THE ENGAGEMENT OF CO-OPERATIVES IN ONLINE BUSINESS IN MALAYSIA

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ABSTRACT

Statistics from the Companies Commission of Malaysia show that, as of July 2018, a total of 53,285 businesses had registered as online retailers. However, no formal data has been obtained on the engagement of co-operatives in online business. This research aimed to identify the profile of co-operatives in online business, particularly the factors that motivate co-operatives' adoption of online business and the barriers faced by co-operatives in performing online business. In addition, this study sought to determine the role of co-operative performance in linking the motivating and barrier factors to continuous online business usage among co-operatives. The census method was used to collect data from the entire population of the study, which comprised co-operatives engaged in e-commerce businesses in Malaysia. The findings showed that trendiness, government support, and cost reduction have a direct positive effect on co-operative performance, while risk and a lack of employee competency have a direct negative effect on co-operative performance. Apart from that, co-operative performance was found to influence satisfaction and continuous usage directly and positively. The results further revealed that satisfaction has a direct positive impact on continuous usage as well as a mediating effect on the relationship between co-operative performance and continuous usage.

Keywords: *Online business, co-operative performance, continuous usage, e-business*

INTRODUCTION

According to the Malaysian Communications and Multimedia Commission (2020), research conducted in 2016 and 2018 reported a 4.5% increase in the proportion of online businesses, from 48.8% in 2016 to 53.3% in 2018. This indicates the growing acceptance of online businesses, especially among those who have limited time for physical shopping. In fact, Kemp and Moey (2019), states that the trend of online shopping has been very well-received (80%) among Malaysian citizens aged 16 to 64 years old.

Based on its 2020 budget, the government is actively encouraging entrepreneurs' greater engagement in online business. For example, the Malaysian government has allocated RM10 million to the Malaysian Digital Economy Corporation Sdn. Bhd. (MDEC) to train micro-digital entrepreneurs and technology experts to take advantage of e-marketplaces and social media platforms. This provision will drive entrepreneurship and innovation to higher levels and elicit technological benefits for more Malaysian businesses, including co-operatives. Therefore, the aggressive engagement of co-operatives in online business is encouraged to support the government's vision of realising the National Entrepreneurship Policy 2030.

Statistics from the Companies Commission of Malaysia (CCM) show that, as of July 2018, a total of 53,285 businesses had registered as online retailers. However, no formal data has been obtained thus far on co-operatives' engagement in online business. Numerous factors may influence one's decision to perform business online, especially given its significance in today's society which is being pushed to shift to modern approaches. In the context of a co-operative, online business is a new branch that can sustain its ability to perform at its best and compete with existing entrepreneurs and companies.

Informative evidence proves that various factors can affect the adaptation to online business among small and medium sized enterprises (SMEs). These facts specifically suggest that SME owners should take pre-emptive steps in terms of organisational readiness to apply e-commerce or to use online platforms. Such preparedness involves cultivating key resources for adaptation, such as finances, technology, values, culture, consistent work practices, and staff with expert skills in ensuring e-commerce activities are conducted effectively. With regard to external pressure factors, on the other hand, SMEs are called not only to use e-commerce applications routinely but also to take the initiative to adopt more advanced applications to enhance their competitive advantage in their industry (Hasfaizal, 2013).

Although the strategy to empower society through information and communications technology (ICT) is effective, the issue of insufficient knowledge and reach still impedes the potential of ICT in less developed countries (Castells, 2013; Harris, 2016). This is because the implementation and usage of ICT among rural citizens is still at a low level, largely due to six main factors: technical factors, financial factors, social factors, regulatory factors, organisational factors, and human factors (Heeks, 2008; Resta & Laferriere, 2008). Under organisational factors, for example, a lack of interest and expertise in using ICT, concerns about the risk of using ICT, poor service quality by service centres, a lack of interest from the private sector in participating in rural areas' ICT development, and a limited number of technology service centres are all contributing factors to the low ICT adoption rate among rural communities (Hosseini et al., 2009).

Based on the Malaysian SME Master Plan 2012-2020, the World Bank revealed that there are six factors that determine SME performance, one of which is the integration of technology. Indeed,

their limited ICT usage is the reason many SMEs are unable to achieve high performance (SME Corp. Malaysia, 2012). According to Madrid Guijarro et al. (2007) as cited in Ab Wahab and Ahmad (2017), business performance is crucial for any firm. Strong performance can produce benefits like resource management, wealth creation, and job opportunities. In operating a business, therefore, an entrepreneur must possess strategies and approaches to ensure the business is able to boost its sales performance.

Studies on co-operatives in Malaysia are still scarce, especially in relation to their online business activities. Moreover, extant research on online business in Malaysia is too insufficient to be used as a guideline (Rohmad, 2015). Consequently, the findings of this study are much needed by policy makers and industry practitioners in the sector of co-operative development in Malaysia. In particular, they could use the findings to design more targeted roadmaps and programmes to support the success of the government's MyDigital Plan, which was launched in 2020. Therefore, the objectives of this study were: (i) to identify the profile of co-operatives in online business; (ii) to detect the factors that motivate co-operatives' adaptation to online business; (iii) to examine co-operatives' barriers in online business; and (iv) to determine how co-operative performance links the motivating and barrier factors to co-operatives' continued usage of online business via the mediation of satisfaction. Apart from setting a foundation for related studies, this study is also a main profile for the Digitalisation programme at the Co-operative Institute of Malaysia.

