Research Article

The adoption of social media tools for enhancing small and medium enterprises′ performance: A synthesis of innovation of diffusion and technology-organisation-environment frameworks

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This study examines using social media to enhance business performance within the Harare Metropolitan Province of Zimbabwe. The research integrates the innovation of diffusion and technology-organization-environment frameworks to explore this phenomenon. A cross-sectional research design facilitated data acquisition via an online questionnaire administered to 938 participants operating business entities within the Harare region. SmartPLS 4.0 software enabled the analysis of data and the application of the partial least squares approach to identify the interrelationships among the measurement components. The data analysis and testing of the proposed hypotheses used Structural Equation Modeling (SEM). The findings indicate that integrating theoretical frameworks provided the determinants that insightfully examined the acceptance and utilisation of social media. The technological construct items of relative advantage, presence attributes and visibility, and interconnections and interactivity are essential factors to consider. Organizational features of top management support and entrepreneurial orientation in contexts prioritising innovativeness positively influenced social media adoption. Thus, senior managerial support as an integral component has been deemed crucial in determining a company′s attitude towards adopting social media, mainly where the inseparable roles are relatively high in smaller business entities. This managerial support is especially true when leveraging social media to enhance marketing capabilities, responsiveness and improve decision-making processes. The trait of innovativeness, associated with the entrepreneurial orientation of small and medium-sized

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enterprises (SMEs), has been primarily examined within the diffusion of innovation theory. The organisational agility and renewal process is a critical factor influencing how SMEs adopt and implement sustainability innovations. Environmental measures refer to external factors that exert pressure and create uncertainty, particularly concerning the level of competition. The findings of our empirical study indicate that external pressure and environmental uncertainty are key antecedent factors that significantly influence the adoption of social media by SMEs operating in the multi-industrial urban centre district of Harare, with a relatively functioning information technologies communication infrastructure in Zimbabwe.

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1. Introduction

Since the onset of COVID-19 in 2019, businesses have been ramping up their use of information communication technologies (ICTs) to connect with customers. It has been amazing to see companies of all sizes adapting to the new normal. Business organisations have access to various ICT-based platforms to support their strategies. These platforms enable businesses to comprehend their customers better, meet their demands, provide superior customer service, and improve performance. Under lockdowns inspired by Covid-19, it became evident that the survival and performance of small, medium, and large businesses depended on a constant connection to their suppliers and customers. Social media (SM) has emerged as one of the most efficient and cost-effective business communication channels. Its usage continues to surpass pre-Covid-19 levels imaginably.

Kaplan & Haenlein (2010) [1] describe social media as a beautiful set of applications that enable users to create and share content using the latest Web 2.0 technology. Web 2.0 technologies are great for organisations to interact and collaborate with their market. These technologies include blogs, social networks, online forums, calendars, wikis, podcasts, messaging apps, file-sharing services, and tagging. Social media are fantastic Web 2.0 services that empower users to actively participate in creating, rating, collaborating, and distributing Internet content while customising Internet applications (Vickery et al., 2007 [2]). Creating an interactive internet through the latest Web 2.0 dynamics is a valuable development that relies on the contributions of its users. The rise of user-generated content (UGC) and social media

platforms is an excellent example of the interactive nature of the internet (Ho & Wang, 2020[3]; Werthner et al., 2004 [4]). Web 2.0 applications have significantly changed how service-based firms like retailers and professionals create customer value. They now can provide their customers with online access to information regarding admission and evaluation of their products/services, which is a great way to enhance their overall experience (Chatzigeorgiou et al., 2020 [5]).

Chi (2011) [6] highlights that social media offers a unique opportunity for personalised interaction and social collaboration between brands and customers, which can be valuable in building solid relationships. If a website requires user profiles to restrict access, it means that it has the potential to be a social network. The subject matter and approaches will allow users to connect and share their thoughts on each other's pages. Users can subscribe to virtual communities based on shared interests such as politics, hobbies, or fashion. It is excellent to know that these elementary functions are essential for a website to meet the requirements of a social network website (Uri & Paquette, 2013) [7].

Additionally, this will also help in product/service innovation. Chikandiwa et al. (2013) [8] highlight social media as a powerful tool that allows marketers to engage, cooperate, connect, and leverage collective intelligence for marketing objectives. Social media combines principles and marketing communication elements to create strong and enduring connections. Social media is an exciting and innovative way for businesses of all sizes to market services, goods, concepts, and information through virtual platforms. Social media has become an integral part of most firms' marketing strategies. In particular, small and medium enterprises (SMEs) with limited resources and capabilities can benefit by applying social media technologies.

Recently, SME enterprises have embraced information communication technology innovations and are gradually transitioning towards technology-driven management (Inversini et al., 2014 [9]). In the early years of Web 2.0 technology evolution, service-based industrial enterprises made some progress in adopting social media (Tajvidi et al., 2017 [10]). This trend was because we were being cautious and considering potential risks. It is excellent that more SME companies recognise the importance of using Web 2.0 technologies, mainly social media. This innovation adoption will help them reduce operational costs and improve sales, customer relationships, increasing brand loyalty within the community.

There are several social media platforms, but studies indicate Facebook is the leading one in the world. Abed, Dwivedi and Williams (2015)[11] argue that in 2016, for example, Facebook had more than 1.59 billion monthly active users, and it was estimated that more than 1 million Small and Medium

Enterprises used Facebook to advertise their business. SMEs use other popular social media platforms: YouTube, Twitter, WhatsApp, LinkedIn, Instagram, Google+ and Tumblr. In Zimbabwe, the population is estimated by 2022 to be just above 15 million, with an Internet penetration rate of 55.7 per cent and growth of 16,700 per cent between 2000 and 2021, with Facebook accounting for 1,303,000 of the users (InternetWordStats, 2023)[12].

The usage of social media by businesses (e.g., Facebook, WhatsApp, Twitter, and so on) has an impact on consumer interactions, information accessibility, and marketing (Ainin et al., 2015 [13]). SM significantly impacts organisations in the digital world when it comes to answering client queries and developing customer interactions. We leverage the work of Ringle et al. (2015[14]) to elaborate on Rogers's (2003[15]) claim that SM is a collection of Web 2.0-based internet apps. Blogs, forums, photo and video sharing, social networking sites, product or service evaluations, online communities, and other tools enable businesses to develop and distribute user-generated content. As a result, Becker et al. (2012 [16]) advise that SMEs use SM as a linked collection of strategic resources to achieve superior performance.

Social media produce enormous real-time information that helps companies learn more about their customers and competitors through data mining. Therefore, social media enhances competition (Chundu et al., 2022) [17]. Although social media can potentially impact many aspects of businesses, few studies have addressed the influence of social media on the context of organisations (Tajvidi et al., 2017 [10]; Becker et al., 2012[16]). Several challenges make it difficult for SMEs in developing countries to adopt ICTs. Moodley (2019) [18] and Mutula and Brakel (2006) [19] have identified several challenges that hinder the adoption and use of information and communication technologies (ICTs). These challenges include high costs associated with accessing telecommunications, inadequate government policies towards ICTs, reliance on outdated technologies, underutilisation of existing technologies, limited indigenous technological capacity, low levels of digital literacy, insufficient skilled and trained human resources, inadequate communication infrastructure, lack of awareness of the benefits of ICTs, high costs of internet connectivity, expensive ICT equipment, and resistance to change. The environmental context of an organisation pertains to the external factors that affect its operations, including the industry structure, competition, government regulations and incentives, and external suppliers. This position has support from various scholars such as Cao and Chen (2019)[20], Zhu et al. (2006)[21], Rogers (2003)[15], Tornatzky and Fleisher (1990)[22], and Pookulangara and Koesler (2011)[23]. Innovation adoption tends to be more prevalent in emerging industries than established or declining industries due to players' need to

innovate to maintain a competitive advantage. The adoption of technology in SMEs is influenced by governmental laws and policies, which can either facilitate or impede the adoption of new technology.

According to Pookulangara and Koesler (2011)[23], SMEs generally exhibit a lower headcount and revenue generation than giant corporations. Moreover, the inherent structure of these entities confers upon them the capacity to readily adapt to and capitalise on evolving patterns in their surroundings (Antoni et al., 2020)[24]. The primary challenge most SMEs encounter pertains to financing. Additionally, SMEs operating in developing economies face obstacles in crucial strategic domains. This study places excessive emphasis on the impact of managerial characteristics within the organisational context, as corroborated by the works of Saka et al. (2021)[25], Nu'man et al. (2020) [26], and O'Dwyer et al. (2009)[27]. The technological context thus describes both internal and available technologies in the organisation. It also focuses on the characteristics of technologies and infrastructure present, such as the number of computers and the employees' technical know-how.

2. SME significance in developing economies

SMEs are widely assumed to offer considerable development potential to most developing countries (Saeed & Shafique, 2020[28]). Further, SMEs can offer a better option for most developing countries, particularly their contributions to providing employment and revenue (Mumbengegwi, 1993[29]; McPherson, 1991[30]). While the importance of the SME and informal sectors is acknowledged internationally, defining an SME is challenging. Every country has its definition—no single, uniformly accepted definition of a small firm (Storey et al., 2016)[31]. They (Storey et al., 2016)[31] argue that a small-scale enterprise has no generally agreed operational or numerical definition. Saeed and Shafique, 2020[28]) Concurred that there is no universally agreed definition of small-scale business in Zimbabwe. The definition of SMEs often varies depending on who is defining it and the purpose of their report. This study maintains no single or uniformly accepted definition of small business (Bruque & Moyano, 2007) [32]; Mumbengegwi, 1993[29]; McPherson, 1991[30]). SMEs' technical definitions vary per country and industry depending on economy size. There are many, and possibly differing, interpretations of what Small and Medium Enterprises (SMEs) are. In general, however, SMEs can be defined by referring to the number of employees, total net assets, and the legal structure of a corporation.

SMEs are the engine of the economies of many countries (Bruque & Moyano, 2007)[32]. For example, SMEs account for about 99% of European companies, accounting for more than 70% of employment

(Nieto & Santamaría, 2005)[33]. In the United States, SMEs generate about 66% of all new jobs (Bruque & Moyano, 2007[32]). SMEs are an important sector of the Zimbabwean economy, constituting more than 90% of the businesses (RBZ, 2017)[34]. In Zimbabwe, the SME sector employs more than 60% of the country's workforce and contributes about 50% of the country's GDP. According to Medina et al. (2017) [35], the informal economy is a crucial component of most economies in sub-Saharan Africa, contributing between 25 and 65 per cent of GDP and accounting for 30 and 90 per cent of total nonagricultural employment. The empirical evidence from international contexts suggests that the proportion of the informal economy tends to decrease as the level of economic development rises. However, numerous economies in sub-Saharan Africa will probably continue to exhibit substantial informal sectors for a considerable period, posing both prospects and obstacles for policymakers. The vital role of SMEs in Zimbabwe presented in the previous section points out the need for ICT in business.

Although many SMEs in Zimbabwe have yet to fully embrace information technologies to streamline their business processes, there is great potential for growth and development in this area. It is excellent that SMEs in developing countries have a unique managerial style, are independent, have tight in-separate ownership-management profiles, and have a centralised organisational structure (Hills & Cairncross, 2011 [36]; O'Dwyer et al., 2009)[27]. The owner/manager's role is crucial in SME activities as they drive the strategic directions of resource allocation and operations (O'Dwyer et al., 2009)[27]. Investing in ICTs, mainly social media, can significantly enhance the competitiveness of SMEs. Implementing certain technologies holds promise for growth and success among SMEs, despite current struggles resulting from a lack of dependence on said technologies. Remarkably, the management has a good understanding of the benefits that ICTs can bring to SMEs. Despite their unique context, it is excellent that SMEs are already integrating ICTs into their business operations.

To date, extant literature (Mataruka, 2022[37]; Dias Canedo et al., 2020[38]; Cao et al., 2018[39]; Lodhia & Stone, 2017)[40] have highlighted the importance of SM adoption in improving a firm's performance. Many of these studies, however, have used different methods to operationalise a firm's performance. According to these studies, contextual evidence regarding SM adoption's contribution to improving a firm's success remains inclusive. Particularly in the emerging economies of the African context, evidence is scarce on the understanding, and empirical research still needs to unveil more. These studies also typically advise more research into SM uptake and its corporate implications. Added empirical evidence is required to determine how SM adoption affects SME firm performance; this is critical because the limited evidence available has primarily been on cross-sectional data without an Afro-centric viewpoint. For

now, let us explore ways to optimise this integration of observed theory-based influences related to innovative approaches for even greater success through a cross-sectional research design to gain better insight. The insight might aid in furthering a process path-dependent longitudinal design later as a significant knowledge-building stepping stone.

As such, an acknowledgement of the fact that the research interest in social media adoption in SMEs is not new and is prevalent in concurrence within various studies contexts (Ali Qalati et al., 2020 [41]; Ahmad et al., 2019 [42]). However, researchers of the SME management literature have not yet produced a unified and coherent set of antecedents influencing the organisational adoption of social media in the Zimbabwe SMEs' concerns. This research aims to narrow the gap by examining the theoretically determined factors that drive ICT tools adoption and usage, taking into account the potentially claimed positive impact of social media adoption on the performance of SMEs. Thus, proferring the central answer to the question: What is the efficacy of ICT tools adoption in business performance concerning SMEs' use of social media in Zimbabwe?

3. Related Social media adoption literature

Boyd and Ellison (2008) [43] proposed a widely accepted definition of social media as online platforms that allow individuals to create a public or semi-public profile within a specific framework, develop a network of other users with whom they have a connection, and access and navigate through the links of others within the same system. The definition suggested by Kapoor et al. (2017)[44] focuses on networking and interactions, whereas Kaplan and Haenlein's (2010)[1] description focuses on the creation and exchange of User Generated Content. Murthy (2018)[45] emphasises the critical significance of social media in allowing people to express themselves and interact with others.

Extant literature (Kaplan & Haenlein, 2010[1]; Ali Qalati et al., 2020 [41]; Ahmad et al., 2019 [42]).shows that social media has been recognised well before the dawn of the Covid-19 era. Over the years, social media has become one of the significant ICT advances from which most business organisations draw economic value. Drus and Khalid (2019)[46] content, by applying sentiment analysis in social media platforms by examining related literature published between 2014 to 2019, concluded that Twitter had gained ground, with more than 500 million people using it daily. Upon this leverage, social media enables companies to interact with customers and improves communication and collaboration between the firm and its stakeholders, which helps build relationships and trust (Jorge et al., 2020[47]; Adeola et al., 2020[48]).

