

Navigating Digitalisation: Challenges and Opportunities for SMEs in Sabah, Malaysia

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Abstract

This study investigates the challenges and opportunities faced by Small and Medium Enterprises (SMEs) in Sabah, with a particular focus on digitalisation and the persistent issue of low business registration. Despite national efforts to drive SME development and technological adoption, many businesses in Sabah remain informal, limiting their access to financial support, government programs, and digital transformation initiatives. Descriptive analysis of business profiles revealed that more than half of the surveyed SMEs are either unregistered or operate informally, with a significant concentration among micro-businesses employing fewer than five workers. The findings highlight that limited awareness, bureaucratic hurdles, and resource constraints contribute to low registration rates, further hindering SMEs' readiness for digitalisation. In response, this paper proposes a set of policy recommendations including the simplification of registration processes, the provision of financial incentives, enhanced outreach and capacity-building initiatives, and the integration of registration with eligibility for support programs. Strengthening formalization efforts is essential for enabling SMEs to fully participate in Sabah's evolving digital economy and to ensure inclusive and sustainable economic growth.

Keywords: SMEs, Digitalisation, Business Registration, Sabah, Informal Economy

Introduction

In Malaysia, SMEs constitute approximately 98.5% of total business establishments, contributing significantly to employment and GDP. However, SMEs in Sabah lag in digital adoption compared to their counterparts in Peninsular Malaysia, primarily due to infrastructural limitations and resource constraints. Crovini et al. (2021) focused on risk management in SMEs and proposed a new approach for this area of study, noting that risk management among SMEs remains an underexplored issue. Dahnili et al. (2014) examined the adoption of social media marketing by SMEs, providing an overview of the current state of global research on the acceptance of social media marketing. Eniola et al. (2019) investigated the relationship between organizational culture and Total Quality Management (TQM) in Nigerian SMEs, showing that TQM can serve as a tool to improve SME performance.

Ghobakhloo and Ching (2019) identified the factors influencing the adoption of digital technology in smart manufacturing among SMEs, finding that technological, organizational, and environmental factors play a significant role in the decision to adopt such technologies. Korpysa (2020) studied entrepreneurial management in SMEs, highlighting that the presence of strategic orientation, knowledge, and innovation enables SMEs to develop and implement entrepreneurial management practices to seize market opportunities. Masroor and Asim (2019) explored SMEs in the context of global competition and showed that the entry of multinational corporations (MNCs) negatively impacts the growth of local industries, while proposing a policy framework to protect local companies. The Sabah state government, under the Sabah Maju Jaya (SMJ) Roadmap, aims to enhance digital infrastructure and promote digital economy initiatives .

The establishment of policy frameworks aimed at protecting and empowering local enterprises underscores the necessity of creating supportive ecosystems to ensure that digitalisation enhances rather than undermines SME competitiveness. These perspectives collectively illustrate that, while digitalisation opens new avenues for growth, SMEs must concurrently develop internal competencies and effectively navigate external competitive pressures to fully realise its potential. Accordingly, this paper seeks to provide insights into the current state of digitalisation among SMEs in Sabah and to propose actionable strategies to address the existing challenges.

Literature Review

Ahmad et al. (2014) examined the relationship between various branding constructs among SME leaders or entrepreneurs in Malaysia. Using a quantitative approach, the study provides meaningful insights for SME leaders in strengthening their branding strategies. Hussin, Alias, and Ismail (2013) employed a case study and action research approach to develop a cost management skills training program for SME owners in Malaysia. This study highlights the effectiveness of action research approaches in enhancing financial management skills among local entrepreneurs.

Additionally, Auzzir, Haigh, and Amaratunga (2018) assessed the impact of natural disasters on SMEs in Malaysia through a descriptive study. The findings showed that natural disasters significantly affect the survival of SMEs, with floods identified as the primary threat. Ganagambegai and Shanmugam (2012) investigated the level of implementation of concurrent engineering among SMEs in Malaysia as well as the strategies used for its application. Through a descriptive study, the findings revealed that most local SMEs apply this concept in their new product development processes, although they do not fully understand the true meaning of concurrent engineering. Kasiran, Mohamad, and Chin (2016) conducted a study to analyze the efficiency of working capital management in selected SME companies in Malaysia. Using a descriptive approach, the results indicated that the companies studied were less efficient in managing working capital throughout the study period.

Therefore, leadership and management play a crucial role in enhancing the governance of SMEs in Malaysia. According to Madanchian et al. (2018), the focus was on the influence of ethical leadership on leadership effectiveness among SMEs in Malaysia. Through a quantitative approach, the study demonstrated that ethical leadership has a direct and positive impact on leadership effectiveness within organizations. Salikin, Wahab, and

Muhammad (2014) aimed to identify the financial strengths and weaknesses faced by SMEs in Malaysia. Using a quantitative approach, the study found that capital was a major element in both the strengths and weaknesses of SME finances, thereby suggesting the need for more systematic financial planning. Vanninen, Keränen, and Kuivalainen (2021) proposed four alternative strategies for the multinationalization process of SMEs, namely: resource seeking, hub reaching, serendipitous resource leveraging, and controlled expansion. Using a qualitative method, the study emphasized that there is no single "ideal" approach; instead, various strategies can be employed depending on the goals of foreign direct investment (FDI), timing, organizational structure, and value chain activities.

Methodology

This study employs a quantitative research design using a structured questionnaire to collect primary data from SMEs operating in various regions of Sabah. The purpose of the survey was to identify the challenges faced by SMEs in adopting digitalisation, particularly in relation to business registration status, infrastructure access, resource availability, and digital readiness. The questionnaire was developed based on a comprehensive review of relevant literature and existing frameworks concerning SME development and digital economy integration. It consisted of both closed-ended and Likert-scale questions to measure respondents' business profiles, registration status, awareness of digital initiatives, adoption of digital technologies, and perceived barriers to digitalisation.