LITERATURE REVIEW

The landscape of the co-operative business

In the year 2020, the co-operative sector recorded earnings of RM41.45 billion, which was a 9.5% decline compared to 2019 (RM45.79 billion). This decline is closely associated with the effects of the Covid-19 outbreak, which depreciated co-operatives' income. The Financial Services sector is the largest contributor to the earnings of the overall co-operative movement, with a substantial majority of 83.16%. This is followed by the Real Estate Development and Construction industry (10.81%), and the Wholesale and Retail sector (4%). Other economic sectors, meanwhile, contribute less than RM1 billion (Malaysia Co-operative Societies Commission, 2021a).

Accordingly, various initiatives and strategies have been developed to enhance the capacity of co-operative business, including inclusively digitalising co-operatives' trade and governance to create a more sustainable ecosystem for the co-operative movement (Malaysia Co-operative Societies Commission, 2020a). As the body responsible for developing and monitoring the co-operative sector in Malaysia, the Malaysia Co-operative Societies Commission (MCSC) has created the Co-operative Commission of Malaysia Digitalisation Plan SKM 2021-2025. This plan focuses on the automation of work processes, integration, machine learning, and real time data, which act as the starting point for the Commission's transformation into an interconnected, efficient, and visionary entity. Ultimately, the plan spurs the co-operative movement to fulfil the seven (7) co-operative principles through its vision of "integrated digitalisation as the driver of the co-operative movement's excellence" (Malaysia Co-operative Societies Commission, 2021b).

As such, co-operatives must leverage the benefits generated by the digital ecosystem that is being cultivated at the national and ASEAN levels. In fact, it should be a prerequisite for co-operatives to digitalise and fully reform to play a bigger role in the national economy, face the challenges of Revolution 4.0, and be able to adapt and interact dynamically. Given that there are over 14,000

co-operatives with a total of 6.5 million members, the co-operative movement clearly has a huge local market segment; this market network has the potential to be expanded to the international level through e-commerce platforms (Malaysia Co-operative Societies Commission, 2021a).

This capacity for expansion is supported by the Internet World Stats (2020), which recorded over three billion internet users globally, a significant growth from 1.8 billion users in 2018. This evidences that online shopping has substantial potential and benefits for individuals and businesses worldwide (Naseri, 2021). Therefore, this study looked into the expanding potential of the co-operative sector to research online business usage in Malaysia.

Realising the importance of e-commerce contributions to the economic development of the country, the Malaysian government has introduced several stimulus packages to increase e-commerce practices, especially among SMEs as they constitute 84% of all businesses in country (Ainin & Noorismawati, 2003). Since co-operatives are business entities that are oriented towards social entrepreneurship, their engagement in e-commerce is also crucial to bring this movement to greater heights, notably to achieve the aims of the Malaysian Co-operative Transformation 2021-2025 (Malaysia Co-operative Societies of Commission, 2021c).

The new norms that emerged following the Movement Control Order (MCO) also caused significantly higher participation in online business in the year 2020. This is expected to boost the country's Gross Domestic Product (GDP) and drive economic growth by 6.5% to 7.5%, as targeted in the National Budget 2021. As such, the co-operative movement must also digitalise itself and join online retailing as a way to increase its profits (Malaysia Co-operative Societies Commission, 2021a).

The e-commerce concepts

The concept of e-commerce is a form of business redesign from traditional approaches to information technology implementation; this is now known as the digitalisation of business processes, which includes the automation of these processes (Salmi, 2020). Digitalisation allows a business to sell its products and services to consumers all over the world (Reynolds, 2004). In this regard, e-commerce has become a new platform to sell and distribute products and services electronically. E-commerce is also termed as the relationship between an organisation and its customers, wherein this relationship does not exist to only communicate via the organisation's website, but also to engage in the process of purchasing the products and services offered by the organisation (Botha et al., 2008). Further, e-commerce encompasses activities such as business-to-business exchanges as well as internal processes used by an organisation to support its sales, purchases, rentals, planning, and other activities (Schneider, 2009; Rawi et al., 2012).

At the same time, scientists have driven e-commerce development and demand its rapid adaptation by sellers, consumers, and countries for the following purposes: (1) sellers – to secure competitive advantages and high-performing equipment to promote their products/services; (2) consumers - to save time in purchasing products/services and receive significantly higher service quality; and (3) countries – to ensure the integration of commodity-currency international relations and develop the e-government system (Kwilinski et al., 2019; Vasudevan & Arokiasamy, 2021).

In other words, e-commerce benefits overall digital business activities via computer networks and internet technology. It enables a business to connect its internal and external data processing

systems to make them more efficient and flexible (Husain et al., 2020). By using websites and internet networks, e-commerce is able to reach a broader range of consumers across international boundaries for online marketing and sales (Husain et al., 2020).

It can be concluded that e-commerce practices involve the electronic purchases or sales of products through online services or the internet. Mobile commerce, electronic fund transfer, supply chain management, internet marketing, online transaction processing, electronic data transfer, inventory management systems, and automatic data sourcing systems are among the elements of e-commerce usage.