Social media radically transforms traditional processes by providing a better shopping experience (e.g., access to friends" experiences and real-time sharing with friends before a final purchase decision) (Antoni et al., 2020)[24]). Consumers now significantly steer marketing strategies through feedback and involvement in product or service co-creation (Reddy & Karimikonda, 2019[49]; Lal et al., 2020[50]). Social media has positively impacted companies' sales volume, profitability, and market share. (Lal et al., 20202[50]; Drus and Khalid, 2019[46]). In the same vein, Bakker (2018)[51] acknowledges the significant role of social media in leveraging the performance of SMEs. Facebook, YouTube, and WhatsApp are the most popular social networks worldwide, each with at least two billion active users (Statista, 2023) [52]. This exponential growth of social media platforms has allowed organisations to be part of millions of conversations worldwide (Banerjee et al., 2023)[53]. A growing number of businesses are availing social media as the principal communication tool to conduct business. They allow consumers to interact with companies, products, or brands, eventually enhancing their business performance (Antoni et al., 2020) [24]. Similarly, in Zimbabwe, Kajongwe et al. (2020)[54] conclude that social media significantly improved SMEs' performance measured against productivity, the relative improvement in terms of customer base and relations, positively improved brand awareness of SMEs as well as the business strategy of SMEs in Zimbabwe.

A new era of marketing strategies among SMEs has emerged due to social media platforms, such as Twitter for blogging services, Facebook for online social networking, LinkedIn for professional networking, and Google Plus for social networking (Kajongwe et al., 2020[54]). Due to the readily available target market, online marketing has proven to be both cost-effective and sustainable in terms of returns, according to Lal et al., 20202[50] and Drus and Khalid, 2019[46]. This is made possible by the simplicity with which ideas and information may be shared on the numerous social media platforms that constitute the framework for participation and interaction. Accordingly, social media marketing is increasingly becoming a strategic resource incorporating essential ideas to create and maintain an engaged online community of supporters and followers. Dwivedi et al. (2021)[55] claim that effective social media marketing can increase product awareness and motivate the target market to recognize, purchase, use, and re-purchase the product being marketed online, promoting brand loyalty. Chidau and Khosa (2022) [56] contend that immigrant entrepreneurs in South Africa have taken advantage of mobile technology's ability to convey information through online channels, establishing social marketing as a formidable tool of technological advancement and broad appeal.

Social media offers a unique marketing communication method (Banerjee et al., 2023)[53]. It uses these social media applications as an extension to fulfil traditional marketing. According to Kaplan and Haenlein (2010)[1], marketing endeavours can be through online applications that facilitate information creation and collaboration among users. These activities utilise mobile and web-based technologies to establish an interactive platform where users and group members can share, co-create, discuss, and modify content, commonly called user-generated content (Ho & Wang, 2020[3]). According to Nyambu (2013)[57], approximately 90% of marketers use social media for marketing their enterprises. Of this 90%, 65% are start-ups less than three months old. Analytics show that, of the marketers currently using social media, over 50% put in over 6 hours per week on social media, while 12.5% spend twenty hours or more per week. Extrapolating from these trends, start-up companies spend less time on social media than older enterprises. Benefits realised by organisations practising social media include improved client service and communication by propagating value-added content.

Chundu et al. (2022)[17] contend that social media (SM) usage is increasing in Zimbabwe, particularly on Facebook and WhatsApp. These applications are user-friendly as they do not require additional equipment and are easily accessed on mobile phones; hence their high use by SMEs is possible. Similarly, SM statistics for Zimbabwe show 1.30 million users, increasing by 320 thousand (33%) between 2020 and 2021 (Karekwaivanane & Msonza, 2021)[58]. This growth reported number of SM users in Zimbabwe was equivalent to 8.7% of the total population in January 2021. Chundu et al. (2020)[17] conclude the existence of significant social media marketing appreciation by employees of MSMEs in the construction sector in Zimbabwe. We expect this trend to be a replica in the general SME businesses. SMEs in Zimbabwe are the most significant contributor to the GDP, with over 75% of the total labour working in the informal sector. These SMEs are the incubators of business growth, innovation, and pillars of employment creation, with the potential to successfully drive digital innovations across all industries (Nyoni & Bonga, 2018)[59]. Regarding policy, the government of Zimbabwe has devoted itself to developing ICT infrastructure, as seen in the phenomenal growth of mobile cellular usage and internet penetration over the last decade (Karekwaivanane & Msonza, 2021)[58].

Further, Barba-Sanchez et al. (2007)[60] support that the adoption of ICT is not only strengthening growth possibilities but also creating a network with all other businesses in the world, can have cooperation, and can improve quality and knowledge. Many SME managers may think ICT adoption is essential, but are they convinced? For example, Mataruka (2022)[37] and Aduloju (2014)[61] state that the

mere adoption of ICT does not guarantee performance, implying that more understanding of the issue is still needed. Literature indicates several determinants and organisational conditions to explain the paradox (Ali Qalati et al., 2020 [41]; Saptadi et al., 2015[62]). This study will elaborate on these factors and establish those that explain positive SMEs' managerial characteristics behaviour for improving ICT usage. The recent studies on firm performance using an integrated approach have yielded very few conceptual and empirical insights (Marconatto et al., 2022[63]; Ali Qalati et al., 2020 [41]). However, the need to understand how ICT usage, as a driver in the business process, in helping to improve performance in firms is essential.

4. Theoretical Foundation and Hypotheses Development

Prior studies have identified numerous elements that can favourably affect the adoption of ICT in SMEs. According to Effendi et al. (2020 [64]), cost, funding, infrastructure, skills and training, management support, and government support attitudes can benefit how quickly SMEs adopt ICT. Clohessy and Acton's (2019 [65]) study outlines the significant obstacles to ICT adoption by SMEs, including infrastructure, acquisition costs, a lack of funding, resources, management issues, and government backing. But these difficulties are surmountable with awareness and work. These conclusions derive from well-known theories like the Theory of Reasoned Action, the Theory of Planned Behavior, the Technology Acceptance Model, the Technology-Organisation-Environment, and the Unified Theory of Acceptance and Use of Technology is excellent. These theories offer a robust framework for comprehending both convergent and divergent variables. This study will thoroughly examine these elements in the context of social media and provide an answer to the research question.

The present study aims to create a comprehensive framework of factors that positively influence the decision-making process of SMEs when adopting social media. The framework considers various factors, including technological advancements, organisational strengths, and the external environment in which SMEs operate. The survey is valuable in providing a comprehensive measure considering the duration and frequency of social media usage. A clear understanding of this parameter can significantly enhance the social media profile of an SME sector. We achieve our research objective by employing a robust theoretical methodology that integrates the well-respected Diffusion of Innovation (DIT) framework (Rogers, 2003 [15]) with the widely-used Technology-Organization-Environment (TOE) framework (Tornatzky et al., 1990 [22]). These frameworks help us understand how innovations are accepted and implemented and the factors influencing a company's decision to adopt information technology, mainly

social media. By incorporating the crucial determinants from the Diffusion of Innovation Theory (DIT) into the Technology-Organization-Environment (TOE) framework, we can expect to see positive outcomes. We are excited to have formulated three hypotheses concerning the precursors of social media's adoption within organisations.

4.1. Diffusion of Innovation Theory (DIT)

Several theories examine the adoption of innovation. The Diffusion of Innovations Theory (DIT) is a comprehensive social and psychological framework that aims to forecast the decision-making processes of individuals and institutions in adopting novel innovations. This is achieved by analysing and interpreting the patterns of adoption, as outlined in the works of Min et al. (2019)[66] and Kwon et al. (2021) [67]. According to Rogers (2003)[15], the DIT characterises innovation as a concept, methodology, or entity perceived as a novel by an individual or other unit of adoption. The process of adoption encompasses both the initial introduction and subsequent implementation, as stated in reference (Roberts & Amit, 2003 [68]).

According to Min et al. (2019)[66], the adoption of a novel idea within an organisation, whether it be a product, system, process, policy, program, or service, that was either developed internally or obtained externally, is known as organisational adoption of innovation. The matter of organisational adoption is a subject that is tackled at various levels within an organisation, including functional teams, business units, and the organisation as a whole (Premkumar & Ramamurthy, 1995 [28]). Jeyaraj et al. (2006) [69] assert that adopting organisational innovation can be gauged through the firm's decision to adopt, its intention to adopt, its intention to use, and actual usage of new technology.

The DIT research stream on organisations covers three different types of predictors for adopting innovation. The classifications above are delineated as follows: The factors that influence innovation are into three main groups: (1) characteristics of the innovation itself, (2) characteristics of the organisation, and (3) characteristics of the environment. According to Rodgers' (1995) [23] assertion, innovation encompasses technological features such as perceived utility, usability, relative advantages, complexity, compatibility, and observability. The adoption of innovation within an organisation can be anticipated based on various factors about organisational characteristics. These factors may include the availability of support from upper or intermediate management, the degree of centralisation within the organisation, internal influence, and size. Jeyaraj et al. (2006)[69] identified three environmental factors that are predictors: external pressure, competition intensity, environmental uncertainty, and the sector. The DIT

theoretical framework is common in various studies within the literature about the service sector of small and medium-sized enterprises (SMEs). The principal aim of employing this framework is to identify the diverse elements that impact the adoption of innovation.

4.2. The Technology-Organization-Environment (TOE) Framework

Tornatzky et al. (1990) [22] developed the Technology-Organization-Environment (TOE) theoretical framework to evaluate the determinants that influence a company's decision to adopt IT innovations. There is a growing trend in the literature to employ the TOE framework for assessing the effects of technology, organisation, and environmental factors on the implementation, post-implementation, and performance metrics of IT systems and applications. This trend is evident in studies conducted by Ahmad et al. (2019)[42], Chiu et al. (2017)[70], Pateli and Mikalef (2017)[71], and Hwang et al. (2016) [72].

The utilisation of the TOE framework is appropriate in analysing social media utilisation among SMEs. Ndekwa and Katunzi's (2016 [73]) research investigated the variables that influence the utilisation of online social media among small and medium-sized tourist enterprises in Tanzania. The findings of their inquiry indicate that the organisational and environmental context significantly affects the adoption of social media, whereas the technology context has a negligible impact. Matikiti et al. (2018) [74] used the Technology Acceptance Model (TAM) and Technology-Organisation-Environment (TOE) framework to examine how tour operators and travel agencies in South Africa view social media marketing. The results indicate that organisational factors notably influence attitudes towards social media marketing. Specifically, the degree of support from managerial staff and the educational background of managers are the most significant factors affecting these attitudes. The incorporation of social media marketing is subject to the impact of the environmental context, particularly the competitive force emanating from industry competitors. The study's findings indicate that the primary technological determinants that significantly influence the adoption of social media marketing are the perceived benefits and ease of use. The organisational contextual factors hold the most substantial sway, followed by those about the environment and technology. Barbe and Pennington-Gray (2018)[75] and Ali Qalati et al., 2020 [41] conducted a research study to examine the various factors that influence the utilisation of social media as a means of crisis communication. The Theory of Everything (TOE) advocates have emphasised this framework's organisational aspects in their discourse. The study's findings indicate that chain retailers in the fast-moving-goods (FMG) service-based industry utilised social media more frequently for crisis management purposes than independent retailers.

4.3. Hypotheses Development and Conceptual Model

4.3.1. Technological -organisational-environmental Features as Antecedents of Social Media Adoption at the business level

Extant literature concurs that Relative advantage is the degree to which a person believes that using a particular social media system would enhance their job performance (Rogers, 2003[15]). The concept of "relative advantage" has been widely employed in studies on the acceptance and dissemination of innovations, as evidenced by the works of Tornatzky et al. (1990)[22], Grover (1993)[76], and Neo et al. (1994) [77]. Min et al. (2019 [66]) define relative advantage as the perceived degree to which an innovation offers more significant benefits than its predecessor. Flavian and Guinaliu (2005)[78] and Kaplan and Haenlein (2010) [1] refer to expected use as an organisational perceived advantage over current technological and relational practices regarding anticipated positive influence on corporate members and business process details. As Ahmad et al. (2019 [42]) discussed, relative advantage allows potential adopters to perceive the innovation as superior to the alternative, which is a positive development. Hsu et al. (2014 [79]) emphasised that acknowledging the benefits of a company's social media can result in enhanced knowledge dissemination and heightened organisational performance. Hence, this examined extant literature suggests that businesses of all sizes use social media with the expectation of gaining various benefits/outcomes or achieving strategic goals. The desired results or projected advantages fall into two categories: brand or relationship building and revenue/sales increase. These anticipated benefits include increased revenue, improved client relationships, improved collaboration among stakeholders at all levels and sectors, and improved personnel retention and togetherness (Cao et al., 2018[39]; O'Leary et al., 2012[80]).

Evaluating the return on investment is a constituent of the relative advantage construct before adopting a new idea (Smerecnik & Andersen, 2011 [81]). The concept of comparative advantage pertains to the degree to which a particular innovation could yield more significant advantages for a company than other innovations, as evidenced by various sources (Cao et al., 2018[39]; Hsu et al.., 2014[79]; O'Leary et al., 2012[80]; Grover, 1993[76]; Ramdani et al., 2013[82]). The adoption of social media has garnered considerable attention in the service sector of small and medium-sized enterprises (SMEs) due to many factors identified several benefits of implementing technology in the service-based industry. These advantages include providing location-based and personalised services, improved access to information,

reduced operational expenses due to decreased paperwork, and expedited response times resulting from swifter room reservation procedures.

The term 'presence' refers to the degree to which an organisation is visible to outside entities. The word "observability" is often used equally with this idea to describe how long it takes for outsiders to see the effects of an innovation (Moore & Benbasat, 1991)[83]. Today, social media platforms have facilitated the spread of information and established channels for interpersonal communication. Furthermore, they offer various methods for increasing a company's market, competitor, and partner visibility (Treem & Leonardi, 2013)[84]. According to studies, businesses can effectively employ social media as a marketing channel for marketing services. Studies by Mataruka (2022 [37]) and Zeng and Gerritsen (2014)[85] give evidence of this. According to previous studies (Stankov et al., 2010[86]; Vickery et al., 2007 [2]), service-oriented businesses with a social media presence can gain from user-generated content. Visibility refers to the extent to which an entity can attract the notice of a broad audience. SMEs possess the potential to employ and exploit Social Media (SM) for their marketing endeavours, enabling them to attain greater prominence compared to bigger establishments, notwithstanding their restricted resources.

