

A Conceptual Framework for Digitalising Microenterprises to Cope with the COVID-19 Pandemic

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Abstract

Since the onset of the COVID-19 pandemic, underprivileged entrepreneurs have been experiencing extensive hardship and economic vulnerability. They face financial problems because of irregular business operations and shirking income opportunities. They are increasingly relying on government handouts and subsidies. Several studies suggest that the digitalisation of business is a viable way to keep businesses remaining operational during the pandemic. However, there is a significant lack of research on how microenterprises can be shifted to the digital platform to harness regular business activities and cope with this pandemic situation. Based on the review of the current literature, this paper offers a conceptual framework for the digitalisation of micro-enterprises from a Malaysian standpoint. This framework comprises four major elements of the business value chain: inbound logistics, outbound logistics, operations, and marketing & sales. It also projects light on the efficiency and suitability of digitalised micro-ventures. Based on the logical reasoning, it can be concluded that the digitalisation of micro-businesses would reduce poverty by creating income opportunities for the underprivileged micro-entrepreneurs. Poor entrepreneurs could expand the business to a broader market segment and thus, gain higher benefits. Proper IT infrastructure, technology transfer, online-market places, and an efficient electronic financial transaction system are essential to building a comprehensive digital system for micro-enterprises. In this regard, government intervention can play a significant role in making it happen. Expectedly, this paper will open windows for further research while extending pieces of suggestion to policymakers.

Keywords: digitalisation, micro-enterprises, business value chain, COVID-19, and Malaysia

1. Introduction

The unprecedented surge of coronavirus has crippled the socio-economic body of the world. Almost every economic sector has been severely affected due to the horrifying attack of this pandemic. The global economic system has significantly harmed the 90 trillion dollars global economy by causing trillions of dollars of losses (Weiss, Schwarzenberg, Nelson, Sutter, & Sutherland, 2021). For instance, in 2020, global GDP dropped about 4.5 per cent, resulting in a 2.96 trillion US dollars decrease in economic outputs (Statista, 2022). The micro-enterprise (ME) sector has been severely harmed, which is an essential contributor to the economic vein. Notably, Micro, Small, and Medium Enterprises (MSMEs) worldwide represent about 90% of the entire businesses and more than 50% of employment. MSMEs contribute 40% of GDP in emerging economies (UNCTAD, 2020), whereas about 75% of MSMEs are micro-enterprises (SME, 2020). One of the main reasons this segment could not escape from the grip of COVID-19 is micro-entrepreneurs' financial incapacity. They could not keep their micro-ventures operational because of their economic insolvency. Hence, they failed to switch to an alternative business model such as a virtual platform (Ministry of Cooperatives and SMEs & TNP2K, 2021). Many small and medium enterprises (SMEs) have remained operationally active during this pandemic by being digitalised. Since micro-enterprises have majorly been unsuccessful in pursuing functionalities, they have encountered significant economic losses that have intensified poverty and unemployment and other undesirable

consequences, including severe economic shocks (Ministry of Cooperatives and SMEs & TNP2K, 2021; Sonobe, Takeda, Yoshida, & Truong, 2021). The digitalisation of micro-enterprises would presumably be a practical remedial approach to bring this sector back to operation. Hence, the fundamental elements of the business value chain such as inbound logistics, outbound logistics, operations, and marketing & sales should be carried out digitally.

In light of the existential practices of e-business by SMEs, this paper offers an integrated conceptual framework of digitalisation for micro-enterprises comprising four vital elements of the business value chain. From the Malaysian standpoint, it is an integrated platform embodying all facilities that can ensure the best practice of micro-business to harness regular business activities of underprivileged micro-enterprises during this COVID-19 pandemic.

2. Methodology

To achieve its objectives, this paper adopted the review method. Recently published journal articles, newspaper articles, and authentic reports have been rigorously studied and cited (Snyder, 2019). This approach helped provide an overview of the supporting areas of this study. Through this, the findings were synthesised and then evidence were produced to show uncovered areas based on what a conceptual framework for digitalisation was built (Tranfield, Denyer, & Smart, 2003). Further, by synthesising the literature, the feasibility of the framework was tried to justify.

3. Literature Review

The following sections narrate the relevant literature on the digitalisation of micro-enterprises, micro-enterprises in Malaysia, and the Malaysian government's initiatives.

