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 investigates using social media to improve business performance in the Harare Metropolitan Province of Zimbabwe. Data for this study were collected using a cross-sectional research methodology. A total of 938 participants who were business owners in the Harare region completed an online questionnaire. The utilisation of SmartPLS 4.0 software facilitated the analysis of data and the application of the partial least squares approach to identify interrelationships among measurement components. This study examines the technological constructs of relative benefit, presence qualities, visibility, linkages and interactivity. Senior management support is essential for determining a company's position on social media, particularly in smaller corporate units where roles are interdependent. Based on the social media adoption, antecedents TF and OF implied that their direct impact on business performance was insignificant. Our empirical study reveals that external pressure and environmental uncertainty significantly impact SMEs′ adoption of social media in Harare's multi-industrial urban centre district in Zimbabwe. Overall, the study findings are that social media adoption does not affect SMEs′ business performance in Zimbabwe. A well-established information technology communication infrastructure that characterises this district might be the critical perceptual driver to adopting social media due to its ease of availability, not actual use. This study helped validate a nomological framework using latent constructs. It suggests longitudinal research to investigate in the future.

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1. Introduction

Social media technologies have become valuable for small and medium-sized enterprises (SMEs) as they provide cost-effective communication and competitive responsiveness. These businesses can quickly adopt social media platforms without additional resources due to their low cost and minimal technical requirements. Companies utilise platforms like WhatsApp, Twitter, Facebook, YouTube, and Threads to share information about their products and services and engage with their clients. This innovation has become a global phenomenon, with multinational companies like Coca-Cola and Nando's boasting a substantial online following. These companies prioritise client engagement over promotional content, using social media to sell a wide range of products and expand their global market reach. The use of technology, particularly social media, is equally essential for SME businesses. SMEs are crucial for sustainable national competitiveness, economic growth, and employment creation, and they have the potential to drive digital innovations across all sectors. This study aims to evaluate effective tactics and strategies for maximising the benefits of social media utilisation in a developing nation context.

SMEs are increasingly adopting information communication technologies (ICTs) and transitioning towards technology-driven management (de Mattos et al., 2023)[1]. SMEs exhibit slower adoption of disruptive technologies related to Industry 4.0, such as utilising social media platforms for business objectives (Ghobakhloo et al., 2022)[2]. Among the many social media platforms, Facebook is the dominant social media platform worldwide and has a substantial user presence in Zimbabwe. Zimbabwe's population exceeds 15 million, with an internet penetration rate of 55.7% (InternetWordStats, 2023)[3]. This statistic presents an opportunity for SMEs to utilise social media as a strategic, tactical, and operational tool for promoting their brands and expanding their domestic and global market presence. This trend showcases the potential advantages that SMEs can gain.

Despite limited resources and low costs, social media has become a valuable tool for SMEs to communicate and compete in the market. However, extensive research on the correlation between SMEs and their performance when using social media platforms is lacking (Chudu et al., 2022[4]; Klein &Todesco, 2021[5]; Cardoni et al., 2020[6]; Jere & Ngidi, 2020[7]). Information sharing and access through social media can impact SMEs' performance by providing real time data for insights into customers and

competitors. The challenge lies in understanding how social media can improve competitiveness among SMEs (Qalati et al., 2021[8]; Effendi et al., 2020[9]; Ur Rahman et al., 2020[10]). Additionally, numerous obstacles hinder SMEs' adoption of ICTs in developing nations, such as expensive access, inadequate government policies, reliance on outdated technologies, and limited digital literacy (Ghobakhloo et al. (2022)[2]; Effendi et al., 2020[9]; Ali Qalati et al., 2020[11]; Karedza & Govender, 2020[12]; Moodley, 2019 [13]; Clohessy & Acton, 2019[14]).

The use of social media in businesses, particularly in developing nations, has been the focus of numerous studies (Makanyeza et al., 2023[15]; Chudu et al., 2022[4]; Levy et al., 2021[16]; Jere & Ngidi, 2020[7]; Ahmad et al., 2019)[17]). The primary concern for developing entrepreneurship in developing countries is the environment, which includes factors like industry structure, competition, governmental regulations, and supplier chain integrations. Emerging industries in developed nations generally adopt innovations more frequently than declining or established ones. Applying the same analogy to companies in less developed economies is impossible. Government rules and policies significantly impact how SMEs use new technology. When generalising results, it is essential to consider the contextual distinctions between SMEs in developed and developing countries (Antoni et al., 2020)[18]. Business size indicators may not be applicable globally due to variations in national policies (Chatterjee & Kar, 2020[19]; Aichner et al., 2021[20]). It is now essential to talk about business and entrepreneurship clusters due to social media's impact on SMEs (Saeed & Shafique, 2020[21]).

Numerous studies have examined the utilisation of social media in business-to-customer (B2C) settings. Antoni et al. (2020)[18] contend that social media has dramatically altered traditional processes and improved the shopping experience for consumers. Consumers can access and share their friends' adventures in real-time, influencing their decision-making process before purchasing. Consumer feedback and involvement have a significant impact on marketing strategies, leading to positive effects on sales volume, profitability, and market share for companies (Lal et al., 2020[22]; Drus & Khalid, 2019[23]; Reddy & Karimikonda, 2019[24]; Bakker, 2018[25]). Could social media adoption be essential for improving the performance of SMEs? In Zimbabwe, SMEs can utilise social media as a digital transformation tool due to limited resources and capabilities in traditional management practices (Kajongwe et al. (2020) [26]; Chudu et al., 2020[4]).

