have many applications in their businesses, thus they may not be concerned about integrating their current apps with the new ones, which could be one explanation for this outcome [24].

Based on the results, three independent variables, namely perceived usefulness (PU), perceived ease of use (PEOU), and technological readiness are important factors that influence the adoption of e-commerce among the SMEs. E-commerce enables businesses to expand and sustain their operations, it is very crucial to increase the awareness of the technology among the SMEs [27], or otherwise, they will remain behind and unable to compete at greater comprehensive scale.

Previous studies indicate that among the factors that contributed to the e-commerce adoption among SMEs included perceived usefulness (PU), perceived ease of use (PEOU), and compatibility, as well as organizational readiness, top management support, and technological factors [16] and [25]. Using the similar theory, namely Technology Accepted Model (TAM), this study provides evidence of this theory is also applicable to SMEs. This contradicts existing argument that TAM is a widely used model in e-commerce adoption studies, and effectively predicting technology adoption behaviours [21] for large companies as organizational readiness and technology are internal factors in TOE theory [7].

From a theoretical standpoint, the study findings substantiate the benefits of e-commerce system to SMEs by confirming factors or elements that support SMEs adoption of e-commerce. These elements can guide SMEs in

conducting business through e-commerce, including how to safeguard it for both their company and customers in addition to adopting it. The framework provides SMEs with an overall understanding of factors that link e-commerce and business plans.

In addition, the study findings also offer useful information that might assist Web developers to note that usability and convenience of use are crucial factors when developing search engine tools for websites. Potential clients should be able to easily understand these fundamental search engines as well as the terminology that enable more complex searches. Because the user is driven both by intrinsic and extrinsic motivation, parts of the website that handle purchase processing, shipping details, and data display are less sensitive.

This study findings are relevant to the government too. Improving the use of e-commerce by Iranian enterprises is imperative [11]. The government may do conduct training programs designed to teach managers about the benefits and ideals of e-commerce as this study suggests that SMEs will adopt e-commerce if they perceived e-commerce is easy to use. Consequently, the government may increase the adoption of e-commerce among Malaysian SMES by aiding SMEs through various adoption- influencing variables. For instance, the government can offer certain resources to support organizations in growing their organizational capacity or a flexible budget for business.

Implications

In recent years, digital transformation and technology adoption have become increasingly important for SMEs in Malaysia. The government has placed emphasis on supporting digitalization initiatives, promoting e-commerce, and providing access to digital tools and platforms to help SMEs leverage technology for growth and competitiveness. E-commerce platforms and digital marketing strategies enable SMEs to reach potential customers who may not have been accessible through traditional brick-and-mortar operations. This expanded market reach allows SMEs to tap into new customer segments and diversify their customer base, ultimately leading to increased sales and revenue.

E-commerce levels the playing field for SMEs, allowing them to compete with larger businesses in Malaysia. With e-commerce, SMEs can showcase their products or services alongside larger competitors, gaining equal visibility and accessibility to potential customers. Moreover, e-commerce fosters innovation by providing a platform for SMEs to experiment with new business models, product offerings, and marketing strategies. The digital nature of e-commerce enables quick iteration and adaptation based on customer feedback, fostering a culture of innovation within SMEs.

Through online interactions, SMEs can collect customer information, preferences, and purchase history. This data can be leveraged to personalize marketing efforts, provide targeted promotions, and enhance customer experience. Furthermore, e-commerce platforms often offer features such as customer reviews and ratings, which can build trust and credibility among potential customers. By leveraging e-commerce tools for effective customer relationship management, SMEs in Malaysia can foster long-term customer loyalty and repeat business.

Overall, the impact of e-commerce on SME performance in Malaysia is multifaceted, encompassing improved market reach, increased sales, enhanced operational efficiency, improved customer relationship management, and enhanced competitiveness and innovation. Adopting e-commerce strategies can help SMEs thrive in the digital era and contribute to their long-term growth and success.

The study's shortcoming stems from the researchers' assumption that participants were sufficiently informed about how commerce adoption affects SME performance to fill out the questionnaire. This is because the researchers presume that the responder provided truthful answers to the questions as they have no means of knowing if they have the required information. Consequently, the accuracy and dependability of the collected data may be somewhat impacted. Moreover, the researchers struggled to send the questionnaire to 379 individuals who had a connection to a small and medium-sized business. Due to time constraint, this study had to use an online questionnaire to distribute the questionnaires to the 211 respondents. The number of

completed questionnaires was not 100% due many small and medium-sized businesses have stopped operations because of COVID-19.

Future researchers may approach more managers from different parts of Malaysia to obtain more representative data about the usage of e-commerce in SMEs. Having a larger sample size may help acquire a better knowledge of SMEs in adopting e-commerce.

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