The terminology' interconnections' or 'associations' or ínteractivity'pertains pre-existing connections among persons, entities, or persons and entities. Several social media platforms, particularly those centred around social networks and social tagging, utilise algorithms to detect and suggest new connections to users based on their profile and social media activity, such as search behaviour and favouriting. Previous research has noted this (Treem & Leonardi, 2013[84]; Wellman et al., 2001[87]). As per the findings of Treem and Leonardi (2013)[84], the characteristic of "interconnections" in social media has the potential to facilitate the maintenance of firms' pre-existing social connections, enable them to acquire relevant information from diverse sources, and allow the formation of novel relationships. The adoption of social media has led to a transformation of the concept of "space" in the SME service sector industry, resulting in a growing prevalence of interconnections on virtual communication platforms (Maroufkhani et al.., 2020[88]; Hvass & Munar, 2012 [89]). Small and medium-sized businesses in the service sector are more likely to adopt social media platforms when they place a higher value on the interconnectivity aspect.

The utilisation of interactivity is advantageous as it facilitates the engagement of various parties through a communication medium. Social Media (SM) is a remarkable Web 2.0 technology that provides a significant amount of interactivity. According to Maroufkhani et al. (2020 [88]), social media (SM) is a

technology with great potential to improve the interaction between organisations and customers, providing numerous opportunities for engagement. The recognition of interactivity as a critical element in the extant literature on social media is a positive development. Undoubtedly, this will result in more positive technological impacts in the future.

Therefore, the hypothesis statement is (**H1a**) path **TF**→**SMA** is that:

(H1a) posits that the technological attribute of social media exerts a favourable impact on social media adoption (SMA) among small and medium-sized enterprise (SME) firms.

Sub-hypothesis 1a are:

- *(H1a1) posits that the "relative advantage" attribute of social media exerts a favourable impact on social media adoption (SMA) among small and medium-sized enterprise (SME) firms.*
- *(H1a2) posits that utilising social media's 'presence' attribute favours social media adoption (SMA) among small and medium-sized enterprise (SME) firms.*
- *(H1a3) The feature of 'interconnections' in social media has a favourable impact on social media adoption (SMA) by small and medium-sized enterprise (SME) firms.*

4.3.2. Organisational Features as Antecedents of Organizational Social Media Adoption

Organisational traits have a substantial impact on the acceptance of innovations, according to Tornatzky and Fleischer (1990[22]). According to the literature, four typical criteria are agreed upon when considering the organisational dimension (Gurure & Takavarasha, 2020[90]; Manyati & Mutsau, 2019[91]; Nair et al., 2019[92]; Cao et al., 2018[39]). These elements include resource availability, absorptive capacity, organisation size, and age. As a result, many different factors can influence an organisation's performance. As Gurure and Takavarasha (2020) [90] stressed, it is encouraging to observe that many SME studies concentrate on business qualities. When adopting ICT innovation, organisational readiness is crucial (Nair et al., 2019[92]; Cao et al., 2018[39]). Gurure & Takavarasha (2020)[90] and Manyati and Mutsau (2019)[91] claim that having IT experience at the organisational level of an SME is crucial. For instance, contrary to apriori expectations, Chundu et al. (2022[17]) conclude that knowledge, skills and motivation towards social media marketing tools are abundant among Zimbabwe MSMEs in the construction sector.

Nair et al. (2019)[92] have also offered insightful information about the significance of corporate size. Consequently, organisational context relates to interior characteristics such as size, formalisation of

procedures, staffing, and managerial concerns (Denysenko et al., 2019[93]; Kurochkina et al., 2019[94]; Tornatzky et al., 1990 [22]). The decision-making process of adopting innovation relates to the intimate nature of the responsibilities and liabilities of owner-managers, a defining feature of several SMEs. Despite the benefits of information technology (IT), a company must consider its competencies and resources to support adoption (Matauka, 2022[37]; Matikiti et al., 2018[74]). Several studies have found that the organisational factors within the SME service sector affect SMA by fostering a positive organisational climate and providing adequate resources (Ahmad et al., 2019[42]; Matikiti et al., 2018[74]; Barbe & Pennington-Gray,2016 [75]). The use of top management support is consistent with prior research (Mataruka et al., 2023[95]; Ahmad et al., 2019[42]; Parveen et al., 2016[96]; Chatterjee and Kar, 2020 [97]), whereas the concept of innovativeness is consistent with the recommendations of Jeyaraj et al. (2006) [69] for elucidating the organisational dimension.

Top management support (TMS) consists of obtaining approval from the executive board or the middle management team to carry out a project and support consent from all levels of the organisation (Maroufkhani et al., 2023[88]; Lutfi, 2022[98]). As a result of less specialisation and inseparability of duties, the notion of top management differs in SMEs from that of large organisations (Denysenko et al., 2019[93]; Kurochkina et al., 2019[94]). TMS activities embed the owner-manager personality that constitutes the collective set of the executive board or the middle management team in most Zimbabwe SMEs (Chipunza & Naong, 2021)[99]. The owner-manager-controlled nature of SMEs, or small businesses, requires the owner to be the top manager. In general, the owner's initiative is the critical driver of SMEs, influenced by the owner's values and objectives (Chipunza & Naong, 2021)[99]. The owner-manager is in charge of several tasks and is essential in the decision-making process to determine the final strategic path. They commit to their corporate responsibility as a lifelong duty and maintain direct contact with all employees, customers, and suppliers (Makanyeza et al., 2023[100]; Gurure & Takavarasha, 2020[90]). They thoroughly understand the business and handle all technical, administrative, and organisational operations.

Owner-managers of SMEs are typically less reluctant to delegate since they prefer to handle most aspects of the business (Mazzarol et al., 2020)[101]. This characteristic hastens decision-making and increases the likelihood of narrow perspectives. SMEs generally have multifunctional positions, work in various settings, and have fewer assigned responsibilities (Denysenko et al., 2019[93]; Kurochkina et al., 2019[94]). Minor job specialisation exists, with more generalists in the SME business space. Other functions are not

transparent in SMEs because they are less specialised and less likely to be separated by physical and organisational distance (Andrade et al., 2022[102]; Moy et al., 2020[103]).

The owner-manager and other levels of management support are critical in managing the SMA and ensuring that the organisation has adequate funds, time, and competent staff (Dahnil et al., 2014)[104]. According to a scholarly study (Matikiti et al., 2018 [74]), top executives can foster an environment conducive to SMA by highlighting the benefits of SMA to the organisation and addressing any potential team member disagreement. Managers familiar with new technologies and open to social media are more prepared to assist with corporate SMA. According to Shahadat et al. (2023)[105], senior management's support, vision, and passion are critical for building a suitable environment for SMA in organisations and providing recommendations for getting there. As a result, SMA's performance depends on top management, which primarily engages in daily operations and strategic choices. SMEs in the manufacturing and service industries with supportive top management are more likely to use social media as an essential resource and capability than a mere tool (Mataruka, 2022[37]).

Consequently, we have formulated the following declaration:

Hypothesis 1b (**H1b**) path OF → SMA is that:

The presence of organisational features benefits small and medium-sized enterprises (SMEs) SMA practices.

As a result, the sub-hypothesis, denoted as **H1b**, is presented.

- *(H1b1) The provision of support from top-level management has favourably impacted social media adoption (SMA) within small and medium-sized enterprise (SME) service organisations.*
- *(H1b2) The innovativeness of SME service firms has a favourable impact on their social media adoption (SMA).*

4.3.3. Environmental Features as Antecedents of Organizational Social Media Adoption

The phrase "environmental characteristics" refers to extrinsic factors beyond an entity and may pose prospects or constraints for adopting technological advancements. The environmental context of an organisation pertains to the external factors that impact its operations, including the industry's structure, competition, government incentives and regulations, and external suppliers, as posited by Bagale et al. (2021)[106], Cao and Chen (2019)[20]; Rogers (2003)[15], and Tornatzky and Fleisher (1990) [22]. The adoption of innovation tends to be more prevalent in emerging industries than established or declining industries, as the latter must engage in innovative practices to maintain a competitive edge.

Governmental laws and policies significantly influence technology adoption in SMEs. These regulations can either facilitate or hinder the adoption of new technology.

According to Bagale et al. (2021)[106], SMEs generally exhibit a smaller workforce and reduced revenue generation than giant corporations. Moreover, their architecture confers the capacity to adapt and capitalise on fluctuating patterns in their surroundings readily (Verbeke, 2022[107]; Antoni et al., 2020) [24]. The primary challenge most SMEs encounter pertains to financing. Additionally, SMEs operating in developing economies face obstacles in crucial strategic domains. This study places excessive emphasis on the impact of managerial characteristics within the organisational context, as corroborated by various sources, including Sedyastuti et al. (2021)[108], Shahadat et al. (2023)[105], and Venkatesh and Morris (2000)[32].

The notion of the external environment influencing performance within the organisational context is not novel in scholarly publications (Tornatzky et al., 1990[22]; Shahadat et al.,2023 [105]). According to academic discourse, the adoption of information and communication technology (ICT) by firms is a necessity driven by the demands of the contemporary business environment (Ramdani et al., 2013 [82]). Previous research (Mataruka, 2022[37]; Shahadat et al., 2023[105]; Barbe & Pennington-Gray, 2018[75]; Wang & Qualls, 2007 [109]) has highlighted the challenge faced by service firms that heavily rely on information processing to maintain their competitive advantage through the adoption of new technologies.

Chundu et al. (2022)[17] conducted studies that support SMEs adopting ICT innovation as having a positive impact on performance—this statement. Costa et al. (2023)[110] identified many external restrictions that make it difficult for small and medium-sized firms (SMEs) to embrace and use cutting-edge technologies. Market-driven and technology-driven competitiveness are the two types of innovation. The steps above contribute to accomplishing various objectives, including ensuring survival, enhancing commercial growth, and improving operational efficiency. According to Barbe & Pennington-Gray, 2018[75], these improvements aim to meet the needs of both customers and sellers. According to Costa et al. (2023)[110], market size is a significant environmental aspect.

This study examines the impact of external environmental factors on firms′ adoption of social media in the SME multi-industry sector. Specifically, the two environmental factors under investigation are external pressure and environmental uncertainty in the literature.

Academic writing agrees that outside pressure is essential when adopting IT. Environmental pressure is the extent of organisational felt needs in the competitive market environment concerning using social media for corporate competition (Cao et al., 2018[39]; Barbe & Pennington-Gray, 2018[75]). Cao et al. (2018) [39] assert that social media technologies place a lot of pressure on how businesses perform because of their unique and never-before-seen characteristics, such as being user-centred, permitting open debate, and being widely available. Several studies show this pressure can come from different places, like rivals, peers, governments, trading partners, and customers(Barbe & Pennington-Gray, 2018[75];] Matikiti et al., 2018[74]). The majority of these demands originate from three sources. Customers are the initial cause of stress. People of various ages and backgrounds use social media extensively. This observation is especially true for younger folks (Cao et al., 2018)[39]. Other companies are the second source of pressure. Companies believe they must follow the expansion of social media or risk falling behind or having no options. The third push comes from partners, suppliers, and potential employees (Barbe & Pennington-Gray, 2018[75]).

Adae et al. (2023)[111] point out external pressure includes official and competitive bandwagon pressure. Institutional bandwagon pressure is the fear that people or groups who haven't yet adopted a particular practice or idea feel because they might be as different and lack authority from their peers and other relevant parties if they do not. Firms adopt new approaches to keep their competitive edge in answer to the competitive bandwagon effect. Also, companies' partners often pressure them to keep their technological skills at the same level. Companies should use the right software to share information and communicate with their business partners for more than just the above reasons (Ahmad et al., 2019[42]; Zhu et al., 2006 [20]). Wang and Cheung (2004) [112] found a positive link between external pressure and SMA in their study of travel companies. Matikiti et al. (2018)[74] found that external pressure predicts business SMA. Competitive pressure can motivate a company to adopt new technologies and strategies to help it thrive and succeed in the market (Seo et al., 2020 [113]). In the SME context, organisations can improve their performance by competing with each other (Tella et al., 2020 [114]). Geurin and Burch (2017 [115]) proposed a strong correlation between competitive pressure and strategic performance, which suggests the potential for success. The current research claims that SMEs are more likely to use social media platforms when they think not doing so could hurt them in the marketplace.

There is plenty of room for competitive intensity to flourish in a market with plenty of rivals and few prospects for growth (Dias Canedo et al., 2020)[38]. According to Lutfi (2020)[98], SMEs have the chance to

compete in a highly dynamic international business environment. Additionally, the intensity of the competition can be a chance to succeed in a demanding environment. Pateli et al. (2020) [116] researched how the level of competition affects a manufacturing firm's success in China and offered essential new information on this subject. In their study of SMEs in Indonesia, Studen and Tiberius (2020) [117] discovered a statistically substantial, albeit unfavourable, correlation between competitive intensity and SME performance. However, this gives SMEs a chance to pinpoint areas for development and implement plans to meet the challenges brought on by competition.

As a result, the study concludes that environmental uncertainty is positively associated with firms' use of social media. Our research assumption implies that SMEs commit relatively more resources to social media platforms to improve their competitive edge in an ambiguous climate.

Environmental features favourably impact the social media adoption (SMA) of small and medium-sized enterprise (SME) service firms.

As a result, the following sub-hypothesis statement states:

- *(H1c1) There is a positive correlation between external pressure and social media adoption (SMA) by small and medium-sized enterprise (SME) service firms.*
- (H1c2) *The study suggests that small and medium-sized enterprises (SMEs) benefit from environmental uncertainty, as it positively impacts their SMA.*

4.3.4.Technological -organisational-environmental (TOE) Features as Antecedents of business performance (BP), the path is TOE →BP

The service industry extensively employs social media tools to exchange experiences. This study aims to identify the key characteristics of social media that are considered essential factors in their adoption by businesses. The elements above comprise both traditional and novel aspects of social media. The present study examines the impact of the technological attributes commonly referred to as 'relative advantage,' 'presence,' and 'interconnections' on the adoption of social media. The characteristics above have been thoroughly examined and analysed in the current body of literature, as evidenced by the works of Ahmad et al. (2019)[42], Matikiti et al. (2018)[74] and Parveen et al. (2016) [96]. Chundu et al. (2022)[17] show that social media marketing offers many social interactions for businesses, is a credible tool for accessing the target market via different platforms and has the potential to expand product/brand awareness by offering a feedback mechanism. The characteristics mentioned above have undergone thorough

examination in relevant research on the implementation of social media (Shahadat et al., 2023[105]; Matikiti et al., 2018 [74]). Thus, the current study proposes the following hypothesis:

Hypothesis 2. (H2):

Technological features have a positive influence on business performance.