Many SMEs in Zimbabwe and elsewhere struggle with limited skills and resources for effective marketing and attracting customers (Ma et al., 2022[27]; Chudu et al., 2020[4]; Karedza & Govender,

2020[12]). Social media adoption can help address these challenges by providing a cost-effective way to engage with customers (Makanyeza et al., 2023[15]; Chudu et al., 2022[4]; Chigombe et al., 2022[28]). Previous studies have examined social media usage levels and metrics in Zimbabwe SME contexts(Chudu et al., 2022[4]; Kajongwe et al., 2020[26]). The result is the lack of a unified set of influencing factors empirically determined, despite the existing interest in this area. However, there is still a need to understand how social media adoption affects SME performance in Zimbabwe, particularly in the Harare Business District. This research aims to fill this gap by examining the factors that drive ICT tools adoption and usage and the potential impact of social media adoption on SME performance. The main issue under discussion is the effectiveness of ICT tool adoption in SME social media performance in Zimbabwe.

Therefore, this study looks into the theory-derived factors that affect how SMEs in Harare, Zimbabwe, use social media and how social media adoption affects business performance. The study builds a research model using the technology-organisation-environment framework Tornatzky and Fleisher (1990) [29] and the innovation diffusion theory Rogers (2003) [30]. Using structural equation modelling to analyse the data from a cross-sectional survey of SMEs in Harare, the results could shade and narrow the knowledge on this subject.

The paper commences with a literature review on the impact of social media on business performance. The subsequent sections present the methodology and findings of the quantitative study. The research concludes by discussing the limitations and suggesting potential areas for future investigation.

2. Literature Review

SMEs and social media adoption

Social media refers to online platforms that allow individuals to create profiles, connect with others, and access and share content Boyd and Ellison (2008)[31]. It will enable people to express themselves, interact with others, and network Murthy (2018)[32]. Social media offers unique marketing communication opportunities, allowing businesses to extend their traditional marketing efforts (Banerjee et al., 2023)[33]; Kaplan & Haenlein, 2010[34]). Through online applications, users can create and collaborate on content, known as user-generated content, using mobile and web-based technologies(Ho & Wang, 2020[35]).

Social media has become a crucial tool for businesses, allowing them to interact with customers and improve communication and collaboration (Ali Qalati et al., 2020 [11]; Ahmad et al., 2019 [17]; Kaplan & Haenlein, 2010[34]). Twitter has gained popularity, with over 500 million daily users, while Facebook, YouTube, and WhatsApp have at least two billion active users each (Statista, 2023)[35]. This exponential growth has enabled organisations to be part of millions of conversations worldwide. Many businesses are using social media as their primary communication tool, allowing consumers to interact with companies, products, or brands and enhancing business performance (Banerjee et al., 2023)[33]; Antoni et al., 2020) [18]. In Zimbabwe, social media has significantly improved the accessibility of SMEs in terms of leading to better productivity, customer base and relations, brand awareness, and business strategy (Kajongwe et al. (2020)[26]). Social media has become a valuable platform for businesses to connect with customers and improve performance.

Online marketing, mainly through social media platforms, has proven cost-effective and sustainable in terms of returns (Lal et al., 2020[22]; Drus and Khalid, 2019[23]). It allows for easy sharing of ideas and information, creating an engaged online community. Effective social media marketing can increase product awareness, motivate the target market to purchase and use the product and promote brand loyalty (Dwivedi et al. (2021)[36]). Immigrant entrepreneurs in South Africa have utilised mobile technology and online channels to leverage social marketing as a powerful tool for technological advancement and broad appeal (Chidau & Khosa (2022)[37]).

Adopting information and communication technology (ICT) is seen as a way to enhance growth opportunities and create a global network of businesses (Barba-Sanchez et al. (2007)[38]). However, there is a lack of conviction among SME managers regarding the importance of ICT adoption. Merely adopting ICT does not guarantee improved performance, indicating a need for a deeper understanding of the issue (Mataruka (2022)[39]; Aduloju (2014)[40]). Previous literature has identified various determinants and organisational conditions to explain this paradox. This study aims to explore these factors and identify those that can explain the characteristics and behaviour of SME managers in improving ICT usage. Despite limited conceptual and empirical insights, there is a crucial need to understand how ICT usage can drive business processes and enhance firm performance (Marconatto et al., 2022[41]; Ali Qalati et al., 2020 [11]; Saptadi et al., 2015[42]).

Therefore, the present study creates a comprehensive framework of factors that influence the decision-making process of SMEs when adopting social media by combining IDT and TOE. The framework

considers various factors, including technological, organisational and external environment characteristics in which SMEs operate. A clear understanding of these parameters can significantly enhance an SME sector's social media adoption profile. The two theories comprise various components that may influence SMEs' choices in applying new technology. The technical factors representing the innovation characteristics of social media incorporated elements of IDT theory, including relative advantage, observability/visibility, and compatibility/interactivity. Senior management's support for social media adoption decisions and their entrepreneurial orientation were organisational features from IDT. The IDT theory lacks a component that relates to the environment. As such, two environmental qualities from TOE were competitive pressure/ environmental uncertainty and competitive intensity. Hence the researchers thought the TOE as primary plus a few IDT theory elements were the most appropriate model. The framework for the study contains seven constructs across the three areas, building the hypotheses of this research.

