

Factors Thwarting Micro, Small, and Medium-Sized Enterprises from Adopting E-commerce: Insights from Focus Group Interviews

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To Link this Article: <http://dx.doi.org/10.6007/IJARBSS/v14-i1/19130> DOI:10.6007/IJARBSS/v14-i1/19130

Published Date: 06 January 2024

Abstract

Recognizing micro, small, and medium enterprises (MSME) roles as key growth drivers, the government has been committed to providing the necessary support to MSMEs, including in the area of e-commerce. With the number of online shoppers increasing by 47% year over year and 14.43 million people buying consumer goods online at the beginning of 2022, the online potential for MSMEs is enormous. Amidst this huge potential, MSME's adoption of e-commerce remains below expectations. Drawing on a refined technology adoption framework, this study employs focus group interviews with MSME owners and managers to explore why MSMEs exhibit reluctance to adopt e-commerce. Using data gathered in June 2022 through focus group discussions with the owner-manager of seven MSMEs in Klang Valley, Malaysia, this study provides some insights into the key factors that hinder MSMEs from embarking on e-commerce. Findings reveal that a lack of dedicated personnel with technical proficiency, unfavorable terms and conditions imposed by third-party e-commerce providers, system inefficiencies, limited financial resources, incompatible products or services, a lack of entrepreneurial commitment, and information-seeking challenges regressed MSMEs away from e-commerce platforms.

Keywords: Micro, Small And Medium Enterprises (Msmes), E-Commerce, E-Commerce Platform

Introduction

Micro, small, and medium-sized enterprises (MSMEs) play a vital role in the country's economy. It represents 97.2% of total business establishments in Malaysia, contributed 38.2% to the country's gross domestic product (GDP), and provides employment to 7.3 million people (Organisation for Economic Co-operation and Development (OECD), 2022). The Government has been very committed to developing and empowering MSMEs through the provision of a conducive ecosystem for MSMEs to thrive and prosper. One of the means for MSMEs to move forward and reach out to larger markets is through e-commerce.

According to the OECD (2015), e-commerce transactions refer to the exchange of goods or services using computer networks, utilizing technologies specifically developed to facilitate the ordering and delivery processes. While the orders are made using these methods, it's not necessary for both the payment and the final delivery of goods or services to occur online. E-commerce transaction includes orders placed on websites, extranet or Electronic Data Interchange (EDI). However, the transactions made by telephone, fax, e-mail (mail that is typed manually) and similar methods are not considered e-commerce transactions.

The potential for e-commerce is enormous as evidenced by its growth of 68% year on year in 2021 (n.d.) and more than 200 billion Malaysian ringgit contribution to the country's gross domestic product (GDP) (Statista, 2022). It has a huge role to assume in advancing the growth of MSMEs not only through an increase in efficiency and productivity but also in overcoming geographical limitations and reducing entry costs leading to expansion of market reach (Tong & Gong, 2020). Thus, e-commerce will enable MSMEs to break away from the limited domestic market and reach out to the 4.66 billion digital customers worldwide (HRDC Human Capital Report, 2021).

Despite the huge potential benefits of e-commerce, surprisingly, the digital uptake of MSMEs is much lower than that of large firms (OECD, 2021). After the onset of the Covid-19 in 2019, only a quarter of Malaysian firms expedited their digital transformation strategies, while 60% stalled owing to unprecedented cash-flow shocks ("Workday finds only 25% of Malaysian organisations have accelerated digital transformation plans", 2020). Motivated by this puzzling phenomenon, this study aims to investigate the factors thwarting MSMEs from embarking on e-commerce platforms.

To that end, this study draws on Ikumoro and Jawad's (2019) theoretical framework on technology adoption. Accordingly, this study proposes a finer-grained framework that classifies the technological, organizational, environmental, and individual factors into internal and external dimensions. Using focus group interviews with MSME's owners and managers, this study investigates the following broad research question:

RQ1. Why are MSMEs hesitant to adopt e-commerce? Two specific sub-questions are addressed when studying this question.

RQ1a. How do *internally* rooted factors in technological, organizational, environmental, and individual contexts influence the owner-managers' decision to adopt e-commerce?

RQ1b. How do *externally* rooted factors in technological, organizational, environmental, and individual contexts influence the owner-managers' decision to adopt e-commerce?

