




Integration of Technology and Marketing Activities Among Service SMEs in Emerging Economies: A Scoping Review

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ABSTRACT

Service small and medium enterprises (SMEs) are typically SMEs that operate in the service industry. In emerging economies, service SMEs can benefit from integrating technology and marketing activities to compete globally and drive growth. Further, service SMEs can compete with larger businesses with technology-driven marketing. Technology can differentiate an SME and create a unique value proposition, attracting customers and setting it apart. Social media advertising and email campaigns are often more cost-effective than traditional marketing channels such as print and television. The authors included a total of 32 articles published between the years 2013 and 2023 for in-depth analysis to address the issue under investigation. Findings indicated several effective digital marketing strategies to integrate technology and marketing activities among service SMEs in emerging economies, such as personalized marketing options, direct customer engagement, 24/7 availability options, and brand-building capabilities.

KEYWORDS

Arksey and O'Malley's Framework, Digital Marketing Strategies, Scoping Review, SMEs, Technology and Marketing Activities

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INTEGRATION OF TECHNOLOGY AND MARKETING ACTIVITIES AMONG SERVICE SMALL AND MEDIUM ENTERPRISES IN EMERGING ECONOMIES: A SCOPING REVIEW

It is almost common in emerging economies to have service small and medium enterprises (SMEs) which can benefit from integrating technology and marketing activities to compete in global level by driving growth (Chatterjee et al., 2021; Jayawardena et al., 2022). Growing and sustaining service SMEs in emerging economies requires the proper integration of technology and marketing activities (Alam et al., 2022). Studies over the past two decades provided important information on enhancing operational efficiency and customer engagement, and stated that technology also provides a competitive edge and facilitates cost-effective expansion (Alraja et al., 2022; Kamal et al., 2013; Mohiuddin et al., 2023). According to several researchers, SMEs can overcome local challenges, access new markets, and build resilient and innovative business models by embracing digital tools and strategies (Salisu & Abu, 2018; Sangi et al., 2018). Service SMEs in emerging economies typically benefit significantly from the amalgamation of technology and marketing. For example, the integration of these activities into their operations enables business level firms to compete globally and to foster growth (Gutierrez-Leefmans et al., 2016; Lavuri et al., 2024; Li et al., 2022). Previous research comparing persuasive rationales exist for service SMEs to include technology in their marketing endeavours, with the ultimate aim of attaining success (Beck et al., 2005; Liu et al., 2022; Upadhyay, 2020). The controversy regarding scientific evidence for evaluating the efficacy of virtual reality advertisements in augmenting brand memory and recognition compared to alternative forms is linked with immersive experience that has been associated with enhanced memory connections to the promoted brand (Rahayu & Day, 2017; Senik et al., 2014). By leveraging online platforms, Web sites, and e-commerce services, so-called service SMEs possess the capacity to overcome geographical constraints and extend their reach to a worldwide clientele. With the utilization of technology, SMEs can be differentiated from rival businesses by establishing a distinct value proposition that entices or improves clients and establishes a competitive advantage over their competitors (Jayawardena et al., 2022; Salisu & Abu, 2018; Sangi et al., 2018). Prior research highlighted that technology-driven marketing can assist service SMEs to compete rigorously with larger firms (Salisu & Abu, 2018; Sangi et al., 2018; Tukamuhabwa et al., 2021). A Web development agency or real estate agency may find email and social media advertising more affordable than print and television advertising (Jayawardena et al., 2021; Kamal et al., 2013; Mohiuddin et al., 2023). A key objective of this scoping review is to examine how service SMEs in developing economies are integrating technology and marketing to improve their performance.

The purpose of this study was to concentrate on the service sector, which scholars noted in previous studies on information technology (IT) implementation and use in SMEs (Salisu & Abu, 2018; Sangi et al., 2018; Tukamuhabwa et al., 2021). In order to focus on more strategic activities, employees can use technology to automate repetitive tasks, such as scheduling, invoicing, and responding to customer service inquiries (Behl et al., 2022; Biswakarma et al., 2020; Lavuri et al., 2024). As a result of integrating different business processes, it is possible to reduce the time and effort required to manage them by integrating them (He et al., 2022; Lee, 2022; Singla et al., 2022; Zhao et al., 2023). With the help of technology, SMEs can collect and analyze data regarding their customers, which allows them to offer customized services and enhance customer satisfaction through customer data analysis (Gupta & Panigrahi, 2022; He et al., 2022; Nam et al., 2024). This is the main reason why the authors specifically selected the domain of SMEs for this study.

The authors examined successful marketing methods that service SMEs can use in developing countries in order to integrate their technology and marketing operations. Currently, tactics include personalized marketing options, direct consumer engagement, 24/7 availability possibilities, and brand-building capabilities (Edeh et al., 2020; Jayawardena et al., 2021; Kumar et al., 2023; Oduro, 2019). The conclusion of this study offers important suggestions for further research by academics

and professionals working in the field of technology and marketing activities in service SMEs (Edeh et al., 2020; Horan et al., 2011; Lawrence, 2011). As part of the digital economy, digital marketing responds to technology changes (Chatterjee et al., 2021; Jayawardena et al., 2021). Despite this, minimal research has been conducted on this subject in service SMEs within emerging economies to date (Kumar et al., 2023; Rahayu & Day, 2017; Senik et al., 2014). By a scoping review of the previous literature, the authors aimed to support the technology and marketing activities in service SMEs within the emerging context. This study is among the first to apply Arksey and O'Malley's (2005) framework on scoping review approach toward service SMEs in emerging economies considering technology in their marketing endeavours (Gutierrez-Leefmans et al., 2016; Jayawardena, Chavali et al., 2023; Li et al., 2022).

The authors analyzed 32 publications issued between 2013 and 2023. In the last part of this paper, the authors provide future research suggestions for academics and practitioners in technology and marketing activities carried out by SMEs in emerging economies (Rahayu & Day, 2017; Senik et al., 2014; Thong, 1999). The authors found that service SMEs in emerging economies are still using digital resources in the marketing mix and that the marketing mix model helps observe digital resources, even though some may belong to multiple elements (Salisu & Abu, 2018; Sangi et al., 2018; Tukamuhabwa et al., 2021). Hence, the authors proposed the following initial research questions:

1. How is technology integrated into marketing and business activities in service SMEs of emerging economies?
2. What are the current trends in scholarly research?
3. How can organizations respond to integrating technology in marketing and business?
4. How can firm-level technology integration strategies respond to the integration of technology into marketing and business activities in service SMEs in emerging countries?

