

A thematic analysis of factors influencing small and medium enterprise adoption of social media marketing: a TOE framework perspective

Muhammad Arsalan Nazir
*Executive Business Centre, Greenwich Business School,
University of Greenwich, London, UK*

Hadia Rizwan
*Bahria Business School, Bahria University, Islamabad, Pakistan and
BPP Business School, BPP University, London, UK, and*

Xiaoxian Zhu
Teesside International Business School, Teesside University, Middlesbrough, UK

Qualitative
Market Research:
An International
Journal

179

Received 20 October 2023
Revised 21 March 2024
25 June 2024
11 September 2024
Accepted 25 October 2024

Abstract

Purpose – This paper aims to examine the factors influencing the adoption of social media marketing by small and medium enterprises (SMEs) in Pakistan. By investigating the drivers and challenges/barriers affecting the adoption of social media marketing tools among SMEs, this study provides practical guidance to SMEs seeking to utilize social media platforms for marketing purposes in a developing context such as Pakistan.

Design/methodology/approach – Utilizing the Technology-Organization-Environment (TOE) framework as a theoretical framework, qualitative data were collected through semistructured interviews with representatives of SMEs in Pakistan, followed by thematic analysis of the data.

Findings – The research identifies several key factors influencing the adoption of social media marketing by Pakistani SMEs. These factors include doubts regarding the benefits of social media, alignment with regulatory requirements, challenges related to tracking social media performance, resistance from senior management (older employees), the positive influence of competitive pressure and the Covid-19 pandemic, political instability and increased government taxes on digital services. Stakeholders such as marketing professionals, academics, policymakers, government authorities and SME owners and managers can benefit from these findings.

Originality/value – This research contributes to the academic literature on the adoption of social media marketing by SMEs, especially within emerging economies. It enriches theoretical understanding of adoption

© Muhammad Arsalan Nazir, Hadia Rizwan and Xiaoxian Zhu. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at <http://creativecommons.org/licences/by/4.0/legalcode>

The authors would like to express their sincere gratitude to the editors and anonymous reviewers for their insightful and constructive feedback during the review process, which significantly contributed to the refinement of this article. The authors also thank the subject matter experts from SMEs who participated in this study, as well as the owners and managers who generously shared their perspectives, facilitating the development of conclusive findings. Finally, the authors acknowledge the financial support of the University of Greenwich, which made this research possible and enabled its open access publication.



processes and factors, filling gaps in existing knowledge and laying a foundation for future research in this domain. Using the TOE framework, the study reveals that when all factors are adequately considered, SMEs can transition from traditional marketing methods and embrace social media as a digital marketing strategy to enhance performance, profitability, and gain a competitive advantage over their rivals.

Keywords Social media marketing, SMEs, TOE framework, Adoption factors/challenges, Digital innovation, Qualitative analysis

Paper type Research paper

Introduction

Undoubtedly, the utilization of social media has surged in the past decade, altering how individuals connect and access pertinent information (Voramontri and Klieb, 2019). Businesses now possess enhanced avenues to engage with consumers through heightened online connectivity, producing and promoting content (Bala and Ver, 2018). Social media comprises web- and smartphone-based technologies facilitating highly interactive platforms for individuals and communities to share, coproduce, discuss and edit user-generated content (UGC). Accordingly, Facebook, Twitter, Instagram, YouTube, Snapchat and LinkedIn presently stand as the most utilized social networking sites (Appel *et al.*, 2020).

Previous empirical research (Mason *et al.*, 2021; Appel *et al.*, 2020) has established that social media significantly impacts marketing strategy by bridging the gap between businesses and consumers. For instance, it opens communication channels for consumers, assists businesses in fostering enduring relationships with audiences and molds brand perceptions through consumer feedback. Moreover, social media furnishes opportunities for training and personal development within organizations by offering a wealth of resources and information (Dubbelink *et al.*, 2021). The advent of social media marketing has not only revolutionized societal dynamics but has also furnished numerous businesses with novel advertising avenues (Desai, 2019). Businesses can no longer solely depend on mainstream media to engage with their customers (Appel *et al.*, 2020). To thrive, they must embrace innovative marketing techniques (Kotler and Armstrong, 2011).

Previous empirical studies (Lin, 2021; Qalati *et al.*, 2022) suggest that social media marketing also plays an important role in the development of small and medium-sized enterprises (SMEs). SMEs face increased global competition due to digitalization and globalization in all sectors (Qalati, Yuan, *et al.*, 2021). Therefore, many scholars argue that SMEs must use social media as a marketing tool to gain a competitive advantage (Balakrishnan *et al.*, 2014). Other studies, notably those by Salam *et al.* (2019), have concluded that two important characteristics of SMEs are innovation and social cohesion, enabling them to compete with competitors both locally and globally (Alkateeb and Abdalla, 2021). Due to the advantages that social media offer to businesses, such as cost-effectiveness, time efficiency, a minimum level of computer skills required to use it and a high level of interaction with consumers, SMEs have also started to adopt social media as an innovative marketing tool in many parts of developed countries for better performance (Abed, 2020).

In today's era, the possibilities offered by social media for marketing purposes are endless and present several opportunities for small businesses. Social media marketing offers many benefits to small businesses, such as improving efficiency and performance (Obrenovic *et al.*, 2020). However, AlSharji *et al.* (2018) found that the emergence of innovations presents both challenges and opportunities for SMEs. According to empirical research by Al Bakri (2017) on SMEs in the Gulf countries, 90% of business owners did not use social media because they were unaware of the benefits and lacked the technical know-how to integrate social media applications into their business. Small businesses can utilize social media in the same manner as big enterprises, but there are few barriers to adopting social networking technologies, and implementing them requires

several resources (Derham *et al.*, 2011). Other barriers to social media marketing adoption include a lack of resources (both financial and human), cultural challenges and an unsupportive environment (Ghobakhloo *et al.*, 2011). Despite these barriers, some SMEs in various contexts have successfully used social media for better reach and performance (Odoom *et al.*, 2017). However, the main problem is that stakeholders, including businesses, consumers and government, are unaware of these constraints, which significantly impede their ability to drive business performance (Effendi *et al.*, 2020; Trawnih *et al.*, 2021).

The evolving nature of businesses and the changing landscape in which SMEs operate require current research to help them respond effectively to these transformations (Namankani *et al.*, 2016). Previous research has indicated that using social media for marketing purposes provides significant benefits to businesses (Namankani *et al.*, 2016). SMEs, therefore, have the opportunity to improve their business performance by leveraging social media. While previous studies (Talukder *et al.*, 2013) have examined the use of social media marketing in a broader organizational context, limited empirical research has explored the multiple factors affecting the adoption of social media marketing that could influence the marketing performance of SMEs in underdeveloped countries, particularly in Pakistan. This gap in the literature highlights the objective of our study: “to investigate the factors and challenges/barriers that influence the adoption of social media marketing as a tool by SMEs to offer valuable guidance to SMEs on effectively leveraging social media platforms for marketing purposes in a developing country”.

To address this research gap and gain deeper insights into the marketing performance of SMEs subsequent to identifying adoption factors for social media marketing, our study will endeavor to answer the following research question:

RQ. What are the factors influencing the adoption of social media marketing by SMEs in Pakistan?

To accomplish our goals and explore the research query, we will utilize the Technology-Organization-Environment (TOE) framework proposed by Tornatzky and Fleischer (1990) as the basis of our theory. This method will aid stakeholders in effectively tackling challenges associated with adopting social media marketing. Our research will employ qualitative methods to achieve our research aims. By conducting thematic analysis within the TOE framework, concentrating on the factors influencing the adoption of social media marketing by SMEs, we aim to make substantial contributions to the field. Through the TOE framework, we can thoroughly examine how technological, organizational, and environmental factors interact to impact SMEs’ decisions regarding social media marketing adoption. This thorough analysis will provide researchers with a nuanced comprehension of how technological advancements, organizational setups, and external factors influence SMEs’ adoption behaviors.

The insights gained from this study will be beneficial for policymakers, industry practitioners, and academics keen on supporting SMEs in leveraging social media marketing for competitive advantage. Moreover, the findings can guide the formulation of customized strategies and interventions aimed at facilitating the adoption and successful implementation of social media marketing initiatives among SMEs, thereby fostering their growth and sustainability in the digital marketplace.

Literature review and theoretical underpinnings

Small and medium-sized enterprises and social media in Pakistan

In Pakistan, there are over 3.3 million SMEs operating across various sectors, including industry, manufacturing, agriculture, services and construction. These SMEs play a

significant role in the country's economy by contributing to added value and job creation. However, compared to SMEs in developed countries, Pakistani SMEs have been slower in adopting technology (Qalati *et al.*, 2022). While social media marketing holds potential benefits for SMEs and other stakeholders in Pakistan, several constraints have hindered its widespread adoption. In contrast to SMEs in advanced countries, SMEs in Pakistan have not capitalized to the same extent on globalization and technological advancements (Mwika *et al.*, 2018). Pakistani SMEs encounter substantial challenges, including limited financial resources, restricted potential for future development, hurdles in embracing globalization, technology acceptance constraints and a deficiency in various essential resources. Consequently, Pakistani SMEs face more formidable challenges compared to their counterparts (Khaskheli, 2020). Moreover, obstacles such as a lack of trust, insufficient resources (both financial and human), cultural differences and an unsupportive environment have further impeded the adoption of social media for marketing (Calli and Clark, 2015). Given the constantly evolving market dynamics, increased competition and changing consumer behavior in the digital age, social media has emerged as a crucial influencer in marketing, with the potential to enhance the performance of SMEs in any country (Salam *et al.*, 2019).

