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Conceptual Framework of the Impact of Social Media Adoption by Selected MSMEs in Zimbabwe

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Abstract

Changes in the environment affect the growth of Micro, Small and Medium Enterprises (MSMES). Thus, MSMEs have to adopt innovative ways to grow and contribute meaningfully to the economy. A number of studies have been carried out on the adoption of social media by Small and Medium Enterprises (SMEs) worldwide but empirical evidence for MSMEs in the ICT and light engineering sector is still a dearth. This paper, therefore proposes a conceptual framework based on Technology Organization and Environment (TOE) and Diffusion of Innovation (DOI) frameworks to examine the impact of social media adoption by selected MSMEs in Zimbabwe to enhance their growth. The framework suggests **four** key factors that influence social media adoption and hence improve business performance. The key factors are generalized to 1) owner manager characteristics, 2) social media diffusion, 3) the organization's size and characteristics and 4) the environmental factors such as competition and regulatory framework. Empirical testing to validate the conceptual framework is needed to help MSMES from all sectors to effectively use social media applications in order to enhance growth.

Keywords: MSME, Social Media Application, Innovation, TOE

Introduction

Innovativeness is a crucial characteristic that all MSMEs must exhibit to sustain and sustain growth in the current competitive and uncertain environment. The outbreak of the COVID-19 pandemic and catastrophes caused by climate change has introduced uncertainty into the business environment, necessitating the adoption of new business models by MSMEs in order to survive (Hossain et al., 2020). According to studies, innovation capability has a significant beneficial effect on organisational effectiveness (Yoo et al., 2018).

Micro, Small and Medium Enterprises

More than 70% of the world's enterprises are classified as MSMEs (OECD, 2017; World Bank, 2018). The definition of MSME differs from region to region, industry to industry, country to country, and even within a country's several organisations (Chivasa, 2014). The diverse definitions of MSMEs are mostly the result of international institutions, national legislation, and industry classifications (Pula & Berisha, 2015). In Zimbabwe, the Ministry of Small and Medium Enterprises and Cooperative Development (MSMECD), the SME Association of Zimbabwe (SMEAZ), and the Zimbabwe Revenue Authority (ZIMRA) give the most notable functioning definitions of MSMEs. MSMEs are classified in Chapter 24:14 of the Small and Medium Enterprises Act based on their economic sector, size, number of full-time paid employees, annual revenue, and gross asset value (MSMECD, 2014). See Table 1 for definition.

Table 1
The Definition of MSMEs in ICT and Light Engineering Sectors

Sector Type	Number of Employees	Annual Turnover	Total Assets
Micro	1-5	Up to US$30 thousand	Up to US$30 thousand
Small	6-30	Up to $500 thousand	Up to $500 thousand
Medium	31-75	Up to $1 million	Up to $1 million

Source: (MSMECD, 2014)

MSMEs are a significant contributor to a nation's Gross Domestic Product (GDP). More than 95% of all business activities in developed and developing economies are conducted by MSMEs (Rahman et al., 2016; Etuk et al., 2014; Floyd & McManus, 2005; Sila & Dobni, 2012). MSMEs effectively address employment issues, economic growth, and poverty reduction, and drive innovation, thereby playing a crucial role in the achievement of the Sustainable Development Goals (SDGs) (Goswami & Gupta, 2018; Katua, 2014; OECD, 2017; Racheal & Uju, 2018). With an estimated 60% contribution to GDP, the government of Zimbabwe views the MSME sector as the primary driver of economic growth (MSMECD, 2014). The macroeconomic collapse of the early 2000s caused a 50% drop in economic growth and the closure of 60% of factories, thus leading to a 95% increase in the formal unemployment rate (Masiyiwa, 2017; Zindiye et al., 2012). As a result, this has led to an increase in the number of informal businesses utilising vacant urban spaces and residential areas as small-scale industrial workshops. Entrepreneurship education should accompany the growth and sustainability of these MSMEs (Goriwondo, 2012).