Technology Characteristics

Companies globally have traditionally relied on traditional media for marketing their products. However, with the advent of the Internet, there has been a significant shift towards utilising social media platforms for marketing. Companies and non-governmental organisations use social media platforms to access diverse markets. Zimbabwean companies use social media platforms like WhatsApp, Facebook, Twitter, and Linkedin to engage with customers and capitalise on their opportunities (Chudu et al., 2022)[4]. These specific platforms have significantly revolutionised domestic and global business practices. Chigombe et al. (2022)[28] assert that small construction businesses employ social media as a marketing tool to engage large audiences efficiently. The typical target demographic in Zimbabwe is the middle class due to its growing size and reasonably stable income streams. The rise of serial social media platform users (e.g., ITU, 2021)[43] has invigorated companies, prompting them to develop effective marketing strategies to engage audiences highly responsive to instant messaging.

There is a limited presence of SME companies utilising social media for business purposes in Zimbabwe. The limited use of information systems, including social media platforms, has resulted in a lack of competitiveness among SMEs compared to their international counterparts, who prioritise investments in information systems (Makanyeza et al., 2023[15]; Al-Hattami, 2022[44]). Whether those SMEs in Zimbabwe that have adopted Social media platforms effectively utilise information systems for business process optimisation or as decision support systems for performance improvement remains inconclusive

(Mataruka et al., 2023[45]; Al-Hattami, 2022[44]; Chigombe et al., 2022[28]; Kajongwe et al., 2020[26]). Some companies use traditional media for marketing due to the country's internet access limitations (Chudu et al., 2022)[4]. Ahmad et al. (2019)[17] found that relative benefit is among the most reliable predictors of adoption. Chudu et al. (2022)[4] discovered in their research on SMEs and micro-enterprises in Zimbabwe that social media is comparatively visible and engaging. The study (Kajongwe et al., 2020)[26] shows that social media improves SMEs' visibility, brand awareness, customer relations and productivity in Zimbabwe. Statista's research (2023)[35] begs for the study to include interconnectivity considerations due to Zimbabwe's growing internet presence and usage at the individual level. This perceived trend raises favourable opportunities for B2C interactivities. Thus, a crucial social media adoption selection criterion of three IDT components—relative benefit, observability/visibility, and connective interactivity —is what a company anticipates from a particular platform as influential.

The first hypothesis (H1) is, therefore:

- H1. Technological characteristics have a positive influence on social media adoption by SMEs.

Organisational Characteristics

The organisational context refers to the internal attributes and characteristics of a firm. The factors are size, level of formalisation, centralisation, staffing, and management issues such as networks and relationships among staff, as highlighted by (Tornatzky & Fleischer, 1990)[29]. This study employed owner/management support of social media as a representative measure for the entire organisational context. SME owners are essential in elucidating the significance of social media in the overall strategic framework of SMEs and in promoting innovation. The level of entrepreneurial orientation is dependent on the management. Senior managers, typically owner-managers, play a crucial role in determining whether SMEs in developing economies choose to adopt social media or not. SMEs' use of social media in Zimbabwe is underdeveloped due to various challenges SME managers face, despite the widespread use of social media at a personal level. The current body of literature lacks sufficient research on SMEs' use of social media in developing nations. Several studies conducted in the Southern Africa region have examined the role of managers in decision-making related to the adoption of social media and their innovativeness in extending products/ services offerings to a broader market (Makanyeza et al., 2023[15]; Mataruka, 2022[39]; Chudu et al., 2022[4]; Jere & Ngidi, 2021[7]). Individual characteristics of senior managers and business size are important factors that influence the adoption of social media. Previous

studies have found a positive correlation between SME managers' knowledge of the benefits of adopting mission-critical information systems and their ability to use these technologies in an entrepreneurial-orientated manner (Mohammadian, 2022[46]).

One fascinating insight from the preceding discussion is the potential tension between the individual managerial and business use of social media. Managers' personal experiences with social media and the influence of others may increase their likelihood of adopting social media for innovative purposes and reduce their perception of risks associated with using social media for business purposes (Kwon et al., 2021[47]; Effendi et al., 2020[9]). This innovative and risk-attitudinal behavioural mindset finds support in extant literature (Chiu et al., 2016[48]; Schaupp & Bélanger, 2014[49]). Existing research has established a connection between management knowledge and social media. Still, it does not adequately address the issue of personal perceptions (e.g. risk-attitude and innovativeness) in adopting social media in a business context (Kwon et al., 2021[47]; Effendi et al., 2020[9]). Hence a significant social media decision-making criterion is the balance in the risk-attitudinal, entrepreneurial orientation and innovativeness that a business expects from a given platform, as it relies on management support. Despite the existing background and available determinants and organisational conditions, there is still an incomplete understanding of the role of the senior managers' perception in the adoption of social media in business (Kajongwe et al., 2020[26]; Makanyeza et al.,2023[15]; Mataruka et al.,2023[45]). In a study, Kajongwe et al. (2020)[26] show results indicate that social media has a positive relationship with the business strategy of SMEs in Zimbabwe.

The second hypothesis (H2) is, therefore:

- H2. Organisational characteristics have a positive influence on social media adoption by SMEs.