The paper adds the following to the existing body of knowledge. First, it offers holistic insights on the MSMEs' decision to not use e-commerce. With a focused inquiry into the internal and external elements rooted within technological, organizational, environmental, and individual contexts, this study illuminates the multifaceted barriers that potentially influence owner-managers' decisions regarding the incorporation of e-commerce technologies. By framing the discussion around a finer-grained framework, we unravel the complexities underpinning each context and the interplay between internal and external factors. Next, the study's identification of key barriers has practical implications for policymakers, government agencies, and business support organizations. The findings can guide the design of targeted interventions and support programs that address the specific challenges faced by MSMEs in adopting e-commerce.

The remainder of the paper proceeds as follows. The subsequent three sections cover the literature review and theory development. The fifth section goes over the research method. Our case analysis is presented in the sixth part. The final section discusses our findings and concludes the paper.

MSMEs and e-commerce in Malaysia

In Malaysia, the MSMEs have been contributing towards the economic development significantly. In 2021, MSMEs contributed to 37.4% and 11.7% of the country's GDP and total exports, respectively (SME Masterplan 2022 - 2030). MSMEs are targeted to contribute up to 45% and 25% of the total country's GDP and total exports by 2025 (SME Masterplan 2022 - 2030). Besides economic growth, MSMEs also contribute to improved income distribution, productivity, efficiency, and the economic structure of the country (Abdullah, 2011).

The conventional marketplace has evolved parallel to the development of information, communication, and technology (ICT) and internet technology (Rahim, Kadir, Osman, Rosly & Ahmad Bakri, 2019). It is not limited to merely a conventional meeting point for sellers and buyers to transact values and offerings but also connects both parties via e-commerce activities. A variety of e-commerce platforms emerged as a result of rapid ICT development including those that are owned by the businesses that produce and sell their product, as well as third-party e-commerce sites that facilitate shopping from different sources.

Adoption (and non-adoption) of e-commerce among MSMEs

The adoption of e-commerce can be described as "setting up a company website to share information, maintain relationships and transact business using electronic networks" (Zwass, 1996). Given the expected increasing number of SME establishments coupled with their huge contribution towards domestic-led growth, i.e., 41% of the total country's GDP (SMEs Masterplan 2012 – 2020), MSMEs are expected to strengthen not only the infrastructure but also their info structure to support the online sales surged post Covid-19 pandemic. Thus, MSMEs' role in accelerated economic expansion and development including in information and technology is inarguable for both existing and new industries (Sin et al., 2016).

Using the self-determination theory, Koe (2020) document that competence, relatedness, and autonomy are positively and significantly associated with entrepreneurs' motivation to adopt e-commerce. Furthermore, Van Huy et al., (2012) documented that the size of the enterprise, its resources and its strategic orientation, the employees' knowledge of e-commerce, the attitudes of managers towards innovation and their knowledge of the new technologies and e-commerce, the intensity of the competition, the degree of support of the

government, the national infrastructure, the perceived relative advantages, and the complexity and compatibility of e-commerce influence the adoption of e-commerce in MSMEs in Vietnam, but that this influence differs depending on whether it involves users or prospectors.

Mukhtar, Ashaari, Rahman, and Husin (2016) examine the obstacles to implementing e-commerce in the marketplace in Malaysia. They find that product authenticity, pricing errors, inappropriate images, fraud when transactions and shipping, privacy security, and product warranty are some of the challenges. From the MSMEs' viewpoint, prior literature has identified several potential factors stopping MSMEs from using e-commerce platforms. The main factors inhibiting MSMEs are the lack of knowledge about the marketplace and the inability to look over the market opportunities in digital media (Ningsih, Febrinda & Menanti, 2019). Other factors include inexperienced employees managing the e-commerce sector, low customer awareness of e-commerce, the unpopularity of electronic payment, and barriers such as lack of capital investment, customer habits, the characteristics of the products, and ineffective planning (Ho, 2017). Nevertheless, in the case of MSMEs, specifically, the micro-enterprises that have embarked on e-commerce but later decided not to use it, the thwarting and/or withdrawal factors were absent.