ICT Sector

Digital innovation is one of the most substantial economic growth drivers in the ICT sector. ICT investment, ICT specialist competencies, the number of ICT specialists, and the effective use of low-cost ICT technologies can all have a considerable impact on the economic growth of low-income countries (Maryska et al., 2012). The International Telecommunication Union (ITU) classifies the ICT industry into three categories: 1) ICT manufacturing, 2) ICT trade, and 3) ICT services. MSMEs in the ICT sector contribute significantly to the economy, as do all other MSMEs. According to the McKinsey Institute, the contribution of the Internet to the economy (iGDP) includes private use of networks and services (consumption and investment), public expenditures, and the trade balance. According to Antoniuk et al. (2017), "the global production of ICT goods and services amounts to an estimated 6.5% of GDP in 2017." The

Internet-based economy contributes 1.1% to Sub-Saharan Africa's GDP (Magaya, 2018; Nyirenda-Jere & Biru, 2015). The ICT sectors in South Africa and Nigeria, the continent's two largest economies, contribute 1.4% and 0.8% of GDP, respectively. However, there is a dearth on how much the Zimbabwe's ICT sector contribute to the country's GDP. There a gap in literature concerning social media acceptance by MSMEs in the ICT sector.

The Light Engineering Sector (LES)

The "light engineering" sector includes small technology-based manufacturers of metalworking or electromechanical parts (Talukder & Jahan, 2016). MSMEs in the light engineering sector manufacture or repair small and medium-sized equipment or tools, or produce spare parts for numerous types of industrial enterprises, such as agro machinery, automotive, power, railways, mills, etc. (Ahmad & Jahan, 2017; KPMG, 2008; Fashu, 2018; Talukder & Jahan, 2016; Uddin, 2016). The industry is roughly divided into three categories: foundries; machine shops; and repair shops (Talukder & Jahan, 2016). In Zimbabwe, the light engineering subsector includes the assembly of light machineries such as motorcycles, metal-finished products such as tanks and electrical machinery (ZEPARU, 2014). The light engineering sector fabricates and assembles small-scale units that require inexpensive capital (ZEPARU, 2014). The LES plays a significant role in the creation of jobs, thereby reducing poverty, as well as in the production of spare parts required for industrial maintenance and the manufacture of goods (Fashu, 2018; LEPBPC, 2018; Majumder & Dey, 2020; Subrahmanya, 2015; Uddin, 2016). There is limited literature on the use of social media by MSMEs in the light engineering sectors in developing nations, and Zimbabwe in particular.

Scope of the Study

Tin order to fill the gap in literature this paper aims to apply the technological, organisational, and environmental (TOE) framework through a conceptual model to further investigate the factors that influence the adoption of social media by MSMEs in the ICT and light engineering sectors (Tornatzky & Fleischer, 1990). The model will also use the characteristics of innovativeness from the Diffusion of Innovation (DOI) theory to further explain the extent of the selected MSMEs' adoption of social media. It is hoped that this conceptual model, which combines ideas from other technology acceptance frameworks, will best explain how social media assists the selected MSMEs in developing effective social media strategies that will increase their influence, growth, and capacity to sustain their businesses during uncertain times.

Literature Review and Hypotheses Development

Social Media

Social media sites are web-based applications that enable users to create profiles and communicate with other subscribers (Hettiarachchi et al., 2017). A growing number of businesses are using social media to facilitate communication with clients and business partners. Although return on investment is difficult to evaluate, it has been established that when social media is adopted and utilised effectively, the majority of businesses receive the same benefits (Bakri & Kisswani, 2014). Enterprises have reported obtaining a competitive advantage, enhancing customer service, and expanding into new areas as a result of constant consumer involvement (Islam, 2021; Abuhashesh, 2014; Arca, 2012; Ciprian, 2015; Mutuku, 2017; Nadaraja & Yazdanifard, 2013; Okazaki & Taylor, 2013; Singh & Sinha, 2017). Social media has no physical boundaries, thus it is feasible to reach markets that were previously

inaccessible (Ciprian, 2015; Jadoon, 2013; Newberry, 2018; Scheers, 2016; Singh & Sinha, 2017).