Environmental Characteristics

Environmental characteristics are the extrinsic factors beyond an entity and may pose prospects or constraints for adopting technological advancements. The enterprise 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)[50], Cao & Chen (2019)[51], and Tornatzky and Fleisher (1990) [29]. 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. The government of Zimbabwe has demonstrated a commitment to policy by prioritising the development of ICT infrastructure and possibly reducing uncertainty in this space. This dedication is evident in the remarkable expansion of mobile cellular usage and internet penetration observed in the past ten years (Karekwaivanane & Msonza, 2021)[52]. As such, the business environment creates opportunities, and customer pressure might mount for business to improve their information systems and responsiveness as more players start using social media for business.

Countries exhibit varying levels of social media development and use, primarily influenced by external environmental factors called facilitating conditions (Qalati et al., 2021[8]; Dahnil et al., 2014[53]). In Zimbabwe, these external factors may provide additional insights into social media adoption trends among SMEs. Thus external pressure from critical stakeholders and uncertainty due to increased government regulations and global competitiveness has created borderless markets.

The third hypothesis (H3) is, therefore:

- H3. Environmental characteristics positively influence social media adoption by SMEs.

Social Media's Effects on company performance

Several studies (Hendriarto, 2021[54], Qalati et al., 2021[8], Meng et al., 2020[55].) have demonstrated how technology may increase the efficacy and efficiency of corporate operations. Ainin et al. (2015)[56] found a positive correlation between corporate social media adoption and business performance. Rodriguez and Boyer (2020)[57] conclude that social media enhances customer-facing activities and sales performance. Ferrer et al. (2013)[58] found that social media enhances organisational social capital and improves performance. Integrating digital innovations with traditional or hands-on business methods benefits all parties involved (Kraus et al., 2021[59]). Businesses must incorporate methodologies to capitalise on new business opportunities and enhance performance (Sivarajah et al., 2020[60]; Muninger et al., 2019[61]). Empirical research indicates that technology-focused enterprises must embrace further information and communication technology (ICT) innovations to thrive in the volatile economic climate. The ability to adjust to new technologies and business practices is essential for profit-driven firms to succeed in today's dynamic market (Chatterjee et al., 2022[62]; Zhang et al., 2020[63]). Hu et al. (2019)[64] conclude that adopting and expanding ICT innovations can bring businesses economic benefits, such as increased market share, higher sales volumes, and reduced costs. Zhang et al. (2020)[63] discovered that firms that

embrace technological innovations can achieve substantial profit and market share growth, surpassing competitors who do not adopt these advancements. These studies support previous research on technology adoption, showing that adopting technology affects financial and non-financial performance (Mataruka et al., 2023[45]; Qalati et al., 2021[8]; Meng et al., 2020[55]). On the contrary, some studies have found no benefit for SMEs in adopting social media, further justifying gaining more knowledge (e.g., Ahmad et al., 2019)[17].

Over the past decade, management information research has accepted innovation adoption's performance benefits. Some studies have linked innovation adoption to business performance, but others have not. The extensive causal chain linking innovation adoption to corporate success and most studies ignoring critical intermediary organisational aspects that influence this relationship may explain conflicting results (Mataruka et al., 2023[45]; Asri, 2021[65]; Gupta et al., 2020[66]; Ahmad et al. (2019)[17]; Kamukama, 2011[67]; Ravichandran & Lertwongsatien, 2005[68]). The final inquiry options are two-pronged. First, social media adoption (SMA) directly affects firm performance (BP).

The set of study hypotheses relating to social media composite and disaggregated constructs are stated as H4, H5, H6, and H7, therefore:

- H4. SMEs can benefit significantly from using social media to enhance business performance.
- H5. SMEs can benefit significantly from using social media technological factors to enhance business performance.
- H6. SMEs can benefit significantly from using social media technological factors to enhance business performance.
- H7. SMEs can benefit significantly from using social media technological factors to enhance business performance.

Second, SMA indirectly mediates the relationship between social media determinants and BP. Studies by Mataruka et al. (2023)[45], Asri (2021)[65], Gupta et al. (2020)[66], Ahmad et al. (2019)[17], Kamukama et al. (2011)[67], and Ravichandran & Lertwongsatien (2005)[68] have shown the mediating role of innovation adoption as a relationship between information systems management and firm performance. The study suggests that the adoption of social media plays a mediating role between social media antecedents (technological, organisational, and external environmental factors) and business performance. This approach leads to formulating hypotheses 8, 9, and 10. Therefore:

- H8. SMEs can benefit significantly from social media meditating between technological factors to enhance business performance.
- H9. SMEs can benefit significantly from social media meditating between organisational factors to enhance business performance.
- H10. SMEs can benefit significantly from social media meditating between external environmental factors to enhance business performance.

Furthermore, applying the IDT factors embedded in the TOE framework has facilitated forming the composite construct about adopting social media influence to improve SMEs' business performance. Therefore Figure 1 below shows the theorised relationship.