3.1 Digitalisation of Micro-Enterprises

Digitalisation means being digital, which relates to digital value propositions concerning the current trend that necessitate ongoing, iterative testing and revising offerings in the marketplace (Ross, Beath, & Mocker, 2019). It further refers to an accessible technology such as mobile, cloud, social, analytics, biometric, and cognitive computing (Ross, 2017). Digitisation of microbusiness refers to operating business activities using technology such as computers, smartphones, tabs etc. being connected to the internet to use digital means such as websites, social media (Facebook, Instagram, Twitter etc.) or mobile messaging services like WhatsApp or freelance e-marketplaces, such as Amazon, Taobao, Shopee, Lazada, eBay, Fiverr, Lyft, and so on. It also includes digital wallets, namely Paypay, Paypal, Mobivi, 2C2P or mobile payments such as Google Pay, Line Pay or GrabPay for financial transactions (Ritter, 2020; Ross, 2017; Sonobe et al., 2021).

3.2 Micro-Enterprises in Malaysia

SME Corp, Malaysia defines micro-enterprises as small-sized businesses with less than five employees with yearly sales revenue below RM 300,000.00 (USD 72141) or per day average sales turnover of about RM800.00 (USD 192) (SMEcorp, 2022a). According to SME Corp, about 964,495 firms are registered as micro-enterprises in this country (SMEcorp, 2022b). If

an ideal household size is considered with five members: husband and wife, two children and one older adult, the survival and sustenance of more than 4.8 million Malaysians depend on microenterprises. However, micro-entrepreneurs are experiencing intense hardship during this pandemic. Many factors could be underscored as the reasons for their suffering. For instance, businesses are eventually getting shut because of declining customers, compliance with government regulation (social distancing and mobility control), lacking funds/capital, changing business type, owner/employee sick etc. (SME, 2020).

Smallholders usually run micro-businesses, investing tiny capitals they gather by liquidating their tangible assets or borrowing from microfinance institutions and informal money lenders. They most likely have burdensome family responsibilities, including dependents, such as young children and the elderly. Some empirical studies suggest that most of the micro-enterprises in Malaysia failed to stand self-reliant more than three to five months after this pandemic had hit. Afterwards, micro-entrepreneurs probably spent out their savings or liquidated tangible assets (if any); or relied on government handouts, charities, etc. Since they do not possess enough tangible assets to pay collateral to conventional banks, they became handicapped in raising money for recapitalising their businesses (SME, 2020). Therefore, it is seemingly difficult for them to bear the conversion cost of digitalising their businesses. Consequently, their businesses shut down, leaving them poorer with tremendous economic hardship.

Other than the financial constraints, poor micro-entrepreneurs are primarily unaware of the market trend and consumers' demands. They probably do not know how to digitalise their business model because they lack information technology (IT), digital accounting, and cash management literacy. Furthermore, they might lack enough courage to shift from one business model to another. Sometimes, technology is not available and reachable by poor micro-entrepreneurs. For instance, people who live in very remote areas might have limited or no access to the internet. Due to financial incapacity, smallholders cannot afford to buy electronic devices such as smartphones or gadgets. Even some of them are unable to pay for the internet package. Furthermore, the lack of government policy might discourage micro-entrepreneurs from transferring their business to the digital platform. Hence, transforming the existing business from the conventional state to the digital platform could be arduous.

3.3 Malaysian Government's Initiatives

The Malaysian government has taken several initiatives to support micro-entrepreneurs. Relevant ministries and agencies focus on five (5) essential areas: access to financing, human capital development, market access, innovation and technology adoption, and building infrastructure. Commercial banks and microfinance institutions have come forward to assist needy micro-entrepreneurs through financing. Bank Simpanan Nasional (BSN) offered microcredit schemes to micro-SMEs up to RM75,000 at a 0% interest rate. A total of RM 500 million was allocated for this purpose. TEKUN Nasional initiated a soft loan scheme for micro-SMEs with a maximum of RM10,000 at a 0% interest rate. A total of RM 200 million was allocated to succeed in this scheme. Micro-enterprises could also apply for the Special

Prihatin Grant of up to RM 3,000 per company. Thus, a total of RM2.1 billion was allocated for saving micro-enterprises (The Star, 2020). The Prime Minister of Malaysia announced a microcredit financing programme with an additional fund of up to RM1.1 billion under the People's Well-being and Economic Recovery Package (PEMULIH) to support micro-enterprises. Further, Agrobank and Bank Simpanan Nasional Bhd (BSN) offered easy financing, amounting to RM500 million each. The National Entrepreneur Group Economic Fund (TEKUN) released RM100 million (MOF, 2021). In the same vein, Amanah Ikhtiar Malaysia (AIM), the nation's largest microfinance institution, has been relentlessly assisting its 920,000 borrowers, mainly exercising microenterprises. AIM also offered a loan repayment moratorium to its 262,000 members nationwide, whose livelihoods were affected by the Covid-19 pandemic (Malay Mail, 2020, 2021).

