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Catching-Up Innovation Strategies for SMEs Sustainability: Context of Developing Economies



Nur Aina Basyira Zakaria, Dzulkifli Mukhtar , Afeeq Rosly, and Agus Sukoco

Abstract Malaysia recognizes the critical role of Small and Medium-Sized Enterprises (SMEs) in its quest to become a developed country. As a result, Malaysia's government has emphasized the importance of innovation with unique capabilities to help small and medium-sized enterprises (SMEs) become more competitive and sustainable. The purpose of this study is to examine the unique capabilities of Small and Medium-Sized Enterprises (SMEs) when it comes to innovation in a dynamic competitive environment. It is important understand how Small and Medium-Sized Enterprises (SMEs) developed and enhanced their unique capabilities in order to increase their competitiveness when implementing their innovation strategies. This paper as expected to provide a comprehensive explanation of the unique capabilities that Small and Medium-Sized Enterprises (SMEs) possess in order to enhance and develop their competitiveness and sustainability. Additionally, these unique capabilities should shed light on the significance of the study's underlying theory (The Dynamic Capability Theory). To summarize, this study will provide the depth of knowledge and understanding necessary for Small and Medium-Sized Enterprises (SMEs) to remain competitive and viable for an extended period of time.

Keywords Small and Medium-Sized Enterprises (SMEs) · Innovation · Unique capabilities · Competitive · Sustainability

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873

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1 Introduction

Economic development and growth have historically been linked to industrialization, and this mindset has influenced governments, particularly in developing countries (Jomo 1993). Malaysia, on the other hand, has experienced rapid economic growth in recent decades and is on track to become an independent developing industrialised country. Tun Dr. Mahathir bin Mohamad, Malaysia's former Prime Minister, announced in 1991 the goal of becoming a fully industrialised country by 2025.

Developing countries such as Malaysia have historically relied heavily on FDI to propel their economies forward (Acquah 2017). Countries with less developed economies have attempted to implement comparable measures, such as attracting Foreign Direct Investment (FDI), knowledge, and technology. Foreign Direct Investment (FDI) is without a doubt a significant contributor to Malaysia's robust economic growth. Despite its critical contribution to Malaysia's economic growth and development, Malaysia's total factor productivity lags behind China's Taiwan Province and Korea (Cherif and Hasanov 2015). According to Cherif and Hasanov (Cherif and Hasanov 2015), Korea and China's Taiwan Province were significantly more competitive in terms of innovation and productivity growth in order to escape the middle-income trap, owing to their heavy reliance on indigenous technology development. They stated that developing and disseminating technologies through domestic firms is critical for Korea and the Chinese province of Taiwan's productivity, innovation, and technological advancement.

As a result, Malaysia's government has placed a premium on developing the Small and Medium-Sized Enterprises (SMEs) sector in order to foster innovation and accelerate the country's transition to developed status. Small and medium-sized enterprises (SMEs) are the bedrock of Malaysian industrial development and have historically been instrumental in promoting growth, employment, and income. The significance of SMEs in Malaysia dates all the way back to the early 1970s, when the New Economic Policy (NEP) was implemented in 1971 with the stated goal of improving people's welfare and realigning economic imbalances. Numerous studies on this subject have been conducted. Malaysia's commitment to SME development has been bolstered by the implementation of the Malaysia Industrial Master Plan (IMP), particularly Industrial Master Plan 2 (IMP2) from 2000 to 2005, followed by Industrial Master Plan 3 (IMP3) from 2006 to 2020, with the goal of realising the country's vision of becoming a developed economy.

Without a doubt, SMEs have emerged as the country's bright star. This is because they are a significant contributor to national income. Indeed, because SMEs are critical to the country's economic development, their performance is constantly scrutinised by academics, investors, trade associations, scholars, universities, entrepreneurs, and government agencies. Despite this, SMEs continue to face a variety of obstacles, including slow productivity growth, limited access to financing, a shortage of human resources, and a lack of technological adoption, all of which can undermine their resilience and competitiveness (Radzi et al. 2017). As Hogeforster (Hogeforster 2014) argues, innovation is necessary for any business to

remain competitive. As a result, innovation is critical for SMEs to survive in competitive environments (Pierre and Fernandez 2018). The primary reason is that small businesses' survival will be contingent on their ability to innovate in the face of a massive challenge, and they suggest that small businesses must develop the capacities and capabilities necessary for growth and competitive advantage. In other words, the firm must adapt, develop a strategy, and develop capabilities in order to meet the requirements of the competitive environment (Radzi et al. 2017). Thus, it is critical to examine and prioritise SME-specific capabilities in light of their ability to innovate in a dynamic competitive environment in order to ensure the survival, sustainability, and continued growth of SME in Malaysia.