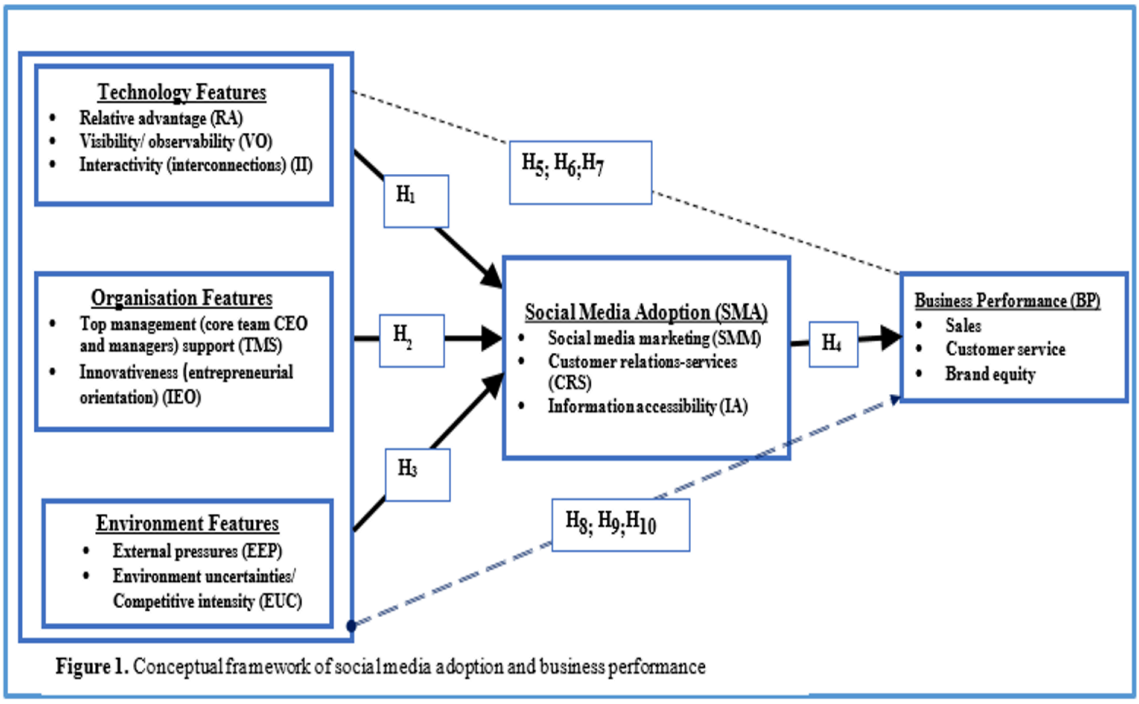

Figure 1. Conceptual framework of social media adoption and business performance

Figure 1.

3. 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.

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.

Measurements

The classifications for the technological and organisational constructs were adapted from Rogers (2003) [30] with modifications to fit the context of Zimbabwe's SMEs. In addition, Moore and Benbasat (1991) [69] developed and validated scaled items for relative advantage, interactivity, visibility, top management support, and personal inventiveness. To better suit the needs of SMEs in Zimbabwe, the authors slightly modified these scales. 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. First, the construct technology factor (TF) variables for four (4) items of relative advantage (RA) (Ghobakhloo et al., 2011[70]; Grandon & Pearson, 2004[71]; Moore & Bnebasat, 1991[69]), visibility or observable (VO) (Sin Tan et al., 2009[72]; Hsu et al., 2007[73]; Moore & Benbasat (1991)[69]) and interconnectedness (II) (Al-Qirim, 2007[74]; Moore & Benbasat, 1991[69]). 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. Second, the independent construct organisational factors (TF), top management support (TMS)(Covin et al., 2020[75]; Thong, 2001[76]; Thong &Yap,1995[77]; Yap et al., 1994[78]; Moore and Benbasat, 1991[69]) and innovativeness or entrepreneurial orientation (IEO)(Thong, 2001[76]; Covin et al., 2020[75]; Moore & Benbasat, 1991[69]). 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. Third, for the external environmental factor (EEF) items, competitive pressure (EEP) (Gutierrez et al., 2015[79]; Yap et al., 1994[78]) and industry competitiveness in face environmental uncertainty (EUC)(Thong & Yap, 1995)[77]. 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. Fourth, 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)[80] measures social media marketing (SMM), customer relationship systems (CRS), and information accessibility (IA).

Instrument validation

Testing for face and content validity among academic faculty and the study's target population during the questionnaire construction phase allowed researchers to evaluate the psychometric qualities of the scale items (Bagozzi & Yi, 1988[81]). No further changes were needed because most respondents agreed that the questionnaire was simple.

Sampling and data collection

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 social media strategies in their organisations, typically the owner-manager or someone entrusted with overall business managerial oversight (Bergeron et al., 2001)[82]. In total, 938 completed questionnaires in a usable format, despite efforts such as follow-up calls, WhatsApp messages, and emails to increase the response rate.

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 authors are, therefore, reasonably confident that non-response bias does not pose a significant problem.

4. Results

Descriptive information

The descriptive information for the 938 respondents shows the age group with the highest representation is individuals aged 46-55, closely followed by those aged 36-45. In contrast, individuals below 25 years and aged 25-35 years were relatively fewer in number. The results reveal a gender imbalance within the population, with females comprising 76.2% and males accounting for 23.8%. Thus, the higher proportion of females in the population suggests a dominance of the female gender in the small to medium enterprises in Zimbabwe. Regarding educational qualifications, the largest segment comprises PhD individuals, representing 39.7% of the population. The second-largest group includes individuals with a Master's degree, representing 28.8% of the population. Other qualifications, A-level holders, and diploma holders follow in descending order, representing 5.52%, 4.9%, and 3.7% of the population, respectively. This demographic profile suggests that decision-makers in SMEs using social media tend to be younger and better educated. They may also be more aware of business developments in the industry and beyond.