Theory development: Potential determinants of the use of e-commerce among MSMEs

Drawing on extant literature, Ikumoro and Jawad (2019) propose a new 11-factor technology acceptance framework by weaving the Technology-Organization-Environment (TOE) framework into the Unified Theory of Technology Acceptance and Use of Technology (UTUAT) model. The eleven factors are grouped under four broad contexts: (1) Technological context (employees technology know-how, performance expectancy, perceived relative advantage, perceived technology security); (2) Organizational context (chief executive officer (CEO) and manager characteristics, perceived adoption cost, facilitating condition); (3) Environmental context (normative and mimetic pressures); and (4) Individual context (social influence, hedonistic drives).

This study further refines Ikumoro and Jawad's framework by taking into account both internal and external dimensions within each of the four broad contexts. It recognizes that technology acceptance is influenced by a complex interplay of individual, organizational, and environmental factors, and that these factors can have both internal and external origins. The framework is presented in Figure 1 below. Table 1 describes the factors within each context and origin. This finer-grained framework provides a more detailed perspective and allows for a more nuanced analysis of the various forces that shape technology acceptance and adoption within an enterprise. It is against this framework that the findings of this study are analysed and discussed.

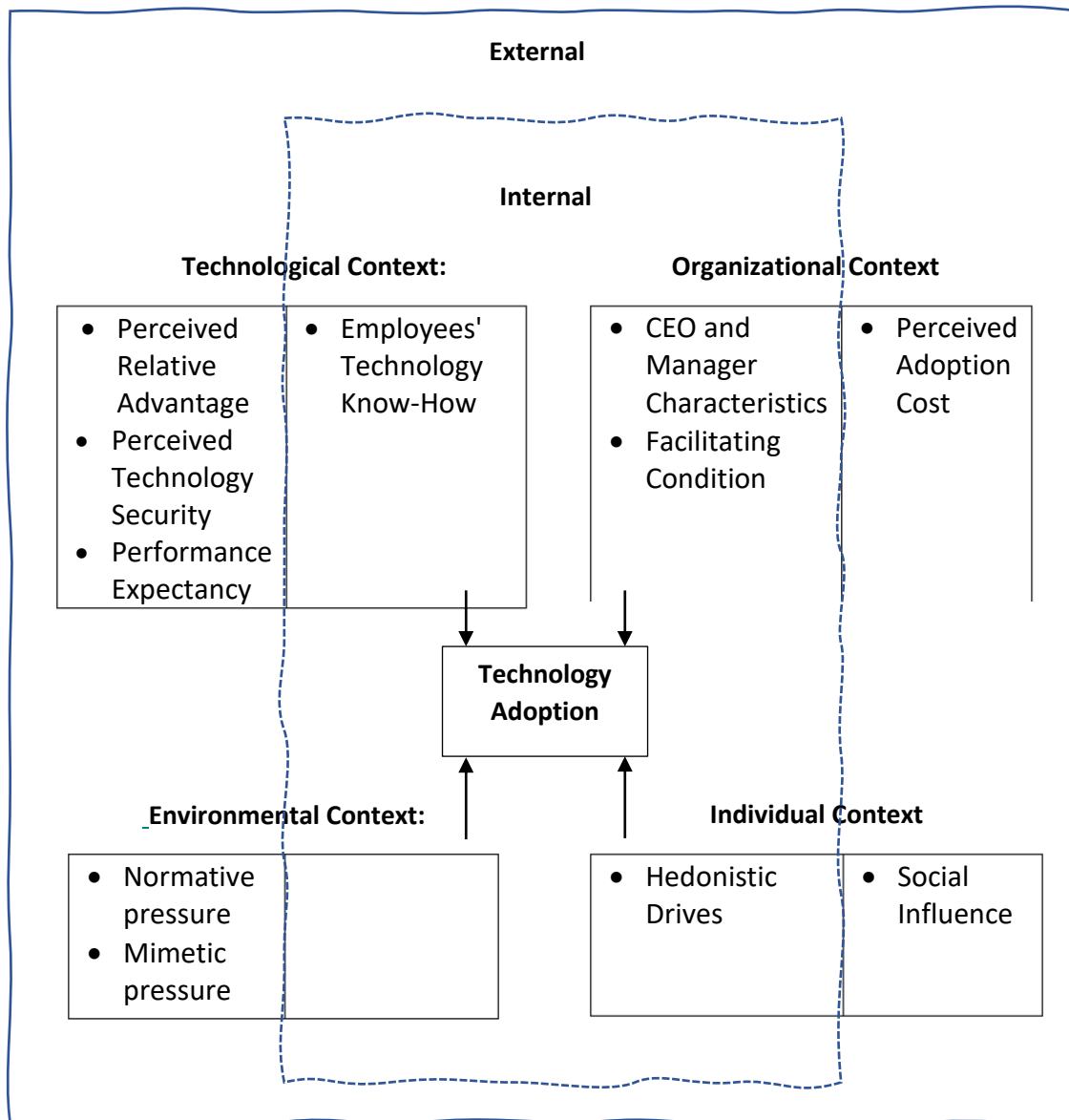


Figure 1: Finer-grained Technology Adoption Framework (Source: Derived from Ikumoro and Jawad, 2019)

Table 1

internal and external origins of technological, organizational, environmental, and individual-related determinants of technology adoption

Context	Internal	External
Technological	Employees' Technology Know-How: Individual technology proficiency and skills within the firm.	Perceived Relative Advantage: Perception of how the technology compares to existing alternatives. Perceived Technology Security: Perception of the technology's security and data protection measures. Performance Expectancy: Individual assessment of how technology will enhance their own performance.
Organizational	CEO and Manager Characteristics: Traits and attitudes of internal leaders that influence technology adoption decisions. Facilitating Condition: Internal resources, infrastructure, and support available to aid technology implementation.	Perceived Adoption Cost: Estimation of the financial, time, and effort costs associated with technology adoption.
Environmental		Normative Pressures: External social and cultural influences promoting technology adoption due to industry norms. Mimetic Pressures: External tendency to imitate technology adoption decisions of other organizations in the industry.