To explain the relationships among the factors under study and online business usage behaviour, two theories were combined, namely the Theory of Planned Behaviour (TPB) (Ajzen, 1985) and the Technology Acceptance Model (TAM) (Davis, 1989). The TPB links beliefs to human behaviour. According to this theory, attitude, subjective norms, and perceived behavioural control are factors that determine behaviour. However, at its core, the TPB is open to the inclusion of additional predictors that can strengthen the explanation of studied phenomena. On the other hand, the TAM investigates the effect of technology on users' behaviour. This model emphasises the process of technology usage, wherein perceived usefulness and perceived ease of use are the two main factors influencing individuals' intention to utilise a technology. Perceived usefulness refers to users' belief that the usage of a technology will improve their performance, while perceived ease of use refers to users' belief that the usage of a technology will be free of effort (Davis, 1989). Venkatesh and Davis (1996) suggested that perceived usefulness and perceived ease of use can also be affected by environmental factors.

Therefore, based on the theories applied, this study explored and tested the environmental factors that motivate or hinder the usage of online business, as well as the mediators that influence the factors' relationship with online business usage.

Online business usage and its effect on co-operative performance

The global spread of the Covid-19 pandemic transformed consumer behaviour, bringing new challenges to businesses by rendering their traditional manner of operations increasingly irrelevant (Priambodo et al., 2021). The MCO limited conventional ways of doing business; consequently, business owners, especially SME owners, had to drastically become more dynamic in managing change so as to minimise threats to their business' continuity (Priambodo et al., 2021). As such, organisations that are dynamic and innovative in shifting their business mode to online platforms would inevitably impact their performance (Soto-Acosta et al., 2016).

Past studies indicate that the most favoured features of the internet, such as speed, user-friendliness, low cost, and wide accessibility, have proliferated e-commerce at the global level and brought countries together to form a global economic chain (Gibbs & Kraemer, 2004). In fact, the advantages offered by the internet as a platform of business have led to organisations' significant improvement in both results and processes (Macchion et al., 2017), and subsequently, in overall business performance.

ICT has contributed to the rapid growth of the electronic market (Norzaidi et al., 2007). With the wave of globalisation and worldwide liberation, ICT (especially the internet) is believed to be the most efficient tool in helping organisations reach a wider market and compete with other

organisations to attract customers to purchase their products/services (Tan et al., 2009). In line with this, research has demonstrated a positive relationship between e-commerce and organisational performance; that is, when firms adopt e-commerce, their performance improves in terms of business operations, work productivity, and customer satisfaction (Azeem et al., 2015).

In Malaysia, the evolution of ICT and the internet has enabled citizens to employ e-commerce in business and in their daily lives. E-commerce applications have spread swiftly among consumers, not only for business gains but also for the advantages they offer users, such as the ability to perform financial transactions anywhere and at any time (Rawi et al., 2012). In the year 2018, internet users in Malaysia totalled 25.08 million out of the country's 31.83 million citizens. Broadband subscriptions amounted to 39.76 million, supported by residential 3G and 4G LTE coverage at 94.7% and 79.7%, respectively (Vasudewan & Arokiasamy, 2021). Given this plus point, the co-operative (as a business entity) is not exempt from the critical impacts of e-commerce advancement and should, therefore, seize this opportunity. Apart from its importance to the co-operative movement, researchers have also discussed the factors that facilitate co-operatives' implementation and continued usage of e-commerce applications. Additionally, concerns have been raised about the challenges faced by co-operatives in using e-commerce applications optimistically in their daily operations.

Due to the dearth of studies on the engagement of co-operatives in the e-commerce realm, this study offers a general overview on this area based on previous research on private organisations, particularly SMEs. The literature review will examine the factors that motivate and hinder business entities' involvement in continued e-commerce implementation.

Factors motivating the adoption of online business and their effect on co-operative performance

i. Trendiness

According to the report of Nurul Hidayah (2020), the Regional Managing Director of Shopee, Ian Ho, explained that Malaysian citizens tended to use Shopee to purchase goods during the MCO. This caused a shift in consumers' online shopping behaviour from purchasing not only essential items but also non-essential items online. Customers are also inclined to choose online shopping to gain more information about brands and products to ensure the latter matches their lifestyle (Muntinga et al., 2011; Zolkepli & Kamarulzaman, 2015; Li et al., 2021). In this context, Al-Haidari (2015) and Al-Haidari et al. (2021) revealed four factors that describe the effects of social media on businesses, namely advertising and branding, information accessibility, customer service, and social capital. Similarly, Omar et al.'s (2020) research found that digital marketing has a significant and powerful influence on business performance, particularly with regard to the purpose of using digital marketing mediums, the benefits of using digital marketing, and the enhancement of product reputation upon using digital marketing. Therefore, based on the review of past studies, the following hypothesis was proposed:

H1: Trendiness has a significant positive relationship with co-operative performance

ii. Government support

The role of the government is not limited to preparing electronic infrastructure, but also includes playing its part in e-commerce as a consumer and driver of e-commerce, as stated

in previous studies (Chairoel et al., 2018; Tigre, 2003; Chan & Al-Hawamdeh, 2002). The work of Du et al. (2021), which was adapted from that of Evans (2002), showed that central government policies related to regulations, data protection, security, taxation, and marketing criteria have strong positive impacts on business-to-business e-commerce development. The role of the government further involves providing information, free counsel, support, aid in expanding to a geographically wider consumer base, guidance on international trade and promotion, as well as models of e-commerce and telecommunications infrastructure usage (Enaizan et al., 2020; Looi, 2005). Therefore, this study proposed the following hypothesis:

H2: Government support has a significant positive relationship with co-operative performance

iii. Top management support

Management support is considered an important facilitator of technology usage (Sox et al., 2018; Kim et al., 2011). Top management can positively influence the absorption of new technology by putting forward a relevant vision and reinforcing values related to the organisation's innovative nature (Muller et al., 2018; Ramdani et al., 2009). Top management support is therefore a significant variable for organisations to introduce and successfully implement new technologies in their business (Kim et al., 2020; Oh et al., 2009). E-commerce technology, in particular, differs from other technologies in terms of its complexity and the innovation involved in using and integrating it effectively. E-commerce enterprises must move beyond mere internet technology to execute greater technological efforts in sales and marketing so as to ensure the technology used matches the needs of online shoppers (Kim et al., 2020; Chen, 2016). Organisational support can take many forms, including granting suitable technology learning opportunities, encouraging experiments with micro-computers, and offering a broad array of software choices that can easily be applied to specific functions in different job scopes (Aldholay et al., 2018; Cham et al., 2016) to examine the interrelationships between KMS success and user satisfaction. Empirically, Sabherwal et al. (2006) demonstrated that top management support is among the best predictors of an organisation's implementation of ICT innovation. Aldholay et al. (2018), Cham et al. (2016) and Huei et al. (2018) further found that top management support affects the success of ICT-based business transformations in the banking sector. Likewise, studies by Adam et al. (2020), Awiagah et al. (2016) and García-Sánchez et al. (2018) also show that management support indirectly leads to successful ICT innovation in an organisation. Based on these findings, this study put forth the following hypothesis:

H3: Top management support has a significant positive relationship with co-operative performance

iv. Cost reduction

The utilisation of e-commerce has become vital to increase business profits (Bruni et al., 2020; Thorleuchter & Van Den Poel, 2012). Among its benefits are lower production costs and operational costs (Mustaffa & Beaumont, 2004; Xu et al., 2007; Kartiwi et al., 2018), easier provision of service, and lower transaction costs (Rui & Smyrnios, 2009). According to Wang and Zhang (2020) and Wu et al. (2003), there are several cost reduction elements that motivate SMEs to adopt e-commerce platforms, such as cost reductions in marketing, general activities, dealings with suppliers, consumers, and partners, and the acquisition

of new customers. This notion was supported by Kartiwi et al. (2018) in their study on Malaysian SMEs, such that cost reduction is perceived to be a driving factor for the success of e-commerce implementation among co-operatives in Malaysia as well. Moreover, the usage of e-commerce improves and streamlines co-operatives' relationships with their members (Isa & Hartawan, 2017). Thus, based on evidence from the literature, it was hypothesised that:

H4: Cost reduction has a significant positive relationship with co-operative performance

Factors hindering the adoption of online business and their effect on co-operative performance

i. Lack of staff commitment

An employee's commitment to his/her work is undeniably an important factor in an organisation's advancement. A committed employee would find it easier to perform his/her assigned daily duties and would strive to champion the organisation's achievement of its goals and objectives (Zaid, 2021). In consideration of this, several studies have measured the extent to which employee commitment can determine the direction of an organisation. According to Dixit and Bhati's (2012) study on auto-component industry workers from Denso, the workers' commitment sustained their work productivity. Similarly, Louise's (2014) research found that employees' culture and environment play important roles in stimulating their commitment and job satisfaction. Overall, the arguments presented by previous scholars indicate that a lack of commitment indirectly yet greatly impacts organisational performance.

According to Van Fleet et al. (2006), as cited in Zaid (2021), humans tend to show average behaviour when facing a task. However, if they receive internal or external rewards like recognition, praise, and other forms of appreciation, they will change and exhibit better performance in their job and organisation. Conversely, if they receive less benefits than they deserve, they become dissatisfied and show lower job performance. Employees react negatively to their organisation when they are dissatisfied with their job due to reasons such as the environment, co-workers, supervisor, salary, and so on. Consequently, they would be unable to offer their full commitment to their job, which led to the following hypothesis:

H5: A lack of employee commitment has a significant negative relationship with co-operative performance

ii. Risk

From the perspective of e-commerce, risk exists for both sellers and buyers, since e-commerce transactions involve buyers making advance payments without physically seeing or assessing the quality of the purchased product/service. Risk is also defined as the general threats experienced by internet shoppers (Saputri, 2016), which can severely breach consumer rights, especially the right to safety and the right to receive accurate, clear, and honest product information from sellers (Roihanah, 2019). According to Maulana (2021), various risks can occur when spending online, including the risk of mistrust, money loss, product delivery, and incompatible products, which would undoubtedly influence consumers' attitudes.