The sample firms were reasonably representative of the overall population of business sectors in the Harare SME area. Thus, the share of the sectors was 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%). The authors are therefore confident that the sample is representative of SMEs in the Harare Business District in Zimbabwe.

Empirical analysis

The data cleaning was done before the empirical analysis to evaluate the accuracy and dependability of the measuring tools. The research employed PLS-SEM version SmartPLS 4.0, known as partial least squares structural equation modelling, to analyse and test the hypotheses. The application of PLS-SEM stems from the difficulty that academics and business professionals have in locating acceptable data sets for covariance-based structural equation modelling (CB-SEM) (Kono & Sato, 2023)[83].

Data purification

The statistical study used t-test comparisons to assess the differences in group means for each analysed component. The data showed no fundamental changes between owner-managers, non-owner managers, and other executive positions. The results for the means and standard deviations of the measurement items shed light on the data's average and variability by revealing the responses' central tendency and dispersion.

First data analysis for the technological characteristics 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 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.

The data analysis for organisational characteristics reveals that the variables have relatively consistent mean values between 2.651 and 2.850 for TMS and IEO 3.150 to 3.414 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.

External environmental characteristics' 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.

Other measurements items of social media adoption's data analysis revealed 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)[17], we self-developed a composite variable to capture multiple dimensions of business performance (BP). The composite measure included three variables: (1) sales, (2) customer service, and (3) brand equity. The item measurements relate to the quality of service six (6) items from Rehman et al. (2012)[84]. 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.

Further, the measurement items also assessed 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[85]). 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 further to 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.

To examine common method bias (CMB), a method proposed by Kock and Lynn (2012)[86] 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)[86] 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.

Structural model fitness

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. All factor loadings are above 0.50 regarding convergent validity, implying a good model. The results reported a 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) [87] 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% 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.

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)[85]. 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[85]; Becker et al., 2012[88]). 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[85]; Becker et al., 2012[88]). The sample requirements for Partial Least Squares (PLS) are comparatively less stringent compared to covariance-based techniques. According to scholarly sources (Kono & Sato, 2023 [83]; Hair et al., 2017[85];

Kock & Lynn, 2012[86]), 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 (Kono & Sato, 2023)[83]. Our study determined that a minimum sample size of 500 cases was necessary (Hair et al., 2017) [85], 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[86]).

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, and H10 as per the conceptual framework in Figure 1 above.

Hypothesis	Relationship	Coefficient	SE	T	P- values	Decision
H_1	TF -> SMA	0.083	0.041	2.037	0.042	Supported
H_2	OF -> SMA	0.348	0.039	8.949	0.000	Supported
H_3	EEF -> SMA	0.052	0.030	1.741	0.082	Not Supported

Table 6. Structural model's PLS results for SMA

*Note that: *** p< 0.01, ** p < 0.05, * p < 0.1*

The results for the decomposite measure of social media adoption in Table 6 indicate that 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). 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_1 and H_2 are supported while H_3 is not.

Hypothesis	Relationship	Coefficient	SE	T	P-values	Decision
H_4	TF -> BP	-0.006	0.038	0.166	0.868	Not Supported
H_5	OF -> BP	-0.010	0.040	0.252	0.801	Not Supported
H_6	EEF -> BP	0.510	0.027	18.790	0.000	Supported
H_7	SMA -> BP	0.062	0.029	2.140	0.032	Supported

Table 7. Structural model's PLS results for BP

*Note that: *** p< 0.01, ** p < 0.05, * p < 0.1*

The results in Table 7 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). However, the composite measure for social media adoption (SMA) significantly positively affected BP (β = 0.062, t=2.140, p=0.032). These results suggest that the disaggregate measure for EEF of SMA (H_6) and the composite measure for SMA (H_7) are supported. While the remainder of the disaggregated extent TF and OF represented by H_4 and H_5 are not supported.

Mediating effect

Table 8 presents the results of the mediation hypotheses H_8, H_9, and H_{10}, which examine the significance of direct and indirect effects. The mediation investigation utilised a 95% confidence interval (CI) and 5000 bootstrapping samples.

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Hypothesis	Relationship	Coefficient				CI Bias-corrected	
		Beta (β)	SE	T	P-value	2.50%	97.50%
H_8	TF -> SMA -> BP	0.005	0.004	1.414	0.157	0.000	0.015
H_9	OF -> SMA -> BP	0.021	0.011	2.032	0.042	0.003	0.044
H_{10}	EEF -> SMA -> BP	0.003	0.003	1.268	0.205	0.000	0.011

Table 8. Mediating effects

*Note that: *** p< 0.01, ** p < 0.05, * p < 0.1*

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, and the 95% confidence interval (CI) excluding zero. Therefore, hypotheses H_8 and H_{10} are all not supported, while H_9 is supported.

5. Discussion

This paper examines adopting technology tools as a catalyst for enhancing business performance. A study conducted in Zimbabwe reveals the country's increasing economic significance of SMEs. Staying updated with the latest technologies can significantly benefit SMEs by enhancing their business momentum and expanding global networking opportunities. The findings from Table 6 and Table 7 of the study reveal several essential relationships and implications within the Zimbabwean context regarding technology factors (TF), organisational factors (OT), enterprise environmental factors (EEF), social media adoption, and business performance (BP). Previous research studies in the field of information systems in the Zimbabwe industry have primarily explored and stressed the importance of technological elements (Mataruka, 2022 [39]; Mataruka et al., 2023[45]; Chundu et al., 2022[4]).