*The first sub-hypothesis (**H2a**) path **TF** →**BP** is that:*

(H2a) posits that the technological attribute of social media exerts a favourable impact on business performance.

Second, the organisational attributes of top management support and entrepreneurial orientation are vital for the successful implementation and maintenance of technology innovation management. Alkhateri et al. (2022)[118] say innovativeness is the entrepreneurial orientation dimension. Thus, innovativeness is the degree to which a person or other unit of adoption adopts new ideas before other people in a social system. Innovativeness is how a company develops new goods, services, and technological breakthroughs (Rogers (2003)[15]; Lumpkin and Dess, 1996[119]). Even though this factor is essential, there isn't much empirical study in the existing literature. Hurt et al. (1977) [120] said that innovation is a tendency toward change. Businesses need to be creative to use and spread new technologies. When resources are limited and business conditions are hard to predict, a firm's willingness to use social media depends significantly on its innovation. Rogers (2003)[15] and Agarwal and Prasad (1998)[121] say that companies or people with high levels of innovation are more likely to take risks. Risk-taking refers to how likely a company is to do dangerous things with unknown results, like taking on debt or making risky investments (Denysenko et al., 2019[93]; Kurochkina et al., 2019[94]; Lumpkin & Dess, 1996[119]). How the company deals with competitors affects its ability to be successful. Therefore the best way to stay ahead of the competition and do better is to constantly watch and counter rivals' strategies, even if that means copying what other businesses do. Autonomy has to do with the tendency to create conditions that are good for the growth and use of new ideas. Lumpkin and Dess (1996)[119] say that an autonomous organisational culture would support new ideas without compromising individual creativity. As a result, innovative enterprises are better able to adopt social media. The second sub-hypothesis (**H2b**) path **OF** →**BP** is that:

(H2b) The presence of organisational features benefits business performance.

Third, the external environmental factors of competitive pressures and uncertainty. Thus, unpredictability in the environment determines whether the business response is dynamic or steady.

According to sources, 'environmental unpredictability' can be understood through three key dimensions: antagonism, heterogeneity, and dynamism (Dias Canedo et al., 2020[38]; Teece et al., 1997[122]). Fear of losing market dominance to competitor firms frequently encourages enterprises to engage in dynamic behaviour and respond to environmental uncertainty (Gordon & Narayanan, 1984 [123]; Afshar Jahanshahi & Brem,2020 [124]). Due to the uncertain nature of the environment, entrepreneurs and managers tend to adopt preemptive steps based on informed assumptions about the strategic path ahead (Teece et al., 1997 [122]). Companies looking to increase market penetration, innovation capabilities, and competitive edge in the face of increased competition and market volatility frequently use social media platforms (Chundu et al., 2022[17]; Wang & Qualls, 2007[109]; Wang & Cheung, 2004 [112]). Environmental competitiveness and dynamism motivate firms to employ technological advances like social media to address environmental vitality and obtain a competitive advantage (Thackeray et al., 2008 [125]). Seo et al. (2020) [113) contend that businesses confronting environmental instability are more likely to use social media platforms as a proactive and dynamic reaction. The third sub-hypothesis (**H2c**) path **EEF** →**BP** is that:

(H2c) Environmental features favourably impact small and medium-sized enterprises (SME) business performance.

4.3.5. Small and medium-sized enterprises (SMEs) benefit from Social Media Adoption as antecedents of business performance

Businesses do better when they use ICT advances that help strengthen their core capabilities (Mataruka, 2022[37]; Mataruka et al., 2023[95]). Everyone wins when companies combine digital innovations with traditional or hands-on business methods (Kraus et al., 2021)[126]. The potential to develop new business opportunities (Muninger et al., 2019)[127] and improve performance (Sivarajah et al., 2020)[128] necessitate that businesses integrate methodologies. Empirical research suggests that technology-focused enterprises must adopt new ICT innovations to succeed in today's uncertain economy. For this reason, adaptability to new technologies and ways of doing business is crucial to the continued success of profit-driven firms in today's dynamic market environment (Chatterjee et al., 2022[129]; Zhang et al., 2020[130]). However, other studies have failed to find a link between the use of ICT and a company's financial success (Mataruka, 2022)[37]; Canh et al., 2019)[131]; Qalati et al., 2021 [132]). Due to the high costs of investment and the inherent risks of running these new technologies, many firms have had negative

experiences with ICT breakthroughs. According to Zhang et al. (2019)[130], small and medium-sized enterprises (SMEs) do not benefit from adopting ICT innovation.

Notwithstanding the unfavourable consequences, extant literature has demonstrated that integrating Internet technology into organisational functions enhances business performance concerning profitability (Chatterjee et al., 2022[129]; Zhang et al., 2020)[130]; Qalati et al., 2021 [132]) and supply chain efficiency (Zhang et al., 2020 [130]). According to Meng et al. (2020)[133], utilising information and communication technology (ICT) impacts a company's profitability, indicating its expansion. Furthermore, integrating ICT innovations enhances profitability, as Hendriarto (2021)[134] noted. The adoption of innovative ICT solutions has been identified to improve organisational performance, particularly in augmenting business value (Mataruka et al., 2023)[95] Qalati et al., 2021 [132]).

Hu et al. (2019)[135] posited that using and expanding ICT innovations would yield economic advantages for enterprises, manifested in augmented market share, amplified sales volumes, and reduced expenses. Zhang et al. (2020)[130] found that companies that adopt technological innovations can experience significant growth in their profits and market share while outperforming competitors that do not adopt such advancements. Social media technology innovations can aid profit-oriented companies in expanding their reach into global markets. Consequently, it presents an augmented prospect for corporations to amplify their product and service offerings and yield a profitable outcome.

Several studies have shown that technology can improve business operations' efficiency and effectiveness (Hendriarto, 2021[134]; Qalati et al., 2021 [132]; Meng et al., 2020[133]). Ainin et al. (2015) [13] discovered a favourable association between corporate social media adoption and business performance. According to Rodriguez and Boyer (2020)[136], employing social media improves customer-facing activities and sales performance. Using social media promotes organisational social capital, which improves performance, according to Ferrer et al. (2013)[137]. Wong (2012)[138] and Kwok and Yu (2013) [139] concur that Facebook boosted the sales performance of small and medium-sized businesses. Hassan et al. (2015)[140] state that social media can substantially impact businesses by influencing purchase decisions. Prior research has shown that adopting new technology improves financial and non-financial performance (Mataruka, 2022[37]; Al-Mamary et al., 2020[141]).

Therefore, we provide the following hypothesis(H3), the path is SMA → BP:

Social media technology adoption favours the business performance (BP) of small and medium-sized enterprise (SME) service firms.

4.3.6. Small and medium-sized enterprises (SMEs) benefit from Social Media Adoption mediating between TOE factors and business performance, path TOE → SMA → BP.

The resource-based perspective supports the assumed connection between SM adoption and SME performance. The authors view SM adoption as a resource that helps SMEs gain a competitive advantage. This view is because social media sites facilitate communication between businesses and their constituents (Lodhia & Stone, 2017 [40]). In addition, Cao et al. (2018)[39] argued that academics in the management field should note the rising significance of SM use in businesses. Research into knowledge co-creation and performance should emphasise how SM makes this possible for businesses and public enterprises (Dias Canedo et al., 2020 [38]). Finally, we suggest looking into the relationship between SM adoption and SME performance in more depth than just looking at adoption alone. Finally, we offer up our proposal for Hypothesis 4 (H4). Small and medium-sized enterprises (SMEs) can benefit significantly from using SMA to enhance business performance. Thus, the end outcome is formulating the final fourth research hypothesis that constituents SMA as a mediating factor between TOE attributes and business performance.

Hypothesis 4. (H4):

Technological-organisational-environmental resource-based features positively influence business performance by mediating SMA intangible attributes.

*The first sub-hypothesis (**H4a**) path **TF** → **SMA** → **BP** is that: (H4a) posits that the technological attribute of social media exerts a favourable indirect impact on business performance through SMA.*

*The second sub-hypothesis (**H4b**) path **OF** → **SMA** → **BP** is that: (H4b) The presence of organisational features benefits business performance indirectly through the mediating effect of SMA.*

*The third sub-hypothesis (H4c) proposes that environmental features indirectly influence business performance through the mediating effect of SMA (i.e., **EEF** → **SMA** → **BP** path).*

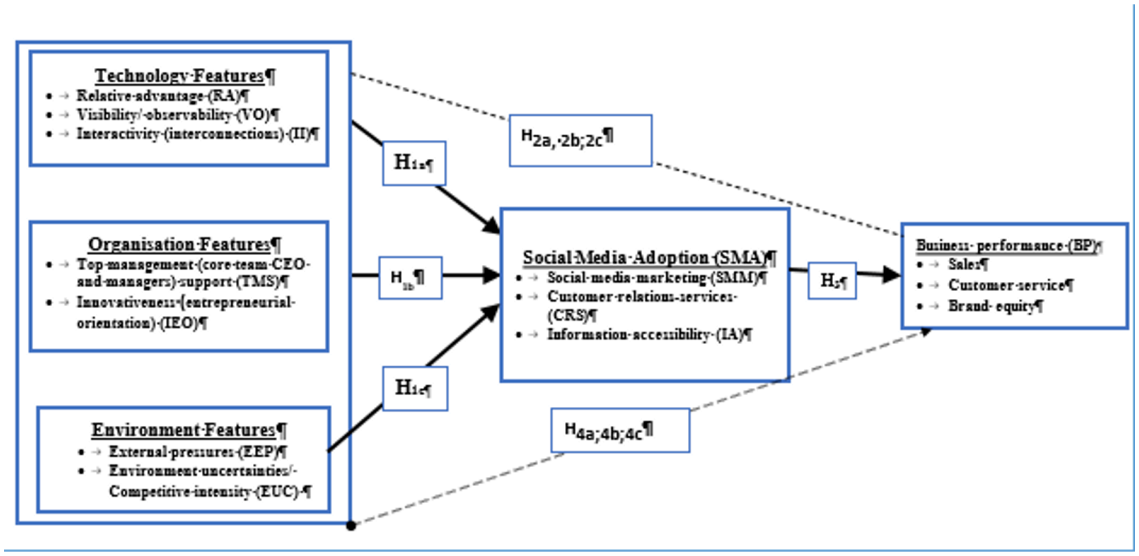

Figure 1. Research test model

Furthermore, applying the blend between the Diffusion of Innovation Theory (DIT) and the TOE framework principles has facilitated forming the composite construct about adopting social media and its antecedents as ultimate determinants for assessing improving firm performance.

5. Research methods and materials

The present study employs Partial Least Squares (PLS) Structural Equation Modelling (SEM) to examine the proposed hypotheses above. The cross-sectional dataset used in this study comprises 938 managerial respondent cases from SME firms operating within Harare's partially formal multi-industrial sector.

5.1. Research Design

To attain the stated goal, a survey to assess the hypotheses presented in the study relates to Harare, Zimbabwe's small and medium-sized enterprise (SME) service sector. The study focused on businesses in the Harare Central Business District, which serves as the region's commercial hub and is among the most frequently visited markets. The research employed a stratified sampling methodology and an online questionnaire to collect the necessary information. The process of selecting managers who responded used the directory of the SME Association of Zimbabwe's LinkedIn platform as its sampling frame. Subsequently, the professional association disseminated the digital survey via forums and social networking platforms. The survey's unit of analysis was the individuals responsible for overseeing the

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social media strategies in their organisations, typically the owner-manager or someone entrusted with overall business managerial oversight. Thus, the 938 respondents were from Retail and Wholesale, constituting 20.7%; the Manufacturing (furniture and metal fabrication) sector holds the second-largest share, accounting for 23.4%; financial services are the third-largest category, representing 16.6% of the total sectors. Information Technology, Mining and Quarrying, Tourism and Leisure, Health, and Agriculture follow with 8.6%, 8.3%, 6.7%, 5.9%, and 5.1%, respectively. Within the positions, the majority belong to owner-manager (43.9%), followed by non-owner managers (37%) and executive positions (19%).

To address the potential impact of common method bias, the researchers provided all potential participants with a clear understanding of the study's goals and promised confidentiality. While guaranteeing the anonymity of all respondents, they were briefed on the study's objectives and concurred. The assessment of non-response bias entailed ascertaining that the responses garnered from respondents who replied early and those who responded late did not manifest any noteworthy dissimilarities. The statistical analysis involved t-test comparisons to evaluate the disparities between the means of the groups for each examined construct. The results indicated no significant differences between the groups (i.e., owner-manager, non-owner managers, and other executive positions).

5.2. Measures items

The variables in the research model, all dimensions, use multiple questions on a five-point Likert-type scale. Each item has a score on a five-point Likert scale ranging from strongly disagree (1) to agree (5) strongly. The results for the measurement items' mean and standard deviation values provide insights into the responses' central tendency and dispersion, highlighting the data's average and variability.

First, the construct technology factor (TF) variables relative advantage (RA), visibility or observable (VO), and interconnectedness (II). The statement illustrates the RA item concept that utilising social media affords our company a competitive advantage. In comparison, visibility(VO) infers that the company is on the global e-business map due to social media. On the other hand, interconnections (II) refer to the use of social media aids in the company in retaining loyal customers. Thus, the data analysis reveals that the variables have relatively consistent mean values between 3.000 and 3.378 for RA, 3.118, for VO 3.316, and II, the range was 3.159 and 3.303, indicating similar average levels of responses, accompanied by a narrow range of standard deviation values from 1.204 to 1.291 for RA, from 1.263 to 1.378 for VO, and from 1.252 to 1.303 for II, suggesting a low degree of variability or dispersion in how participants responded.

Second, the independent construct organisational factors (TF), top management support (TMS) and innovativeness or entrepreneurial orientation (IEO). For instance, TMS refers to the company's executive leadership encouraging support for social media adoption. While IEO infers the company develops innovative services and packages to remain competitive and renewed. The data analysis reveals that the variables have relatively consistent mean values between 2.651 and 2.850 for TMS and IEO 3.150 to 3.414 range indicating similar average levels of responses, accompanied by a narrow range of standard deviation values from 1.111 to 1.91 for TMS, and 1.213 to 2.1733 for IEO, suggesting a low degree of variability or dispersion in how participants responded.