Despite an increase in business establishments, failure rates remain high (Singh and Hanafi 2020). As a result, these businesses' viability remains uncertain. Numerous SMEs have been found incapable of maintaining business operations, with nearly half failing within the first five years and two-thirds failing within the first ten years (DeGeest et al. 2017). In the United States, approximately half of businesses survive five years, and only one-third (1/3) survive longer than ten years (Small Business Administration 2017). This failure rate has remained astonishingly consistent over time.

In Malaysia, SMEs have faced a similar fate, with many failing within the first five years (Khalique et al. 2011), at a rate of 60%. Numerous studies on this subject have been conducted (Yusoff et al. 2018). For example, AmBank's Managing Director stated during the 2017 Entrepreneurship Challenge launch that nearly 80% of SMEs fail within the first three years of operation (Bernama. 2017). In the last three years (2013–2015), the average number of businesses closed was 27,859 (Singh and Hanafi 2020). This is an alarming increase. In relation to that, while innovation can provide a business with a competitive edge, it cannot last indefinitely. Utilizing a business's capabilities to achieve a competitive edge is not a new concept. Nonetheless, until the last decade, businesses did not recognise the critical nature of capability regeneration and reconstruction in response to changing environments. As a result, it is argued that businesses must develop capabilities that enable them to adapt their technology and market offerings in a competitive environment, resulting in ownership of resources and competencies that are difficult to replicate (Teece 2007).

This is especially true for businesses operating in a complex and competitive environment, where the ability to develop and integrate new markets rapidly is critical to maintaining a competitive edge. This capability is viewed as distinct from the resources managed by a business (Widya-Hastuti et al. 2016). As a result, it is classified as a firm's unique capability in this research. Indeed, SMEs operating in complex environments require additional capabilities. Small and medium-sized businesses (SMEs) require robust innovation and adaptation capabilities in order to thrive in rapidly changing environments. Thus, identifying the firm's distinct capability within its innovation capability may be critical for survival in a dynamic competitive environment (Zainuddin et al. 2019).

In Malaysia, expanding competitive SMEs would ensure productive use of resources, job creation, mobilisation of domestic savings and investments, and an increase in the number of indigenous entrepreneurs, thereby expanding indigenous resource use and ensuring income equality (Bank Negara Malaysia 2007). Thus, developing a competitive, efficient, and robust SME sector is critical for the government to achieve sustained economic growth and higher living standards across the board (Bank Negara Malaysia 2007). SME's must be innovative in order to succeed, gain a competitive edge, and sustain for an extended period of time in a dynamic competitive environment. As a result, SMEs require resources, capabilities, and skills to maintain and improve their innovation capabilities on a continuous basis.

2 Overview of Key Concepts

2.1 Roles of SMEs in Economic Development

Malaysian SMEs, like their international counterparts, are diverse. They are classified as "manufacturing" or "services and other." Manufacturing is defined as any activity that involves the chemical or physical transformation of components or materials in order to create new products (SME Corporation Malaysia 2020). The services sector encompasses all types of services, including hotels and restaurants, distribution trade, financial management, professional and information technology services, entertainment, education, and private health care, as well as manufacturing-related services such as logistics, research and development (R & D), engineering, and warehousing. Meanwhile, the term "others" refers to the remaining three significant economic activities: primary agriculture (agriculture), construction (construction), and mining and quarrying (mining and quarrying) (SME Corporation Malaysia 2020).