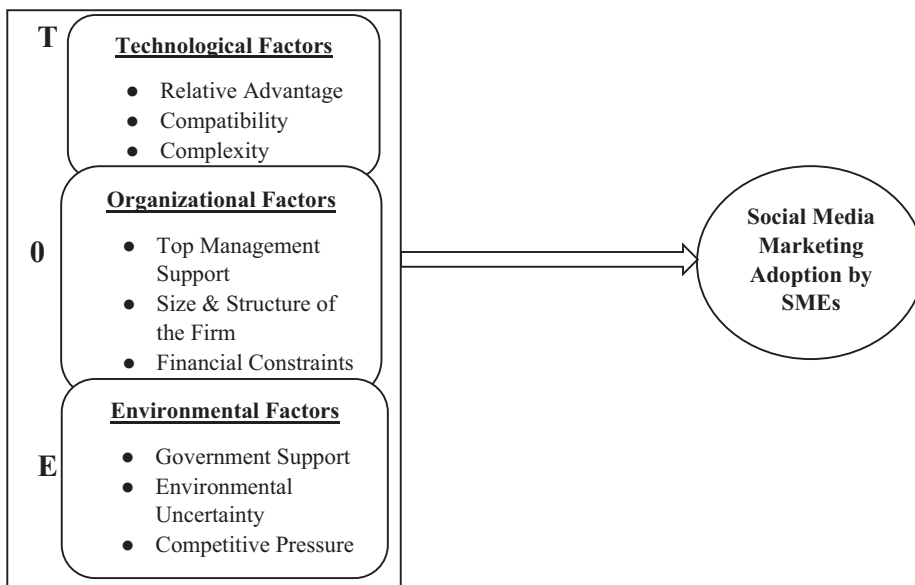
The investigation into the factors influencing small and medium enterprise (SME) adoption of social media marketing in Pakistan will shed light on several crucial aspects in literature. The multifaceted nature of SMEs, coupled with the dynamic landscape of social media platforms, underscores the significance of understanding the factors that drive or hinder adoption. Through this study, it becomes evident that cultural, technological, economic, and institutional factors intertwine to shape SMEs' decisions regarding social media marketing adoption.

Theoretical development

Bogea and Brito (2018) argue that businesses need to consider both internal and external factors as drivers of social media adoption in marketing practices. In the realm of technology adoption, the TOE framework, introduced by Tornatzky and Fleischer in 1990, has often been applied in previous studies (Tripopsakul, 2018; Pateli *et al.*, 2020; Effendi *et al.*, 2020; Abed, 2020). In the context of SMEs, the TOE framework has consistently demonstrated empirical validation (Alkateeb and Abdalla, 2021). This framework encompasses three key determinants of IT adoption: the technological factor, the organizational factor and the environmental factor. Therefore, based on our study's research question and in relation to the literature review, we have chosen to utilize the TOE framework (see Figure 1) as we believe it comprehensively represents all the factors, both internal and external, that influence the adoption of social media for marketing within the context of Pakistani SMEs.

Technological factors

The adoption of information technology (IT), particularly social media, by SMEs appears to be significantly influenced by the technological environment (Ramdani *et al.*, 2013). This environment encompasses factors such as compatibility, complexity and relative advantage (Alkateeb and Abdalla, 2021). Relative advantage refers to the extent to which an innovation is perceived as superior to the existing concept (Bocconcelli *et al.*, 2018), quantifying the benefits or drawbacks a company might encounter based on whether it chooses to adopt or reject a technology (Qalati, Yuan, *et al.*, 2021). Numerous studies have found that relative advantage positively impacts SMEs' adoption of social media. However, it's worth noting that in contrast to some of these findings, research conducted in Middle Eastern countries,



Source: Authors' own creation

Figure 1. Conceptual framework

including studies by AlSharji *et al.* (2018) and Trawnih *et al.* (2021), observed that relative advantage did not exhibit a significant relationship with social media adoption. SMEs in Pakistan must understand that adopting innovation will either present new production opportunities, such as greater productivity and improved operational efficiency, or solutions to current problems.

Compatibility refers to the extent to which an invention is perceived to be in line with the values, attitudes, and interests of potential customers (Qalati *et al.*, 2022). Rahman *et al.* (2020) discovered that compatibility has a favorable impact on Information and Communication Technologies adoption in the setting of SMEs. On the other hand, Ainin *et al.* (2015) found no evidence of a causal link between compatibility and ICT adoption by SMEs. One of the primary issues hindering Pakistani SMEs from adopting IT is the incompatibility of new technology with existing standards and operational procedures. The introduction of new technology can be impeded when previously proposed technologies were poorly received, as the new ones are often evaluated based on the performance of their predecessors (Ainin *et al.*, 2015).

Complexity, as noted by Trawnih *et al.* (2021), is linked to both the application and use of technology. The intricacy of new technology, according to Derham *et al.* (2011), lessens the likelihood that people will adopt it. Regardless of the advantages social media technology may offer, employees in Pakistani SMEs will not use it if they find it difficult to use because the adoption of IT equipment is closely tied to how complicated users perceive it to be. Therefore, it is interesting to investigate how the complexity of social media, as an example of a new IT-based approach, can impact the adoption decisions of SMEs (Sharmilaand and Kavitha, 2022).

Organizational factors

Previous research has indicated a correlation between the organizational framework and the internal attributes of a company. Key determinants affecting how SMEs utilize social media for marketing their products and services include top management support (Abed, 2020), the size and structure of the company and financial constraints (Effendi *et al.*, 2020).

Top management support refers to the extent of support provided by senior management for leveraging technology to achieve business objectives (Abed, 2020). Pateli *et al.* (2020) argue that top management assistance is crucial for the adoption of social media marketing, as senior executives play a pivotal role in influencing their colleagues by proposing systems, allocating resources and providing cognitive support. Therefore, it is anticipated that SMEs would be more inclined to adopt social media if they receive higher levels of top management support.

The availability of financial resources indicates an organization's capacity and readiness to allocate resources for technological innovation adoption (Trawnih *et al.*, 2021). Financial limitations have been identified as one of the primary barriers preventing SMEs, especially those in developing countries, from embracing Web 3.0 technology (Potluri and Vajjhala, 2018). Due to inadequate funding to achieve their initial social media marketing goals set at the inception of the business, the majority of SMEs fail to expand (Calli and Clark, 2015).

According to Alshamaileh (2013), the size and structure of the company, in conjunction with top management support, are two factors that influence the rate at which SMEs adopt new technology. Small organizations often believe that their agility in altering their vision and mission, combined with their adaptability, makes it easier for them to embrace recent innovations in social media marketing (Jenkins, 2009).

Environmental factors

The environmental context, as defined by Trawnih *et al.* (2021), encompasses external factors crucial for a business's survival and growth. However, despite its potential benefits, the effective utilization of social media often remains hindered by various factors such as inadequate network infrastructure, limited government support and environmental uncertainties (Karim *et al.*, 2021). The role of government is pivotal, as it can either positively promote technological innovation by implementing regulations that incentivize businesses to adopt new technology or negatively hinder innovation through restrictive regulations (Borgman *et al.*, 2013).

Governments can play a crucial role in fostering the adoption of social media technology by SMEs through supportive measures such as tax reductions, infrastructure funding and regulatory oversight. For instance, in an empirical study conducted in Jordan, environmental uncertainty emerged as a significant factor affecting SMEs' technology utilization (Al-Okaily *et al.*, 2020). However, SMEs may face additional constraints related to immediate contextual uncertainties, including political instability and the escalating risk of natural disasters like floods due to global warming.

Regarding environmental uncertainty, existing literature underscores that competitive pressure significantly and positively influences the adoption of innovation in developing nations such as Pakistan (Qalati *et al.*, 2022), the UAE (Nuseir, 2018) and Thailand (Tripopsakul, 2018). The COVID-19 pandemic has further accelerated the urgency for businesses to adopt and invest in technology to maintain a competitive edge (Klein and Todesco, 2021). It has been suggested that SMEs are more inclined to adopt new technologies when faced with increased competition in the market (Scupola, 2003). Similarly, the impact of the COVID-19 pandemic and other environmental factors on SMEs

in Pakistan, necessitating the adoption of social media marketing tools as part of their survival strategy, requires comprehensive examination.

By utilizing the TOE framework, our study aims to systematically analyze the interaction among technological, organizational and environmental factors influencing the adoption of social media marketing by SMEs in Pakistan. This framework offers a holistic perspective for comprehending the intricacies of technology adoption within both internal and external environments. By identifying the additional drivers and barriers to adoption within existing literature, it can provide invaluable insights into the dynamics of social media marketing adoption among SMEs in Pakistan.

Research methodology

The aim of this study is to identify the factors influencing social media adoption by SMEs in Pakistan, employing the interpretivist philosophy as the most suitable approach in qualitative research. A qualitative methodology was chosen as the preferred investigative method due to the relatively nascent nature of social media use in Pakistan. This approach enables researchers to delve deeply into a limited number of observations, focusing on understanding rather than relying solely on extensive quantitative data (Saunders *et al.*, 2019a, 2019b). The semistructured interview technique was selected for data collection from owners and managers after defining the sampling criteria (Aalberg *et al.*, 2012).

Sampling criteria

The authors approached owners and managers to participate in the study using a purposive sampling design. Purposive sampling, based on the study phenomena, involves selecting participants who are specifically relevant to understanding the dynamics of social media marketing adoption among SMEs in Pakistan. This method aims to gather insights from individuals or organizations directly involved in or knowledgeable about SME operations and social media marketing practices within the Pakistani context. By targeting this specific population, researchers acquired precise and pertinent data to explore the factors influencing SMEs' decisions regarding social media marketing adoption, enhancing the relevance and applicability of their findings to the intended research objectives.