Third, for the external environmental factor (EEF) items, competitive pressure (EEP) and industry competitiveness in face environmental uncertainty (EUC). The company has adopted social media due to rival companies' adoption of social media, as reflected by EEP in the measurement items. For EUC, the measure relates to the recall that the company has faced intense competition over the past five years. The data analysis reveals that the variables have relatively consistent mean values between 2.699 and 2.810 for EEP, while for EUC, they were between 2.677 and 2.753, indicating similar average levels of responses, accompanied by a narrow range of standard deviation values from 1.017 to 1.146 for EEP, and 1.088 to 1.124 for EUC suggesting a low degree of variability or dispersion in how participants responded.

Forth, the social media adoption (SMA) items were derived from previously validated scales utilised in the literature on technology adoption and, if necessary, modified for social media adoption (marketing support, customer relations and services, and information accessibility). Social media adoption adapted from Cesaroni and Consoli (2015) measures as social media marketing (SMM), customer relationship systems (CRS), and information accessibility (IA) data analysis reveal that the variables have relatively consistent mean values between 3.376 and 3.431 for SMM, between 3.059 and 3.488 for CRS, and between 3.636 and 3.758 for AI, indicating similar average levels of responses, accompanied by a narrow range of standard deviation values from 1.262 to 1.319 for SMM, from 1.179 to 1.261 for CRS, and from1.157 to 1.198 for AI, suggesting a low degree of variability or dispersion in how participants responded.

Based on the recommendations of Ahmad et al. (2019)[42], a composite variable was devised to capture multiple dimensions of business performance (BP). The composite measure included three variables: (1) sales, (2) customer service, and (3) brand equity. BP indicators' data analysis reveals that the variables have relatively consistent mean values between 2.518 and 2.668, indicating similar average levels of responses, accompanied by a narrow range of standard deviation values from 1.013 to 1.091, suggesting a low degree of variability or dispersion in how participants responded.

5.3. Reliability analysis

The data analysis was performed using SmartPLS 4.0 to assess each hypothesis's convergent validity and internal consistency. Composite Reliability (CR) and Cronbach's Alpha (CA) evaluate the internal consistency reliability in this study. The convergent validity (CV) assessment was through the Average Variance Extracted (AVE) and factor or outer loadings. A summary of the key findings is presented in Table 1, providing an overview of the results obtained from the analysis.

Variable	Cronbach's alpha	Composite reliability	The average variance extracted (AVE)
AI	0.925	0.947	0.817
BP	0.805	0.860	0.506
CRS	0.902	0.926	0.679
EEP	0.783	0.848	0.530
EUC	0.727	0.830	0.550
IEO	0.888	0.916	0.650
II	0.927	0.945	0.775
RA	0.872	0.905	0.617
SMM	0.943	0.955	0.779
TMS	0.726	0.828	0.547
VO	0.906	0.934	0.781

Table 1. Descriptive statistics

In Table 1, the AVE values range from 0.506 to 0.817, indicating that the measurement constructs have convergent validity as they surpass the recommended threshold of 0.5. The CR values range from 0.828 to 0.955, meeting the recommended threshold of 0.7, suggesting that the measurement constructs demonstrate good internal consistency. The CA values, ranging from 0.726 to 0.927, further support the presence of internal consistency within the measurement items. To enhance the validity and reliability of

the measurement model, measurement items with factor loadings below 0.5 we eliminated from the analysis.

Table 2 presents the results of the Fornell-Larcker criterion, a commonly used technique for assessing the discriminant validity of measurement models (Hair et al., 2017[142]). This analysis provides insights into the measurement constructs' distinctiveness and ability to capture unique aspects of the underlying latent variables.

	AI	BP	CRS	EEP	EUC	IEO	II	RA	SMM	TMS	VO
AI	**0.904**										
BP	0.026	**0.712**									
CRS	0.504	0.099	**0.824**								
EEP	-0.002	0.561	0.102	**0.728**							
EUC	-0.004	0.533	0.120	0.521	**0.742**						
IEO	0.316	0.044	0.413	0.075	0.066	**0.807**					
II	0.360	0.038	0.367	0.065	0.054	0.742	**0.880**				
RA	0.385	0.095	0.558	0.141	0.158	0.360	0.341	**0.785**			
SMM	0.205	0.062	0.309	0.036	0.059	0.111	0.128	0.536	**0.882**		
TMS	0.037	0.270	0.104	0.299	0.381	0.126	0.113	0.151	0.074	**0.740**	
VO	0.325	0.024	0.356	0.065	0.057	0.750	0.872	0.355	0.106	0.092	**0.884**

Table 2. Fornell-Larcker criterion results

Note: *The number in bold is the square root of AVE.*

Based on the results of the Fornell-Larcker criterion, it is evident that discriminant validity exists among all the measurement items. This criterion is supported by observing that the square root of each factor's

Average Variance Extracted (AVE), represented by the bolded values on the diagonal, is higher than the corresponding correlation coefficients. This result indicates that each factor is more strongly related to its indicators than other factors' elements, confirming the measurement constructs' distinctiveness.

In addition to the Fornell-Larcker criterion, the study employed the Heterotrait-Monotrait Ratio of Correlations (HTMT) technique to further assess the discriminant validity of the measurement models. The results of this analysis are presented in Table 3 and provide additional insights into the distinctiveness of the measurement constructs.

	AI	BP	CRS	EEP	EUC	IEO	II	RA	SMM	TMS	VO
AI											
BP	0.042										
CRS	0.544	0.119									
EEP	0.047	0.718	0.131								
EUC	0.044	0.699	0.158	0.713							
IEO	0.340	0.058	0.458	0.099	0.084						
II	0.389	0.045	0.408	0.080	0.066	0.810					
RA	0.428	0.118	0.660	0.181	0.199	0.397	0.378				
SMM	0.219	0.072	0.356	0.062	0.072	0.120	0.136	0.592			
TMS	0.047	0.355	0.133	0.396	0.527	0.152	0.135	0.192	0.093		
VO	0.354	0.039	0.401	0.078	0.069	0.829	0.852	0.398	0.115	0.111	

Table 3. Heterotrait-Monotrait Ratio of Correlations (HTMT) results

The Heterotrait-Monotrait Ratio of Correlations (HTMT) results confirm discriminant validity, as all the values presented are below 0.90. This ratio indicates that each construct in the suggested model meets the requirements for structural equation modelling and exhibits distinctiveness from other constructs.

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To examine common method bias (CMB), a method proposed by Kock and Lynn (2012)[143] was employed to test for multicollinearity. The test results, which provide variance inflation factors (VIFs) for all latent variables in the model, are presented in Table 4. The VIF values can help assess the potential presence of CMB and multicollinearity in the data.

Variable	AI	BP	CRS	EEP	EUC	IEO	II	RA	SMM	TMS	VO
VIF	3.183	1.528	2.552	1.555	1.371	2.31	3.126	1.367	3.147	1.386	2.849

Table 4. Full collinearity statistics (VIF) results

Table 4 indicates that all the VIFs for the latent variables in the model are below 3.3, which aligns with the recommendation by Kock and Lynn (2012)[143] and suggests the absence of multicollinearity. This result implies that the variables in the model are not highly correlated, enhancing the analysis's robustness. Furthermore, the lack of multicollinearity indicates that the model is free from common method bias (CMB), which could have otherwise affected the validity of the results.

6. Structural model fitness

Moving on to the structural model, Figure 2 visually presents the relationships and connections among the variables. The structural model illustrated the causal pathways and hypothesised associations between the constructs in the study. The data analysis employed the Partial Least Squares (PLS) approach using SmartPLS 4.0 software to explore the relationships between the measurement items.

Figure 2 summarises the fitted model containing coefficients and factor loadings.

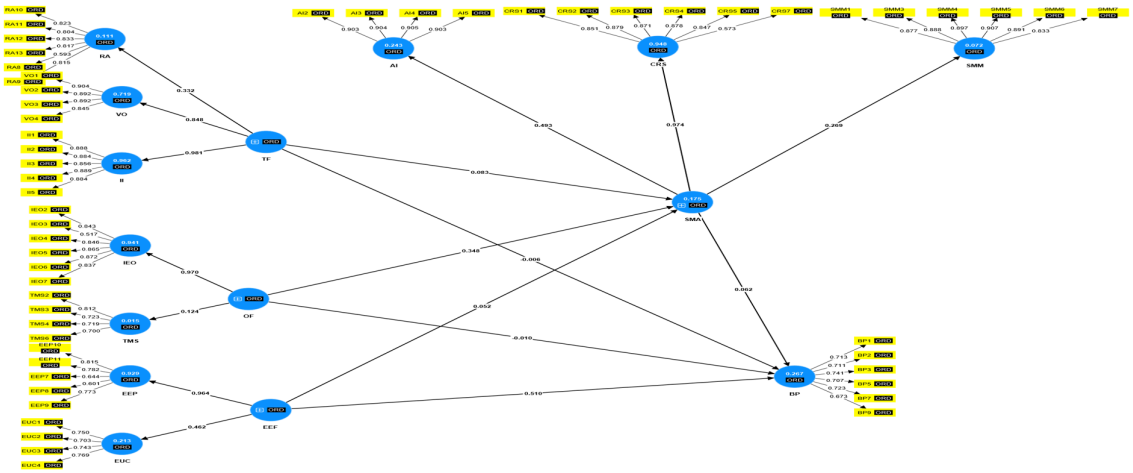

Figure 2. SEM with coefficients

All factor loadings are above 0.50 regarding convergent validity, implying a good model. According to the results displayed in Figure 2, 26.7% of the total variability in BP derives from the effects of EFF, SMA, OF and TF. In addition, 17.5% total variability in SMA is due to the explanatory variables EFF, OF and TF.

Goodness of fit

R^2 and Q^2 are informative metrics for evaluating the model's quality, and Briones-Penalver et al. (2018) [144] suggest that they should exceed zero. Table 5 provides the goodness of fit measures for further analysis and interpretation.

Endogenous latent variable	R^2	Q^2	Standardised root mean square residual	Normed Fit Index
BP	0.267	0.257	0.076	0.907
SMA	0.175	0.169		

Table 5. Goodness of fit results

The findings demonstrate that the path model exhibits predictive significance for each dependent construct, as evidenced by the R^2 and Q^2 values exceeding zero. According to the results in Table 5, 26.7%

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of the total variability in BP relates to explanatory variables EFF, SMA, OF and TF. In addition, 17.5% of the total variability in SMA is due to the effects of EFF, OF and TF. Additionally, a standardised root mean square residual (SRMR) value of 0.076 supports the model's acceptability, which falls below the recommended threshold of 0.08. Furthermore, the Normed Fit Index (NFI) value of 0.907 surpasses the recommended threshold of 0.90, indicating a good fit between the model and the data.

6.1. Structural Model Results

The study employed structural equation modelling (SEM) to assess the research model. This method is considered more comprehensive and effective than stepwise regression analysis as it enables the simultaneous testing of all paths rather than a gradual approach (Hair et al., 2017[142]). The study's hypotheses were evaluated using Partial Least Square (PLS-SEM) path modelling facilitated by the statistical software Smart PLS 4.0. It is recommended to utilise the PLS path modelling variance-based technique to examine and authenticate exploratory models during the initial stages of theoretical development (Hair et al., 2017[142]; Becker et al., 2012[16]). The selection of PLS was based on its ability to offer three advantages. Firstly, it is a non-parametric method that does not make assumptions about the normality of the data and utilises iterative least squares estimation. Secondly, it exhibits strong performance even with limited sample sizes. Lastly, it possesses a predictive function that facilitates future planning and decision-making, as evidenced by sources (Hair et al., 2017[142]; Becker et al., 2012[16]). The sample requirements for Partial Least Squares (PLS) are comparatively less stringent compared to covariance-based techniques. According to scholarly sources (Hair et al., 2017[142]; Wolf et al., 2013[145]; Kock & Lynn, 2012[143]), a minimum of 30 to 100 examples is recommended for conducting PLS analysis. For a more accurate assessment, it is recommended to perform a power analysis on the model component with the highest number of predictors, as suggested by sources (Wolf et al.,2013[145]). Our study determined that a minimum sample size of 500 cases was necessary (Hair et al., 2017[142]), and we achieved 890 study cases for analysis. This was based on our assumption of a significant effect size (R^2 equal to or greater than 0.26) and using first-order predictors to determine the value of the dependent variable (Kock & Lynn, 2012[143]).

SmartPLS 4.0 software enabled data analysis and applied the partial least squares (PLS) approach to discover the correlations between the measurement elements. Table 6 presents the PLS results for the structural model. The following hypotheses are tested:H1, H2, H3, H4, H5, H6, H7, H8, H9, H10 as per Figure 2 above.

Hypothesis	Relationship	Coefficient	SE	T	P-values	Decision
H_{1a}	TF -> BP	-0.006	0.038	0.166	0.868	Not Supported
H_{1b}	OF -> BP	-0.010	0.040	0.252	0.801	Not Supported
H_{1c}	EEF -> BP	0.510	0.027	18.790	0.000	Supported
H_{2a}	TF -> SMA	0.083	0.041	2.037	0.042	Supported
H_{2b}	OF -> SMA	0.348	0.039	8.949	0.000	Supported
H_{2c}	EEF -> SMA	0.052	0.030	1.741	0.082	Not Supported
H_3	SMA -> BP	0.062	0.029	2.140	0.032	Supported

Table 6. Structural model's PLS results

The results in Table 6 indicate that TF had an insignificant negative effect on BP (β = 0.006, t=0.166, p =0.868), OF had a negligible negative impact on BP (β = -0.010, t=0.252, p =0.801), and EEF had a significant positive effect on BP (β = 0.510, t=18.790, p <0.001). TF had a significant positive impact on SMA (β = 0.083, t=2.037, p=0.042), OF had a significant positive effect on SMA (β = 0.348, t=8.949, p <0.001), and EEF had an insignificant positive impact on SMA (β = 0.052, t=1.741, p =0.082). However, SMA significantly positively affected BP (β = 0.062, t=2.140, p=0.032). These results suggest that H_{1c}, H_{2a}, H_{2b} and H_3 are supported. While H_{1a}, H_{1b}, and H_{2c} are not supported. Thus, the Zimbabwean context seems to theorise that business entities are laggards in adopting technology innovation management. As such use of SMA has an implied bandwagon effect. Thus, TF and OF are assumed to complement SMA as organisational resources and capabilities are already considered generic in the marketplace. The competitive advantages are built around the combined effect embedded in SMA to deliver improved business performance, as supportive to the resource-based view that requires top management to develop SMA as a valuable, unique, difficult to imitate and organisation-specific (Teece et al., 1997 [122]).