Hence, consumers are likely to consider the multiple risks of online shopping before making a purchase. In relation to this, Hassan et al. (2021) study on risk management among young

micro-entrepreneurs in Penang explained that in business, risk management is the likelihood of the occurrence of an event that can impact the business's goals and targets. Accordingly, risk management is a crucial practice to analyse future risk potential and make informed decisions to mitigate any risks. Research by Zafir and Fazilah (2007) firmly states that the courage to take risks in any situation is imperative for an entrepreneur to enhance his/her self-potential as a businessperson and develop his/her business. Therefore, based on a review of the extant literature, the hypothesis was proposed as follows:

H6: Risk has a significant negative relationship with co-operative performance

iii. Lack of staff competency

The factor of staff competency is closely related to an organisation's performance as it is the cornerstone of human resources and overall organisational achievements. In the e-commerce context, staff competency plays a highly important role, especially in the handling of ICT equipment. According to a study conducted by Sulaiman et al. (2017), changes in ICT usage must be congruent with the job scopes and aims of an organisation for it to lead to higher performance, productivity, and competency among employees. Nonetheless, due to technological advancements, work systems and tasks have drastically changed to the point that employees need to be trained to understand these systems' utilization. The suitability of ICT usage in an organisation depends on the type of work and positions involved, as the purpose of ICT is to make the execution of job tasks easier, faster, and more effective so as to reach the organisation's desired levels of productivity and product quality. This is because job tasks differ by employees' positions, meaning that ICT usage will also differ according to the type of task they have to complete (Menjeni, 2002).

Notably, other studies have proven that individuals currently use ICT too often, to the extent that it has diminished and disorganised employee competency. Although ICT is aimed to make workflows easier and more efficient, many employees have experienced ICT-related issues and opine that ICT causes more stress. The emotional distress that arises from ICT's flexibility and mobility aspects, such as in mobile devices, stems from employees being constantly contacted about work-related matters even outside office hours (Nuryushana, 2014). Therefore, it was hypothesised that:

H7: A lack of staff competency has a significant negative relationship with co-operative performance

iv. Lack of resources

In any business, resources are essential in ensuring the smooth running of business operations. Azubuike et al. (2021) cited Warschauer (2004) in introducing several resources needed by society to use ICT, namely (1) physical resources, which comprise access to computers and the internet; (2) digital resources, which are the skills to search and understand online information content; (3) human resources, which refer to ICT workforce needs and employees' knowledge and understanding of ICT usage; and (4) social resources, which cover local communities, institutions, and social structures that rely on ICT. Resource scarcity typically exists in all organisations. A report by SME Corp Malaysia (2016) shows that SMEs in Malaysia face numerous problems pertaining to resilience, competition, and efficiency due to

their constraints in terms of finances, knowledge, information access, abilities, and capacity. Other problems include low productivity, poor product quality, limited human resources and expertise, and high infrastructure costs.

Therefore, some prior studies have identified the success factors for digital transformation. Aside from using the right framework, an organisation must possess the readiness, intention, and willingness to implement digital technology and innovation to achieve its objectives (Nasution, 2018; Hartley et al., 2019). Organisations also need sufficient digital capabilities (Da Freitas, 2017; Cenamor et al., 2019), resources, and funding (Ghobakhloo, 2019). Based on this discussion, the following hypothesis was proposed:

H8: A lack of resources has a significant negative relationship with co-operative performance

The relationships among co-operative performance, satisfaction, and continuous usage

Apart from the factors that motivate and hinder the adoption of online business, this paper also focuses on co-operatives' business performance, satisfaction, and continuous usage of online business activities. Research by Choo and Bowley (2007) and Paposa et al. (2019) has stated that satisfaction and business performance are correlated, wherein satisfaction ultimately impacts performance. This notion is supported by Omar et al. (2019), who found that a high level of satisfaction improves business performance and facilitates the building of a strong relationship network with customers and suppliers through online business. This enhances the value of an organisation and creates an innovative reformation for the entire organisation.

Meanwhile, Delone and McLean's (2003) theory posits six success elements for the continuous usage of an information system, which are system quality, information quality, continuous usage, satisfaction, individual effects, and organisational effects. According to this theory, the quality of the information and system leads to satisfaction, which increases continuous usage intention to the point that it stimulates individual and organisational outcomes. Studies on satisfaction with continuous usage indicate that satisfied entrepreneurs are more likely to continue their business activities (Abdinnour-Helm et al., 2005; Bhattacherjee, 2001; Zhao & Lu, 2012). Accordingly, numerous scholars have found a positive relationship between entrepreneurs' satisfaction and continuous usage intention (Lien et al., 2017; De Melo Pereira et al., 2015; Tsai et al., 2014; Zhou, 2013). Further, according to Deng et al. (2010), user satisfaction has a positive effect on the intention to use an ICT system continuously. Therefore, this study postulated the following hypotheses:

H9: Co-operative performance has a direct positive relationship with satisfaction
H10: Co-operative performance has a direct positive relationship with continuous usage
H11: Satisfaction has a direct positive relationship with continuous usage
H12: Satisfaction mediates the relationship between co-operative performance and continued usage

Figure 1 presents the research framework.