Based on the social media adoption, antecedents TF implied that their direct impact on business performance was insignificant. Similarly, AlSharji et al. (2018)[89] showed that the technology construct had no significant effect on social media adoption. The technology construct is irrelevant to SMEs' decision to use social media, as the literature about the most influential factors is inconclusive. Internal characteristics of complexity and investments remain barriers to adopting complex IT systems such as ERP systems. SMEs are more affected by adopting a specific technology (Roffia & Mola, 2022[90]; Ndekwa & Katunzi, 2016[91]; Buonanno et al., 2005[92]). However, social media is consumer-oriented and more likely to be perceived as a realised benefit. The respondents' age range of 36-55 and consequent relative indifference to social media due to their being technological migrants rather than younger users with better familiarity may be reasons for the study's unimpressive connection. Despite the sample's generally more significant levels of education, this may have decreased their capacity to use it successfully, negating the significance of relative advantage, visibility and interactivity in influencing behavioural intention. This view supports the resource-based idea, highlighting the importance of implementing social media adoption initiatives at lower levels of an organisation rather than solely relying on top management.

Similarly, the effect of OF on BP is minor and does not play a significant role in enhancing business performance. This study highlights the insignificance of senior management engagement in adopting technology and inconsistencies in Zimbabwe's literature. AlSharji et al. (2018)[89] showed that the organisation construct significantly affected social media adoption. The findings are dissimilar to the claim of other scholars (Makanyeza et al., 2023[15]; Mataruka, 2022[39]; Chudu et al., 2022[4]; Mohammadian, 2022[46]; Jere & Ngidi, 2021[7]) that found support. The authors suggest that senior management in SMEs enforces social media use in tactical and marketing operations. As such, Schaupp and Bélanger (2014)[49] conclude that technology competence could indicate the value of adopting social media, which relies on management support for lower operational levels in the case of SMEs. Senior managers might be constrained by their inseparability role in their businesses, making them the sole strategic decision-makers. The respondents' young age and high level of education suggest that they use social media for personal reasons, which may have influenced their interest in using it for non-strategic business purposes. Chigombe et al. (2022)[28] contend that managers should facilitate their staff's effective implementation of social media projects. This assistance may involve financial investments in IT infrastructure (Qalati et al., 2021)[8] and IT training to facilitate the organisation's adoption of social media (Chigombe et al., 2022[28]; Chudu et al., 2022[4]; Schaupp & Bélanger,2014[49]). Social media

adoption is contingent upon top management's allocation of financial resources. Like Schaupp and Bélanger (2014)[49], the perceived impact on internal operations, marketing, customer service, and sales are also significant dimensions of social media value.

In contrast, the results imply that the environment in which an organisation operates impacts business performance, in concurrence with Shahadat et al. (2023)[93]. AlSharji et al. (2018)[89] results showed that the environment constructs were significant. The study did not specifically examine how BP and the factors affecting EEF, competitive pressure, and intensity reacted. These elements were, however, blended to create a composite build. Reading these variables has produced a range of results in earlier studies. Ahmad et al. (2019)[17] found that the variable of competitive intensity had no significant impact on the intention to adopt social media in the UAE, which contradicts previous research findings. In their study, Lertwongsatien and Wongpinunwatana (2003)[94] discovered a direct relationship between competitive intensity and the implementation of e-commerce in SMEs in Thailand. The Ahmad et al. (2019)[17] study found that competitive pressure significantly impacted the intention to adopt social media. Ahmad et al. (2019)[17] found that SMEs are motivated to embrace social media due to competitive pressure in their business environment. This finding could be consistent with prior research conducted by Schaupp and Bélanger (2014)[49] and Lertwongsatien and Wongpinunwatana (2003)[94], highlighting discrepancies in the existing literature.

Further, 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 [39]; Pateli et al., 2020[95]). There is likely a positive relationship between competitive pressure and innovation adoption at the firm level in Zimbabwe, specifically in increasing social media usage. In Zimbabwean, business entities are slow to adopt technology innovation management due to poor economic performance and lack of foreign financial resources (RBZ, 2023[96]; Nyoni& Bonga, 2018[97]). The bandwagon effect influences SMEs' adoption of social media, as they perceive it as a convenient way to reach customers, given its widespread usage in the general market, as Ahmad et al. (2019)[17] found in UAE. A well-developed ICT infrastructure in this Harare district may be a significant factor in adopting social media, primarily due to its easy accessibility rather than actual usage. However, in this study, it seems to have been an influencing condition. Schaupp and Bélanger (2014)[49] conclude that mobile environment characteristics are essential antecedents of social media usage. SMEs' level of awareness and comprehension regarding the potential advantages of social media is contingent upon

their firm's expertise and experience (Chudu et al., 2022)[4]. These findings can help managers and decision-makers in the SME sector stay informed about research on social media innovation, which could apply to optimise internal and external resources. This knowledge will empower individuals to capitalise on the growing prevalence of social commerce.

Table 8 provides an entirely similar and affirmative view of the results to those in Table 6 and Table 7 discussed above. Overall in Table 8, we are taking social media adoption as a mediating construct between TF, OF, and EFF, all on BP, as the results show insignificant and very fragile support. The weak significant acceptance is the organisation factors related to the path (OF ◊ SMA ◊ BP), which may be due to some top management support and innovation/ entrepreneurial orientation being competitively distinctive for business performance.