This study contributed by identifying several effective digital marketing strategies to integrate technology and marketing activities among service SMEs in emerging economies, such as personalized marketing options, direct customer engagement, 24/7 availability options, and brand-building capabilities.

The literature demonstrates increasing indirect evidence, such as the psychological reasons for integrating technology and marketing in service SMEs in emerging economies. Although scoping reviews (or scoping studies) are relatively new (Davis et al., 2009; Jayawardena, et al., 2023), they are popular for summarizing literature in allied health, workforce planning, and education fields. Researchers conduct scoping reviews for four possible reasons, according to Arksey and O'Malley (2005): Identifying research questions, identifying relevant studies, selecting studies charting, and summarizing and reporting the results (Arksey & O'Malley, 2005).

The first part of this scoping review provides a brief overview on integrating technology and marketing operations in service SMEs in emerging economies. The second part illustrates the authors' methodology. The third section provides a discussion of the findings. The fourth and fifth sections present future research directions and the conclusion, respectively.

METHODOLOGY

During a scoping review, the existing research literature is reviewed in order to identify essential concepts, research gaps, and future research areas, such as the integration of technology and marketing in service SMEs in emerging economies, in the case of this investigation. This is the main reason why the authors chose a scoping review for this study, rather than a systematic review (Arksey & O'Malley, 2005). The validity of this conclusion is further supported by Davis et al.'s (2009), Jayawardena and Behl's (2002), and Jayawardena et al.'s (2009) studies.

The authors carried out their review by the five steps below, which the following subsections detail:

- Step 1.** Understanding the proper research questions.
- Step 2.** Researching relevant studies.
- Step 3.** Selection of the studies.
- Step 4.** Charting and collation of data.
- Step 5.** Reporting results and summarizing.

Step 1: Understanding the Proper Research Questions

To succeed, service SMEs in emerging economies must integrate technology and marketing activities (Jayawardena & Behl, 2023; Mishra et al., 2024). Many individuals, particularly in emerging economies, are employed by service SMEs. Including these firms in the digital economy and investing in information and communication technologies (ICTs) is crucial, since not involving them actively limits their competitiveness. In response to the digital economy, marketing practices increasingly incorporate digital resources. Large and small businesses can benefit economically from ICT (Jayawardena & Behl, 2023), and digital marketing penetration is associated with improved performance and competitive advantages (Jayawardena & Behl, 2023). Therefore, the initial research questions were:

1. How is technology integrated into marketing and business activities in service SMEs of emerging economies?
2. What are the current trends in scholarly research?
3. How can organizations respond to integrating technology in marketing and business?
4. What are the effective organizational strategies to respond to the integration of technology into marketing and business activities in service SMEs in emerging countries?

Step 2: Researching Relevant Studies

Secondly, it is important to track relevant studies, with particular reference to technology integration for marketing activities. The authors incorporated the Preferred Systematic Reviews and Meta-Analysis Reporting Objects (PRISMA) guidelines into the selection of studies. As part of the PRISMA 2020 checklist, 27 essential items must be reported in systematic reviews. As an extension of the original 2009 checklist, this document reflects the need for a more comprehensive report. It provides a more detailed and flexible template for documenting the selection process of studies, including the number of records identified, screened, and included in the review.

Step 3: Selection of the Studies

The authors conducted a 10-year literature review. Several previous studies supported this timescale, including Jayawardena, et al. (2023). Authors reviewed management and marketing studies published in the Web of Science database using the “publish or perish” software. The Boolean keyword strings included the terms such as “integration of technology” AND “marketing in service SMEs of emerging countries” OR “combining marketing and technology in developing country context” OR “service SMEs” OR “digital marketing in service SMEs of developing” AND “emerging countries.” We chose this set of keywords based on the assumption that, according to Arksey and O’Malley (2005), it is helpful to acquire a “broader coverage” of the existing literature by broadening the definition of key terms (Haman & Školník, 2023; Hasselgren et al., 2020; Rasoolimanesh et al., 2023; Yan et al., 2024). In this research, we included only peer-reviewed English studies, so the results were limited. On August 15, 2023, the literature evaluation was completed, after three months.

Table 1. The inclusion and exclusion criteria

Inclusion criteria	Exclusion criteria
Articles released from 2013 to 2024.	Articles released before 2013.
Peer-reviewed articles published in English.	Not published in English.
Higher impact factor journals with at least a Q3 impact factor,	Lower impact factor journals without any Schimago index.
Journal articles only.	Conference proceedings, book chapters, and other publications.

Step 4: Charting and Collation of Data

We considered studies on developing countries and emerging economies. We also included studies published between 2013 and 2023. Considering the benefits of integrating technology and marketing activities in service SMEs of emerging economies, we provided a comprehensive scoping review by incorporating Arksey and O’Malley’s (2005) framework into the scoping review approach. We incorporated the PRISMA guidelines into the selection of studies. As part of the PRISMA 2020 checklist, 27 essential items must be reported in systematic reviews. As an extension of the original 2009 checklist, this document reflects the need for a more comprehensive report. It provides a more detailed and flexible template for documenting the selection process of studies, including the number of records identified, screened, and included in the review. Hence, the authors used the updated checklist, with the revised flow diagram emphasising guidelines to be placed on, clearly stating the rationale for the review and its objectives. As a result, readers are better able to understand the context and significance of the research question. The researchers found a total of 335 publications. Following careful categorization with Endnote, they classified 22 publications as duplicates. In total, they deemed 111 articles out of 211 out-of-scope. The authors evaluated a total of 100 articles using the inclusion criteria based on the higher impact factor of the journals and the academic scope criteria (Jayawardena, et al., 2023). Table 1 shows the authors’ checklist.

During the past decade, the field of technology integration for SMEs evolved significantly. By including articles from 2013 to 2024, this review reflects the most current trends, practices, and theoretical developments in this rapidly evolving field. Research that is accessible to a broad international audience can be included by focusing on articles published in English. Furthermore, the authors selected higher impact factor journals with at least a Q3 impact factor due to two main reasons. Firstly, it ensures the inclusion of high-quality and credible research. Indeed, this approach ensures that the systematic literature review is based on well-regarded and robust studies that contribute significantly to understanding the role of social media influencers in marketing. A second reason is that a Q3 impact factor ensures that the findings are relevant, up-to-date, and capable of informing future research, practice, and policy development.