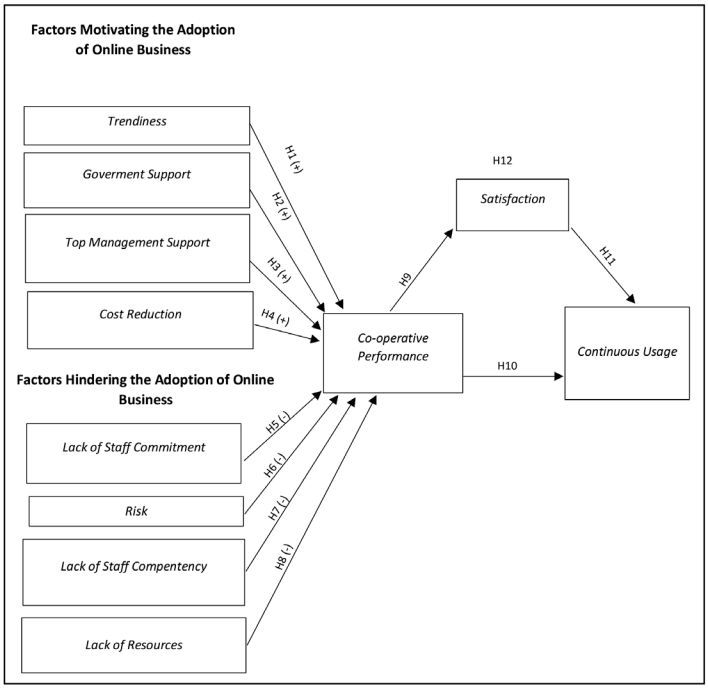

Figure 1: Theoretical framework

METHODOLOGY

Sampling method

The target population of this study was co-operatives engaged in online business in Malaysia. Secondary data on 92 co-operatives was obtained from the Malaysia Co-operative Societies of Commission and the Co-operative Institute of Malaysia. This study adopted the quantitative approach, under which the required sample size was determined using the census method. Accordingly, all 92 co-operatives were considered for data collection. According to Berawi (2017), the approach of taking the entire population as the sample is suitable when the population size is relatively small (e.g., less than 200). Rundle-Thiele (2005) further stated that the most effective data collection method is the self-administered questionnaire, distributed either face-to-face or via online survey platforms like Google Forms. The self-administered questionnaire was the focus of this study because it allowed data to be collected from respondents rapidly, efficiently, accurately, and cost-effectively, given that researchers have specific limitations (Bryman & Bell, 2015; Zikmund et al., 2013).

In this study, both mediums were used to gain feedback and the respondents of this study consisted of management personnel involved in cooperative e-commerce. The selection of respondents was used to obtain feedback related to this study from representatives of the management team in each selected cooperative. The respondents comprised various business functions, including services, consumers, finance, banking, agriculture, industry, transportation, and construction. A total of

92 questionnaire forms were distributed, of which 91 (99%) were useable after performing data cleaning (i.e., the detection of outliers, missing values, normality, multicollinearity, and suspicious response patterns) using the Statistical Package for the Social Sciences (SPSS) software.

Measures

The measurement scales for this research were adapted from the existing literature. First, the 18 items for the factors that motivate online business usage were adapted as follows: Trendiness items were adapted from Lee and Cho (2017) and Chung et al. (2020); Government Support items were adapted from Looi (2005); Top Management Support items were adapted from Cham et al. (2016); and Cost Reduction items were adapted from Hamad et al. (2015).

Next, the barrier factors that hinder co-operatives' online business usage were assessed using 16 items, wherein the measures were adapted as follows: Lack of Staff Commitment was adapted from Postmes et al. (2001); Risk was adapted from Featherman and Pavlou (2003) and Im et al. (2008); Lack of Staff Competency was adapted from Molla and Licker (2005) and Arif (2009); and Lack of Resources was adapted from Gregory et al. (2019). The remaining dependent and mediating variables were rated on 11 items. Items for Co-operative Performance were adapted from Mathews et al. (2018), items for Continuous Usage were adapted from Abdullateef et al. (2015), and items for Satisfaction were adapted from Chang and Chen (2009).

A Likert scale was used to derive the respondents' feedback. This scale is used to allow individuals to respond about their level of agreement to a particular statement or question (Furr, 2011). In this study, the instrument was structured to be rated on a five-point Likert Scale ranging from "1=Strongly Disagree" to "5=Strongly Agree". The questionnaire was presented in two languages (English and Malay) to facilitate the respondents' accurate understanding of the items.

ANALYSIS AND RESULTS

Demographic profile of co-operatives in online business

The co-operatives' profile was analysed descriptively using SPSS. The demographic results of the 92 co-operatives under study showed that a large majority of them had been involved in online business for one to three years. Most of them appoint designated employees to manage their online business operations. Moreover, a majority of the co-operatives conduct sales related to consumer essentials, hotels, and homestays as their chosen mediums of online business. The results further report that most co-operatives use their website, Shopee, and Booking.com as platforms for their online business activities, while they employ the Facebook, WhatsApp, and Instagram applications as marketing tools. Additionally, a large proportion of co-operatives earn an estimated monthly income of less than RM 1,000 to RM 3,000 from their online business. Nonetheless, 24% of the co-operatives have succeeded in earning more than RM 10,000 a month from their e-commerce activities.

Table 1: The demographic profile of cooperatives in online business

Background of Cooperative		Frequency	Percentage (%)
Duration of Online Business Involvement	1-3 years	67	73
	4-6 years	18	20
	7-9 years	3	3
	10-12 years	4	4
Does the Cooperative Employ Special Workers to Handle Online Business?	Yes	44	48
	No	48	52
Implemented Online Business Activities	Consumer Essentials	25	27
	Hotel	12	13
	Homestay	11	12
	Cooperative Products & Members' Products (F&B)	7	8
	SME Products	6	7
	Food Products	5	6
	Tour Packages	4	5
	Cooperative Products	3	3
	Retail Products	3	3
	Spa Packages	2	2
	E-commerce Electronic Equipment	1	1
	Ecotourism	1	1
	Agricultural Inputs	1	1
	Book Sales	1	1
	Credit, Insurance, Coopmart	1	1
	Supply	1	1
	Resort Management	1	1
	Food and Cosmetic Delivery Services	1	1
	Agricultural Products	1	1
	Cooperative Resorts	1	1
	Bird's Nest & Cosmetic Products	1	1
	Car Rental	1	1
	Apartment Rental	1	1
	Recreational Park	1	1