4. A Conceptual Framework for Digitalising Micro-Enterprises

To support underprivileged micro-entrepreneurs who are mostly less educated and less aware of IT, an e-marketplace, easy to access and hazardless to trade, would be helpful and practical. This platform needs to be user-friendly and affordable, including simple installable software that possesses a user-friendly interface with ease-of-use features and functionalities. This platform also needs to embody a continuous monitoring system to monitor micro-entrepreneurs' business activities and give them instant feedback. Regular feedback will help improve their (micro-entrepreneurs) knowledge of utilising this platform while driving their motivation and business sustainability.

Figure (1) demonstrates the proposed framework combining an online marketplace, online financial transactions (e-wallet), and social networks. The monitoring authority should monitor these three segments. As mentioned earlier, apart from the need for IT literacy, there is also a requirement for financial capital to support micro-entrepreneurs, not only for business transformations but also for IT access, usage, and management. In this regard, a crowdfunding gateway can be integrated with this platform.

An authentic and secured mechanism for financial transactions is essential to encourage buyers and sellers to exercise business transactions with no hesitancy. Social networks, such as Facebook, Twitter, YouTube, Pinterest, and Instagram, to name a few, could be attached for branding, marketing, and promotion purposes. A robust monitoring system is required to prevent deception and fraudulence, especially on social networks and e-wallets. The entire IT platform could be multi-featured with the alignment of various tools for product demonstration, B2B (business-to-business) and B2C (business-to-customer) interactions, and sales and management capabilities enhancement. Some other tools can be integrated to manage the supply chain.

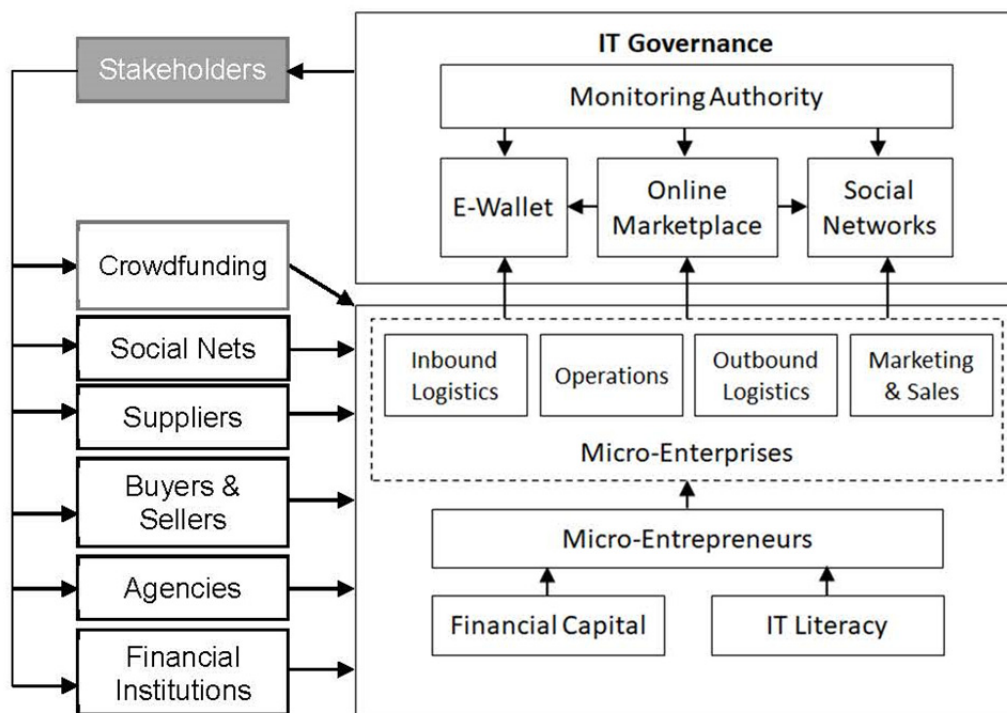


Figure 1. Digitalisation of Micro-Enterprises

Figure (1) shows the four vital operational stages and stakeholders' involvement in this conceptual framework of digitalisation of micro-enterprises. A monitoring system is imperative to govern and manage other segments such as e-marketplace, e-wallet, social networks, and stakeholders.

The market entry, marketing, sales, and operation costs would seem burdensome to the disadvantaged microentrepreneurs. Besides, the management of this platform will also incur costs. In this case, stakeholders' involvement and financial contribution would play pivotal roles. Prime stakeholders such as crowd funders, suppliers, capable sellers, buyers, agencies, and financial institutions can generate revenue by paying advertisement and transaction fees. The earned income will cover the operational cost of this platform and make it economically self-reliant.