In this study, participants were targeted based on the following selection criteria (see Table 1):

- **Business Size:** SMEs operating in Pakistan. This criterion helps narrow down the focus to businesses within a specific size range, as the study aims to explore social media marketing adoption factors influencing SMEs specifically. According to the national SME policy of Pakistan, approved in 2007, SMEs are defined as businesses with up to 250 employees (0–49 employees for small and 50–250 employees for medium), paid-up capital of Rs. 25 million and an annual turnover of Rs. 250 million.
- **Industry:** SMEs from various industries or sectors in Pakistan. This criterion ensures diversity in the sample and allows for a broader understanding of the factors influencing social media marketing adoption across different sectors. In relation to this criterion, the real estate, tourism, and hospitality industries were selected. Researchers believe that data collection from the real estate, hospitality and tourism industries is imperative for understanding the nuanced dynamics of SME adoption of social media marketing in Pakistan. These sectors represent pivotal domains in the country's economy, contributing significantly to its GDP and employment opportunities. By analyzing data from these industries, researchers can glean

Table 1. Respondent’s information and SMEs participated in this study

No. of SMEs	Total no. of staff	Interviewees	Est. Year	SME type	Location	Size
1	59	Owner and marketing manager	2011	Hospitality	Islamabad	Medium
2	56	Owner and sales manager	1998	Real estate	Rawalpindi	Medium
3	61	Owner and social media manager	2014	Tourism	Rawalpindi	Medium
4	51	Owner and PR manager	2010	Tourism	Islamabad	Medium
5	57	Owner and content manager	2008	Real estate	Islamabad	Medium
6	27	Owner and marketing manager	2001	Hospitality	Islamabad	Small
7	19	Owner and sales manager	2004	Real estate	Rawalpindi	Small
8	12	Owner and content manager	2012	Tourism	Rawalpindi	Small
9	33	Owner and PR manager	1999	Hospitality	Islamabad	Small
10	28	Owner and media manager	2015	Real estate	Rawalpindi	Small

Source: Authors’ own creation

insights into consumer behavior, market trends and competitive landscapes, all of which are crucial for devising effective social media marketing strategies tailored to SMEs. Furthermore, given the inherent diversity within these sectors, ranging from hotels in tourism and hospitality sectors to large-scale real estate developments, studying their adoption of social media marketing sheds light on the varied challenges and opportunities faced by SMEs across different niches. Such insights not only facilitate the customization of marketing approaches but also aid in the formulation of policies aimed at fostering SME growth and competitiveness within Pakistan’s evolving digital landscape.

- **Geographical Location:** SMEs located in different regions or cities within Pakistan. This criterion acknowledges the potential influence of regional factors on social media marketing adoption. In relation to this criterion, data were collected from SMEs located in the twin financial cities of the federal region (Islamabad-ISB) and (Rawalpindi-RWP) in Punjab. These two cities hold significance as service hubs, housing numerous specialized businesses and marketing consumers who use social media for purchasing.
- **Social Media Usage:** SMEs actively using or considering the use of social media marketing. This criterion ensures that the participants have relevant experiences and insights regarding the adoption of social media marketing strategies.
- **TOE Framework Perspective:** SMEs that can provide insights into how technological factors, organizational factors and environmental factors influence their adoption of social media marketing strategies. This criterion aligns with the theoretical framework guiding the study.

Data collection instrument

The researchers meticulously designed the questionnaire as an instrument aligned with the research objectives and conceptual framework, aiming to comprehensively address the research question. This tool served solely for data collection, with no distribution of physical questionnaires to participants. Employing this instrument, researchers posed open-ended inquiries to owners and managers. The questionnaire, crafted with precision, aimed to probe

various dimensions, including technological readiness, organizational capabilities and environmental factors influencing SMEs' decisions regarding the adoption of social media marketing. Within the technological factor, inquiries regarding compatibility, complexity and advantages were incorporated. Discussions within the organizational factor focused on aspects such as SME size, structure, support and resources. Environmental factors, such as government support and external issues, were also addressed. Additionally, open-ended and formally closed-ended discussions were conducted, allowing owners and managers to freely express their perspectives and observations on social media adoption and its role in marketing performance and growth in Pakistan. The questions aimed to uncover the nuances of how technology, organizational structure and external influences intersect to shape the adoption landscape within the Pakistani SME sector. Through a combination of open-ended and closed-ended questions, the instrument seeks to capture rich insights into the challenges, motivations and strategies related to social media marketing adoption, ultimately contributing to a nuanced thematic analysis of the study phenomenon.

Data collection process

A list of SMEs was compiled from both SMEDA (the Small and Medium Enterprise Development Authority of Pakistan) and the regional chambers of commerce in Islamabad and Rawalpindi. To verify their existence and secure participation in the study, phone calls were made to several SMEs within the two cities. These SMEs were then shortlisted based on predetermined sampling criteria. In total, 10 SMEs, evenly distributed between the two regions, that met the study's criteria were selected for the data collection process. Specifically targeting SMEs in the tourism, hospitality and real estate sectors in Islamabad and Rawalpindi, all contacted businesses consented to participate. One owner and manager from each SME were selected to provide qualitative insights for the study (see [Table 1](#)).

Before conducting the final face-to-face semi-structured interviews, researchers conducted a pilot study involving six SMEs, two from each sector and region. The aim was to gain insights into the factors influencing the adoption of social media marketing among SMEs. Insights gained from the pilot study led to adjustments in the final data collection instrument, incorporating additional information regarding competitor characteristics and industry support. Furthermore, the pilot study facilitated access to SMEs for the subsequent face-to-face interviews.

For the final interviews, 10 SMEs from the real estate, tourism and hospitality sectors were selected from the two financial hubs of Pakistan, Islamabad and Rawalpindi, reflecting the qualitative nature of the study on SMEs. The sample size was determined based on the following considerations:

- [Lee and Hong \(2016\)](#) noted that small business research typically involves fewer than 10 samples.
- [Muhammad Arsalan Nazir \(2018\)](#) recommended a homogeneous sample size of six to eight for qualitative studies.
- [Yin and McKay \(2018\)](#) advised starting with a small and simple sample size to manage and analyze qualitative data effectively.

Twenty in-depth, face-to-face interviews were conducted using a semistructured instrument in English to gather data from selected SMEs and regions. Subsequently, the data obtained from these interviews were recorded and transcribed from Urdu to English based on written notes found in both notebooks and digital devices, i.e. mobile phones. Owners and managers

elaborated on opportunities, challenges, barriers and contextual factors influencing their SMEs for subsequent analysis.

Moreover, 10 telephone interviews were conducted with participants from each SME to capture any additional information that might have been overlooked during the face-to-face interviews. The primary reason for incorporating these telephone interviews was to triangulate the findings from the semi-structured face-to-face interviews, thereby reinforcing the robustness of the identified themes and ensuring that no critical insights were missed. The closed-ended format of these telephone interviews was specifically chosen to validate the preliminary findings in a more structured manner, allowing us to either confirm or refine the subthemes identified in the earlier phases of data collection.

Following the completion of 20 physical semi-structured interviews and 10 closed-ended interviews, the researcher discerned that further interviews were unnecessary, having reached the point of category saturation after a total of 30 interviews. In qualitative research, data saturation is often achieved within 12–16 interviews, although more complex studies may require up to 24 interviews to capture all relevant themes (Hennink *et al.*, 2017). In qualitative research, data collection should persist until category saturation is achieved, signifying the point at which no novel information emerges from the gathered data (Saunders *et al.*, 2019a, 2019b). Having concluded all interviews and the data collection phase, the researcher commenced reexamining the transcripts for subsequent analysis.

Data analysis

In qualitative research, the processes of data collection, data analysis and report writing are often interrelated and occur simultaneously (Creswell, 2007). Since data collection and analysis can happen concurrently, distinguishing between the two can be challenging (Thorne, 2000). Although Braun and Clarke (2006) describe thematic analysis as a linear, six-phase method, it is actually an iterative and reflective process that involves constant movement between phases.

Thematic analysis is an effective qualitative data analysis technique (Braun and Clarke, 2006; King, 2004). This study employed a six-phase approach and incorporated Lincoln and Guba's (1985) criteria for trustworthiness within each phase. Additional trustworthiness criteria by Guba and Lincoln (1994) were also applied for the credibility and validity of qualitative research findings.

Phase 1 – Familiarization with data: Researchers repeatedly reviewed transcriptions and audio recordings to understand the data. Notes were taken on the responses of SME owners and managers about adopting social media marketing, guided by the TOE framework. Trustworthiness was enhanced through triangulation of data sources (interviews, observations) and systematic recording in Excel spreadsheets.

Phase 2 – Generating initial codes: Following Braun and Clarke (2006), codes were identified as the building blocks of analysis. Researchers manually coded the data, attaching labels to relevant text segments based on the research questions. The TOE framework guided the coding (*e.g. technological factors like software and internet access*). Trustworthiness was ensured by having two researchers code the data and holding biweekly meetings for peer debriefing.

Phase 3 – Searching for themes: Once all data were coded, researchers collated the codes into potential themes and subthemes by grouping similar ones together (Ozuem *et al.*, 2022), aligning with the TOE framework (*e.g. technology-related theme: codes – software, internet access, performance analytics*). Initial codes began to form main themes, while others formed subthemes. Trustworthiness was established through diagramming codes to understand theme connections.

Phase 4 – Reviewing themes: Themes were reviewed and refined to ensure alignment with the coded data and research questions. Researchers created a thematic map to show how themes related to the TOE framework influenced SME adoption of social media marketing. Detailed analyses were written for each theme, and Microsoft Team meetings ensured consensus.

Phase 5 – Defining and naming themes: Researchers defined and named all three themes clearly within the TOE framework (e.g. *Technological factors, Organizational factors, and Environmental factors*), ensuring that the themes were distinct and addressed the research questions. Trustworthiness was established by organizing and reorganizing themes until the team reached consensus.

Phase 6 – Producing the report: Once themes were established, researchers began the final analysis and report writing. The Consolidated Criteria for Reporting Qualitative Research (COREQ) guidelines (Tong, Sainsbury, and Craig, 2007; Ozuem *et al.*, 2022) were used to ensure transparency. Both shorter and longer quotes were included, with unique identifiers to represent various participants. Themes, subthemes and codes were presented in a thematic matrix table (see Table 2), with exemplar quotes in the findings section. The final discussion contrasted the findings with existing literature. Trustworthiness was established by submitting the analyses to participants for their feedback through the process of member checking (Ozuem *et al.*, 2022).

By systematically applying the trustworthiness strategies developed by Guba and Lincoln (1994), this study ensures its findings are credible, transferable, dependable and confirmable.

Credibility addresses the fit between respondents' views and the researcher's representation of them (Tobin and Begley, 2004). Techniques included prolonged engagement, persistent observation and triangulation of data sources (interviews and observations). Both open and closed-ended face-to-face and telephonic interviews with SME owners and managers ensured credibility.

Transferability refers to the generalizability of the findings (Lincoln and Guba, 1985). This study provided rich descriptions of SMEs, including industry, size and market conditions in Pakistan. While the study focuses on Pakistan, the framework's applicability and identified themes are likely to resonate with SMEs globally, especially those in developing countries of South-east Asia with similar socio-economic conditions and technological landscapes. Therefore, the findings can inform strategies for SMEs, recognizing cultural nuances.

Dependability was ensured by maintaining a comprehensive audit trail. Regular checks on data consistency, team meetings and keeping records of raw data, field notes and transcripts contributed to this (Ozuem *et al.*, 2022).