The authors selected a total of 32 articles. They used the PRISMA guidelines to determine inclusion and exclusion criteria for this review. Figure 1 further illustrates the authors’ selection process.

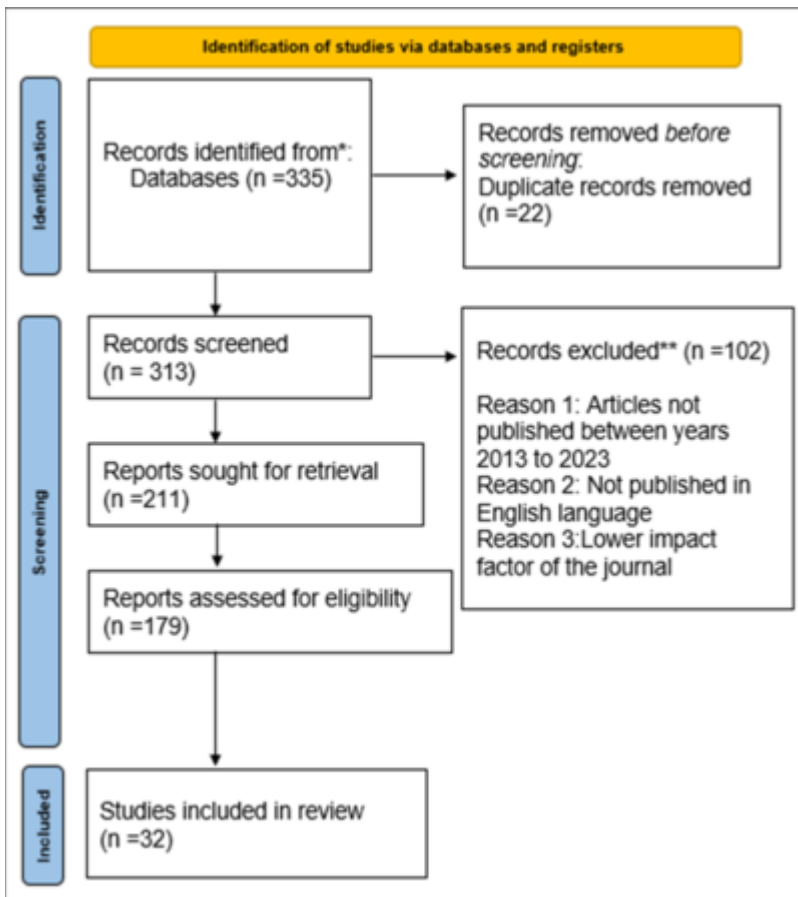
Step 5: Reporting Results and Summarizing

Table 2 offers a summary of the studies (see the Appendices for more details).

DISCUSSION OF THE FINDINGS

The researchers conducted a thematic analysis using note cards and manual categorization (Jayawardena, et al., 2023). They manually coded the data by reading them, designating codes and themes, and analyzing the results (Basit, 2003; Bogdan & Bilken, 2003). Basit (2003) and Bogdan

Figure 1. Flow chart of the literature search process



and Biklen (2003) described manual coding methods and techniques, such as cut-and-paste and note cards, as being suitable for small sample sizes. They validated the codes and themes using two qualitative experts, namely, one researcher with manual coding expertise and one researcher with scoping review expertise (Creswell & Miller, 2000). In this scoping review, the authors used Arksey and O'Malley's (2005) five-stage framework to conduct their research in the abovementioned five steps (i.e., identifying research questions, identifying relevant studies, selecting relevant studies, charting the data, and summarizing and reporting the results). Based on the literature, the authors identified the following themes: Social media as a marketing tool for service SMEs, management attitude toward e-commerce, the importance of evaluating information system success, the role of government in developing the service SMEs, and digital literacy knowledge among female entrepreneurs.

Social Media as a Marketing Tool for Service SMEs

In today's globalized economy, SMEs are increasingly seeking to expand their reach beyond local markets. This goal can only be achieved through effective global information management (GIM) and the strategic use of social media as a marketing tool (Alavi & Leidner, 1999; Kamal et al., 2009). Recent studies have examined how social media affects the sales process of organizations and the overall selling environment in which enterprises operate (Alavi & Leidner, 1999; Kamal et al., 2009). As service SMEs in developing countries seek to communicate with consumers and partners in order

Table 2. Summary of the studies

Source	Key concepts	Research gaps related to marketing on technology adoption	Theory	Method	Context/ Emerging countries	Findings
Aslam et al. (2023)	The role of government support in assessing financial literacy, access to finance, and green value cocreation for the sustainability of SMEs.	Support from the government as a policy matter and strategic decisions for SMEs' sustainable development.	Resource-based view theory	Questionnaire	Service SMEs/ Pakistan	Government support plays a pivotal role in acquiring financial literacy, access to financing, and green value cocreation to ensure SMEs' sustainability.
Aslam et al. (2022)	The role of entrepreneurial orientation in the global performance of technology among SMEs.	Factors that contribute to managing the performance differences between international SMEs.	Resource-based view theory	Surveys	IT service sector/ Pakistan	SMEs with entrepreneurial orientation have a greater chance of exploring global markets. Still, their small size, limited access to resources, and limited experience in international markets prevent them from fully taking advantage of them.
Al-Shboul (2019)	Recognising the factors that influence SMEs' adoption of cloud ERP in developing economies.	SMEs in developing nations are unable to improve their competitive advantages due to a lack of knowledge about ERP systems.	Theory of diffusion of innovation	Surveys	IT service sector/ Jordan	Compatibility, technological readiness, technical obstacles, top management support, enterprise readiness, organisation scale, and competitive pressure have a big influence on the adoption of cloud ERP.
Ahmad et al. (2015)	Examined determinants of Malaysian SMEs' adoption of e-commerce.	The majority of research on e-commerce adoption has been done in Western countries, although there has been an increase in entrepreneurial activity in Asian developing countries, in recent years.	Diffusion of innovation theory	Surveys	IT service sector/ Malaysia	Malaysian SMEs adopt e-commerce based on perceived relative advantages, compatibility, knowledge and expertise of managers and owners, management characteristics, and external change agents.