Small and medium-sized enterprises (SMEs) are the engine of the country's rapid economic growth and development. Numerous scholars agree that SMEs are critical to Malaysia's goal of developing into a developed and high-income country (Snyder et al. 2016). SMEs play a multifaceted role in economic growth, which is influenced by a variety of factors, including poverty reduction, job creation, and GDP contribution. Additionally, a thriving SME sector fosters innovation, expands opportunities, decreases unemployment, stimulates the economy, and alleviates poverty (Haddad et al. 2019).

Malaysian government have long emphasised the importance of micro, small, and medium-sized enterprises (SMEs), which account for 98.5% of all business establishments in the country. According to the 2016 Economic Census, SMEs own 907,065 business establishments, and microenterprises account for the majority of SMEs (76.5%). Malaysian SMEs are currently structured in such a way that the majority, 89.2%, are in the service sector, followed by manufacturing (5.3%) and construction (5.2) (4.3%). Agriculture, on the other hand, is the least dominated sector, accounting for 1.1% of total employment, followed by mining and quarrying at 0.1% (Fig. 1).

The geographical distribution of business establishments in Malaysia, as illustrated in Fig. 2, reveals that the majority of SMEs in Malaysia are based in the Klang Catching-Up Innovation Strategies for SMEs Sustainability ...

Valley (Selangor and Federal Territory), accounting for 34.5%, followed by Johor (10.8%), Perak (8.3%), and Pulau Pinang (7.4%).

Thus, the following section will discuss the primary factors that will help to strengthen and improve the capabilities and competitiveness of SMEs in Malaysia, as they are a critical resource for the country's development and growth.



Fig. 1 SMEs in Malaysia *Source:* Economic Census 2016, Department of Statistics Malaysia (DOSM)



Fig. 2 SMEs business establishment by the state in Malaysia *Source:* Economic Census 2016, Department of Statistics Malaysia (DOSM)

2.2 Competitiveness of Small and Medium Enterprises (SMEs)

The 1980s saw the emergence of competitiveness theory, which was endorsed by classical economists such as Schumpeter, Adam Smith, Weber, David Ricardo, Sloan, Solow, and Peter Drucker. The competitiveness principle, which is based on classical economic theory, reached its zenith in the 1990s, following Michael Porter's work (Ahmedova 2015). While the term "competitiveness" is frequently used, it can be imprecise and a source of contention (Abe 2009). Competitiveness has captivated both business executives and academics to varying degrees (Cong and Thu 2020).

Competitiveness is defined as the capability of an organisation to maintain a market position while anticipating the accomplishment of multiple concurrent goals (Altenburg et al. 1998). Alternatively, it is referred to as market share maintenance, as it entails pursuing multiple concurrent goals (Altenburg et al. 1998). Three pillars underpin this concept: the capacity to compete, connect, and change (International Trade Center 2017). These are sophisticated conceptions of competitiveness that place a premium on the critical role of connections in dynamic economies.

Likewise, competitiveness refers to a business's capacity for growth and expansion in comparison to other businesses in its industry. It is comprised of a decisionmaking process and a series of business events that a business intends to conduct. The competitiveness of a business is defined as the degree of engagement between consumer satisfaction groups and shareholder value creation through continuous service efficiency improvements, potential maximisation, and the introduction or reaction to financial strength (Cong and Thu 2020). Meanwhile, enterprise competitiveness is defined as a business's capacity to generate and sustain sustainable competitive advantages through continuous renewal and enhancement, ultimately resulting in increased economic achievement over time (Ahmedova 2015).

Meanwhile, the processes, resources available, management strategies, environmental response, and market competition of SME vary significantly. SMEs are not replicas of large businesses on a smaller scale. Thus, competitiveness studies that concentrated exclusively on large enterprises could not be directly applied to SMEs (Cong and Thu 2020). Numerous prior studies have established that SMEs face numerous barriers to survival and competitiveness (Khalique et al. 2011). For instance, while no precise figures have been released, (Khalique et al. 2011) estimate that approximately 60% of Malaysian SMEs fail. Thus, it demonstrates that Malaysian SMEs face significant challenges and numerous obstacles in order to remain competitive. The majority of small and medium-sized businesses face difficulties recruiting qualified employees, increasing productivity, and investing in effective technology, all of which can erode their competitiveness (Radzi et al. 2017). Meanwhile, one of the fundamental structural issues confronting Malaysian SMEs is their inability to compete in today's dynamic environment (Ng and Kee 2012).