Confirmability is achieved when credibility, transferability and dependability are established (Guba and Lincoln, 1994). This study achieved confirmability by maintaining a thematic matrix document based on interviews, telephonic conversations and observations. Findings were sent to SME participants for external audit of the research process.

Findings

The comprehensive data collected from multiple interviews have provided various thematic insights that illuminate the challenges encountered by Pakistani SMEs when adopting and/or using social media for marketing. Table 2 Thematic Matrix presents the three main themes, their corresponding subthemes and the associated codes identified in the interview data after meticulous transcription and analysis.

Table 2. Thematic matrix (codes and themes in thematic analysis)

Themes	Subthemes	Codes
Technological factors	<i>Relative advantage</i>	– Uncertainty about the benefits
		– Hesitancy in adopting social media platforms
		– Adoption rates are very slow
	<i>Compatibility</i>	– Difficulty arises in utilizing multiple channels for customers to reach
		– There is delayed utilization of customer service software
		– Ensure a stable internet connection is available
		– Daily work tasks may be hindered
		– Unexpected internet outages may occur
		– Difficulty in measuring social media performance
<i>Complexity</i>	– Not everyone knows how to fetch facts and figures from data	
	– Performance analytics are too complicated	
Organizational factors	<i>Top management support</i>	– Senior executives do not express interest in others' ideas
		– Lack of cognitive support
	<i>Financial constraints</i>	– There's a significant gap between mindsets due to age and background
		– Difficulty of managing everything within a budget
		– Cannot freely experiment with creativity
		– Not investing enough in generating leads
<i>Size and structure of the firm</i>	– Need to adhere to the budget while implementing strategies	
	– Difficult to hire individual personnel for each task	
	– Need resources in terms of finances and employees	
Environmental factors	<i>Environmental uncertainty</i>	– Inadequate size of the marketing team to strategize and implement simultaneously
		– Consider outsourcing to a marketing agency
	<i>Government support</i>	– COVID-19 uncertainty
		– Need for social media due to the lockdown environment
		– Ordering through the website
		– Shift from traditional to digital platforms, including SEO
		– Restricted physical movement to digital campaigns
		– Unpredictable political and government support
<i>Competitive pressure</i>	– Social media campaigns and payments	
	– Political instability	
	– Government policies and financing rates	
	– Taxes and regulation support	
	– Competitors rapid development	
	– Competitive pressure for marketing changes	
	– Social media marketing as a driver of change	
	– Engage in live influencer interactions during promotional events for a competitive advantage	
	– Collaborate with top influencers	
	– Perform a complete makeover of the website and social media platforms	

Source: Authors' own creation

Technological factors – Theme 1

In summary, the adoption of social media technology in SMEs faces three significant technological challenges, elaborated upon as follows: 1) Relative advantage, 2) Compatibility and 3) Complexity.

Relative advantage. Relative advantage relates to skepticism about the benefits of social media usage. Respondents expressed that this relative advantage challenge became apparent as they initially transitioned to using social media and its associated implications. They were uncertain about the skepticism of benefits they could derive from it, leading to hesitation in adopting social media platforms for their businesses. This initial hesitation had long-term consequences. However, the situation changed during the COVID-19 lockdown when people were required to stay at home. It was during this period that they began to utilize social media, and the results were significantly positive. As time progressed, they became more adept at using social media efficiently, thereby creating more value for their businesses. Here are some narratives from respondents illustrating this aspect:

“Since we started using social media and established our presence on various platforms like Facebook, Instagram, and TikTok, we’re receiving more responses than ever before. This has been advantageous for us.”

SMEs have recognized the importance of establishing a presence on various popular social media platforms currently in use. They understand that not everyone checks their email regularly or browses Facebook daily. To effectively connect with their customers from various avenues and expand their businesses, it’s essential to create a presence on platforms like YouTube, Instagram, TikTok and LinkedIn. However, business owners often have concerns about managing all these apps simultaneously. Fortunately, there are content management applications available that serve as a single platform to integrate all social media apps. This approach simplifies the utilization of social media to its full extent, making it more manageable for business owners.

To support these arguments, consider the following quote from one respondent:

“My business flourished after becoming online through proper channels. To make daily engagement on social media more accessible, I downloaded an app that has all the social apps integrated into it so I can manage it all at once. I get notified instantly whenever there is a comment, inquiry, or a message so I am connected with customers throughout the day and ready to serve them.”

Compatibility. Compatibility relates to the existing systems and policies of firms regarding the adoption of social media marketing. Technological innovation within SMEs becomes more feasible when the technology aligns with the organization’s existing systems. However, introducing technological changes into an organization can bring about a unique set of challenges, especially if the firm’s systems and infrastructure are not well prepared and compatible with firm policies. For successful social media adoption, SMEs must have a robust internet connection that can support their various online activities, including daily tasks, internal and external communication, idea exchange, staying updated on the latest trends and accessing news. Respondents emphasized the importance of a reliable internet connection, but they also highlighted the challenge of dealing with unexpected internet outages. Slow or disrupted internet service can lead to both time and financial losses. Conversely, a fast and stable internet connection can accommodate multiple people working online simultaneously. Here are some selected narratives that illustrate these points:

“An unreliable internet connection presented us with a lot of inconveniences whether it's downloading files or uploading photos and videos, updating the website and social media platforms daily, using software, etc.”

“Having a good internet connection now, we work efficiently and save time. Working with a slow connection used to be so frustrating because it cost us money and valuable time.”

Complexity. Complexity is associated with the utilization of social media metrics tools. The COVID-19 pandemic significantly hastened the shift of millions of businesses toward online sales and marketing. Participants in this study observed that as they began adopting social media platforms for marketing purposes, they realized the importance of using specific websites and analytical tools. These tools were crucial for gathering data from various social media channels, helping to make informed marketing decisions and evaluate the effectiveness of marketing campaigns driven by these decisions. However, they found these tools to be quite intricate and difficult to use effectively. This perspective is echoed by a manager who stated:

“Our social media team learns what works and what doesn't work when it comes to content and strategy, but it's not an easy task; it takes experience to extract and understand data.”

Managers are grappling with the complexity of social media technology and processes, and implementing innovation at scale through social media becomes even more challenging without the use of social media analytic metrics to measure performance. One respondent expressed this concern as follows:

“We use multiple tools to understand and analyse traffic and user behavior; it can be complex and requires a certain level of technical knowledge to use effectively.”

Organizational factors – Theme 2

In general, three organizational challenges have impeded the adoption of social media technology in SMEs, including 1) Top management support, 2) Financial constraints and 3) the Size and structure of the firm, as discussed further.

Top management support. Top management support relates to senior management's interest in and support for social media marketing strategies. Participants in the study emphasized that the successful integration of technology and the management of expansion within a firm may be influenced by the age, cultural background, and educational qualifications of senior employees. They highlighted the crucial role senior managers play in facilitating the adoption of social media marketing within SMEs. This is because senior managers, as influential figures within the organization, provide guidance, allocate resources and offer cognitive support necessary for effectively implementing social media marketing strategies (Rahman et al., 2020):

“We face a significant issue with our upper management since they are from the old school. There is a substantial gap between their era and our digital times. We have different mindsets about creativity for social media ideas.”

It is projected that SMEs will be less inclined to embrace social media technology if they receive less support from senior management. According to the following narratives, respondents claimed that some of the most senior executives (older employees) have never shown an interest in their suggestions for social media strategies:

“We present social media strategies, but they reject them because they cannot comprehend today's social media trends and how things work. Getting them approved is the biggest challenge when it comes to social media. We cannot create good content without approval.”

Financial constraints. Financial constraints refer to the availability of sufficient funds for marketing strategies and the development of promotional plans for customers. Without adequate funding, it becomes difficult for any SME to expand and invest (Calli and Clark, 2015). One of the main obstacles small businesses faces is obtaining enough funding for marketing strategies. While some companies are fortunate to attract investors willing to provide capital for new and innovative marketing initiatives, most business owners start their ventures using bootstrap funds or personal loans:

“We don't invest as much in online leads as we should due to budget constraints. It's essential for us to stick to the allocated budget to execute our strategies effectively.”

To generate sales online, firms must let customers know of their existence. They must have a marketing and promotion plan to accomplish that. SMEs mentioned that they have a very limited marketing budget to spend on online marketing, branding, advertising, print media, etc. So cost is a significant factor because otherwise, they cannot afford to run effective paid campaigns, nor can they be fully creative with their ideas for their organic campaigns to work. The following are narratives from selected respondents:

“We spend US \$20 for each lead and depending on how many leads we are targeting. We get a certain budget for the quarter and manage everything else too while staying within that budget such as making TVCs, making animated, static, and website posts, we must pay agency fees too.”

“Cost is a big constraint for us because one cannot freely execute ideas if you must see your budget limit.”

Size and structure of the firm. This factor relates to the challenge of workforce availability based on the organization's size and structure. Small businesses often face resource challenges when adopting social media marketing. Respondents highlighted the need for various specialized roles like media spend managers, graphic designers, content creators, copywriters, content strategists and social media analysts. However, due to budget constraints and limited space in SMEs, hiring dedicated personnel for each role can be challenging. SMEs may not have the organizational structure or financial capacity to expand their workforce. To overcome this hurdle, many SMEs opt for outsourcing. They recognize that effective social media marketing requires a team effort and expertise in various domains. Instead of attempting to build an in-house team, which may not be feasible given their size and resources, they choose to collaborate with external agencies. Outsourcing allows SMEs to access a pool of professionals with the skills needed for successful social media marketing without the burden of hiring and managing full-time employees. This approach aligns with the resource limitations faced by small businesses while still enabling them to harness the power of social media for their growth and marketing strategies.

The above aspect is supported by the following statements from the managers who said:

“To run social media platforms effectively, we needed a proper team for our marketing campaigns, including videographers, graphic designers, animators, and content writers. But sadly, our firm size is very small, so we outsourced this domain to an agency.”

Environmental factors – Theme 3

Regarding the theme of the impact of environmental factors on SMEs' social media adoption, the derivation includes the following subthemes: 1) Environmental uncertainty, 2) Government support and 3) Competitive pressure.