Individual	Hedonistic Drives: Internal desire for personal enjoyment and gratification from using the technology.	Social Influence: External impact of societal norms and expectations on individual attitudes toward technology adoption.

Method

This study employed qualitative focus group interviews with owners and directors of MSMEs to gather the required data. The main reason for selecting the qualitative approach was due to the exploratory nature of the research. Rich data were gathered from participants and their surroundings which they have been interacting with in their daily routine (Kadir & Sarif, 2016) that allow the researcher to explore and gather comprehensive views from the participants. A total of seven participants representing seven cases were interviewed in two different focus group interview sessions with four participants in the first session and three participants in the second session. Purposive sampling was used to identify suitable MSME owners and

directors whose companies are currently not active users of e-commerce sites or platforms. All of the seven participants had previously used online platforms but had later decided to depart or remain inactive on those networks. These participants acted as proxies for the cases, which is considered the unit of analysis for this study. The justification for using focus group interview is to acquire an in-depth understanding of factors that impedes MSMEs from embarking on e-commerce. It is considered an appropriate data collection technique that would enable researchers to explore the justification behind SME owners juxtaposing the decision of refusing e-commerce in the era of omni-connectivity. The number of participants was not added as the interview reached the saturation point at the seventh participant. The profile of the participants is listed in Table 1 below.

The semi-structured interview questions were adapted from Thong (1999) and Visser, Chodokufa, Amadi-Echendu, and Phillips (2019). Interviews lasted between 40 and 90 minutes, with an average duration of 60 minutes. Interviews were carried out at the agreed upon premise, digitally recorded (with permission), and transcribed verbatim later. At all interviews, at least three researchers were present. Multiple interviewers present in an interview are said to improve the reliability of case study findings (Pettigrew, 1990). Table 1 provides a list of interviewees' gender and type of business. The interview transcripts were manually coded and arranged to reduce the volume of raw information and make sense of loads of data gathered from the interview (Abdul Kadir & Sarif, 2015) followed by identifying emerging themes and sub-themes as well as significant patterns, then later on elicit the meaning from the data and finally developed a logical flow of evidence (Patton, 2002) to gather the findings of the study.