On the other side, micro-entrepreneurs need financial capital and IT literacy to manage inbound logistics, operations, outbound logistics, and marketing and sales. In this regard, the e-marketplace facilitates micro-enterprises, an online marketplace, e-wallet, and social networks.

4.1 Inbound Logistics

Inbound logistics through which organisations receive, store and distribute materials internally. This e-platform would bring efficiency by easing information exchange, tracking locations, financial transactions, and getting feedback. Therefore, if all these things can be

done promptly and with minimum expenses, efforts, and time supply chain management will be significantly effective and efficient.

4.2 Outbound Logistics

Business digitalisation would be the most viable way to deal with outbound logistics, such as storing and delivering goods to consumers. Micro-entrepreneurs can use electronic media for order-fulfilment, communicating, monitoring, shipping, producing, and providing after-sales services.

4.3 Operations

For business operations and managing production functions, digital means to a certain extent, can be applied according to the business nature. In general, micro-entrepreneurs may adopt the essential management information system to improve communication, supervision, monitoring, marketing, promotion, etc.

4.4 Marketing and Sales

This digital platform can bring vast opportunities by opening a broader market segment for marketing and sales. Hence, the extended customer segment will increase profitability as well as sustainability.

5. Efficiency and Sustainability

Micro-entrepreneurs are mostly underprivileged and poor. Further, this prolonged pandemic has intensified their poverty. It is difficult for them to arrange expenses for embarking on a digital platform in such a situation.

5.1 Efficiency

Digitalisation of microenterprises using this framework will broaden the market segment with less physical mobility while facilitating conductive information and connectivity with the customers and suppliers. Further, if switching costs to a digital platform is minimised, higher profitability will be ensured. In this case, crowdfunding would play a vital role by offering peer-to-peer financing. This funding approach would be an effective way for micro-entrepreneurs to digitalise their businesses.

5.2 Sustainability

Digitalising micro-businesses would bring a greater possibility of sustainability than the conventional physical ones because, in the long run, this approach helps outreach an additional market segment. Besides, it is a modern as well as progressive approach. Nevertheless, micro-entrepreneurs will be operating their businesses in physical and virtual modes once the pandemic is over. Therefore, they will experience higher profitability and growth. On the other hand, this framework (Figure 1) would be sustainable because of the presence of the stakeholders. Crowdfunding, suppliers, financial institutions (such as microfinance institutions), buyers and capable sellers, various developmental agencies, and social networks will pay for advertisements and transactions. This revenue will ensure the

sustainability of this digital platform.

6. Limitations

This framework superficially highlights four operational steps of the value chain: inbound logistics, outbound logistics, operations, sales, and marketing. It also does not narrate the industry-specific operating procedures, though, by nature, these four operational processes work differently for different industries. Besides, it merely indicates the IT governance and monitoring without detailing the sustainability and monitoring process. In addition, a few stakeholders are aligned with the framework, but their roles and contributions are not defined. From the industry perspective, micro-enterprises can be segmented, which this framework has not shown. Overall, this framework limits itself to the general overview of the digitalisation of micro-enterprises only.

7. Conclusion

Micro-enterprises play vital roles in energising our socio-economic health. Specifically, it significantly contributes to the rural economy by offering products and services while creating jobs and improving living standards. Therefore, much attention should be paid to rejuvenating this sector, especially during this pandemic. Micro-entrepreneurs need to be brought into a digital platform environment by providing sufficient literacy and training in information technology. The e-marketplace needs to be created only for micro-entrepreneurs with all buying, selling, payment, and promotion features. Nevertheless, accessible or affordable internet packages must be offered to poor micro-entrepreneurs while making the technology reachable. Applying this framework will reduce the government's burden of subsidising and providing free handouts. It will enable the COVID-19 affected micro-entrepreneurs to revive their businesses. Hence, they will return to regular economic activities and lead their lives without depending on charities or government handouts.

Micro-entrepreneurs' sufficient IT literacy is crucial. The quicker they can learn to use the software, the faster they can get used to it and thus, it would be efficient in their business operations. Nevertheless, micro-entrepreneurs should know the ease-of-use software and possess sufficient knowledge to operate online businesses. There is a need for government support to organise training on IT literacy and the basics of IT-based business management.

Once the pandemic is over, micro-entrepreneurs will be able to access the broader market segments (physical and virtual) and earn higher revenues. Thus, the concept of digitalisation of micro-enterprises will be a success. The continuous support of the Malaysian government will bring higher efficiency and sustainability while creating jobs in the post-COVID era.

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