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Table 2. Continued

Source	Key concepts	Research gaps related to marketing on technology adoption	Theory	Method	Context/ Emerging countries	Findings
Alam et al. (2022)	Travel and tour operator adoption of augmented reality in Malaysia.	Factors affecting the relative advantages of AR adoption in SMEs.	Diffusion of innovation theory	Questionnaire	Travel agencies/ Malaysia	Association between trialability and observability; value alignment partially buffers the relationships between behavioural intention and.
Bocconcelli et al. (2017)	SMEs' adoption of social media in upgrading and innovating their selling processes in a complex and rapidly changing market environment.	Social media's importance for SMEs calls for more in-depth research on processes and relevant factors related to social media adoption.	None	Surveys	Customer care services/ Malaysia	With social media resources, the firm could tap into new markets and, as a result, survive the downturn in its original market.
Biswakarma et al. (2020)	Service innovation practices.	SMEs' innovation practices have a significant impact on their success.	Invention theory	Surveys	Hospitality sector SMEs/ Nepal	Service innovation influences the effectiveness of service innovation in the hospitality sector.
Basu and Bhola (2022)	Interrelationships of quality management, IT, and entrepreneurial culture of IT SMEs.	Importance of investing in innovation as a strategic imperative to gain competitive advantage in the IT sector.	Contingency theory	Questionnaire	IT service sector / India	IT and quality management are complementary resources; focusing solely on IT or quality management is unlikely to improve performance.
Chege and Wang (2020)	Innovation in IT and job creation by SMEs.	The gap between the use of ICT and SMEs' growth for marketing activities in Chinese SMEs	None	Review	IT service sector/ China	In small businesses, technology innovations create jobs and drive economic development. IT significantly impacts small businesses' competitiveness and access to international markets.

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Table 2. Continued

Source	Key concepts	Research gaps related to marketing on technology adoption	Theory	Method	Context/ Emerging countries	Findings
Chandra et al. (2020)	Literature review of barriers to internationalization of SMEs	A detailed literature review of barriers to internationalization of SMEs.	The Uppsala model/ network theory	Review	SMEs from developing countries	Governments and other institutions must assist SMEs in developing countries to identify and overcome explicit constraints.
Chatterjee et al. (2021)	Influencing strategic competitive advantages in SMEs through hedonic and utilitarian values.	Few studies have examined how social media marketing can improve competitive advantage in developing countries.	Motivational theory (Ryan & Deci, 2000)	Surveys	Service SMEs/ India	The utilitarian and hedonic values of social media marketing are positively impacted.
Corvello et al. (2023)	Analyzing the factors that promote antifragility in service businesses.	The study of antifragility in business and management is still in its infancy, and its application to small businesses has not been fully explored.	Grounded theory approach	Interviews	Service SMEs/ Developing and developed countries	Key elements of antifragility are entrepreneurial orientation, context insight, and operational dexterity.
Dwivedi and Pawsey (2023)	Analyzing the drivers of marketing innovation in SMEs.	The antecedents and consequences of marketing innovation remain largely unknown to practitioners, despite their importance.	Institutional theory and resource dependence theory	Surveys	Service SMEs/ Developing and developed countries	Institutional pressures, resource constraints, product/ service innovations, and performance measurement requirements drive marketing innovation in SMEs.
Eze et al. (2019)	Mobile marketing technologies used by SMEs.	Mobile marketing technologies and device use in SMEs lack an integrated theoretical framework.	Technology organization environment framework	Interviews	Service SMEs /Nigeria	Due to a lack of resources and technical expertise, small businesses have not fully realized the economic potential of mobile technologies.

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Table 2. Continued

Source	Key concepts	Research gaps related to marketing on technology adoption	Theory	Method	Context/ Emerging countries	Findings
Edeh et al. (2020)	Innovation strategies and export performance.	Technological innovation does not fully explain how firms innovate, as it ignores other innovations.	Contingency theory	Surveys	Financial services/ Nigeria	Innovation in products has a negative impact, but innovation in processes has a positive impact. Marketing innovation also positively impacts export performance.
Fauzi et al. (2020)	Women entrepreneurship in developing country.	The impact of digital and financial literacy on SMEs' growth in Indonesia should be investigated, as the primary concern has been solely on financing.	None	Questionnaire	Product and Service SMEs/ Indonesia	Female entrepreneurs have a lower level of digital literacy than male entrepreneurs. Financial and digital literacy are essential to understand and implement in the short term. However, digital literacy plays an essential role in business growth, in the long run.
Faloye (2015)	SMEs' globalization and performance.	Investment liberalization has both positive and negative impacts on domestic firms and service SMEs in Nigeria.	Schumpeterian growth theory	Surveys	Product and Service SMEs/ Nigeria	Foreign direct investment positively impacts SMEs' performance. There is a positive, but insignificant, effect of foreign trade on SMEs' performance.
Gunawan et al. (2016)	Impact of intracluster ties, extracluster ties, and entrepreneurial orientation on innovation.	The lack of combination studies on high extracluster ties and risk-taking behavior in SMEs.	None	Surveys	Footwear-manufacturing services/ Indonesia	The diffusion of redundant knowledge, rather than new information, can be the result of relying too much on intracluster knowledge sharing.

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Table 2. Continued

Source	Key concepts	Research gaps related to marketing on technology adoption	Theory	Method	Context/ Emerging countries	Findings
Ghobakhloo and Tang (2015)	Information system success among manufacturing SMEs.	Prior IS success studies were primarily conducted in the service industry and academic environment, ignoring the manufacturing sector, which uses a significantly broader spectrum of IT.	Technology-organization-environment models	Surveys	IT sector/ Malaysia	In order to achieve IS success among SMEs, it is essential to involve both top management and employees at various stages of the implementation process.
Islam et al. (2023)	The challenges that women face while engaging in digital economic activities.	Lack of research on securing the digital environment for women in emerging countries.	Liberal feminist theory	Surveys	Service SMEs/ Bangladesh	A lack of technological knowledge is one of the challenges women face in Bangladesh.
Khurana et al. (2022)	SMEs and digital transformation in times of crisis.	SMEs are already researching how to deal with crises caused by sudden emergence as a result of the firm's efforts to build dynamic capabilities.	Dynamic capabilities framework	Interviews	Service SMEs/India	With SMEs' adoption of digital technologies, resilience capability emerges as a second-order dynamic capability.
Khali et al. (2022)	Digital technologies influence the COVID-19 crisis and SMEs' resilience.	Previous research covered COVID-19, but only a few studies related digital technologies to SMEs.	Work adjustment theory/ Affordance theory	Surveys	Six developing countries	The findings revealed the impact of digital technologies on SMEs' resilience during the pandemic, with a focus on companies in developing countries. Also, digital technology has assisted SMEs in surviving the pandemic, allowing them to become more resilient and ensuring their survival.