Platforms Used for Online Business	Cooperative website	36	39
	Shopee	21	23
	Booking.com	16	17
	Agoda	11	12
	Lazada	7	8
	Other Platforms:	42	44
Marketing Methods	Facebook	81	88
	Whatsapp	66	72
	Instagram	36	39
	Telegram	13	14
	Twitter	3	3
	Other Marketing Methods:	6	7
Estimated Monthly income from Online Business	Less than RM 1,000	29	32
	RM 1,000 - RM 3,000	23	25
	RM 3,001 - RM 6,000	5	5
	RM 6,001 - RM 10,000	13	14
	More than RM 10,000	22	24

Construct reliability and validity

Confirmatory factor analysis was used to test the reliability and validity of the research constructs. Based on the results in Table 1, the Cronbach's Alpha for each item exceeded 0.70, while the critical value (r) was 0.206 at the 95% confidence level. The correlation analysis revealed that all the items significantly correlated with the total score, such that the total score for each item was greater than the critical value. Therefore, all the items in this study's instrument were accepted.

Table 2: Reliability and validity results

Variable	Item	Cronbach's Alpha	Range of Total score*
Trendiness	4	0.931	0.737-0.901
Government Support	5	0.865	0.545-0.903
Top Management Support	4	0.835	0.843-0.928
Cost Reduction	4	0.814	0.561-0.896

Lack of Staff Commitment	4	0.925	0.666-0.877
Risk	5	0.901	0.632-0.836
Lack of Staff Competency	4	0.884	0.751-0.886
Lack of Resources	3	0.869	0.624-0.878
Co-operative Performance	4	0.922	0.717-0.944
Satisfaction	4	0.949	0.771-0.938
Continuous Usage	3	0.780	0.907-0.965

Notes: * Generated from Pearson's product-moment correlation analysis for individual items with their respective construct.

Outliers comprise data with extreme values or with values too far from the mean. Outliers can be both beneficial and detrimental to data analysis, making them crucial to detect. The Mahalanobis distance test is the most frequently used method to identify outliers (Tabachnick & Fidell, 2007). Following the suggestion of Kline (2005), this study also evaluated outliers using the Mahalanobis test, wherein the cut-off Mahalanobis value to detect outliers is accepted when $p \leq 0.001$. Previous research has explained that outliers can be eliminated to reinforce subsequent multivariate analysis (Ghozali, 2008; Hair et al., 2010). Accordingly, the Mahalanobis distance test was performed; one outlier was detected outside the critical value at $p \leq 0.001$. The outlier was removed, following which 91 samples remained for further analysis.

Hypothesis testing

Multiple regression analysis was employed to test H1, H2, H3, H4, H5, H6, H7, and H8. As per Table 2, R^2 was 0.494, indicating that almost 50% of the variance in co-operative performance was explained by the regression model. The analysis results showed that trendiness ($\beta = 0.602$) has a significant positive relationship with co-operative performance at the 99% confidence level, while government support ($\beta = 0.154$) and cost reduction ($\beta = 0.149$) have significant positive relationships with co-operative performance at the 95% confidence level. Apart from that, risk ($\beta = -0.179$) and lack of staff competency ($\beta = -0.185$) were found to have significant negative relationships with co-operative performance at the 95% confidence level.

Table 3: Multiple regression results

Model ($R^2 = 0.494$)	**Standardised Coefficients**			**Hypothesis**
	Beta	**t**	**p-value**	
(Constant)		0.285	0.285	
H1: Trendiness → Co-operative Performance	**0.602**	**2.642**	**0.000****	**Accepted**
H2: Government Support → Co-operative Performance	**0.154**	**0.900**	**0.038***	**Accepted**
H3: Top Management Support → Co-operative Performance	-0.020	-0.104	0.418	Rejected
H4: Cost Reduction → Co-operative Performance	**0.149**	**0.863**	**0.044***	**Accepted**
H5: Lack of Staff Commitment → Co-operative Performance	0.225	1.316	0.005*	Rejected
H6: Risk → Co-operative Performance	**-0.179**	**-0.973**	**0.028***	**Accepted**

H7: Lack of Staff Competency → Co-operative Performance	**-0.185**	**-0.896**	**0.039***	**Accepted**
H8: Lack of Resources → Co-operative Performance	0.215	1.064	0.018*	Rejected

Note: Dependent variable is co-operative performance, ** p< 0.01, *p< 0.05

Subsequently, simple regression analysis was conducted to test H9, H10, and H11. Table 3 shows that co-operative performance has a significant positive relationship with satisfaction (β= 0.648, p< 0.01) and continuous usage (β= 0.510, p < 0.01). The analysis also demonstrated that satisfaction has a significant positive effect on continuous usage (β= 0.736, p< 0.01).