Information Systems Adoption Models

The Technology Acceptance Model TAM)

The TAM model explains individual behaviour's intention to accept and use new technology (Davis, 1985). The objective of the technology acceptance theory is to explore the factors that influence the adoption and diffusion of new technologies within a social system (Davis, 1985; Louho et al., 2006). The two hypothesised variables, perceived usefulness (PU) and perceived ease of use (PEU), determine the user's intention to adopt a particular information technology. PEU relates to the simplicity of using the technology whereas, PU refers to anticipated benefits of using the innovation (Davis, 1985). Multiple studies have applied TAM to investigate how MSMEs in both developed and developing nations have utilised social media (Gavino et al., 2019; Veldeman et al., 2017). However, fails to explain why people use technology and how each component influences technology acceptance in general. TAM has been modified numerous times to include more new variables for "WHY" explanations (Agarwal & Prasad, 1998; Chau & Hu, 2002; Lim, 2000; Moon & Kim, 2001; Venkatesh & Davis, 2000). Another handicap of TAM is that it does not explain technology usage at the organisational level; rather, it explains individual technology usage (Beier & Wagner, 2016). To explain the organisational adoption of technology, several theoretical frameworks have been developed, such as Roger's DOI and UTAUT (Venkatesh & Davis, 2000). A number of studies have combined TAM with other technology adoption frameworks to gain a broader understanding of social media adoption and usage behaviour by MSMEs in different contexts (Akgül, 2018; Chatterjee & Kar, 2020; Dahnil et al., 2014; Martins et al., 2014; Nawi et al., 2017; Toker et al., 2016).

The Diffusion of Innovation (DOI) Theory

Rogers' (1995) DOI theory explains how a new concept, product, or behaviour spreads throughout a social population. Innovation is "an idea, practice, or object perceived as novel by an individual or other unit of adoption" (Rogers et al., 2009). Innovation capabilities are perceived to be elements of the enterprise's environment that are under management's control. The degree to which an individual perceives a new idea, product, or behaviour as innovative is a crucial factor in its adoption. Rogers identified the five essential characteristics of innovation that influence the rate of innovation in businesses: relative advantage, compatibility, complexity, trialability, and observability (Rogers, 1995, p207). As perceived by individuals, the attributes account for 49–87% of the variance in firms' adoption rates (Rogers, 2003, p210). It is therefore, essential to consider the characteristics of social media applications as an innovation to be added, as well as the characteristics of the adopters (MSME owners and managers) and the external environment.

Unified Theory of Acceptance and Use of Technology (UTAUT)

The UTAUT model is designed to evaluate the acceptability, utilisation, and applicability of a vast array of information technologies (Venkatesh et al., 2003). It is perceived that multiple variables can predict the user's intent to adopt the technology. Hence, the UTAUT framework is a review and consolidation of the constructs of eight technology acceptance frameworks (Theory of Reasoned Action (TRA), Motivational Model (MM), Theory of Planned Behaviour (TPB), Model of PC Use (MPCU), Social Cognitive Theory (SCT), Extended TAM (TAM2), TAM,

and Diffusion of Innovation theory (DOI)). Venkatesh et al (2003) validated the compiled constructs from the aforementioned models and hypothesised that performance expectancy (PE), effort expectancy (EE), social influence (SI), and facilitating conditions (FC) are the most significant predictors of intention to adopt technology. The primary control variables are gender, age, experience, and voluntary usage, which provide the theoretical justification for the hypotheses that have a direct impact on the use of information technology.

The Technology, Organisation and Environment (TOE) Framework

The TOE framework is used to analyse the adoption and integration of diverse ICT innovations (Tornatzky & Fleischer 1990). The framework asserts that technological, organisational, and environmental standard settings influence an organisation's adoption and acceptance of new technology. The technological context consists of relevant internal and external technologies and characteristics that affect the process of technology adoption for the organisation (Leung et al., 2015; Tornatzky & Fleischer, 1990). Compatibility and observability factors influence the decision of MSMEs to adopt social media in a technological context (Bakar et al., 2019). The organisational context refers to the organisation's available characteristics and resources for adopting and implementing the new innovation (Leung et al., 2015). The organisational features include workforce size and quality, human resources and management support, social influence, business ownership type, and information sources (Awa et al., 2017; Toker et al., 2016). The business environment of an organisation has the potential to influence innovation adoption and use (Tornatzky & Fleischer, 1990).