2.3 Innovation is a Crucial Driver for the Competitiveness and Survivability of SMEs

The ability of SMEs to remain competitive in a challenging environment in order to achieve a competitive edge and sustainability has long been of interest to managers and researchers alike. Between the mid-1990s and late 1990s, Malaysia's government implemented a series of programmes aimed at transforming the country into an innovation-driven economy, with innovation as the primary driver of growth. As a result, Cong and Thu (Cong and Thu 2020) emphasise the importance of innovation in enhancing the competitiveness of SMEs, as stated in the SME Masterplan's objective (2012–2020). The advancement of technology and globalisation have resulted in a steepening and complicating of the market terrain in terms of competition. As a result, innovation is widely accepted as being inextricably linked to a business's survival and competitiveness (Farsi and Toghraee 2014). Innovation is widely recognised as a critical component of SME competitiveness and has had a significant impact on both government policy and SME strategies.

As per Prasnna et al. (Prasanna et al. 2019) arguement, SMEs must innovate to maintain a competitive edge or increase market viability as a result of the impact of rapid technological advancements and globalisation. Meanwhile, (Nguyen et al. 2020) emphasise that innovative SMEs have been identified as a significant driver of economic growth and will have a significant impact on expanding SMEs' competitive position. Thus, the critical role of innovation in small and medium-sized businesses' survival and competitiveness is undeniable.

2.4 The Adoption of Process Innovation as Innovation Strategies

The term "innovation" encompasses a broad range of processes and products, as well as incremental and radical innovation, component and systematic innovation, and, most recently, open and closed innovation (Efendi et al. 2020). However, the study makes a case for process innovation as a critical function of SMEs. In today's global market, a business cannot thrive unless it differentiates itself through means other than pure product advantages.

This is possible by modifying the current process. Process innovation is one of the strategies. Process innovation, as defined in the Oslo Manual, is "the adoption of novel or significantly improved manufacturing or delivery methods, which may require significant changes in techniques, equipment, or software" (OECD, Eurostat, 2005). Process innovation can be thought of as a subset of manufacturing and distribution innovation. He defines it as implementing a significantly altered or new manufacturing or delivery process that requires changes to materials, facilities, and techniques (Gault 2018). Similarly, process innovation entails the establishment of completely new or significantly improved delivery or manufacturing processes.

Process innovations, in general, refer to the reengineering and improvement of the internal functioning of business systems (Cumming 1998). This process of innovation encompasses multiple aspects of a business's operations, such as manufacturing, management, research and development, technical design, and business activities. According to the Oslo Manual, process innovation refers to significantly improved or novel methods of creating and providing services, such as significant changes in the software, hardware, techniques, or procedures used by service-oriented firms or delivery services. Several examples include the implementation of GPS tracking systems for transportation providers, the adoption of a modern reservation method in a travel agency, and the adoption of a new project management technique in a consulting firm. Additionally, process innovation frequently entails significant improvements or new equipment, techniques, and applications in ancillary support functions such as purchasing, accounting, computing, and maintenance. Implementing significantly improved or new information and communication technology (ICT) is a process innovation designed to boost the performance and quality of an ancillary support operation. Meanwhile, process innovation encompasses manufacturing methods, which include the machinery, techniques, and software used to create products or services, as defined by (Singh and Hanafi 2020). For example, new manufacturing methods may include the addition of automated systems to a computer-aided design (CAD) system or production line for the purpose of product development.

Additionally, process innovation encompasses delivery methods that involve the firm's logistics and necessitate the use of software, equipment, and techniques for supplying inputs, distributing resources within the organisation, and delivering final products. A novel delivery method is one that makes use of an active Radio Frequency Identification (RFID) or bar-coded goods tracking device. Numerous benefits of process innovation have been identified in the literature, including increased profitability, competitiveness, and productivity. Indeed, one of the objectives of process innovation is to increase productivity, capability, flexibility, and quality while also achieving cost savings, process rationalisation, and labour cost reduction.