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6.2. Mediating effect

Table 7 presents the results of the mediation hypotheses H_{4a}, H_{4b}, and H_{4c}, which examine the significance of direct and indirect effects. The mediation investigation utilised a 95% confidence interval (CI) and 5000 bootstrapping samples.

Hypothesis	Relationship	Coefficient				CI Bias-corrected	
		Beta (β)	SE	T	P-value	2.50%	97.50%
H_{4a}	TF -> SMA -> BP	0.005	0.004	1.414	0.157	0.000	0.015
H_{4b}	OF -> SMA -> BP	0.021	0.011	2.032	0.042	0.003	0.044
H_{4c}	EEF -> SMA -> BP	0.003	0.003	1.268	0.205	0.000	0.011

Table 7. Mediating effects

The study found that SMA insignificantly mediates the relationship between TF and BP, as indicated by the p-value, above the recommended value of 0.05, in addition to the 95% confidence interval (CI) including zero. Additionally, SMA is not a significant mediator in the relationship between EEF and BP since the 95% confidence interval (CI) includes zero, and the p-value of 0.889 is above the recommended value of 0.05. However, SMA significantly mediates the relationship between OF and BP, as indicated by the p-value of 0.042, below the recommended value of 0.05, in addition to the 95% confidence interval (CI) excluding zero. Therefore, hypotheses H_{4a} and H_{4c} are all not supported, while H_{4b} is supported. Thus, this result implies that the organisation's top management support and innovation/ entrepreneurial orientation is competitively distinctive for business performance.

7. Discussion and Future Research

In light of the ever-increasing use of social media in the SME multi-industry and the limited prior empirical research on their adoption in the Zimbabwe industry, this paper has developed and tested a reasonably comprehensive research model that identifies the primary antecedents of social media adoption by small to medium companies. Using an integrative lens that integrates the innovation

characteristics of social media with the organisation's technology, organisation, and environment perspectives, this study aims to assess the determinants of social media adoption. The results indicate that there are three categories of seven factors that influence the adoption of organisational social media adoption. Primary determinants consist of three technological characteristics of social media, which also refer to the innovation potential of this technology: (1) relative advantage, (2) presence/ visibility, and (3) interactivity/ interconnections. Two organisational characteristics significantly impact social media adoption: senior management support (4) and innovativeness/ entrepreneurial orientation (5). Lastly, two external environmental factors significantly influence social media adoption: (6) external competitive pressure and (7) environmental ambiguity.

Possible research endeavours may explore the phenomenon of the bandwagon effect concerning the widespread adoption of social media, which has become a ubiquitous tool in contemporary society. As a result, small and medium-sized enterprises (SMEs) may also desire to utilize this technology. Adopting technological innovations based on the actions of others can lead to a sense of urgency, as many firms have already implemented such innovations.

7.1. Research Implications

The technological elements, alongside organisational and environmental, are regarded as the most essential of the three components. Previous research studies in the field of information systems in the Zimbabwe industry have primarily explored and stressed the importance of organisational elements (Mataruka, 2022 [37]; Mataruka et al., 2023[95]; Chundu et al., 2022[17]). However, other studies elsewhere have discovered that the technical background has little influence on SMA (e.g., Ndekwa & Katunzi, 2016 [73]). This study adds to previous research on organisational SMA by demonstrating that technical with organisational aspects are the most relevant factors, and environmental contexts are relatively less influential. The infrastructure and connectivity challenges in Zimbabwe's external environment might be accompanying limiting factors. Again, selecting the most prominent variables affecting social media abilities, namely presence, interconnectivity, and relative advantage, may have led to this outcome that pits technology factors as superior competitive advantage capabilities. Firms that can identify potential value gained from social media use in terms of increasing firm visibility (e.g., via Facebook and Instagram), improving communication with customers and partners, and gaining a competitive advantage (e.g., via the provision of innovative services) have more opportunities to use social media. On the other hand, firms that have not recognised these technological qualities are less likely to use social

media substantially, even if their organisational settings are good or their external environment invites them to, as evidenced during and post the Covid-19 lockdown era.

The ability of social media to create new 'interconnections' is determined to be the technological element that has the most significant impact on social media adoption, with relative advantage' and 'presence' coming in second and third, respectively. Although earlier research (Le et al., 2006 [34]) highlighted the significance of relative advantage and presence, the 'interconnections' aspect has not been sufficiently explored or experimentally validated in social media adoption. They identify one primary antecedent, namely the capacity of social media to enable firms to develop associations with several stakeholders (e.g., customers, partners, suppliers, or peers (competitors)). Thus, expanding their business network has contributed to ongoing social media research and empirical research at the organisational level.

So far, the organisational innovation adoption theory has shown that "top management support" is one of the essential organisational traits (Mataruka, 2022 [37]; Mataruka et al., 2023[95]). In comparison, top managerial support has been considered part of the TOE framework and found to be a critical factor in how companies feel about social media adoption, particularly as a marketing capabilities enhancer. Innovativeness, or the SME entrepreneurial orientation trait, has been chiefly considered part of the DIT framework and a crucial factor in how SMEs use sustainability innovations. This study's blended theoretical basis could signal the importance of social media adoption in the Zimbabwe industry. This finding is essential for the literature on developing dynamic management capabilities and how organisations adopt new ideas. Thus, innovativeness is a critical factor in organisations adopting new ideas as an essential element of sustaining competitiveness.

External pressure (EEF) is a significant influencer of organisational innovation adoption regarding environmental factors, especially in developing country policy instability. EEF substantially impacts the business adoption of ICT in the management literature (Shahadat et al., 2023 [105]). The perceived amount of competition, which relates to environmental uncertainty, has also been recognised as having an impact, albeit a minor one, on the adoption of social media within organisations (Mataruka, 2022 [37]; Le et al., 2006 [34]). Our empirical results have shown the significant impact of these factors—primarily external pressure (EEP) and environmental uncertainty (EUC)—on the adoption of social media by businesses in the Zimbabwe SME multi-industry sector. This finding has implications for organisational innovation adoption and indigenous management contextual literature enrichment. It suggests that environment uncertainty (EUC) may function as a general predictor of corporate innovation adoption, regardless of whether it applies to social media or other cutting-edge technologies and methods.

Overall, the current study contributes new knowledge to the field of SME research by shedding light on the primary factors that influence management decisions to implement social media and make extensive use of it. These factors relate to the capabilities provided by social media tools (relative advantage, presence—visibility, interconnections) in conjunction with a favourable organisational environment, exemplified by an innovative culture and the support of top management. Further, a challenging external environment competitive pressures them to follow technological trends and innovate. Additionally, the available enabling infrastructure seems lacking in developing countries like Zimbabwe. This EUC could be a case of the developing African economies being technological laggards and lacking adequate resources to ensure efficiencies and timeliness in maintaining their backbone infrastructural support assets. Therefore, it emphasises the need for researchers and practitioners to take an integrated approach to the SME social media grand strategic thrust that fosters marketing, customer relationship systems, and information access capabilities rather than focusing on isolated factors that could increase their propensity to use a specific social media tool singularly.

7.2. Practical Implications

The findings offer a solid basis for estimating the direct and indirect benefits of social media's innovative features for decision-makers considering using social media applications and practices in the SME multi-industrial concerns. The results show that enterprises' levels of adoption can be increased by fully utilising SM's relative advantage, presence, and linkages innovation properties. However, SMA works with managerial support for innovation and a firm's performance. Therefore, practitioners must invest in creating an innovation culture and raising their innovation rates to embrace and put innovation into practice for their clients. It appears that acceptance of new technologies and innovation culture is compatible with a resource-based view of ensuring a sustainable renewal of products and services. Without considering the level of innovativeness and top management support within the company, social media's relative advantage, visibility, and interconnection benefits may fail to translate into economic value for the organisation, even in the presence of competitive and peer pressure and environmental uncertainty. Modernisation trends or mimetic behaviour may help social media practices become more widely used and fully exploited, but they cannot be the only factors. External pressure and the level of competitiveness can prompt social media adoption, but they cannot force it. To boost their company's innovation and ensure top management support, practitioners should invest in creating an innovative culture within their organisation. To do so, they must work to enhance senior management's awareness

of the value of social media and its potential to boost their companies' innovation and general performance.

7.3. Future Research

Several caveats to this study can be remedied in follow-up work. This study unit of analysis is firm managerial resources within a diverse multi-industrial base to investigate the organisational adoption of social media resources and capabilities for building core competencies that could improve performance. This approach could enable us to learn more about the broad factors influencing the use and growth of social media's benefits for achieving specific strategic goals. For instance, the industrial operating environment heterogeneity could relate to expanding the company's customer base, improving customer retention, developing novel services, discovering potential new suppliers and partners, and other context-specific factors, differently. Thus, limiting the study's recommendations to homogenous characteristics and lacking better-focused decision models at all levels.

Our empirical study only includes information from multi-industrial businesses in Harare, Zimbabwe. The current methodological framework does not differentiate between retail and professional or chain and independent retailers regarding their use of social media. It is worth noting that these SMEs' multi-industrial sectors are heterogeneous and might not respond similarly in adopting technologies and innovation management concerns. Thus, this study fails to capture the diversity within and without these SME businesses grouping. Future studies should adopt one or more classification systems to understand better the factors that may determine the extent to which different organisational sub-sectors use social media (e.g., the number of tools employed and the length of time since adoption). The adapted systems could be used to rate customer-based establishments on services, facilities, and overall experience (e.g., chain classification for supermarkets and fundamental classification for other professional services).

Future empirical investigations could focus on improving the generalisability of our results by examining the current research framework in a larger population distributed across various geographical business centre areas. Cultural values may influence businesses' propensity to use social media between Web 2.0 ICTs and SMA, making a cross-cultural study of great academic interest and potential contribution to management literature.

Also, the paper has helped build an aggregated construct that includes adoption and the intensity of adoption, measured by the number of social media tools used and the time of adoption. However, the

study's cross-sectional design limits sustainable competitive advantage development assessment. Thus, this adoption of social media is a dynamic process requiring a measure that embeds the years people have used social media and creativity to develop appropriate business applications. DIT framework encourages researchers to use dependent variables that measure natural system use and adoption instead of intention to adopt. This approach is to avoid the self-reporting bias that comes with perceived scales. In future research studies, the suggested SMA aggregate construct can be used as a dependent or independent variable within a longitudinal design to get accurate and reliable information about how people use social media. Researchers could incorporate SMA's effect on specific industry sectors like service-based enterprises' performance into the study model by adapting other theoretical perspectives like technology acceptance methods (TAM) and theory of planned behaviour (TPB). A similar expansion would allow businesses to pinpoint elements that encourage adoption and increase the value they derive from social media to accomplish their strategic objectives and strengthen their position in the global services sector.

Author Contributions

All authors have read and agreed to the published version of the manuscript: background concept, update and editing – original background (Mataruka); Methodology (Mataruka and Muzurura); data analysis (Mataruka and Muzurura); data collection, entry, and data analysis (Mataruka).

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Conflicts of Interest

The authors declare no conflict of interest

References

1. a, b, c, d, eKaplan, A. M, and Haenlein, M. 2010. Users of the world, unite! The challenges and opportunities of Social Media. Business Horizons, 1)53), pp. 68—59.
2. a, bVickery, G.; Wunsch-Vincent, S. 2007. Participative Web and User-Created Content: Web 2.0 Wikis and Soc ial Networking; Organization for Economic Cooperation and Development (OECD): Paris, France, 2007.
3. a, bHo, C.-W.; Wang, Y.-B. 2020. Does Social Media Marketing and Brand Community Play a Role in Building a Sustainable Digital Business Strategy? Sustainability,12, 6417.
4. ^Werthner, H.and Ricci, F. 2004. E-commerce and tourism. Commun. ACM, 47, 101-105.
5. ^Christou, E. and Chatzigeorgiou, C., 2020. Adoption of social media as distribution channels in tourism ma rketing: A qualitative analysis of consumers' experiences. Journal of Tourism, Heritage & Services Marketin g (JTHSM), 6(1), pp.25-32.
6. ^] Chi, H.H., 2011. Interactive digital advertising vs virtual brand community: Exploratory study of user moti vation and social media marketing responses in Taiwan. Journal of interactive advertising, 12(1), pp.44-61.
7. ^Uri, D., Paquette, H. and Paquette, H., 2013. Social Media as a Marketing Tool: A Literature Review.
8. ^Chikandiwa, T., Contogiannis, E. and Jembere, E., 2013. The adoption of social media marketing in South A frican banks. European business review, 25(4), pp.365-381.
9. ^Inversini, A.; Masiero, L. 2014. Selling rooms online: The use of social media and online travel agents.Intern ational Journal Contemporary Service-based Management,26, 272-292.
10. a, bTajvidi, R. and Karami, A., 2021. The effect of social media on firm performance. Computers in Human B ehavior, 115, p.105174.
11. ^Abed, S.S., Dwivedi, Y.K. and Williams, M.D., 2015. Social media as a bridge to e-commerce adoption in SM Es: A systematic literature review. The Marketing Review, 15(1), pp.39-57.
12. ^Internet World Stats, 2023. Internet world stats: Usage and population statistics. Miniwatts Marketing Gro up.
13. a, bAinin, S.; Parveen, F.; Moghavvemi, S.; Jaafar, N.I.; and Shuib, N.L.M., 2015. Factors influencing the use of s ocial media by SMEs and its performance outcomes. Industrial Management. Data Systems., 115, pp. 570-58 8.
14. ^Ringle, C.M.; Wende, S.; Becker, J.-M. 2014. SmartPLS 3. Hamburg: SmartPLS.Academy of Management Revi ew., 9, 419-445.
15. a, b, c, d, e, f, g, hRogers, E.M. 2003. Diffusion of Innovations, 5th ed.; Free Press: New York, NY, USA.