Table 1

Profile of the participants

Participant	Gender	Types of business
1	Male	Printing services
2	Female	Café
3	Male	Café
4	Male	Supply of equipment
5	Male	Retail
6	Male	Retail
7	Female	Ready-to-drink coffee

Case Analysis

Our case data analysis revealed diverse themes that may provide insights into the factors thwarting MSMEs from using online platforms. A comprehensive analysis of multiple cases yielded a total of 22 distinct themes, presented in Table 2. Themes 1 – 9, which emerged from three or more cases are considered primary themes, whereas thirteen other themes that emerged from less than two cases are considered secondary themes.

Table 2

Primary and secondary themes

	Case	1	2	3	4	5	6	7
No	Emerged Themes							
Primary	1	Insufficient human resources: Many MSMEs struggle to assign dedicated personnel to manage the e-commerce platform effectively, hindering its smooth operation.						
	2	Reimbursement delays: E-commerce platforms often exhibit reimbursement delays of up to two weeks, creating cash flow challenges for MSMEs.						
	3	Challenges with sales promotion reimbursement: Hidden clauses in the platform’s terms and conditions during promotional activities can lead to lower-than-expected reimbursements for MSMEs.						
	4	Order system delays: Communication gaps between delivery riders and the system can lead to delays in order notifications, affecting the fulfillment process.						
	5	Technical know-how gap: Limited understanding of e-commerce technology prevents many MSMEs from leveraging online platforms optimally.						
	6	Lack of access to financial assistance: Difficulty in accessing financial support further impedes the adoption of e-commerce among MSMEs.						
	7	Incompatibility with business nature: Certain businesses, like those involving business to government (B2G) transactions or specialized services like training and team-building, might find it challenging to translate their offerings into successful online sales.						
	8	Time constraints: The demands of day-to-day business operations leave MSMEs with insufficient time to dedicate to establishing an online presence.						
	9	Limited business information sources: Scarcity of reliable information sources makes it difficult for MSMEs to gather insights and stay updated about e-commerce trends.						
Secondary	10	Inexperience with online business: Lack of prior experience in online ventures hampers MSMEs’ confidence and ability to venture into e-commerce.						
	11	Strategic planning deficiency:						

		Insufficient knowledge of long-term strategic planning prevents MSMEs from effectively integrating e-commerce into their business models.							
12	Intense online competition:	The highly competitive online marketplace can discourage MSMEs from entering the e-commerce arena.							
13	Supplier identification challenges:	Difficulty in identifying reliable suppliers can hinder the smooth sourcing of products for online sales.							
14	Agent/distributor selection difficulty:	MSMEs may struggle to find the right agents or distributors to expand their e-commerce reach.							
15	Unawareness of technical assistance:	Some MSMEs are unaware of the technical assistance and guidance offered by government agencies or industry bodies.							
16	Absence of business advisory/mentorship:	Lack of mentorship and advisory support specific to e-commerce can impede MSMEs' growth in this domain.							
17	Inability to conduct market surveys:	Limited understanding of how to conduct effective online market surveys deprives MSMEs of valuable consumer insights.							
18	E-commerce training gap:	A lack of awareness regarding available e-commerce training programs prevents MSMEs from enhancing their digital skills.							
19	Scarcity of business support:	Inadequate access to general business support resources affects MSMEs' overall readiness to embrace e-commerce.							
20	Instability of infrastructure and internet:	Unreliable internet coverage and infrastructure instability in certain regions hinder the seamless operation of e-commerce platforms.							
21	Lack of unique selling proposition:	MSMEs may struggle to differentiate their products or services online, making it challenging to attract and retain customers.							
22	Technical knowledge and team skill gap:	Understanding how to join e-commerce platforms, execute effective marketing, and boost sales online requires specific technical knowledge and a skilled team, which some MSMEs lack.							

The nine primary themes presented in Table 2 above are further discussed below:

Insufficient human resources

The consensus among all participants is that the readiness of an entrepreneur and having a technically proficient team are pivotal for effective engagement with online platforms. In the contemporary market landscape, customer expectations prioritize swift order fulfilment and timely product delivery. Failing to meet these expectations can lead to adverse customer reviews and subsequent customer attrition. Therefore, participants emphasized that entrepreneurs need personnel who are not only technically competent but also motivated to manage online platforms effectively. Unfortunately, many MSMEs struggle to assign dedicated personnel to manage the e-commerce platform effectively, hindering its smooth operation. As participants commented:

Comment 1: "Managing our e-commerce platform is a challenge because we're a small team and we wear many hats. While I know the potential of online sales, finding dedicated personnel to handle the platform effectively is tough. We often end up juggling between order processing, customer inquiries, and social media management. This definitely affects the smooth operation of our online store."