Table 4: Simple regression results

Hypothesis	**Standardised Coefficients**			**Hypothesis**
	Beta	**t**	**p-value**	
H9: Co-operative Performance → Satisfaction	**0.648**	**8.023**	**0.000****	**Accepted**
H10: Co-operative Performance → Continuous Usage	**0.510**	**5.590**	**0.000****	**Accepted**
H11: Satisfaction → Continuous Usage	**0.736**	**10.257**	**0.000****	**Accepted**

Note: ** p< 0.01

For H12, the mediating effect of satisfaction between co-operative performance and continuous usage was tested using the process macro method suggested by Hayes (2017). As presented in Table 4, the mediation of satisfaction was confirmed via the bias-corrected bootstrapping technique with 5,000 resamples. In general, the 95% bias-corrected confidence interval did not straddle a zero, supporting that satisfaction (β = 0.0749, 95% CI = [0.2529, 0.5443]) mediates the relationship between co-operative performance and continuous usage; therefore, H12 was accepted.

Table 5: Mediation analysis

Indirect effect	**Confidence intervals at 95%**			**Hypothesis**
	S.E (β)	**Lower**	**Upper**	
H12: CP→ Satis→CU	0.0749	0.2529	0.5443	**Accepted**

Note: S.E (β) = Standardised estimate, CP = Co-operative Performance, CU = Continuous Usage, Satis = Satisfaction.

DISCUSSION

This study has found that trendiness, government support, and cost reduction are the motivating factors that drive the adoption of online business by co-operatives. Trendiness refers to current business trends that cause instability due to the risk of VUCA (volatility, uncertainty, complexity, ambiguity). The Industrial Revolution 4.0 (IR4.0) is further spurring the accelerated transformation of the business world due to VUCA. As such, government support plays a critical role in providing facilities and a conducive business environment to restore the economy. Finally, it is undeniable that online business greatly saves operational costs.

However, top management support showed no significant relationship with co-operative performance. This is most likely because the respondents were already involved in online business. It can also be explained by the low competency and comprehension levels of co-operative board members with regard to digitalisation. The fact that most respondents were board members aged above 40 could be a contributing factor to low digital literacy, as older individuals are generally less exposed to technology usage compared to the Millennial generation (Ayamany, 2021). Consequently, in this context, the top management support factor was not a contributing factor to co-operatives' involvement in online business.

Meanwhile, this study found that risk and a lack of staff competency are barriers faced by co-operatives in conducting online business and improving their e-commerce performance. Risks are always borne by both sellers and buyers in online business, such as the risks of transaction issues, fraud, copyright, safety, product quality, and logistics. Hence, to adopt technology and conduct business online, the competency and skills of employees are highly necessary. In this regard, the present findings show that co-operatives need employees who are experts in computer usage and knowledgeable about e-commerce and its modes of operation.

This study further revealed that low employee commitment and a lack of resources are not factors that hinder co-operatives' online business engagement, since the surveyed firms had already been conducting business online. In fact, the overall report indicates that co-operatives receive strong commitment from their staff. Meanwhile, a lack of resources has no significant effect on co-operatives' e-commerce performance because respondents had already allocated the appropriate budget for the technology they adopted.

Finally, the study found that co-operative performance is a contributing factor to continuous usage as it motivates co-operatives to continue their online business. Specifically, co-operatives' achievement leads to high satisfaction, which then engenders continued use. This clearly denotes that performance is not the only main determinant of continuous usage; rather, other variables like satisfaction indirectly contribute as mediators between the performance-continuous usage link. Therefore, this study emphasises the significance of satisfaction in explaining how co-operative performance leads to the continuous usage of online business.

CONCLUSION AND RECOMMENDATIONS

The impacts of the Covid-19 pandemic have deteriorated the business landscape, especially that of the co-operative sector. In this regard, government support plays a crucial role in providing the necessary facilities and a conducive business environment for economic recovery. For instance, the government can promote e-commerce, offer financial and non-financial incentives (e.g., grants, scholarships, etc.), and conduct digital awareness programmes and trainings. Such initiatives can empower co-operatives' online business and concurrently, increase co-operatives' competitiveness in the market. Indeed, co-operatives are catalytic entities that are directly involved in the national digitalisation plan, MyDigital, which aims to enrich citizens' socio-economic well-being.

Apart from that, online business greatly saves operation costs. Micro entrepreneurs and co-operatives can launch an online business easily since it involves minimal costs and various platforms to choose from without the need for a physical store or high operational costs. For example, a co-operative that goes online can reduce inventory costs, operation costs, transaction costs, and marketing costs. Moreover, the online market is far wider and is accessible by consumers from all over the world.

This study has proven that co-operatives' engagement in online business is motivated by the factors of trendiness, government support, and cost reduction. Meanwhile, the factors of risk and a lack of staff competency are barriers to co-operatives' online business pursuits. The findings also indicate that satisfaction with online business usage is a mediator of the positive relationship between co-operatives' performance and continuous usage of online business.

Based on this research, several recommendations can be proposed to improve co-operatives' online business and facilitate its organised and effective implementation. Various suggestions have been discussed by taking into account the roles that must be played by stakeholders like the Ministry of Entrepreneur Development and Cooperatives, the Malaysia Co-operative Societies Commission, the Co-operative Institute of Malaysia, and co-operatives themselves. Since this study is preliminary and limited to co-operatives that are already engaged in online business, the factors of this study should be explored in greater depth in future studies, such as digitalisation competencies among co-operatives' top management. Future research should also examine co-operatives by geographic factors and different clusters to produce more targeted reports for intervention programmes. In addition, indicators to determine digital literacy levels must be specifically developed for co-operatives. It is further suggested that future research adopt a broader sample to produce comprehensive and representative outputs. Finally, researchers can expand this study to co-operatives that have not engaged in online business thus far.

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