Environmental uncertainty. In the environmental context, the COVID-19 pandemic introduced significant uncertainty that ultimately benefited SMEs by driving substantial

changes in their marketing approaches. Many SMEs experienced a fall in sales during this period due to the nationwide lockdown, as customers were not allowed to be outside. Sales conditions worsened as the COVID-19 uncertainty increased with multiple back-to-back waves. Consequently, SME managers became more aware of social media marketing and its importance in creating a revenue stream without requiring customers to physically visit their premises or closing the operations. They felt a high need to implement social media and utilize it to attract customers through marketing, as well as a channel to ensure sales with minimal human interaction.

The above story is supported by the following statement from a respondent:

“Initially, all interactions were face-to-face. However, when Covid-19 hit and the entire city went into lockdown, we had to make adjustments. We established a section on our website for placing orders and utilized social media ‘sign up now’ links. This enabled customers to place orders directly. Now, we simply call them, verify the order and address, and complete their purchase. It wasn’t the way things were done previously; we used to have to visit customers door to door. But after Covid-19, everything changed.”

During our observations, we noted that marketers face an ongoing challenge to elevate their strategies in a rapidly evolving landscape. The shift in consumer behavior from traditional media sources such as TV, radio and print to digital platforms on smartphones has resulted in a decline in the effectiveness of traditional marketing methods. This change has fueled the growing importance of social media as a powerful tool for reaching wider audiences, boosting sales, and attracting new customers to products and services. The aforementioned observation is supported by the following statement from a respondent:

“Previously, our primary marketing efforts were directed offline, including streamers, billboards, and float activities. However, when the Covid-19 lockdown occurred, offline marketing became ineffective for us. Thus, we shifted our focus to social media and began investing in ad campaigns and improving SEO. This change yielded a significantly more positive response, as people started discovering us through social media channels.”

Due to the special circumstances provided by COVID-19, typical advertising channels and audiences with restricted access are becoming less popular. SMEs have extensively relied on digital marketing techniques during this time to stay current and increase sales. While the shift to digital did not start or end with the epidemic, the absence of physical movement and real-time, in-person media like billboards and newspapers highlighted the potential of social media. A participant summed up the importance of digital marketing as follows:

“Our offline campaigns didn’t yield the same success as our online ones. Covid-19 influenced our business by compelling us to seek out new and effective marketing strategies.”

Government support. Government support, which relates to the political situation and taxes on IT, is crucial for fostering innovation and implementing beneficial regulations to aid SMEs in adopting social media marketing. However, in many emerging economies like Pakistan, government involvement in promoting e-commerce and technology adoption is limited (Muhammad Arsalan Nazir, 2018). Participants unanimously noted that Pakistan’s unpredictable political and governmental situation affects their decisions to engage in digital marketing through social media campaigns to enhance e-commerce. Owner-managers feel that the lack of political stability in Pakistan leads to frequent changes in government policies and financing rates, impacting their business strategies:

“Due to the political instability in our country, our currency has undergone significant devaluation. Consequently, our payments for social media campaigns, which are in US dollars, have risen substantially. We are now spending much more money than before due to these political uncertainties.”

The introduction of new taxes and regulations on information and communication technology by newly elected governments has created challenges for SMEs looking to utilize social media as a marketing platform. High taxes act as a deterrent for small and medium-sized businesses and may eventually lead to closures. A commonly expressed sentiment regarding government support among those interviewed was:

“The marketing agency we've hired for our social media creatives charges high commissions, and in addition to that, there are government taxes to consider.”

Competitive pressure. Competitive pressure positively impacts SMEs by driving them to adopt new technologies. This is because small business owners and managers experience pressure as they become more aware of and follow their competitors' adoption of new technologies because the tech industry is known for its rapid development. When more businesses in an industry start using social media as a marketing tool, an organization may be under competitive pressure and will need to make changes to stay competitive (Mwika *et al.*, 2018). It is a basic driver of change whereby firms compete for business improvements that put pressure on their competitors to do better, pushing firms to add more value at less cost. When rivals all adopt trendy ways of marketing through social media, it becomes a disadvantage not to do the same or even better:

“Influencer marketing is incredibly popular these days. While our competitors were all utilizing influencer marketing, we were not. We're working on boosting our social media presence, but we entered the game late.”

“Our company has a complex approval process from upper management regarding social media campaign ideas. Unlike our competitors who have millions of followers, we don't, so we need to put in extra effort now.”

Falling behind social media trends and missing out on opportunities will require companies to work doubly hard to achieve their goals. Managers highlight the crucial role of competitive pressure with the following statements:

“Recently, we partnered with an influencer to promote our product in their videos, so we're gaining visibility too. Now, we're giving our website and social media platforms a complete makeover.”

Discussion

The qualitative data analysis uncovered significant insights regarding the internal and external factors influencing SMEs when adopting social media marketing, particularly in developing countries like Pakistan and during the COVID-19 pandemic. As businesses increasingly operate remotely and strive to utilize various technologies and platforms for marketing, social media marketing has emerged as a crucial tool for enhancing business viability and improving online customer relationships, among other factors.

This study's conceptual framework (see Figure 2) has been developed after qualitative findings and rigorous analysis of field data, further discussed.

The first theme, *technological factors*, encompasses three challenges within each subtheme: skepticism about the benefits of adopting new technology, compatibility with infrastructure and the complexity of social media metric tools. These findings align with prior research on SME performance and growth. For instance, previous studies (Effendi *et al.*, 2020), (Balakrishnan *et al.*, 2014) and (Wong *et al.*, 2020) utilize the relative advantage factor as a critical determinant of technology adoption due to its fundamental impact on the perceived benefits of adopting new technologies. However, our study unveiled



Source: Authors' own creation

Figure 2. Factors affecting social media marketing adoption by SMEs

a noteworthy observation: owners and managers initially displayed indifference or ignorance regarding the benefits of adopting social media for their marketing efforts, leading to resistance. It was only when the COVID-19 pandemic compelled businesses to go online for survival that numerous SMEs begrudgingly embraced social media marketing. As they gained experience, they began to use it more effectively and witnessed positive outcomes. This underscores the idea that if SMEs recognize the benefits of adopting social media marketing and shed their indecision and uncertainty, it could substantially enhance their business performance. While our findings align with research conducted in similar contexts (Tripopsakul, 2018) and (Dana *et al.*, 2021), it's worth noting that there are exceptions, with some studies conducted in Middle Eastern countries suggesting that relative advantage may not significantly influence social media adoption.

In terms of infrastructure capability, anyone with sufficient internet connectivity can utilize social media platforms like Facebook, Twitter, WhatsApp and Instagram (Sharmilaand and Kavitha, 2022). However, our study shows that SMEs may struggle to use social media and its performance tools due to slow speeds or lack of internet access. An economy's competitiveness is increased by physical infrastructure and fast broadband speeds, fostering a vibrant business climate that supports economic expansion and growth, whereas poor infrastructure hinders productivity and raises expenses for all enterprises, from SMEs to large corporations (Isenberg and Onyemah, 2016). This current study highlights that firms must maintain a reliable internet connection to support their daily online operations effectively. However, in Pakistan, internet stability is often lacking. Frequent technical or power disruptions can significantly hamper routine tasks such as data uploads, internal communication, prompt responses to customer inquiries, trend tracking and campaign management. If a firm's infrastructure is ill-equipped to handle such power or technical outages, it can pose a significant challenge to adopting social media marketing for a thriving business. Slow or unavailable internet can result in both time and financial losses for Pakistani SMEs, acting as a barrier to their adoption of social media, as previously confirmed by (Faqr *et al.*, 2014; Scupola, 2009; Tan *et al.*, 2009; Wresch and Fraser, 2011).

Another challenge identified in our study is the complexity of using social media metric tools for SMEs adopting social media marketing. As firms attempt to adopt social media applications for marketing purposes, they realize the need to use certain websites and software that are complicated to use, track data, and support further marketing decisions and performance measurement. Our findings have specifically revealed that resistance to adopting complex technology is more critical in developing countries such as Pakistan, where people are less skilled and motivated to adopt, negatively influencing technology adoption, whereas the simplicity of use promotes developing countries to adopt new technology and innovation effortlessly (Karim *et al.*, 2021).

The second theme, *organizational factors*, includes three challenges within each sub-theme: top management support, financial constraints and size and structure, revealing how the organizational setting affects SMEs' adoption of social media marketing. The existing literature on top management support (Ahani *et al.*, 2017; Ramdani *et al.*, 2013; Salam *et al.*, 2019) affirms its significant impact on the adoption of social media. However, in the context of Pakistan, this study reveals a lack of support from top management. This disconnect arises from a generation gap between senior executives and the digital era, as well as differing mindsets regarding creativity in social media ideas. Moreover, the study finds that the creation of trendy and creative content is hindered by the need for approval, to which senior management often shows strong reluctance. Interestingly, some of the most senior executives, particularly older employees, have displayed little interest in team suggestions for social media marketing techniques. As senior managers significantly influence their subordinates and encourage adoption, higher levels of top management support can make SMEs more inclined to implement social media. These findings contradict earlier research by (Tajudeen *et al.*, 2018), (Ahmad *et al.*, 2019) and (Abed, 2020), who found that top management support is necessary to adopt social media tools in firms. Financial limitations have the greatest impact on SMEs. However, our research reveals that cost is the biggest constraint for social media marketing adoption in Pakistan because SMEs cannot freely execute ideas when there is a very small budget. Social media plays a significant role in both marketing and advertising plans, essential if a firm wants people to know about their existence, but there is never enough money allocated for extra marketing. Our findings underscore the significant impact of limitations in human and financial resources on the adoption of social media marketing by SMEs, aligning with the research of (Kwadwo *et al.*, 2016). Furthermore, the size and structure of an organization were identified as crucial factors determining its capacity to allocate the necessary resources, including the number of employees, organizational structure, and financial budget, for implementing new technological standards like social media integration. In Pakistan, medium-sized firms, thanks to their adequate size and financial resources, are more inclined to embrace digital marketing through social media channels. However, small businesses are forced to outsource their marketing strategies due to their size and structure constraints. This study's findings support earlier researchers by (Bhattacharya and Wamba, 2015; Qalati, Li, *et al.*, 2021; Ramdani *et al.*, 2013), highlighting that a company's size and structure play pivotal roles in its decision to utilize social media marketing.