16. ^ a, b, c, d *Becker, J.-M.; Klein, K.; Wetzels, M. 2012.Hierarchical latent variable models in PLS-SEM: Guidelines f or using reflective-formative type models, Long Range Plan.*

17. ^ a, b, c, d, e, f, g, h *Chundu, M., Chigombe, P. and Mucheri, T., 2022. Extent of Social Media Marketing Use by MS MEs in the Construction Industry in Harare. Case Study of CIFOZ and SMEA Members. American Journal of Industrial and Business Management, 12(7), pp.1185-1203.*

18. ^ *Moodley, P., 2019, July. The adoption of social media by adult learners as an e-learning platform. In Procee dings of International Academic Conferences (No. 8711484). International Institute of Social and Economic Sciences.*

19. ^ *Mutula, S.M. and Van Brakel, P., 2006. E-readiness of SMEs in Botswana's ICT sector concerning informati on access. The electronic library.*

20. ^ a, b, c *Cao, H. and Chen, Z., 2019. The driving effect of internal and external environment on green innovatio n strategy-The moderating role of top management's environmental awareness. Nankai Business Review I nternational, 10(3), pp.342-361.*

21. ^ *Zhu, K., Kraemer, K.L. and Xu, S., 2006. The process of innovation assimilation by firms in different countri es: a technology diffusion perspective on e-business. Management Science, 52(10), pp.1557-1576.*

22. ^ a, b, c, d, e, f, g, h *Tornatzky, L.G.; Fleischer, M.; Chakrabarti, A.K. Processes of Technological Innovation; Lexing ton Books: Lexington, MA, USA, 1990.*

23. ^ a, b, c *Pookulangara, S. and Koesler, K., 2011. Cultural influence on consumer usage of social networks and its impact on online purchase intentions, Journal of Retailing and Consumer Services, 18 (4), pp. 348-354.*

24. ^ a, b, c, d *Antoni, D., Jie, F. and Abareshi, A., 2020. Critical factors in information technology capability for enha ncing firm's environmental performance: the Indonesian ICT sector. International Journal of Agile Systems and Management, 13(2), pp.159-181.*

25. ^ *Saka, A.B. and Chan, D.W., 2021. Adoption and implementation of building information modelling (BIM) in small and medium-sized enterprises (SMEs): A review and conceptualization. Engineering, Construction an d Architectural Management, 28(7), pp.1829-1862.*

26. ^ *Nu'man, A.H., Nurwandi, L., Bachtiar, I., Aspiranti, T. and Pratama, I., 2020. Social Networking, and firm pe rformance: Mediating role of comparative advantage and sustainable supply chain. International Journal o f Supply Chain Management, 9(3), pp.664-673.*

27. ^ a, b, c *O'Dwyer, M., Gilmore, A. & Carson, D., 2009. Innovative marketing in SMEs: an empirical study. Journal of Strategic Marketing, 17(5), pp. 383-396.*

28. ^ a b c *Saeed, M. and Shafique, I., 2020. Customer-based brand equity and destination visit behaviour in the t ourism industry: the contingent role of social media. Quality & Quantity, 54, pp.1491-1512.*

29. ^ a b *Mumbengegwi, S., 1993. Empowering Women through Knowledge: The Role of the Women's Action Grou p in Zimbabwe.*

30. ^ a b *McPherson, M.A., 1991.Micro and small-scale enterprises in Zimbabwe: Results of a country-wide surve y. Bethesda, Maryland: Gemini.*

31. ^ a b *Storey, D.J., Keasey, K., Watson, R. and Wynarczyk, P., 2016. The performance of small firms: profits, jobs a nd failures. Routledge.*

32. ^ a b c d *Bruque, S. and Moyano, J., 2007. Organisational determinants of information technology adoption a nd implementation in SMEs: The case of family and cooperative firms. Technovation, 27(5), pp.241-253.*

33. ^ *Nieto, M. J., & Fernández, Z. (2005). The role of information technology in the corporate strategy of small a nd medium enterprises. Journal of International Entrepreneurship, 3, 251-262. https://link.springer.com/artic le/10.1007/s10843-006-7854-z*

34. ^ a b c *. Reserve Bank of Zimbabwe (RBZ), 2017. Re-igniting SME Development in Zimbabwe – Learning fro m Global Experiences, RBZ website Governor Welcome Remarks.*

35. ^ *Medina, L., Jonelis, M.A.W. and Cangul, M., 2017. The informal economy in Sub-Saharan Africa: Size and de terminants. International Monetary Fund.*

36. ^ *. Rupert Hills, J. and Cairncross, G., 2011. Small accommodation providers and UGC web sites: perceptions a nd practices. International Journal of Contemporary Hospitality Management,23(1), pp.26-43.*

37. ^ a b c d e f g h i j k l *Mataruka, L.T., 2022. Information Systems Resources, Competitive Advantage, and Zi mbabwe's Firm Performance: an Integration of the Resource-Based View and the Dynamic Capabilities Vie w of the Firm, International Journal of Economics, Commerce and Management, United Kingdom ISSN 234 8 0386 Vol. X, Issue 11, Nov 2022.*

38. ^ a b c d *Dias Canedo, E. and Cordeiro Mendes, B., 2020. Software requirements classification using machine l earning algorithms. Entropy, 22(9), p.1057.*

39. ^ a b c d e f g h i *Cao, Y., Ajjan, H., Hong, P. and Le, T., 2018. Using social media for competitive business outco mes: An empirical study of companies in China. Journal of Advances in Management Research.*

40. ^ a b *Lodhia, S. and Stone, G., 2017. Integrated reporting in an internet and social media communication envir onment: conceptual insights. Australian Accounting Review, 27(1), pp.17-33.*

41. ^ a b c d e *Ali Qalati, S., Li, W., Ahmed, N., Ali Mirani, M. and Khan, A., 2020. Examining the factors affecting S ME performance: the mediating role of social media adoption. Sustainability, 13(1), p.75.*

42. a, b, c, d, e, f, g, h, i *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 & Research, 25(1), pp.84-111.*

43. ^ *Boyd, D. M and Ellison, N. 2008. Social Network Sites: Definition, History, and Scholarship. Journal of Com puter-Mediated Communication. 208 (13), pp. 230-210.*

44. ^ *Kapoor, K. K., Tamilmani, K., Rana, N. P., Patil, P., Dwivedi, Y. K., and Nerur, S. 2017. Advances in Social Medi a Research: Past, Present and Future. Information Systems Frontiers. June 2018, Volume 20, issue 3. pp 558-5 31.*

45. ^ *Murthy, D. 2018. Introduction to Social Media, Activism, and Organizations. Social Media + Society. 4:1. htt ps://journals.sagepub.com/doi/full/2056305117750716/10.1177 (Last accessed Nov. 2019,27)*

46. a, b, c *Drus, Z. and Khalid, H., 2019. Sentiment analysis in social media and its application: Systematic literatu re review. Procedia Computer Science, 161, pp.707-714.*

47. ^ *Jorge, L.F., Mosconi, E. and Santa-Eulalia, L.A., 2020. Overcoming The Barriers of an Enterprise Social Med ia Initiative.*

48. ^ *Adeola, O., Hinson, R.E. and Evans, O., 2020. Social media in marketing communications: A synthesis of suc cessful strategies for the digital generation. Digital transformation in business and society: Theory and case s, pp.61-81.*

49. ^ *Reddy, G.D. and Karimikonda, H., 2019. Social Media as a Prominent Marketing Management Tool: A Liter ature Review. SSRG International Journal of Economics and Management Studies, 6(11), pp.112-117.*

50. a, b, c *Lal, B., Ismagilova, E., Dwivedi, Y.K. and Kwayu, S., 2020. Return on investment in social media market ing: Literature review and suggestions for future research. Digital and social media marketing: emerging ap plications and theoretical development, pp.3-17.*

51. ^ *Bakker, D., 2018. Conceptualising influencer marketing. Journal of emerging trends in marketing and man agement, 1(1), pp.79-87.*

52. ^ *Statista. 2023. Global social networks ranked by number of users 2023, https://www.statista.com/statistic s/272014/global-social-networks-ranked-by-number-of-users/*

53. a, b *Banerjee, S., Alok, S., Mahapatra, M.S. and Banerjee, S., 2023. Personality Traits as Determinants of Faceb ook Behavior: Study of Indian Gen-Z. In Comparative Analysis of Trade and Finance in Emerging Economie s (pp. 67-83). Emerald Publishing Limited.*

54. a, b *Kajongwe, C; Chinyena, E; Mugutso, R. and Mambo, R. 2020. Social Media and Marketing Performance of Small and Medium Enterprises (SMEs) in Harare Metropolitan Province, Zimbabwe. Journal of African In*

terdisciplinary Studies, 4(4), 66 – 77.

55. ^*Dwivedi, Y.K., Ismagilova, E., Hughes, D.L., Carlson, J., Filieri, R., Jacobson, J., Jain, V., Karjaluoto, H., Kefi, H., Krishen, A.S. and Kumar, V., 2021. Setting the future of digital and social media marketing research: Perspectives and research propositions. International Journal of Information Management, 59, p.102168.*

56. ^*Chidau, T. and Khosa, R., 2022. The interoperability of mobile phone technology as a way to improve immigrant entrepreneurship in South Africa. International Journal of Research in Business and Social Science (2147-4478), 11(10), pp.24-34.*

57. ^*Nyambu, E.M., 2013. Influence of Social Media Marketing on Performance of Telecommunication Firms in Kenya. International Journal of Innovative Research and Development, 2(9), pp.184-190.*

58. a, b*Karekwaivanane, G. and Msonza, N., 2021. Zimbabwe digital rights landscape report. Digital Rights in Closing Civic Space: Lessons from Ten African Countries.*

59. ^*Nyoni, T. and Bonga, W.G., 2018. Anatomy of the small & medium enterprises (SMEs) critical success factors (CSFs) in Zimbabwe: Introducing the 3E model. Dynamic Research Journals' Journal of Business & Management (DRJ-JBM), 1(2), pp.01-18.*

60. ^*Barba-Sánchez, V., Martínez-Ruiz, M.D.P. and Jiménez-Zarco, A.I., 2007. Drivers, benefits and challenges of ICT adoption by small and medium-sized enterprises (SMEs): a literature review. Problems and Perspectives in Management, 5(1), pp.103-114.*

61. ^*Aduloju, S.A., 2014. Information technology managerial capabilities and customer service performance among insurance firms in Nigeria. SAGE Open, 4(4), p.2158244014561198.*

62. ^*Saptadi, S., Sudirman, I., Samadhi, T.M.A. and Govindaraju, R., 2015. Owner's Support, IT Sophistication and IT Adoption in Indonesian Manufacturing SMEs. Journal of ICT Research & Applications, 8(3).*

63. ^*Marconatto, D.A.B., Teixeira, E.G., Santini, F.D.O. and Ladeira, W.J., 2022. Characteristics of owners and managers in different countries: a meta-analytical investigation of SMEs' growth. Journal of Small Business and Enterprise Development, 29(3), pp.354-379.*

64. ^*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, 7(11), pp.915-925.*

65. ^*Clohessy, T. and Acton, T., 2019. Investigating the influence of organizational factors on blockchain adoption: An innovation theory perspective. Industrial Management & Data Systems, 119(7), pp.1457-1491.*

66. a, b, c*Min, S.; So, K.K.F. and Jeong, M. 2019. Consumer adoption of the Uber mobile application: Insights from the diffusion of innovation theory and technology acceptance model. Journal of Travel Touring. Marketing, 36, 770-783*

67. ^Kwon, W.S., Woo, H., Sadachar, A. and Huang, X., 2021. External pressure or internal culture? An innovation diffusion theory account of small retail businesses' social media use. Journal of Retailing and Consumer Ser vices, 62, p.102616.

68. ^Roberts, P.W. and Amit, R. 2003.The dynamics of innovative activity and competitive advantage: The case of Australian retail banking, 1981 to 1995.Organisational Science, 14, 107-122.

69. a, b, cJeyaraj, A.; Rottman, J.W. and Lacity, M.C. 2006. A review of the predictors, linkages, and biases in IT in novation adoption research. Journal of Information Technology,21, 1-23.

70. ^Chiu, C.-Y., Chen, S., and Chen, C.-L. 2017. An integrated perspective of TOE framework and innovation diff usion in broadband mobile applications adoption by enterprises.International Journal Management Econo mics and Social Sciences. IJMESS, 6, 14-39.

71. ^Pateli, A. and Mikalef, P. 2017. Configurations Explaining Social Media's Impact on Innovation Performanc e. In Proceedings of the Pacific Asia Conference on Information Systems, Langkawi, Malaysia, 16-20 July 20 17.

72. ^Hwang, B.-N., Huang, C.-Y., and Wu, C.-H. 2016. A TOE Approach to Establish a Green Supply Chain Adoptio n Decision Model in the Semiconductor Industry.Sustainability,8, 168.

73. a, bNdekwa, A.G., and Katunzi, T.M. 2016. Small and medium tourist enterprises and social media adoption: Empirical evidence from the Tanzanian tourism sector. International Journal of Business Management, 11, 7 1.

74. a, b, c, d, e, f, g, hMatikiti, R.; Mpinganjira, M. and Roberts-Lombard, M. 2018. Application of the Technology A cceptance Model and the Technology-Organisation-Environment Model to examine social media marketin g use in the South African tourism industry. South African Journal of Information Management, 20, 1-12.

75. a, b, c, d, e, f, gBarbe, D., and Pennington-Gray, L. 2016. Using situational crisis communication theory to unde rstand Orlando Service-baseds' Twitter response to three crises in the summer of 2016. Journal Service-bas ed. Touring Insights, 1, 258-275.

76. a, b. Grover, V. 1993. An Empirically Derived Model for Adopting Customer-based Interorganizational System s, Decision Sciences, 24, 603-640.

77. ^Neo, B.-S., Khoo, P.E., and Ang, S. 1994. The Adoption of TradeNet by the Trading Community: An Empirical Analysis. In Proceedings of the ICIS; 1994; pp. 159-174.

78. ^Flavian, C., Guinaliu, M. and Torres, E., 2005. The influence of corporate image on consumer trust: A comp arative analysis in traditional versus internet banking. Internet Research, 15(4), pp.447-470.

79. ^a ^b Hsu, P.H., Tian, X. and Xu, Y., 2014. Financial development and innovation: Cross-country evidence. Journal of financial economics, 112(1), pp.116-135.

80. ^a ^b O'Leary, R., Choi, Y. and Gerard, C.M., 2012. The skill set of the successful collaborator. Public Administration Review, 72(s1), pp.S70-S83.

81. ^ Smerecnik, K.R. and Andersen, P.A., 2011. The diffusion of environmental sustainability innovations in North American service-based and ski resorts. Journal of Sustainable Tourism, 19(2), pp.171-196.