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Table 2. Continued

Source	Key concepts	Research gaps related to marketing on technology adoption	Theory	Method	Context/ Emerging countries	Findings
Lama et al. (2020)	Barriers and motivators of SMEs' adoption of e-tourism.	Lack of research on e-tourism helps to analyze the barriers and motivators of SMEs' adoption of e-tourism.	Theory of reasoned action	Surveys	SMEs in e-tourism / Nepal	Many factors influence the adoption of e-tourism, such as national infrastructure.
Meng et al. (2021)	SMEs' technological adaptation and open innovation.	Women-owned SMEs are understudied in open innovation research, which contributes to existing literature on open innovation and women-owned SMEs.	Technology acceptance model	Questionnaire	Service SMEs/ Bangladesh	Women-owned SMEs follow open innovation to compete and meet customers' demands.
Mai et al. (2024)	SMEs' digital transformation and innovation.	Importance of investing in operations management and financial resources and seeking government assistance to develop and improve digital capabilities.	Resource-based theory	Questionnaire	IT service sector/ Vietnam	Government policies supported Vietnamese SMEs' innovation and IT capabilities.
Shaikh et al. (2021)	Longitudinal-focused literature review on significant challenges in technology adoption for SMEs.	Lack of systematic reviews with longitudinal-focused challenges in technology adoption for SMEs.	None	Review	Service SMEs / Developing countries	Several significant challenges are associated with technology adoption, including the cost of technologies and infrastructure, technical skills and efficiency, adoption challenges, and lack of organizational and government support.

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Table 2. Continued

Source	Key concepts	Research gaps related to marketing on technology adoption	Theory	Method	Context/ Emerging countries	Findings
Saleem and Ashfaq (2023)	Explanation of the relationship between entrepreneurial motivations, job attractiveness, and the growth of family-owned small business.	A high degree of deficiency exists in the situational configuration of institutional and personal factors in developing countries.	Expectancy and institutional theories	Surveys	Hotels and restaurants/ China-Pakistan Economic Corridor	The government should work on how to build an entrepreneurial core in these underdeveloped regions by encouraging family-owned SMEs to take the initiative and face the challenges and risks.
Quinton et al. (2018)	Antecedents in supporting SMEs' performance in the digital economy.	SMEs' success in the digital environment requires understanding what strategic orientation best prepares SMEs to compete and what conditions promote this development.	Strategic marketing theory	Conceptual paper	Service SMEs/ Developing and developed countries	According to Lonial and Carter (2015), different orientations contribute to positional advantage for small businesses, but the findings of this paper identify antecedents and supporting structures that can enable digital orientation.
Ritz et al. (2019)	The small business in digital marketing.	Digital marketing will likely benefit small businesses, and the lack of such a strategy contributes to a widening performance gap between large and small companies.	The do-it-yourself behavior model and technology acceptance model	Surveys	Service SMEs/ Developing and developed countries	Small business owners and managers may not be motivated solely by technological benefits to engage in digital marketing. Additionally, perhaps more importantly, the authors find that the DIY behavior model applies to small business owners and managers required to perform specialized tasks.

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Table 2. Continued

Source	Key concepts	Research gaps related to marketing on technology adoption	Theory	Method	Context/ Emerging countries	Findings
Sugandini et al. (2019)	Travel and tour operator adoption of social media	Few studies integrated the technology acceptance model and technology-organization-environment models for exploring the adoption of social media marketing in SME tourism by adding a barrier to the adoption.	Technology acceptance model and technology-environment models	Surveys	Tourism/ Indonesia	Social media adoption is affected by antecedents such as manager innovation, competition pressure, adoption barriers, perceived usefulness, perceived ease of use, and attitude.
Zhu et al. (2022)	A multilevel perspective framework for SMEs from emerging markets.	Lack of research on circular economy-based applications for SMEs in emerging countries.	Multilevel perspective framework	Review	Service SMEs/ Developing and developed countries	The authors developed a four-stage model (emerging, filtering, stabilizing, and transforming) for SMEs adopting a circular economy approach.
Zahoor et al. (2022)	The interaction between digital literacy and technology and managerial attributes.	Even though it is evident that managers' digital literacy impacts firm outcomes, understanding how and under what circumstances managers' digital literacy impacts digital transformation is limited.	Micro-foundations theory	Surveys	Product and Service SMEs/ Developing and developed countries	Through digital technologies, managers' digital literacy impacts digital transformation. Furthermore, the relationship between managers' digital literacy and the use of digital technologies is moderated by managerial attributes (e.g., gender, education, and age).

to increase sales, they may discover that social media can be a helpful resource (Basu & Bhola, 2022; Islam et al., 2023; Meng et al., 2021; Saleem & Ashfaq, 2023). In contrast with traditional media, the use of social media has emerged as one of the most critical innovations in the development of businesses (Bocconcelli et al., 2017; Chatterjee et al., 2021; Quinton et al., 2018; Shaikh et al., 2021). Marketing behavior has been extensively researched in relation to consumer behavior and the processes through which large corporations supply their customers with products and services. For example, SMEs can use social media to gain insights into their customers' preferences, industry trends, and competitors' actions (Bocconcelli et al., 2017; Sugandini et al., 2019). An important component of GIM is the systematic collection, organization, dissemination, and utilization of information across different regions and markets. The GIM system ensures that accurate and relevant information is available to support decision-making, strategic planning, and operational efficiency in service SMEs.