This study examined the impact of social media usage on the performance of SMEs. Nevertheless, the results indicated no statistically significant effect, implying that companies did not experience any advantages from their investments in this domain. Ahmad et al. (2019)[17] and Nair (2011)[98] suggest that treating social media as an experiment rather than subjecting it to immediate evaluation is worth considering. Mataruka et al. (2023)[45] contend that companies must consider ICTs as resources and capabilities that build core competencies that ensure sustainable competitive advantages over time, internally at the lower operational level. Thus, top management support should merely guide and provide the enabling environment to nurture a collective culture of experiential entrepreneurial orientation. Companies' social media investments and the methods used to evaluate their need within their strategic intent framework. Organisations should engage in technological experimentation until that point (Ahmad et al., 2019)[17]. Different companies measure performance differently, and this lack of a measurement standard makes it difficult for organisations to directly assess the financial impact of adopting and performing on social media (Perera, 2021[99]; Abu Bakar & Ahmad, 2019[100]; Ahmad et al., 2019[17]) Measurements are subject to interpretation and can vary among parties (Owyang & Toll, 2007) [101]. McCann and Barlow (2015)[102] contend that success indicators should be consistent with the initiative's original objectives, such as the adoption of social media. Rather than choosing between blogging and tweeting, the focus should be on determining the key objectives and selecting the best tools and metrics, as argued by Hoffman and Fodor (2010, p. 47)[103]. Ho and Wang (2020)[104] and Stockdale et al. (2012)[105] recommend companies develop a social media strategy and assess how well it will align with their objectives. This outcome is consistent with Blanchard's (2011)[106] and Ahmad et al.'s (2019)

[17] conclusions. The authors emphasised integrating social media use with current business objectives and tactics.

6. Implications and conclusion

Research Implications

TOE and IDT are excellent theories to use as the foundation for this investigation, and they would provide some insight into the study's direction. We separated the conceptual frameworks and listed the hypotheses accordingly. Overall, the current study contributes some 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 environmental uncertainty 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.

Practical Implications

Various factors, such as technology, organisation, and the environment, can impact the current positioning of SMEs concerning social media. The findings provide a reliable foundation for estimating the direct and indirect benefits of innovative social media features for decision-makers contemplating using social media applications and practices in SMEs across multiple industries. The findings indicate that enterprises can enhance their adoption rates by effectively leveraging social media's relative advantage, presence, and linkages innovation properties. To adopt and accept innovation for customers, practitioners should prioritise creating an innovation culture and boosting their innovation rates. Social

media may not be profitable for an organisation even with competitive and peer pressure, environmental unpredictability, innovativeness, top management support, relative advantage, visibility, and connectivity benefits. It is necessary to increase senior management's understanding of the significance of social media and its capacity to enhance companies' innovation and overall performance.

7. Conclusion

Small firms in Zimbabwe increasingly use social media platforms to communicate and interact with their stakeholders effectively. Only a few companies have experienced enhanced business performance due to this technological innovation. This study seeks to elucidate the correlation between factors influencing social media usage and its impact on business activities and overall firm performance. The study sample provides limited evidence of benefits for businesses that have embraced social media. While previous studies in Zimbabwe have predominantly used a descriptive approach, this study deviates from that by employing the TOE framework in conjunction with the IDT theoretical foundation and structural equation modelling for analysing the factors influencing firm performance. The results presented in Table 6 suggest that both TF and OF play a significant role in influencing the adoption of social media (SMA). SMEs prioritise technological and organisational factors over environmental factors (EEF) when making decisions regarding SMA. Table 7 presents contrasting findings, showing that EEF positively impacts SMEs' performance, while TF and OF are unsupported. Table 8 demonstrates that SMA is a mediator between OF and BP, while SMA's mediation of EEF and TF on BP is insignificant. This paradox highlights the contradiction in the impact of social media adoption on business performance. As a result of the paradox, the authors opine that the adoption of social media did not impact the performance of SMEs. This study contributes to developing a validated nomological framework utilising latent constructs. Future studies can build upon this study by using longitudinal research methods to investigate the latent and observable factors that influence the performance of firms.

8. Limitations and Future Research

Our study is limited to data collected from multi-industrial businesses in Harare, Zimbabwe. The multi-industrial sectors of these SMEs are diverse and may not show consistent patterns in technology adoption and innovation management. Future research should consider incorporating classification systems to understand better the factors influencing social media usage within various organisational

sub-sectors. These factors may include the number of social media tools utilised and the duration of adoption.

The study did not collect data on usage patterns and intensity of social media adoption in SMEs, which would have allowed for comparison with other public sources to identify the specific social media applications used. This approach compares with Rogers's (2003)[30] adoption curve. Adopting social media involves integrating individuals' usage duration and creativity to develop appropriate business applications. The proposed social media adoption indicators can be used as a variable in future longitudinal research to gain accurate and reliable insights into individuals' social media usage patterns. Additional benchmarking based on regional popularity and usage intensity can enhance policy alignment.

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. Adopting technological innovations based on the actions of others can lead to a sense of urgency, as many firms have already implemented such innovations.

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), discussion of results (Mataruka and Muzurura).

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Conflicts of Interest

The authors declare no conflict of interest.

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