The third theme explores the *environmental factors* impacting SMEs' adoption of social media marketing, encompassing three challenges within each sub-theme: the advantageous effect of the COVID-19 pandemic, the beneficial impact of competitive pressure and the hindrances posed by political instability and high government taxes on digital services. Our study uncovers two key components that facilitated the adoption of social media marketing by SMEs, while the third component presented challenges for Pakistani SMEs. Previous research (Salam *et al.*, 2019) underscores the significance of government regulations and

competitive pressure in influencing SMEs' adoption of social media. Competitive pressure emerged as a driving force compelling Pakistani SMEs to expand online, facilitating survival during the COVID-19 pandemic. However, government regulations and political instability acted as obstacles hindering the adoption process. Our findings align with prior research (Dana *et al.*, 2021), indicating that businesses implement changes more promptly under fierce competition. Pakistani businesses shifted from traditional to social media marketing in response to intensified competition. Although governments generally encourage the adoption of new technologies (Ghobakhloo *et al.*, 2011; Lin, 2021; Qalati, Li, *et al.*, 2021), the imposition of high digital taxes in Pakistan has obstructed SMEs from investing in essential technology infrastructure for adopting e-commerce and social media services. Moreover, Pakistan's unstable political environment, marked by riots and protests, negatively impacts SMEs' decisions regarding social media adoption due to increased campaign costs amidst currency devaluation. Our findings resonance (Muhammad Arsalan Nazir, 2018), identifying political instability and ineffective government policies as barriers to digital innovation adoption. Additionally, our study, in line with (Effendi *et al.*, 2020), highlights environmental uncertainty's beneficial impact on social media adoption. The COVID-19 pandemic intensified this uncertainty, prompting SME managers to explore social media marketing amidst worsening sales conditions. During this period, firms relied heavily on social media channels for marketing and order-taking to boost sales and maintain credibility.

Conclusions

The study investigated factors influencing social media marketing adoption by SMEs in Pakistan within the TOE framework, analyzing both barriers and drivers. Qualitative data from semistructured interviews with SME owners and managers in major Pakistani cities were thematically analyzed. The key finding is that SMEs can adopt social media as a valuable marketing tool, contingent on effectively addressing internal organizational challenges. Additionally, the study highlights the crucial role of external support from national stakeholders, such as governments, financial institutions, and technological organizations, in providing SMEs with necessary resources and a conducive environment for successful social media marketing adoption in the near future, when SMEs are prepared for digital change. In conclusion, fostering collaboration between SMEs and external stakeholders is imperative to navigate the challenges and seize the opportunities presented by social media marketing adoption, ensuring sustainable growth and competitiveness in the evolving digital landscape of Pakistan.

Contributions

The research contributes to the academic literature on social media marketing adoption by SMEs, particularly within emerging economies, enriching theoretical understanding of adoption processes and factors. The study fills gaps in existing knowledge and lays a foundation for future research endeavors in this domain.

From a theoretical perspective, this study contributed by identifying challenges within the TOE framework developed by Tornatzky and Fleischer (1990) hindering SMEs in adopting social media for marketing, while also highlighting drivers, especially during the COVID-19 pandemic. Thematic analysis of interview data organizes findings into themes and sub-themes within the TOE framework.

In the realm of technological factors, research conducted in Middle Eastern countries, such as studies by AlSharji *et al.* (2018) and Trawnih *et al.* (2021), found that relative advantage did not demonstrate a significant correlation with social media adoption. Our

study identifies a primary obstacle to adopting social media marketing: owners and managers have limited awareness of its benefits. However, during the country's lockdown, businesses began recognizing its potential and gradually adopted it. Moreover, firms in Pakistan often face challenges due to unreliable internet connections that hinder essential online activities. Furthermore, the complexity of social media metric tools required for effective marketing campaigns and decision-making presents another significant barrier.

This study addresses the gap in existing literature (Abed, 2020; Effendi *et al.*, 2020) regarding organizational factors, such as financial limitations and the influence of senior management (owners and managers), in executing social media marketing strategies, which are crucial for social media adoption. Our study contributes by suggesting that the more interested top management is in social media practices, the higher the chances of adopting social media marketing as a digital tool. Additionally, medium-sized firms, due to their adequate size and financial resources, are more inclined to embrace digital marketing through social media channels than smaller firms and therefore rely more on outsourcing marketing activities.

Within the environmental factors, this research sheds light on Pakistan's highly unstable political environment, characterized by frequent and violent protests, which significantly disrupt day-to-day marketing practices of SMEs. This instability poses a considerable challenge to adopting social media marketing strategies (Al-Okaily *et al.*, 2020; Qalati *et al.*, 2022). However, competitive pressure has played a role as a driver for SMEs to adopt social media marketing strategies to sustain themselves in the Pakistani market. COVID-19, as an external environmental challenge, acted as a driver motivating SMEs to adopt social media platforms and market and sell online instead of shutting down operations.

Based on the TOE framework, in conclusion, this study contributes by revealing that if all factors are adequately considered, SMEs can transition from traditional marketing methods and consider social media as a digital marketing method to increase marketing performance, profitability, and gain a competitive advantage over competitors. The TOE framework (Tornatzky and Fleischer, 1990) provides a structured lens for analyzing social media marketing adoption by SMEs, integrating technological, organizational, and environmental factors for a comprehensive examination of multifaceted influences on decisions related to social media adoption.

Implications

In terms of implications, the study suggests that SMEs could potentially enhance their business performance by recognizing the benefits of adopting social media marketing. Understanding the various factors affecting their adoption of social media marketing can help SMEs assess their readiness and strategize more effectively. Senior management (owners and managers) should consider investing in new marketing technologies to enhance product promotion and reach a broader audience. However, this depends on the availability of adequate funding for SMEs to upgrade their traditional marketing methods.

Insights from the analysis can guide decision-making processes related to investments in social media marketing tools, training, and human resources. By understanding organizational and environmental factors, SMEs can adapt their strategies to better align with market trends and customer preferences.

The study also underscores challenges specific to Pakistan, such as inadequate government regulations and a politically unstable environment. Government bodies responsible for supporting SMEs can utilize these findings to design and implement more targeted programs aimed at promoting digitalization and social media adoption. This analysis can help allocate resources and funding to initiatives addressing specific barriers

identified in the study, such as technological infrastructure or digital skills training. Addressing these issues could encourage SMEs to harness social media and e-commerce for revenue generation.

Given the increasing importance of social media marketing, marketers and decision-makers should focus on addressing challenges and leveraging opportunities identified in this study to enhance their strategies and outcomes. Insights from the analysis can inform the development of policies and regulations around social media usage for businesses, especially SMEs. Understanding the factors influencing SME adoption can help policymakers create more targeted and effective support mechanisms or incentives to encourage broader adoption of social media marketing among SMEs.

Academics can use these insights to develop theoretical frameworks or models that enhance the understanding of technology adoption in organizational contexts. This study can inspire further research into specific aspects of social media adoption within SMEs, such as the role of leadership, cultural influences, or industry-specific dynamics.

Limitations and future research directions

The study on factors influencing SME adoption of social media marketing in Pakistan through a TOE framework presents significant contributions but also faces certain limitations. One limitation is the potential lack of generalizability due to the focus on SMEs in Pakistan, which may have unique cultural, economic, and regulatory contexts compared to SMEs in other regions. Additionally, the study's reliance on a TOE framework might overlook other relevant factors that could influence SME adoption of social media marketing. Future research could address these limitations by conducting comparative studies across different countries to enhance generalizability and exploring additional theoretical frameworks or integrating multiple frameworks to provide a more comprehensive understanding of SME adoption behaviors.

It's important to note that this study focused solely on SMEs in two major financial cities in Pakistan with three industries. Future research could broaden the scope by including SMEs from rural areas and different sectors to explore the adoption drivers of social media marketing in diverse contexts. Furthermore, longitudinal studies could offer insights into the dynamic nature of social media adoption among SMEs over time, considering the evolving technological landscape and changing market conditions.

Quantitative research methods with larger samples could provide deeper insights into the specific challenges and opportunities faced by SMEs in adopting social media marketing strategies. Overall, addressing these limitations and pursuing avenues for further research could enhance the robustness and applicability of findings in informing strategies to support SMEs in leveraging social media for marketing purposes in diverse contexts.

References

- Aalberg, T., Strabac, Z. and Brekken, T. (2012), "Research design", *How Media Inform Democracy: A Comparative Approach*, Routledge, London, pp. 15-30, doi: [10.4324/9780203803448-9](https://doi.org/10.4324/9780203803448-9).
- Abed, S.S. (2020), "Social commerce adoption using TOE framework: an empirical investigation of Saudi Arabian SMEs", *International Journal of Information Management*, Vol. 53 No. March, p. 102118, doi: [10.1016/j.ijinfomgt.2020.102118](https://doi.org/10.1016/j.ijinfomgt.2020.102118).
- Ahani, A., Rahim, N.Z.A. and Nilashi, M. (2017), "Forecasting social CRM adoption in SMEs: a combined SEM-neural network method", *Computers in Human Behavior*, Vol. 75, pp. 560-578, doi: [10.1016/j.chb.2017.05.032](https://doi.org/10.1016/j.chb.2017.05.032).