SMEs can also advertise special events, offers, and discounts using social media (Chandra et al., 2020; Chege & Wang, 2020; Edeh et al., 2020; Fauzi et al., 2020; Kamal et al., 2009). In this study, IT and quality management are complementary resources, and focusing solely on one is unlikely to improve performance (Basu & Bhola, 2022). A large part of marketing innovation in service SMEs is driven by institutional pressures, resource constraints, product/service innovations, and performance measurement requirements (Alavi & Leidner, 1999; Dwivedi & Pawsey, 2023). In emerging countries, Facebook, Twitter, and Instagram are the most popular social media platforms. Service SMEs know the benefits of using social media for personal communication, marketing, advertising, recording consumer needs, responding to consumers, and facilitating consumer discussions (Alam et al., 2022; Faloye, 2015; Gunawan et al., 2016; Sugandini et al., 2019). Web sites and electronic mail are two of the most prevalent marketing techniques service SMEs in Africa utilize (Kallier, 2017). Kallier (2017) explained that businesses and service SMEs utilize marketing to communicate with their target markets through the use of related media. E-commerce adoption within Malaysian service SMEs has shown that SMEs are influenced by several factors, including perceived relative advantages, perceived compatibility, knowledge and expertise of managers and owners, management characteristics, and external change agents (Ahmad et al., 2015; Chatterjee et al., 2021; Ghobakhloo & Tang, 2015; Ritz et al., 2019). Social media platforms can assist SMEs connect with potential suppliers, collaborators, and partners (Beck et al., 2005; Corvello et al., 2022; Khali et al., 2022). Also, SMEs can reach out to potential customers using social media platforms (Gunawan et al., 2016; Sugandini et al., 2019). In addition to finding suppliers and partners, SMEs can also use these platforms (Bocconcelli et al., 2017; Eze et al., 2019; Lama et al., 2020; Shaikh et al., 2021).

E-Commerce Management in Service SMEs

Although most of the service SMEs in developing nations are focused on e-commerce, there is significant variation and this is changing and becoming more positive (Chandra et al., 2020; Edeh et al., 2020; Fauzi et al., 2020). Notably, Saffu et al. (2008) found that one of the elements that help the adoption of e-commerce is top management's excitement to adopt IT (Quinton et al., 2018). Few published data are on service SMEs in developing nations, as these firms may be unaware of the potential benefits of e-commerce (Chatterjee et al., 2021; Ghobakhloo & Tang, 2015; Quinton et al., 2018; Ritz et al., 2019).

In order for service SMEs to achieve global competitiveness, e-commerce management must be integrated with GIM. Business can leverage comprehensive data insights, enhance operational efficiency, and deliver personalized customer experiences. As soon as the top management of any organization realizes the importance of a specific technology, such as e-commerce, it is most likely that they will play a key role in persuading other members of the organization to accept this technology as well (Bocconcelli et al., 2017; Eze et al., 2019; Shaikh et al., 2021). There have been no controlled studies which compare differences in resources to help their organization adopt technology (Ghobakhloo & Tang, 2015; Ritz et al., 2019). Most of the times, there is a possibility that many service SMEs in developing nations or emerging countries are unaware of the benefits of

e-commerce aspects (Alam et al., 2022; Faloye, 2015; Gunawan et al., 2016; Sugandini et al., 2019). Management's attitude may be explained by a lack of knowledge of how e-commerce works. A lack of technical expertise, inadequate infrastructure, cybersecurity concerns, and high implementation costs make managing service SMEs difficult (Corvello et al., 2023; Islam et al., 2023; Khali et al., 2022; Meng et al., 2021).

Importance of Evaluating Information System Success

Business strategy should align with information systems. As a result, evaluations help SMEs ensure that their IT investments support their strategic goals (Zahoor et al., 2022). The services can detect bottlenecks, inefficiencies or unutilized elements of their information systems through regular examinations (Meng et al., 2021). It is possible to question whether the conclusions of previous studies on the success of information systems can be generalized to the setting of service SMEs, given the current limited understanding of the success of information systems among service SMEs and the major paucity of empirical studies in this area of research (Gunawan et al., 2016; Liu et al., 2022; Sugandini et al., 2019). It is possible that this solution will not work from a theoretical and methodological point of view, particularly for SMEs in developing nations (Chandra et al., 2020; Chege & Wang, 2020; Edeh et al., 2020; Fauzi et al., 2020). Firstly, when considering the global level, IT provides organizational skills that are primarily tangible and understandable to large and dominant businesses in developed countries, such as mass customization and supply chain integration (Bocconcelli et al., 2017; Eze et al., 2019; Lama et al., 2020; Shaikh et al., 2021). This is especially true of organizations that use IT. These capabilities require long-term strategies, process integration with business/supply partners and customers, and organization-wide standardization of operating procedures (Ahmad et al., 2015; Al-Shboul, 2019; Aslam et al., 2022; Biswakarma et al., 2020). These qualities are significantly lacking among service SMEs, so it is possible that such firms will not be able to develop these capabilities easily or quickly through the investment on information systems (Aslam et al., 2023; Basu & Bhola, 2022; Mai et al., 2024; Saleem & Ashfaq, 2023).

The Role of Government in Developing Service SMEs

As an important contributor to the development of service SMEs, the government creates a supportive environment through policies, financial support, market access, and various initiatives to encourage innovation, growth, and sustainability. A proactive government approach can significantly enhance service SMEs' success and competitiveness. Technology adoption is associated with several challenges, including costs, infrastructure, technical skills, and inadequate organizational support (Shaikh et al., 2021). Hardware, software, and internet connectivity can be expensive for small businesses in emerging countries. Inadequate top management commitment can hinder adoption. As soon as the top management of any organization realizes the importance of a specific technology, such as e-commerce, it is most likely that they will play a key role in persuading other members of the organization to accept this technology as well (Bocconcelli et al., 2017; Eze et al., 2019; Shaikh et al., 2021).

In order to drive technology adoption, all levels of leadership at the global level must buy in. Chege and Wang (2020) suggested that IT has a significant impact on the competitiveness and access to international markets of SMEs. It is recommended that the government develop technology-based innovative strategies for SMEs to enhance their performance and create jobs (Aslam et al., 2022; Chege & Wang, 2020). According to Chandra et al. (2020), service SMEs in developing countries face unique challenges, and they must identify and overcome explicit constraints with the assistance of the government and other stakeholders. Building networks and seeking assistance from business clusters that have successfully internationalized are some of the most important steps young SMEs can take to internationalize (Aslam et al., 2022). Similarly, Islam et al. (2023) stated that some challenges women face are a lack of technological knowledge, higher costs, high inflation, complicated loans, male dominance, a lack of government support, and a shortage of educational institutions.