82. ^a ^b 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, 20(4), pp.735-753.

83. ^ Moore, G.C., and Benbasat, I. 1991. Development of an instrument to measure the perceptions of adopting an information technology innovation. Information Systems Research, 2, 192-222.

84. ^a ^b ^c Treem, J.W. and Leonardi, P.M. 2013. Social media use in organizations: Exploring the affordances of visibility, editability, persistence, and association. Ann. Int. Commun. Assoc., 36, 143-189.

85. ^ Zeng, B., and Gerritsen, R. 2014. What do we know about social media in tourism? A review. Tour. Manag. Perspect, 10, 27-36.

86. ^ Stankov, U., Lazic, L. and Dragicevic, V., 2010. The extent of basic Facebook user-generated content use by European national tourism organisations. European Journal of Tourism Research, 3(2), pp.105-113.

87. ^ Wellman, B., Haase, A.Q., Witte, J. and Hampton, K., 2001. Does the Internet increase, decrease, or supplement social capital? Social networks, participation, and community commitment. American behavioural scientist, 45(3), pp.436-455.

88. ^a ^b ^c Maroufkhani, P., Tseng, M.L., Iranmanesh, M., Ismail, W.K.W. and Khalid, H., 2020. Big data analytics adoption: Determinants and performances among small to medium-sized enterprises. International journal of information management, 54, p.102190.

89. ^ Hvass, K.A., and Munar, A.M., 2012. The takeoff of social media in tourism. Journal Vacation Marketing., 18, 93-103.

90. ^a ^b ^c ^d Gurure, B. and Takavarasha, J.S., 2020. An Evaluation of the Importance of E-commerce Adoption to the Growth of SMEs in Zimbabwe. In 2nd African International Conference on Industrial Engineering and Operations Management (pp. 3462-3475).

91. ^a ^b Manyati, T.K. and Mutsau, M., 2019. Exploring technological adaptation in the informal economy: A case study of innovations in small and medium enterprises (SMEs) in Zimbabwe. African Journal of Science, Technology, Innovation and Development, 11(2), pp.253-259.

92. ^ a b c Nair, J., Chellasamy, A. and Singh, B.B., 2019. Readiness factors for information technology adoption in SMEs: testing an exploratory model in an Indian context, Journal of Asia Business Studies.

93. ^ a b c d Denysenko, M., Melnyk, A., Shatskaya, Z. and Budiakova, O., 2019. International regulatory experienc e in business activity, research and Innovation.

94. ^ a b c d Kurochkina, A.A., Voronkova, O.V., Lukina, O.V. and Bikezina, T.V., 2019. Management features of small and medium-sized business enterprises.Revista Espacios, 40(34).

95. ^ a b c d e Mataruka, L.T., Muzurura, J. and Mkumbuzi, W.P., 2023. Information System Management and Zim babwe Manufacturing Firms Performance. A Structural Equation Modeling Analysis.

96. ^ a b Parveen, F.; Jaafar, N.I.; and Ainin, S. 2016. Social media's impact on organisational performance and entr epreneurial orientation in organisations. Management. Decisions, 54, pp. 2208-2234.

97. ^ Chatterjee, S. and Kar, A.K., 2020. Why do small and medium enterprises use social media marketing and what is the impact: Empirical insights from India, International Journal of Information Management, 53, p.1 02103.

98. ^ a b Lutfi, A., 2022. Factors Influencing the Continuance Intention to Use Accounting Information Systems in Jordanian SMEs from the Perspectives of UTAUT: Top Management Support and Self-Efficacy as Predictor F actors. Economies, 10(4), p.75.

99. ^ a b Chipunza, L.T. and Naong, M.N., 2021. Demographic variables as drivers of innovation in small accomm odation businesses: A case of South Africa and Zimbabwe. African Journal of Science, Technology, Innovatio n and Development, 13(4), pp.415-423.

100. ^ Makanyeza, C., Mabenge, B.K. and Ngorora-Madzimure, G.P.K., 2023. Factors influencing small and mediu m enterprises innovativeness: Evidence from manufacturing companies in Harare, Zimbabwe. Global Busin ess and Organizational Excellence, 42(3), pp.10-23.

101. ^ Mazzarol, T., Reboud, S., Mazzarol, T. and Reboud, S., 2020. Innovation in small firms. Entrepreneurship a nd Innovation: Theory, Practice and Context, pp.131-164.

102. ^ Andrade, J., Franco, M. and Mendes, L., 2022. Facilitating and inhibiting effects of organisational ambidext erity in SME: An analysis centred on SME characteristics. Journal of the Knowledge Economy, pp.1-30.

103. ^ Moy, M.M., Cahyadi, E.R. and Anggraeni, E., 2020. The impact of social media on knowledge creation, inno vation, and performance in small and medium enterprises. Indonesian Journal of Business and Entreprene urship (IJBE), 6(1), pp.23-23.

104. ^ Dahnil, M.I., Marzuki, K.M., Langgat, J. and Fabeil, N.F., 2014. Factors influencing SMEs' adoption of social media marketing. Procedia-social and behavioural sciences, 148, pp.119-126.

105. ^ a, b, c, d, e, f *Shahadat, M.H., Nekmahmud, M., Ebrahimi, P. and Fekete-Farkas, M., 2023. Digital Technology A doption in SMEs: What Technological, Environmental and Organizational Factors Influence SMEs' ICT Ado ption in Emerging Countries? Global Business Review, p.09721509221137199.*

106. ^ a, b *Bagale, G.S., Vandadi, V.R., Singh, D., Sharma, D.K., Garlapati, D.V.K., Bommisetti, R.K., Gupta, R.K., Setsiaw an, R., Subramaniyaswamy, V. and Sengan, S., 2021. Small and medium-sized enterprises' contribution to di gital technology. Annals of Operations Research, pp.1-24*

107. ^ *Verbeke, A., 2022. Three simple guidelines to make the dynamic capabilities paradigm actionable in inter national business research. Journal of International Business Studies, 53(4), pp.573-582.*

108. ^ *Sedyastuti, K., Suwarni, E., Rahadi, D.R. and Handayani, M.A., 2021, April. Human Resources Competency at Micro, Small and Medium Enterprises in Palembang Songket Industry. In 2nd Annual Conference on Soci al Science and Humanities (ANCOSH 2020) (pp. 248-251). Atlantis Press.*

109. ^ a, b *Wang, Y. and Qualls, W. 2007. Towards a theoretical model of technology adoption in service-based orga nizations. International Journal of Service-based. Management, 26, 560-573.*

110. ^ a, b *Costa, F., Frecassetti, S., Rossini, M. and Portioli-Staudacher, A., 2023. Industry 4.0 digital technologies en hancing sustainability: Applications and barriers from the agricultural industry in an emerging economy.Jo urnal of Cleaner Production, p.137208.*

111. ^ *Adae, E.K., Kakra Twum, K., Hinson, R.E., Duh, H.I. and Odame, D.A., 2023. Catalysts for Social Media Adop tion in the Public Sector in Africa. In Social Media and Africa's Public Sector (pp. 65-83). Palgrave Macmilla n, Cham.*

112. ^ a, b *Wang, S. and Cheung, W. 2004. E-business adoption by travel agencies: Prime candidates for mobile e-b usiness. Int. J. Electron. Commercial, 8, 43-63.*

113. ^ *Seo, S.-W., Kim, H.-C., Zhu, Z.-Y. and Lee, J.-T. 2020. What Makes Service-based Chefs in Korea Interact with SNS Community at Work? Modelling the Interplay between Social Capital and Job Satisfaction by the Level of Customer Orientation. Int. J. Environ. Res. Public Health, 17, pp. 7129.*

114. ^ *Tella, A., Ukwoma, S.C. and Adeniyi, I.K. 2020. A two-model modification for determining cloud computin g adoption for web-based services in academic libraries in Nigeria. J. Acad. Librarian., 46, pp. 102255.*

115. ^ *. Geurin, A.N., and Burch, L.M. 2017. User-generated branding via social media: An examination of six runn ing brands. Sport Manag. Rev., 20, pp. 273-284.*

116. ^ *Pateli, A., Mylonas, N. and Spyrou, A., 2020. Organisational adoption of social media in the service-based i ndustry: An integrated approach based on DIT and TOE frameworks. Sustainability, 12(17), p.7132.*

117. ^Studen, L. and Tiberius, V., 2020. Social media, quo vadis? Prospective development and implications. Future Internet, 12(9), p.146.

118. ^Alkhateri, N.S., Ahmad, S. and Husseini, S.A., 2022. Conceptual Framework of the Social Media Adoption and Its Impact on Small and Medium-Sized Enterprises (SMEs) Service Performance in UAE. Journal of Positive School Psychology, 6(3), pp.4737-4746.

119. a, b, cLumpkin, G.T. and Dess, G.G., 1996. Clarifying the entrepreneurial orientation construct and linking it to performance. Academy of Management Review, 21(1), pp.135-172.

120. ^Hurt, H.T., Joseph, K. and Cook, C.D.1997. Scales for the measurement of innovativeness.Hum. Commun. Res.,4, 58-65.

121. ^Agarwal, R., and Prasad, J. 1998.A conceptual and operational definition of personal innovativeness in the domain of information technology.Information Systems Research9, 204-215.

122. a, b, cTeece, D.J., Pisano, G. and Shuen, A., 1997. Dynamic capabilities and strategic management. Strategic management journal, 18(7), pp.509-533.

123. ^Gordon, L.A. and Narayanan, V.K., 1984. Management accounting systems perceived environmental uncertainty and organization structure: an empirical investigation. Accounting, Organizations and Society, 9(1), pp.33-47.

124. ^Afshar Jahanshahi, A. and Brem, A., 2020. Entrepreneurs in post-sanctions Iran: Innovation or imitation under conditions of perceived environmental uncertainty? Asia Pacific Journal of Management, 37(2), pp.531-551.

125. ^Thackeray, R., Neiger, B.L., Hanson, C.L., and McKenzie, J.F. 2008. Enhancing promotional strategies within social marketing programs: Use of Web 2.0 social media. Health Promot. Pract. 9, 338-343.

126. ^Kraus, S., Jones, P., Kailer, N., Weinmann, A., Chaparro-Banegas, N. and Roig-Tierno, N., 2021. Digital transformation: An overview of the current state of the art of research. Sage Open, 11(3), p.21582440211047576.

127. ^Muninger, M.I., Hammedi, W. and Mahr, D., 2019. The value of social media for innovation: A capability perspective. Journal of Business Research, 95, pp.116-127.

128. ^Sivarajah, U., Irani, Z., Gupta, S. and Mahroof, K., 2020. Role of big data and social media analytics for business-to-business sustainability: A participatory web context. Industrial Marketing Management, 86, pp.163-179.

129. a, bChatterjee, S., Chaudhuri, R., Vrontis, D. and Chaudhuri, S., 2022. The impact of dynamic capability on business sustainability of organizations. FIIB Business Review, 11(4), pp.455-467.

130. ^a ^b ^c ^d ^eZhang, J.Z. and Watson IV, G.F., 2020. Marketing Ecosystem: An outside-in view for sustainable adv antage. Industrial Marketing Management, 88, pp.287-304.

131. ^Canh, N.T., Liem, N.T., Thu, P.A. and Khuong, N.V., 2019. The Impact of Innovation on Vietnamese manufact uring firms' Performance and corporate social responsibility. Sustainability, 11(13), p.3666

132. ^a ^b ^c ^dQalati, 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, 64, p.101513.

133. ^a ^bMeng, X., Zhang, W., Li, Y., Cao, X. and Feng, X., 2020. Social media effect, investor recognition and the cro ss-section of stock returns. International Review of Financial Analysis, 67, p.101432.

134. ^a ^bHendriarto, P., 2021. Understanding digitalisation's role in business model and innovation: economics an d business review studies. Linguistics and Culture Review, 5(S1), pp.160-173.

135. ^Hu, X., Ocloo, C.E., Akaba, S. and Worwui-Brown, D., 2019. Effects of business-to-business e-commerce ado ption on the competitive advantage of small and medium-sized manufacturing enterprises.

136. ^Rodriguez, M. and Boyer, S., 2020. The impact of mobile customer relationship management (mCRM) on s ales collaboration and sales performance. Journal of marketing analytics, 8, pp.137-148.

137. ^Ferrer, E., Bousoño, C., Jorge, J., Lora, L., Miranda, E. and Natalizio, N., 2013. Enriching social capital and im proving organizational performance in the age of social networking. Business and Management, 5(2), pp.94 -281.

138. ^Wong, C.B., 2012. Facebook usage by the small and medium-sized enterprise: the role of domain-specific i nnovativeness. Global Journal of Computer Science and Technology, 12(4).

139. ^Kwok, L. and Yu, B., 2013. Spreading social media messages on Facebook: An analysis of restaurant busines s-to-consumer communications. Cornell Service-based Quarterly, 54(1), pp.84-94.

140. ^Hassan, S., Nadzim, S.Z.A. and Shiratuddin, N., 2015. Strategic use of social media for small businesses base d on the AIDA model. Procedia-Social and Behavioral Sciences, 172, pp.262-269.

141. ^Al-Mamary, Y.H., Alwaheeb, M.A., Alshammari, N.G.M., Abdulrab, M., Balhareth, H. and Soltane, H.B., 2020. The effect of entrepreneurial orientation on financial and non-financial performance in Saudi SMEs: a revi ew. Journal of Critical Reviews, 7(14), pp.200-208.

142. ^a ^b ^c ^d ^e ^fHair, J., Hollingsworth, C.L., Randolph, A.B. and Chong, A.Y.L., 2017. An updated and expanded ass essment of PLS-SEM in information systems research. Industrial management & data systems.

143. ^a ^b ^c ^dKock, N. and Lynn, G., 2012. Lateral collinearity and misleading results in variance-based SEM: An ill ustration and recommendations. Journal of the Association for Information Systems,13(7).

144. ^Briones Penalver, A.J., Bernal Conesa, J.A. and de Nieves Nieto, C., 2018. Analysis of corporate social responsibility in Spanish agribusiness and its influence on innovation and performance. Corporate Social Responsibility and Environmental Management, 25(2), pp.182-193.

145. a, bWolf, E.J., Harrington, K.M., Clark, S.L. and Miller, M.W., 2013. Sample size requirements for structural equation models: An evaluation of power, bias, and solution propriety. Educational and psychological measurement, 73(6), pp.913-934.

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