- Ahmad, S.Z., Abu Bakar, A.R. and Ahmad, N. (2019), "Social media adoption and its impact on firm performance: the case of the UAE", *International Journal of Entrepreneurial Behavior and Research*, Vol. 25 No. 1, pp. 84-111, doi: [10.1108/IJEBR-08-2017-0299](https://doi.org/10.1108/IJEBR-08-2017-0299).
- Ainin, S., Parveen, F., Moghavvemi, S., Jaafar, N.I. and Shuib, N.L.M. (2015), "Factors influencing the use of social media by SMEs and its performance outcomes", *Industrial Management and Data Systems*, Vol. 115 No. 3, pp. 570-588, doi: [10.1108/IMDS-07-2014-0205](https://doi.org/10.1108/IMDS-07-2014-0205).
- Al Bakri, A.A. (2017), "The impact of social media adoption on competitive advantage in the small and medium enterprises", *International Journal of Business Innovation and Research*, Vol. 13 No. 2, pp. 255-269, doi: [10.1504/IJBIR.2017.083542](https://doi.org/10.1504/IJBIR.2017.083542).
- Alkateeb, M.A. and Abdalla, R.A. (2021), "Social media adoption and its impact on SMES performance a case study of Palestine", *Studies of Applied Economics*, Vol. 39 No. 7, doi: [10.25115/eea.v39i7.4872](https://doi.org/10.25115/eea.v39i7.4872).
- Al-Okaily, M., Alqudah, H., Matar, A., Lutfi, A. and Taamneh, A. (2020), "Dataset on the acceptance of e-learning system among universities students' under the COVID-19 pandemic conditions", *Data in Brief*, Vol. 32, pp. 1-4, doi: [10.1016/j.dib.2020.106176](https://doi.org/10.1016/j.dib.2020.106176).
- Alshamaileh, Y.Y. (2013), "An empirical investigation of factors affecting cloud computing adoption among SMES in the North East of England", PHD Thesis.
- AlSharji, A., Ahmad, S.Z. and Abu Bakar, A.R. (2018), "Understanding social media adoption in SMEs: Empirical evidence from the United Arab Emirates", *Journal of Entrepreneurship in Emerging Economies*, Vol. 10 No. 2, pp. 302-328, doi: [10.1108/JEEE-08-2017-0058](https://doi.org/10.1108/JEEE-08-2017-0058).
- Appel, G., Grewal, L., Hadi, R. and Stephen, A.T. (2020), "The future of social media in marketing", *Journal of the Academy of Marketing Science*, Vol. 48 No. 1, pp. 79-95, doi: [10.1007/s11747-019-00695-1](https://doi.org/10.1007/s11747-019-00695-1).
- Bala, M. and Ver, A D. (2018), "A critical review of digital", *International Journal of Management*, Vol. 8 No. 10, pp. 321-339. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3545505
- Balakrishnan, B.K.P.D., Dahnli, M.I. and Yi, W.J. (2014), "The impact of social media marketing medium toward purchase intention and brand loyalty among generation Y", *Procedia - Social and Behavioral Sciences*, Vol. 148, pp. 177-185, doi: [10.1016/j.sbspro.2014.07.032](https://doi.org/10.1016/j.sbspro.2014.07.032).
- Bhattacharya, M. and Wamba, S.F. (2015), "A conceptual framework of RFID adoption in retail using TOE framework", *International Journal of Technology Diffusion*, Vol. 6 No. 1, pp. 1-32, doi: [10.4018/ijtd.2015010101](https://doi.org/10.4018/ijtd.2015010101).
- Bocconcelli, R., Cioppi, M., Fortezza, F., Francioni, B., Pagano, A., Savelli, E. and Splendiani, S. (2018), "SMEs and marketing: a systematic literature review", *International Journal of Management Reviews*, Vol. 20 No. 2, pp. 227-254, doi: [10.1111/ijmr.12128](https://doi.org/10.1111/ijmr.12128).
- Bogea, F. and Brito, E.P.Z. (2018), "Determinants of social media adoption by large companies", *Journal of Technology Management and Innovation*, Vol. 13 No. 1, pp. 11-18, doi: [10.4067/S0718-27242018000100011](https://doi.org/10.4067/S0718-27242018000100011).
- Borgman, H.P., Bahli, B., Heier, H. and Schewski, F. (2013), "Cloudrise: Exploring cloud computing adoption and governance with the TOE framework", *Proceedings of the annual HI International Conference on System Sciences*, pp. 4425-4435, doi: [10.1109/HICSS.2013.132](https://doi.org/10.1109/HICSS.2013.132)
- Braun, V. and Clarke, V. (2006), "Using thematic analysis in psychology", *Qualitative Research in Psychology*, Vol. 3 No. 2, pp. 77-101, doi: [10.1191/1478088706qp0630a](https://doi.org/10.1191/1478088706qp0630a).
- Calli, L. and Clark, L. (2015), "Overcoming SME barriers to gaining competitive advantage through social media", *Proceedings of the 2nd European Conference on Social Media*, July, 59.
- Creswell, J. (2007), "Data analysis and representation", in Creswell, J. (Ed.), *Qualitative Inquiry and Research Design: Choosing among Five Approaches*, 2nd ed., Sage, Thousand Oaks, CA, pp. 179-212.
- Dana, L.P., Tajpour, M., Salamzadeh, A., Hosseini, E. and Zolfaghari, M. (2021), "The impact of entrepreneurial education on technology-based enterprises development: the mediating role of motivation", *Administrative Sciences*, Vol. 11 No. 4, doi: [10.3390/admsci11040105](https://doi.org/10.3390/admsci11040105).

- Derham, R., Cragg, P. and Morrish, S. (2011), "Creating value: an SME and social media", *PACIS 2011 – 15th Pacific Asia Conference on Information Systems: Quality Research in Pacific*.
- Desai, D.M.V. (2019), "Digital marketing: a review", *International Journal of Trend in Scientific Research and Development*, Vol. Special Issue No. Special Issue-FIIIIPM2019, pp. 196-200, doi: [10.31142/ijtsrd23100](https://doi.org/10.31142/ijtsrd23100).
- Dubbelink, S.I., Soria, C.H. and Constantinides, E. (2021), "Social media marketing as a branding strategy in extraordinary times: Lessons from the covid-19 pandemic", *Sustainability*, Vol. 13 No. 18, doi: [10.3390/su131810310](https://doi.org/10.3390/su131810310).
- Effendi, M.I., Sugandini, D. and Istanto, Y. (2020), "Social media adoption in SMEs impacted by COVID-19: the TOE model", *The Journal of Asian Finance, Economics and Business*, Vol. 7 No. 11, pp. 915-925, doi: [10.13106/jafeb.2020.vol7.no11.915](https://doi.org/10.13106/jafeb.2020.vol7.no11.915).
- Faqir, R.S.A., Sharari, S. and Salameh, S.A. (2014), "Cybercrimes and technical issues under the Jordanian information system crimes law", *Journal of Politics and Law*, Vol. 7 No. 2, pp. 94-106, doi: [10.5539/jpl.v7n2p94](https://doi.org/10.5539/jpl.v7n2p94).
- Ghobakhloo, M., Sadeh Sabouri, M., Sai Hong, T. and Zulkifli, N. (2011), "Information technology adoption in small and medium-sized enterprises; an appraisal of two decades literature", *Interdisciplinary Journal of Research in Business*, Vol. 1 No. 7, pp. 53-80.
- Guba, E.G. and Lincoln, Y.S. (1994), "Competing paradigms in qualitative research", in Denzin, N.K. and Lincoln, Y.S. (Eds), *Handbook of Qualitative Research*, Sage, Thousand Oaks, CA, pp. 105-117.
- Hennink, M., Kaiser, B. and Marconi, V.C. (2017), "Code saturation versus meaning saturation: How many interviews are enough?", *Qualitative Health Research*, Vol. 27 No. 4, pp. 591-608.
- Isenberg, D. and Onyemah, V. (2016), "Fostering scaleup ecosystems for regional economic growth (innovations case narrative : Manizales-mas and scale up Milwaukee)", *Innovations: Technology, Governance, Globalization*, Vol. 11 Nos 1/2, pp. 60-79, doi: [10.1162/inov_a_00248](https://doi.org/10.1162/inov_a_00248).
- Jenkins, H. (2009), "A 'business opportunity' model of corporate social responsibility for small- and medium-sized enterprises", *Business Ethics: A European Review*, Vol. 18 No. 1, pp. 21-36, doi: [10.1111/j.1467-8608.2009.01546.x](https://doi.org/10.1111/j.1467-8608.2009.01546.x).
- Karim, M.W., Chowdhury, M.A.M., Al Masud, M.A. and Arifuzzaman, M. (2021), "Analysis of factors influencing impulse buying behavior towards e-tailing sites", *Contemporary Management Research*, Vol. 17 No. 2, pp. 97-126, doi: [10.7903/CMR.20457](https://doi.org/10.7903/CMR.20457).
- Khaskheli, G.A. (2020), "A mediation analysis of social media marketing between the relationship of entrepreneurial marketing strategies and the performance of small and medium enterprises in Pakistan", *Indian Journal of Science and Technology*, Vol. 13 No. 29, pp. 2024-2034, doi: [10.17485/ijst/v13i29.1035](https://doi.org/10.17485/ijst/v13i29.1035).
- King, N. (2004), "Using templates in the thematic analysis of text", in Cassell, C. and Symon, G. (Eds), *Essential Guide to Qualitative Methods in Organizational Research*, Sage, London, UK, pp. 257-270.
- Klein, V.B. and Todesco, J.L. (2021), "COVID-19 crisis and SMEs responses: the role of digital transformation", *Knowledge and Process Management*, Vol. 28 No. 2, pp. 117-133, doi: [10.1002/kpm.1660](https://doi.org/10.1002/kpm.1660).
- Kotler, P. and Armstrong, G. (2011), *Principles of Marketing*, (14th ed.), Prentice Hall.
- Kwadwo, M., Martinson, A., Evans, T. and Esther, A. (2016), "Barriers to E-Commerce adoption and implementation strategy: empirical review of small and medium-sized enterprises in Ghana", *British Journal of Economics, Management and Trade*, Vol. 13 No. 1, pp. 1-13, doi: [10.9734/bjemt/2016/25177](https://doi.org/10.9734/bjemt/2016/25177).
- Lee, J. and Hong, I.B. (2016), "Predicting positive user responses to social media advertising: the roles of emotional appeal, informativeness, and creativity", *International Journal of Information Management*, Vol. 36 No. 3, pp. 360-373, doi: [10.1016/j.ijinfomgt.2016.01.001](https://doi.org/10.1016/j.ijinfomgt.2016.01.001).