Digital Literacy Knowledge Among Female Entrepreneurs

Digital literacy is critical for effective GIM and business success. Training, mentorship, technology access, and supportive policies can empower female entrepreneurs to thrive in the global market. Additionally, this contributes to broader economic growth and gender equality. A critical factor in today's increasingly digital business landscape is the digital literacy of female entrepreneurs in SMEs in emerging countries (Alavi & Leidner, 1999; Koswatte et al., 2023). In business, digital literacy refers to the skills and knowledge required to effectively use digital tools, technologies, and platforms (Aslam et al., 2023; Basu & Bhola, 2022; Koswatte et al., 2023; Mai et al., 2024; Saleem & Ashfaq, 2023). In Nigeria, women own and operate between 40% and 50% of SMEs; however, there is evidence that women are becoming marginalized in every industry, including the SME industry (Omiunu, 2019). Stork and Schmidt (2009) suggested that persons with access to and the financial means to use ICT services could be disadvantaged if they lacked the requisite skills. Thus, Deen-Swarray (2016) reiterated that users need to learn specific skills, such as the capability to understand, use, alter, and create material and services to profit fully from using ICTs. E-literacy skills can assist persons develop e-skills, such as the ability to change content, which is essential to enjoy the full benefits of ICTs and to make the best use of them (Ahmad et al., 2015; Al-Shboul, 2019; Aslam et al., 2022; Biswakarma et al., 2020). E-literacy skills can help individuals build e-skills (Chandra et al., 2020; Chege & Wang, 2020; Edeh et al., 2020).

It was identified that some females have lower levels of digital literacy than their male counterparts, contributing to the digital gender divide in today's society. Education and opportunities disparities, as well as historical factors, can be attributed to this (Fauzi et al., 2020; Koswatte et al., 2023). Female entrepreneurs in Indonesia have lower levels of digital literacy than male entrepreneurs, according to Fauzi et al. (2020). In the short term, financial literacy and digital literacy are important. However, digital literacy is important for business growth in the long run (Fauzi et al., 2020). Training and development programmes can improve the digital skills of female employees in SMEs. This category includes classes on fundamental computer skills, Internet and software competency, and digital marketing (Al-Shboul, 2019; Edeh et al., 2020; Fauzi et al., 2020;). Figure 2 illustrates the integrated framework derived from this scoping review on organizational-level strategies in integrating technology for marketing activities in SMEs of emerging countries.

Besides, Figure 2 explains the following themes the authors identified, including social media as a marketing tool for service SMEs, management attitude toward e-commerce, the importance of evaluating information system success, the role of government in developing the service SMEs, and digital literacy knowledge among female entrepreneurs.

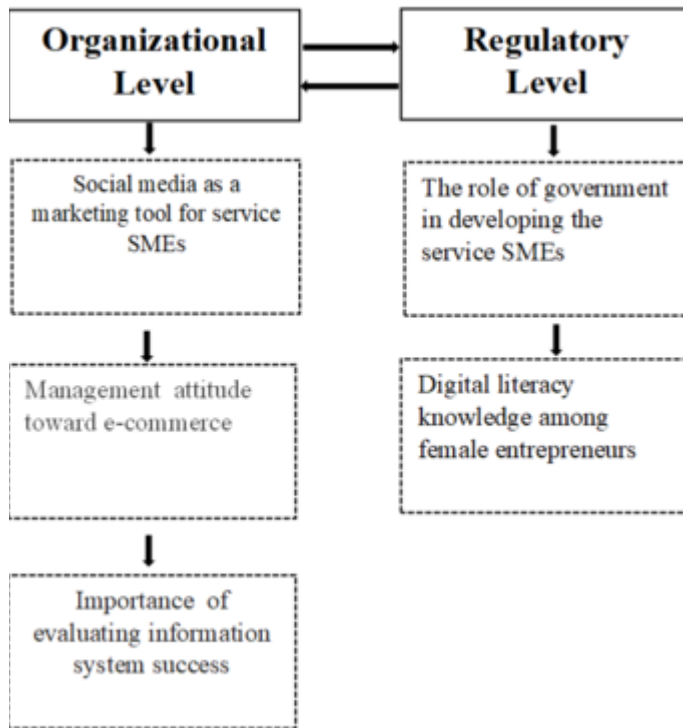
FUTURE RESEARCH DIRECTIONS

Using a framework articulated in theory, context, and methodology, the authors categorized these future research recommendations based on the guidelines scholars provided in previous studies (Jayawardena, et al., 2023; Paul & Benito, 2018).

Theory

In the literature on consumer behavior, behavioral theories have been referred to frequently to better understand the elements that influence user intentions and behavior (Rakshit et al., 2022). Examples of theories that are frequently applied in service SME domain are: Contingency theory (Basu & Bhola, 2022), expectancy and institutional theories (Saleem & Ashfaq, 2023), resource-based theory (Aslam et al., 2022; Aslam et al., 2023; Mai et al., 2024), theory of diffusion of innovation and the technology–organization–environment theory (Ahmad et al., 2015; Alam et al., 2022; Al-Shboul, 2019; Biswakarma et al., 2020), theory of reasoned action (Lama et al., 2020), technology organization environment framework (Eze et al., 2019; Ghobakhloo & Tang, 2015; Sugandini et al., 2019),

Figure 2. Integrated framework



technology acceptance model (Meng et al., 2021; Sugandini et al., 2019), contingency theory (Edeh et al., 2020) and Schumpeterian growth theory (Faloye, 2015).

Social networks are undertheorized in business-to-business marketing, even though social networks have been extensively discussed in business-to-consumer studies (Alavi & Leidner, 1999; Ghobakhloo & Tang, 2015; Quinton et al., 2018; Ritz et al., 2019). Integrated social network marketing metrics are linked to business-to-business SMEs in marketing accountability theory. According to recent findings, SMEs in India are unwilling to implement contemporary best practices in management. A market that is already highly competitive and constantly shifting only serves to compound its competitive disadvantage, when compared with more established firms (Alraja et al., 2022; Sen et al., 2022; Meng et al., 2021). The unwillingness of Indian SMEs to adopt advanced management practices may be attributed to their satisfied business behavior (Meng et al., 2021). Meng et al. (2021) noted service SMEs can grow by adapting to new technologies and developing new processes. The effects of open innovation practices, especially those adopted by SMEs, vary according to the unique characteristics of each firm. As a result of a lack of money or skills, SMEs cannot grow and contribute to the national economy as much as they could. As part of the technology acceptance model, service SMEs can grow their skills and change the paradigm from being blocked to thriving by contributing to society in various ways (Alraja et al., 2022; Meng et al., 2021). A lack of qualified staff, inadequate facilities, inferior innovation skills, and multiple problems in SME sectors hinder their innovation orientations (Aslam et al., 2022; Aslam et al., 2023; Liu et al., 2022).