Data collection was conducted through the distribution of questionnaires to SME owners and managers across key areas in Sabah, including Tawau, Kudat, Sandakan, Pantai Barat, and the Interior Division. A purposive sampling method was employed to ensure representation from various business sizes (micro, small, and medium enterprises) and different industries (retail, services, agriculture, and manufacturing).

A total of 500 questionnaires were distributed, and 476 valid responses were collected, achieving a high response rate of 93%. The data were then coded and analysed using descriptive statistical techniques to summarise respondent profiles and key findings. Inferential statistics, such as cross-tabulation and chi-square tests, were employed where relevant to explore relationships between business registration status and digitalisation readiness. The use of a questionnaire-based survey allows for systematic and quantifiable assessment of the factors influencing digitalisation among SMEs in Sabah, providing empirical evidence to support further policy recommendations.

Findings

The analysis of respondents' business profiles highlights critical insights into the structure and formalization of SMEs in the study area. A significant observation is the high prevalence of businesses operating without formal registration, posing challenges to efforts aimed at business development, regulatory compliance, and digitalisation.

In terms of business type, sole proprietorships dominate, accounting for 46.4% of the sample, while private limited companies represent a mere 1.3%, and partnerships only 1.5%. However, an alarming 50.8% of respondents indicated that their businesses are not registered, exceeding the proportion of all formally organized business types combined. This trend reflects a substantial informal sector presence and underscores a major barrier to

initiatives that require formal recognition, such as licensing, access to government support, financial assistance, and integration into broader digitalisation efforts.

The size distribution further reflects the dominance of micro-businesses, with 69.3% employing fewer than five workers, while 30.7% have between 5 to 75 employees. The micro-scale nature of these businesses may contribute to the reluctance or inability to formalize operations, given the limited resources and administrative capacity often associated with very small enterprises. Geographically, business operations are spread across several regions, with the majority located in Tawau (33.3%) and Kudat (23.9%), followed by Sandakan (21.4%), Pantai Barat (13.8%), and Pedalaman (7.6%). The regional distribution suggests that areas outside major urban centers host a significant number of businesses, where access to registration services and regulatory awareness may be lower, potentially contributing to higher rates of unregistered businesses.

When considering the maturity of these businesses, almost half (49%) have been in operation for less than one year, while 31.3% have operated between one to five years. Only a small proportion of businesses have been active for longer periods, with 7.8% between six to ten years and 9.9% for more than ten years. The predominance of newly established businesses further explains the low registration rate, as new entrepreneurs may delay formalization due to uncertainty, cost concerns, or lack of awareness of the benefits of official registration.

Despite 65.2% of the surveyed businesses reporting that they are registered, the notable figure of 32.7% operating without registration reveals a persistent formalization gap. This phenomenon presents serious implications not only for regulatory oversight but also for policy initiatives aimed at promoting SME competitiveness, digital adoption, and integration into formal economic systems. Businesses that are not formally registered often miss opportunities to benefit from government grants, digital transformation programs, financial support schemes, and capacity-building initiatives tailored for registered SMEs.

Overall, the data underscores a pressing need for targeted strategies to encourage business registration among SMEs, particularly micro and newly established enterprises. Simplifying registration procedures, increasing awareness of the advantages of formalization, providing incentives for newly registered businesses, and expanding registration outreach to semi-urban and rural areas could be critical interventions. Addressing this issue is essential to ensure that a broader base of SMEs is able to participate fully in Sabah's evolving digital economy.

Digitalisation presents both challenges and opportunities for SMEs in Sabah. However, the high rate of unregistered businesses significantly hampers the ability of SMEs to transition into the digital economy. Without formal registration, many SMEs are excluded from government support programs, digitalisation initiatives, and access to financing opportunities that are crucial for technological adoption. Infrastructural and resource limitations further compound these challenges, particularly for micro-enterprises and those operating in rural areas. Therefore, strategic interventions that promote formal business registration, alongside targeted education, capacity building, and infrastructure development, are critical to enabling a smoother and more inclusive digital transformation. Collaborative efforts among the

government, private sector, and SMEs themselves are essential to bridge the digital divide, enhance competitiveness, and promote sustainable economic growth across the region.

Conclusion

To address the issue of low business registration among SMEs in Sabah, several strategic policy actions are recommended. First, simplifying the registration process is crucial. This can be achieved by streamlining bureaucratic procedures, minimizing paperwork, and reducing processing time. Establishing one-stop digital platforms for registration and deploying mobile registration units to rural areas would make the process more accessible. Second, there is a need to increase awareness among micro and informal businesses regarding the benefits of formal registration, such as access to financial assistance, government support programs, and legal protection. Public awareness campaigns, workshops, and collaborations with local associations and NGOs can play an important role in disseminating this information effectively. Third, offering financial incentives could further encourage formalization. Measures such as waiving registration fees, offering small grants, or providing access to microcredit facilities exclusively for registered businesses could serve as strong motivators. Fourth, integrating business registration with access to financial and digitalisation programs would reinforce the value of formalization. Making registration a prerequisite for participation in grants, training programs, digital onboarding, and other government-led initiatives would create a structured incentive system. Finally, strengthening capacity-building efforts for new entrepreneurs is essential. Tailored programs focusing on regulatory compliance, basic financial literacy, and digital skills development would empower business owners to formalize and sustain their operations more successfully. Collectively, these strategies could significantly enhance registration rates and contribute to building a stronger, more competitive SME sector in Sabah.

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