Comment 2: "I understand the importance of having a strong online presence, but it's tough for us. We're a family-owned business, and we all have our roles. Adding someone solely for e-commerce management is financially and practically challenging. It's frustrating because we see the potential, but we simply don't have the resources to spare for dedicated personnel."

Reimbursement delays

A recurring theme highlighted by participants is reimbursement delays, with e-commerce platforms frequently displaying delays of up to two weeks. These delays pose cash flow challenges for MSMEs. Most participants have encountered this scenario and agree that if this trend persists, it could ultimately affect their bottom line. One participant described these delays, and their consequences, as follows:

Comment 1: "The reimbursement delays from the e-commerce platforms have really impacted our cash flow. Waiting for up to two weeks for the payments makes it hard to manage our operational expenses. We have to balance our budget meticulously to ensure we can cover our costs during these periods. It's definitely a financial strain on our small business."

Comment 2: "Cash flow is crucial for us, especially as a small business. E-commerce platforms taking their time to reimburse us means we have to be extra careful with our expenditures. We often find ourselves in a tight spot, needing to pay suppliers and bills while waiting for the money from our online sales. It's an ongoing challenge that affects our financial planning."

3. Challenges with sales promotion reimbursement

A recurring concern raised by participants is the oversight of fine print details during sales promotion periods. Many sellers tend to overlook the nuances of these promotions,

specifically related to price discounts orchestrated by platform operators to attract buyers. The issue arises when these discounted prices lead to disproportionately low reimbursement for the sellers. The failure to meticulously review and agree upon the terms outlined in the fine print before the sales promotion period can result in financial setbacks and dissatisfaction among sellers, as highlighted by the participants:

Comment 1: "We joined a promotional campaign on the e-commerce platform, hoping to boost sales. However, we were disappointed to find out that there were hidden clauses in the terms and conditions. These clauses affected our reimbursement amount, and we didn't get the expected return on investment. It's frustrating when you plan your promotions and then find out there were strings attached."

Comment 2: "Sales promotions are a great way to attract customers, or so we thought. We participated in a platform-wide campaign, offering discounts on our products. Little did we know that the reimbursement we received was much lower than we anticipated due to certain conditions buried in the fine print. It's disheartening when you put effort into a promotion and don't get the returns you expected."

4. Order system delays

A notable platform-related challenge unveiled in the interviews pertains to delays in order processing. This "order processing system lag" phenomenon occurs when the delivery rider receives the order, but the corresponding notification doesn't reach the seller promptly. Four of the participants recounted instances where this issue disrupted their operations, leading to delivery inconsistencies and garnering negative customer reviews. Such occurrences not only discourage business owners but also cast a shadow on their reputation due to factors beyond their control.

Comment 1: "We've faced issues where the delivery riders receive the order, but we're not immediately notified. This communication gap has caused delays in fulfilling orders, leading to unhappy customers. It's frustrating because it's not within our control, but it still affects our reputation and customer satisfaction."

Comment 2: "Order processing delays have been a real headache for us. Sometimes, we only find out about an order after the delivery rider has already arrived. This results in rushed preparation and delivery, which impacts the quality of our service. It's a challenge to maintain efficiency when we're not getting timely notifications."

5. Technical know-how gap

Participants acknowledged that establishing an online presence necessitates a substantial level of technical expertise and the involvement of e-commerce specialists or personnel capable of expeditiously managing online orders. Merely adopting an online platform is insufficient; the critical challenge lies in promptly fulfilling customer orders with accurate products. This complexity transcends basic online store setup skills, demanding

comprehensive insights and a skilled workforce to handle customer demands while navigating the platform's intricacies.

Comment 1: "I know that the online market is huge, but honestly, I'm not very tech-savvy. I lack the understanding of how to optimize our online store, use digital marketing effectively, and manage customer interactions. It's overwhelming, and I worry that our potential is limited by my lack of technical knowledge."