Context

The authors used contextual analysis to differentiate organizational factors influencing technology adoption through technology and marketing research. The majority of the studies took place in

Asia, specifically Bangladesh, India, Nepal, and Pakistan, with a limited number focusing on Africa (Chatterjee et al., 2021; Ghobakhloo & Tang, 2015; Quinton et al., 2018; Ritz et al., 2019). Most Asian researchers analyzed several potential areas of financial distress, such as rate adequacy, sales trends, indebtedness, management capability, and financial planning. In addition, the authors found that poor fund management and resource constraints, poor accounting systems, poor financial control, poor productivity and profitability, and management succession before integrating technology within the service SMEs were among the most important reasons for financial distress. The study revealed the existence of three distinct clusters of SMEs owned by women. These clusters were formed based on shared practices for fostering innovation, identified through cluster analysis (Aslam et al., 2023; Faloye, 2015; Gunawan et al., 2016; Sugandini et al., 2019). Several researchers' conclusion was substantiated by their assessment that firms rarely prioritize either technology or technological exploration. However, it seems that open and creative organizations can address these two aspects of open innovation (Aslam et al., 2023; Faloye, 2015).

Furthermore, as an illustrative example, the group of open innovators exhibits a higher proportion of medium-sized firms. The concept of clustering can be seen as an indication of a sequential process for adopting open innovation. This process commences with the engagement of customers, followed by the active participation of staff members and the establishment of external networks. Service SMEs may invest in training and development programs to enhance female employees' digital skills. This category comprises fundamental computer, Internet, and software skills and digital marketing courses. Hence, future studies catering to the African region are a timely topic, when considering integrating technology and marketing within the service SMEs of emerging economies.

Methodology

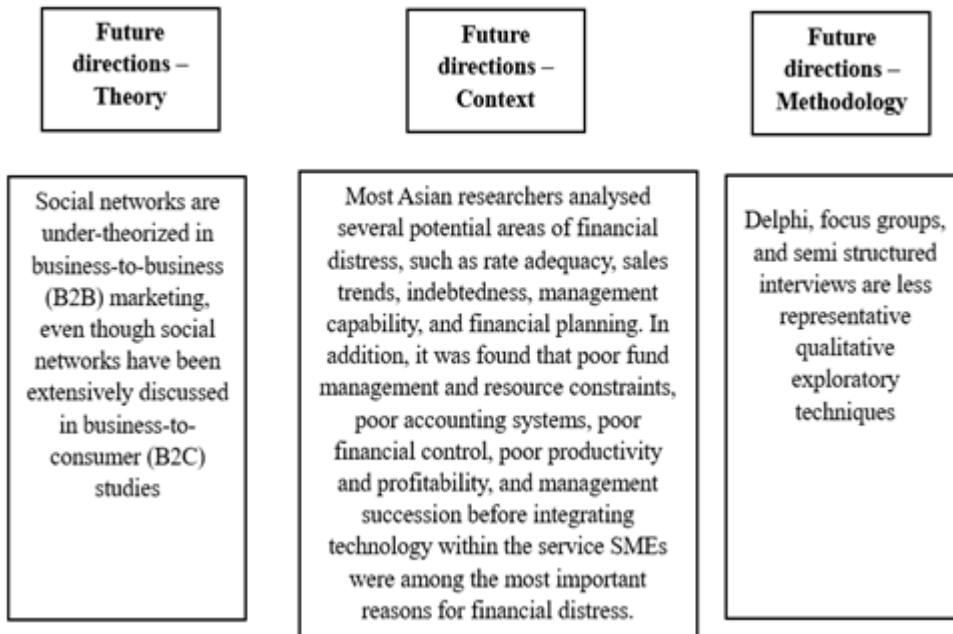
First, most studies were quantitative (Table 2), with surveys and questionnaires as data collection techniques. Most qualitative studies used survey-based data collection methods to address the questions concerning the longevity and persuasive knowledge related to false news posts (Chatterjee et al., 2021; Ghobakhloo & Tang, 2015; Quinton et al., 2018; Ritz et al., 2019). Surveys provide researchers with a structured way to collect and analyze data. Researchers can also ask questions tailored to their research objectives. Delphi, focus groups, and semistructured interviews are less representative qualitative exploratory techniques (Chandra et al., 2020; Chege & Wang, 2020; Edeh et al., 2020; Fauzi et al., 2020).

Second, the authors could not locate any longitudinal studies on the integration of technology and marketing among SMEs in emerging economies. Therefore, they decided to measure the applicability of strategic decisions that are made to moderate the relationship between the use of digital technologies and talent management (Alam et al., 2022; Faloye, 2015; Gunawan et al., 2016; Sugandini et al., 2019). Figure 3 shows the unifying model as per the future research directions.

CONCLUSION

The authors conclude their study with a series of recommendations for future research in the field of technology and marketing activities of service SMEs in emerging economies. The theoretical contribution of Arksey and O'Malley's study lies in providing a structured and systematic approach to map out how much literature is available on a particular topic when considering its theoretical contribution. Researchers can follow a predefined set of steps in order to ensure rigor and consistency in scoping studies. Researchers have limitations when it comes to cross-sectional and longitudinal studies included in systematic literature reviews. To interpret the findings accurately and guide future research, these limitations must be understood. Furthermore, the data may not reflect changes in the external environment, such as economic shifts, technological advancements or consumer preferences, that could impact the phenomenon being studied. Due to technology advancements, SMEs can now access a wealth of data and analytics to better understand customer behavior, preferences, and trends.

Figure 3. The unifying model as per the future research directions



With these data-driven insights, one can tailor marketing strategies to maximize their effectiveness based on informed decisions. By using technology, SMEs can create targeted and relevant content for specific customer segments. Customer engagement is enhanced, and relationships are strengthened. The authors aim to provide SMEs in emerging markets such as India, Sri Lanka, Bangladesh, and Indonesia with a comprehensive analysis of effective digital marketing strategies. There were two main limitations, which also suggested future research directions. Firstly, the authors conducted the study on technology and marketing-related integration for service SMEs in emerging countries. In the future, this scoping review can be extended to different regions, such as the integration of technology and marketing for service SMEs in South Asia, Africa, and the European continent. Secondly, this study was limited to the technology integration for service SMEs, thus the authors recommend that future research addresses technology integration further for large and multinational companies.

CONFLICTS OF INTEREST

We wish to confirm that there are no known conflicts of interest associated with this publication and there has been no significant financial support for this work that could have influenced its outcome.

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