Similarly, successful process innovations result in a reduced time to market, increased market share, and stronger competitive barriers (Flores-Garcia et al. 2019). The process innovation decreases the cost of manufacturing or distribution units, improves efficiency, or creates or delivers significantly improved or new products (Singh and Hanafi 2020; Mukhtar et al. 2021). Furthermore, process innovation would increase manufacturing adaptability. For instance, flexible manufacturing systems enable the creation of customised equipment configurations in the automotive industry. This can be accomplished by enhancing product quality characteristics such as durability, recyclability, or versatility.

Meanwhile, process innovation is frequently associated with improving service quality in service-oriented businesses, rather than simply or inherently lowering costs (Snyder et al. 2016). Electronic banking, for example, would undoubtedly reduce a bank's operational costs. However, it would increase the service's reliability by providing users with virtually free access to banking services.

880

2.5 SMEs Needs Specific Capabilities for Sustainable Competitive Advantage

As previously discussed, innovation has historically been viewed as the primary reason why a business can maintain a competitive advantage (Efendi et al. 2020). However, as global markets and rapid technological advancements have altered the competitive environment, making it more dynamic and unpredictable, businesses are forced to respond quickly in order to survive. As a result, sustainability is a current point of discussion when it comes to the critical role and value of SMEs in driving innovation (Widya-Hastuti et al. 2016).

Nonetheless, innovation is a transitory state of being. Innovation on its own is insufficient for adapting to environmental changes and sustaining a competitive advantage (Khattab 2017). This is due to the inherent unpredictability of innovation. As a result, SMEs must integrate a diverse set of knowledge, capabilities, skills, and resources in order to achieve long-term viability and a sizable competitive advantage through innovation. According to Gault (Gault 2018), businesses must develop specific capabilities for identifying and seizing opportunities that provide a competitive advantage, not just through market expansion, but also through the development of novel strategies for competing in developed and stable markets.

Marin et al. (Marin et al. 2015) established that purely regional or sectoral approaches to innovation are insufficient for engaging in sustainability-related interactions. It must be facilitated by firm capabilities that are unique to that firm. This is consistent with the assertion made by (Widya-Hastuti et al. 2016) that as SMEs innovate, they require specialised capabilities to ensure sustainability and competitive advantage. Certain businesses are more successful than others at driving innovation because they have the resources and specialised capabilities that are constantly integrated for the company's benefit. Pierre and Fernandez (Pierre and Fernandez 2018) emphasise the critical nature of businesses being able to enter new markets and reconfigure their resources more rapidly than competitors in order to remain innovative for an extended period of time in dynamic environments.

Rajapathiran and Hui (Rajapathirana and Hui 2018) believed that a firm's capabilities would enable it to innovate continuously in order to adapt to changing market demands and maintain a competitive edge, all while implementing internal organisational conditions and sustaining the culture. Meanwhile, (Breznik and Hisrich 2014) observed that businesses must actively seek, scan, and investigate opportunities presented by technology and markets in order to adapt to an ever-changing environment and market conditions. As a result, SMEs require distinct capabilities for operating in dynamic environments and innovating in order to achieve sustainability and a competitive edge.

3 Conclusion

Malaysia is a prime example of a developing economy that has made significant progress toward industrialization. The government recognized that SMEs would be critical to economic prosperity and development, significantly contributing to employment and job creation (Kücher et al. 2020). Due to the uncertain environment and rapid competition that accompany the country's economic development, SMEs are constantly impacted by bankruptcy and failure, with particularly high rates of company mortality among smaller firms (Kücher et al. 2020). It is due to Malaysian SMEs' lack of competitiveness (Ng and Kee 2012). As a result, Malaysia's government emphasizes the importance of innovation in resolving this issue.

Nonetheless, innovation by itself will not suffice to address environmental changes (Khattab 2017). Thus, Malaysian SMEs must develop and enhance their unique capabilities in order to achieve sustainability and competitive advantage in a dynamic environment. To conclude, this chapter reviewed the literature on the importance of SMEs development in the Malaysian economy. Governments emphasize the importance of innovation as a means of competition and survival for SMEs in this regard. However, due to Malaysia's dynamic environment, SMEs require specific capabilities to continue to succeed in innovation for an extended period of time.

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882

Catching-Up Innovation Strategies for SMEs Sustainability ...

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