Comment 2: "I see our competitors thriving online, and I know we need to catch up. However, the technical aspects of e-commerce are foreign to me. I struggle with setting up the website, managing inventory, and utilizing digital tools for marketing. It's like learning a whole new language, and it's a barrier to tapping into the online market."

6. Lack of access to financial assistance

Another essential element to the participants is the access to funding and financial assistance, particularly micro-enterprises with limited financial resources. Acquiring an online presence necessitates not only the establishment of virtual storefronts but also the provision of requisite infrastructure and inventory. This includes covering costs associated with delivery and postage. Participants contend that the accessibility of funding plays a pivotal role in enabling a smooth transition to the online sphere and facilitating sustainable operations. As the participants recounted,

Comment 1: "Transitioning to an online model requires investment, but accessing financial assistance has been a roadblock. Banks and lenders often have stringent criteria that small businesses like ours struggle to meet. Without the necessary funding, expanding our online presence becomes a distant dream."

Comment 2: "I believe our business could benefit from going online, but the lack of financial support is a major hurdle. We need capital for things like website development, marketing campaigns, and inventory expansion. However, traditional sources of funding are often out of reach for MSMEs like ours, making it difficult to make the leap."

7. Incompatibility with business nature

Several participants highlight the constraint posed by the nature of their businesses and the products/services they offer. In certain cases, products or services, such as specialized medical equipment or tailored services like team building, may not align well with the online sales model. Participants note that certain niches, like medical equipment sales targeting government entities, rely more on traditional procurement methods like requests for quotation and government tenders rather than online platforms. For example, the participants claimed the following:

Comment 1: "Our business is all about providing specialized services for team-building activities. It's hard to translate our interactive and hands-on

approach into an online platform. While we understand the benefits of e-commerce, the nature of our services doesn't quite fit the online sales model."

Comment 2: "We cater to government contracts for medical equipment, and most of our transactions are B2G. The online marketplace seems more geared towards consumer products, and our unique business-to-government transactions aren't easily accommodated. It's a challenge to find a platform that aligns with our business nature."

8. Time constraints

Amidst the technical considerations, participants emphasized the critical role of an entrepreneur's commitment to the transition to online operations. Beyond financial investments, an entrepreneur's dedication to investing substantial time and effort into establishing and promoting their online presence proves pivotal. This includes both financial investments and patience to cultivate the online customer base. Participants acknowledged that hesitancy to spend on advertising and impatience for immediate results can impede successful adoption of e-commerce. The participants shared their struggle in dedicating time for e-commerce:

Comment 1: "Running our day-to-day operations is already demanding, and finding time to establish an online presence feels like an uphill battle. There's barely enough time to manage our physical store, engage with customers, and oversee production. Adding the complexities of online operations feels like a luxury we can't afford."

Comment 2: "The business demands on my time are relentless. From managing staff to inventory to customer interactions, there's hardly a spare moment. While I understand the potential of e-commerce, dedicating the time needed to build and maintain an online presence feels like an impossible task."

9. Limited business information sources

The final primary theme highlighted by participants is the scarcity of accessible business information sources. Entrepreneurs engrossed in daily operational demands often struggle to allocate time for seeking vital business information necessary for online growth. The challenge lies in the need to strike a balance between business operations and proactive information-seeking behaviors. While recognizing the importance of staying informed, participants express the difficulty of dedicating sufficient time to research due to their demanding operational routines. The participants admitted:

Comment 1: "Staying updated on e-commerce trends is challenging due to the scarcity of reliable sources. I want to make informed decisions for our online strategy, but finding trustworthy information about market trends, consumer behavior, and best practices is a struggle."

Comment 2: "I'm aware that the online landscape evolves rapidly, but finding accurate and relevant information is a challenge. The sources available are either overwhelming or not credible enough. It's tough to make strategic decisions when you're unsure about the accuracy of the information you're basing them on."

Discussion

This study explores into the intricacies surrounding the reluctance of MSMEs to use e-commerce. It specifically addresses the following question: How do internally and externally rooted elements within technological, organizational, environmental, and individual contexts influence the owner-managers' decision to use e-commerce platforms? The discussion is organised below by going over each research question in turn.