- Lin, C.C. (2021), "Investigating complimentary e-marketing strategy for small-and medium-sized enterprises at growth stage in Taiwan", *Information*, Vol. 12 No. 9, doi: [10.3390/info12090380](https://doi.org/10.3390/info12090380).
- Lincoln, Y. and Guba, E.G. (1985), *Naturalistic Inquiry*, Sage, Newbury Park, CA.
- Mason, A.N., Narcurm, J. and Mason, K. (2021), "Social media marketing gains importance after covid-19", *Cogent Business and Management*, Vol. 8 No. 1, doi: [10.1080/23311975.2020.1870797](https://doi.org/10.1080/23311975.2020.1870797).
- Muhammad Arsalan Nazir, X.Z. (2018), "<Contribution700.Pdf>", British Academy of Management Conference September.
- Mwika, D., Banda, A., Christopher, C., Kunda, D. and Chembe, C. (2018), "The impact of globalization on SMES in emerging economies: a case study of Zambia digital identity modelling for digital financial services in Zambia view project STACE framework", *International Journal of Business and Social Science*, Vol. 9 No. 3, pp. 1-10.
- Namankani, H., Moxham, C. and Tickle, M. (2016), "A conceptual review of social media adoption in SMEs", Lecture Notes in Computer Science (Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 9844 LNCS, pp. 240-250, doi: [10.1007/978-3-319-45234-0_22](https://doi.org/10.1007/978-3-319-45234-0_22)
- Nuseir, M.T. (2018), "Digital media impact on SMES performance in the UAE Mohammed T Nuseir", Al Ain University of Science and Technology, Vol. 24 No. 2.
- Obrenovic, B., Du, J., Godinic, D., Tsoy, D., Khan, M.A.S. and Jakhongirov, I. (2020), "Sustaining enterprise operations and productivity during the COVID-19 pandemic: 'enterprise effectiveness and sustainability model'", *Sustainability (Switzerland)*, Vol. 12 No. 15, pp. 1-27, doi: [10.3390/su12155981](https://doi.org/10.3390/su12155981).
- Odoom, R., Anning-Dorson, T. and Acheampong, G. (2017), "Antecedents of social media usage and performance benefits in small- and medium-sized enterprises (SMEs)", *Journal of Enterprise Information Management*, Vol. 30 No. 3, pp. 383-399, doi: [10.1108/JEIM-04-2016-0088](https://doi.org/10.1108/JEIM-04-2016-0088).
- Ozuem, W., Willis, M. and Howell, K. (2022), "Thematic analysis without paradox: sensemaking and context", *Qualitative Market Research: An International Journal*, Vol. 25 No. 1, pp. 143-157.
- Pateli, A., Mylonas, N. and Spyrou, A. (2020), "Organizational adoption of social media in the hospitality industry: an integrated approach based on DIT and TOE frameworks", *Sustainability (Switzerland)*, Vol. 12 No. 17, doi: [10.3390/su12177132](https://doi.org/10.3390/su12177132).
- Potluri, R.M. and Vajjhala, N.R. (2018), "A study on application of web 3.0 technologies in small and medium enterprises of India", *The Journal of Asian Finance, Economics and Business*, Vol. 5 No. 2, pp. 73-79, doi: [10.13106/jafeb.2018.vol5.no2.73](https://doi.org/10.13106/jafeb.2018.vol5.no2.73).
- Qalati, S.A., Li, W., Ahmed, N., Mirani, M.A. and Khan, A. (2021), "Examining the factors affecting SME performance: the mediating role of social media adoption", *Sustainability (Switzerland)*, Vol. 13 No. 1, pp. 1-24, doi: [10.3390/su13010075](https://doi.org/10.3390/su13010075).
- Qalati, S.A., Ostic, D., Sulaiman, M.A.B.A., Gopang, A.A. and Khan, A. (2022), "Social media and SMEs' performance in developing countries: effects of technological-organizational-environmental factors on the adoption of social media", *Sage Open*, Vol. 12 No. 2, doi: [10.1177/21582440221094594](https://doi.org/10.1177/21582440221094594).
- Qalati, S.A., Yuan, L.W., Khan, M.A.S. and Anwar, F. (2021), "A mediated model on the adoption of social media and SMEs' performance in developing countries", *Technology in Society*, Vol. 64, p. 101513, doi: [10.1016/j.techsoc.2020.101513](https://doi.org/10.1016/j.techsoc.2020.101513).
- Rahman, R.U., Shah, S.M.A., El-Gohary, H., Abbas, M., Khalil, S.H., Altheeb, S.A. and Sultan, F. (2020), "Social media adoption and financial sustainability: learned lessons from developing countries", *Sustainability (Switzerland)*, Vol. 12 No. 24, pp. 1-26, doi: [10.3390/su122410616](https://doi.org/10.3390/su122410616).

- Ramdani, B., Chevers, D. and Williams, D.A. (2013), "SMEs' adoption of enterprise applications: a technology-organisation-environment model", *Journal of Small Business and Enterprise Development*, Vol. 20 No. 4, pp. 735-753, doi: [10.1108/JSBED-12-2011-0035](https://doi.org/10.1108/JSBED-12-2011-0035).
- Salam, S., Shams, A. and Hoque, M.M. (2019), "The role of social media and effect of relationship marketing on SME performance in Bangladesh: Multi-Group CFA", *Asian People Journal (APJ)*, Vol. 2 No. 1, pp. 12-31, available at: www.uniszajournals.com/apj
- Saunders, M., Lewis, P. and Thornhill, A. (2019a), "For business students fifth edition revisar".
- Saunders, M.N.K., Thornhill, A. and Lewis, P. (2019b), "Negotiating access and research ethics", *Research Methods for Business Students*, pp. 232-291.
- Scupola, A. (2003), "The adoption of internet commerce by SMES in the South of Italy: an environmental, technological and organizational perspective", *Journal of Global Information Technology Management*, Vol. 6 No. 1, pp. 52-71, doi: [10.1080/1097198X.2003.10856343](https://doi.org/10.1080/1097198X.2003.10856343).
- Scupola, A. (2009), "SMEs' e-commerce adoption: perspectives from Denmark and Australia", *Journal of Enterprise Information Management*, Vol. 22 Nos 1/2, pp. 152-166, doi: [10.1108/17410390910932803](https://doi.org/10.1108/17410390910932803).
- Sharmilaand, R. and Kavitha, M. (2022), "A study on influence of social media marketing on customer engagement", Jmraonline.Com, November, available at: www.jmraonline.com/uploads/121/5019_pdf.pdf
- Tajudeen, F.P., Jaafar, N.I. and Ainin, S. (2018), "Understanding the impact of social media usage among organizations", *Information and Management*, Vol. 55 No. 3, pp. 308-321, doi: [10.1016/j.im.2017.08.004](https://doi.org/10.1016/j.im.2017.08.004).
- Talukder, M., Quazi, A. and Djatikusumo, D. (2013), "Impact of social influence on individuals' adoption of social networks in smes", *Journal of Computer Science*, Vol. 9 No. 12, pp. 1686-1694, doi: [10.3844/jcsp.2013.1686.1694](https://doi.org/10.3844/jcsp.2013.1686.1694).
- Tan, K.S., Chong, S.C., Lin, B. and Eze, U.C. (2009), "Internet-based ICT adoption: Evidence from malaysian SMEs", *Industrial Management and Data Systems*, Vol. 109 No. 2, pp. 224-244, doi: [10.1108/02635570910930118](https://doi.org/10.1108/02635570910930118).
- Thorne, S. (2000), "Data analysis in qualitative research", *Evidence Based Nursing*, Vol. 3 No. 3, pp. 68-70, doi: [10.1136/ebn.3.3.68](https://doi.org/10.1136/ebn.3.3.68).
- Tobin, G.A. and Begley, C.M. (2004), "Methodological rigour within a qualitative framework", *Journal of Advanced Nursing*, Vol. 48 No. 4, pp. 388-396.
- Tong, A., Sainsbury, P. and Craig, J. (2007), "Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups", *International Journal for Quality in Health Care*, Vol. 19 No. 6, pp. 349-357, doi: [10.1093/intqhc/mzm042](https://doi.org/10.1093/intqhc/mzm042).
- Tornatzky, L. and Fleischer, M. (1990), *The Process of Technology Innovation*, Lexington Books, Lexington, MA.
- Trawnih, A., Yaseen, H., Al-Adwan, A.S., Alsoud, A.R. and Jaber, O.A. (2021), "Factors influencing social media adoption among SMES during covid-19 crisis", *Journal of Management Information and Decision Sciences*, Vol. 24 No. 6, pp. 1-18.
- Tripopsakul, S. (2018), "Social media adoption as a business platform: an integrated tam-toe framework", *Polish Journal of Management Studies*, Vol. 18 No. 2, pp. 350-362, doi: [10.17512/pjms.2018.18.2.28](https://doi.org/10.17512/pjms.2018.18.2.28).
- Voramontri, D. and Klieb, L. (2019), "Impact of social media on consumer behaviour", *International Journal of Information and Decision Sciences*, Vol. 11 No. 3, p. 1, doi: [10.1504/ijids.2019.10014191](https://doi.org/10.1504/ijids.2019.10014191).
- Wong, L.W., Leong, L.Y., Hew, J.J., Tan, G.W.H. and Ooi, K.B. (2020), "Time to seize the digital evolution: Adoption of blockchain in operations and supply chain management among Malaysian SMEs", *International Journal of Information Management*, Vol. 52 No. March, p. 101997, doi: [10.1016/j.ijinfomgt.2019.08.005](https://doi.org/10.1016/j.ijinfomgt.2019.08.005).

Wresch, W. and Fraser, S. (2011), "Persistent barriers to E-commerce in developing countries", *Journal of Global Information Management*, Vol. 19 No. 3, pp. 30-44, doi: [10.4018/jgim.2011070102](https://doi.org/10.4018/jgim.2011070102).

Yin, C. and McKay, A. (2018), "Introduction to modeling and simulation techniques", *ISCIIA and ITCA 2018 - 8th International Symposium on Computational Intelligence and Industrial Applications and 12th China-Japan International Workshop on Information Technology and Control Applications*.

Further reading

Braun, V., Clarke, V., Braun, V. and Clarke, V. (2017), "Applied qualitative research in psychology", *Applied Qualitative Research in Psychology*, Vol. 0887 No. 2006, doi: [10.1057/978-1-137-35913-1](https://doi.org/10.1057/978-1-137-35913-1).

Matikiti, R., Mpinganjira, M. and Roberts-Lombard, M. (2018), "Application of the technology acceptance model and the technology–organisation–environment model to examine social media marketing use in the South African tourism industry", *SA Journal of Information Management*, Vol. 20 No. 1, pp. 1-12, doi: [10.4102/sajim.v20i1.790](https://doi.org/10.4102/sajim.v20i1.790).

Corresponding author

Muhammad Arsalan Nazir can be contacted at: m.nazir@greenwich.ac.uk