Internal hindrances of the use of e-commerce among MSMEs

In relation to the first research question, this study documents that some MSMEs are diverting away from e-commerce transactions due to issues related their internal capacities such as the entrepreneur's readiness, nature of business, technical know-how, time management, and resourcefulness. This trend is observed albeit the proliferation of e-commerce sites, third-party marketplace, and other mobile shopping and delivery applications.

Internally, the findings underscore the significance of employees' technology know-how in shaping e-commerce adoption. The lack of sufficient human resources and the existence of a technical know-how gap emerged as prominent challenges. Many MSMEs faced difficulties due to the absence of online expertise within their workforce. These internal hindrances were reflective of the broader organizational environment that constrained e-commerce integration.

Within the organizational dimension, the study shed light on the pivotal role of owner-manager characteristics. Time constraints were identified as a significant challenge faced by owner-managers, impeding their ability to steer the transition toward online operations effectively. Furthermore, facilitating conditions, such as limited access to business information sources and the incompatibility of e-commerce with the nature of business, were identified as critical organizational factors contributing to the hesitance observed among MSMEs.

In terms of environmental influences, the study did not identify any explicit factors within this context that hindered e-commerce adoption among the sampled MSMEs. This finding may imply that external pressures and norms were not strong drivers of reluctance in this specific context.

Turning to the individual context, owner-managers' hedonistic drives emerged as an internal driving force. Additionally, time constraints borne from the owner-managers' commitment to the transition to online operations were identified as a dual-edge factor that both hindered and motivated the adoption process.

External hindrances of the use of e-commerce among MSMEs

The external dimension provided further insights into the challenges faced by MSMEs. In the technological context, perceived relative advantage and performance expectancy were impacted by factors such as reimbursement delays, fine print, and "operator-centric" terms and conditions by the third-party online platforms, and order system delays. These external

factors underscored the importance of seamless transactions and timely support from e-commerce platforms to facilitate adoption.

Within the organizational context, the study highlights the impact of perceived adoption cost. The lack of access to financial assistance emerged as an external barrier, emphasizing the need for facilitating financial support mechanisms to alleviate the financial burden of technology adoption in MSMEs.

By distilling insights from focus group interviews, the above refined research findings present a cohesive narrative of the impediments that MSMEs confront when navigating the e-commerce landscape. The amalgamation of issues surrounding reimbursement, system efficiency, technical proficiency, financial accessibility, business alignment, entrepreneurial commitment, and information-seeking underscores the multifaceted nature of challenges that these enterprises must address to harness the potential of e-commerce effectively.

Conclusion

This research unveiled a nuanced understanding of the factors hindering the adoption of e-commerce among MSMEs. By categorizing these factors into internal and external dimensions within the proposed framework, we discerned the intricate interplay of challenges and motivations influencing the decision-making process of owner-managers. The identified barriers underscore the importance of tailor-made support mechanisms that address the specific concerns of MSMEs, particularly focusing on enhancing technological literacy, alleviating financial constraints, and offering accessible and relevant business information. The findings of this research contribute valuable insights that can guide policy formulation and strategic interventions aimed at fostering e-commerce adoption among MSMEs. By addressing the challenges identified in this study, policymakers and stakeholders can empower MSMEs to overcome barriers and capitalize on the transformative potential of e-commerce technologies.

Contribution

In essence, this study provides a significant contribution to the continuous domain of entrepreneurship research through its investigation of the factors that hinder entrepreneurs operating micro, small, and medium companies (MSMEs) from participating in electronic commerce (e-commerce). Consequently, this study offers scholars and practitioners enriched perspectives that might guide their decision-making and actions within the intricate and challenging field of entrepreneurship.

Limitations and recommendations for future research

Despite its significant implications for a better understanding of the barriers faced by MSMEs on e-commerce, this research does have a few limitations. The scope of this study was restricted to micro-businesses located only in Klang Valley, Malaysia due to the time and cost constraints. Since businesses of various sizes possess distinct capacities and capabilities, these factors may be viewed differently by owners and entrepreneurs.

To achieve a more comprehensive representation of the population, future research could encompass a wider range of businesses across Malaysia with diverse backgrounds and sizes. Broader quantitative research methods such as surveys would be essential for better generalizability and findings that more truly reflect the total population. Nevertheless, this research has effectively achieved its primary objective of exploring the factors impeding MSMEs from venturing into e-commerce.

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