Antecedents of Social Media Adoption

TOE factors have a greater impact on adoption than individual characteristics, according to research on their application (Awa et al., 2017). Because the TOE framework is so general, researchers have utilised components of other technology adoption models in various contexts. The TOE framework has been validated in a number of social media adoption studies (Lim, 2018; Ahmad et al., 2019; Alkhateeb & Abdalla, 2021; Effendi et al., 2020; Kusumadewi et al., 2020; Kusumadewi et al., 2022; Pateli et al., 2020; Siagian et al., 2022; Trawnih et al., 2021).

Technology Context

Studies cannot conclusively identify the most influential technological context factors influencing technology adoption (Ahmad et al., 2019; Alsharji et al., 2017). According to a number of studies, the technology factor is irrelevant in SME decisions to adopt social media (Ahmad et al., 2019; Alkhateeb and Abdalla, 2021). It was determined that internal factors are more likely to influence adoption decisions than technological ones. As such age could be the reason if the majority of social media users could be young people who are already familiar with social media. However, it has been empirically demonstrated that the technological context is the most important determinant of social media adoption, whereas the organisational and environmental contexts are less important (Pateli et al., 2020; Alkhateeb & Abdalla, 2021). For the conceptual framework in this article, the following technological factors are considered: relative advantage; compatibility; perceived cost; technological competence; and security, trust, and privacy. These factors have been used and validated in numerous information systems adoption studies, particularly in a developing nation's context. Due to these considerations and the fact that the technology context factor does not provide a definitive answer, hypothesis H1 is stated as follows.

H1: Technological factors have a positive influence on social media usage by selected MSMEs.

Relative Advantage (RA)

People are more likely to use social media if they believe it will provide them with some sort of benefit (Alsharji et al., 2017). The findings validated the theory that relative advantage is the primary driver and a significant predictor of the intention to adopt social media networks. During pandemics, disease outbreaks, and natural disasters, the relative advantages of social media platforms is crucial in sustaining operations for MSMEs (Alkhateeb & Abdalla, 2021; Kavota et al., 2020; Patma et al., 2020; Salam et al., 2021). MSMEs should evaluate the potential value gained by utilising social media. Businesses in the hospitality industry that recognised these values were found to be more likely to adopt social media features to expand their online presence (Pateli et al., 2020). However, in the context of developed nations, studies have shown that relative advantage has no significant correlation with social media adoption (Ahmad et al., 2019; Tripopsakul, 2018). The difference may be attributable to the respondents' young age and familiarity with social media (S.Z. Ahmad et al., 2019; Ahmad et al., 2019; Tripopsakul, 2018). Consequently, it is possible to demonstrate that the results of previous studies are not conclusive. It is crucial to investigate how relative advantage influences the adoption of social media in developing nations. Subsequently, H1a is stated as follows:

H1a: Relative advantage of social media positively influences social media usage by the selected MSMEs.

Complexity

Due to the COVID-19 pandemic, small business owners and employees were forced to work from home. This compelled the development of suitable ICT tools to facilitate remote work (Maphosa & Maphosa, 2022). Consequently, SMEs were required to learn how to use tools by primarily watching YouTube tutorials (Maphosa & Maphosa, 2022). Several studies have shown the ease of use of social media (Ali Abbasi et al., 2022; Alkhateeb & Abdalla, 2021; Chigombe et al., 2022; Effendi et al., 2020; Tripopsakul, 2018). Studies have demonstrated a significant positive correlation between complexity and social media adoption despite the simplicity of social media. According to Ali Abbasi et al (2022), this characteristic had no effect on businesses operating in low-competition industries. Thus, the hypothesis H1b is stated as follows:

H1b: Complexity negatively correlates with social media usage by the selected MSMEs.

Compatibility

When both owners and employees are conversant with social media, its use will not disrupt daily operations and will be consistent with existing beliefs, practices, and technological infrastructure (Effendi et al., 2020; Rahman et al., 2020). These studies support Rogers's (1995) assertion that small businesses are more likely to utilise social media because it meets their requirements. However, a company's internal operations may act as a barrier to social media adoption, thereby reducing the predictive power of the compatibility factor (Tripopsakul, 2018). In their research, Ahmad et al (2019) found no correlation between compatibility and social media adoption. According to the authors, social media could be

integrated into existing organisational structures. However, social media accessibility may have diminished the importance of compatibility. Therefore, it is reasonable to assume that social media compatibility influences social media adoption. Consequently, hypothesis H1c is formulated as:

H1c: Compatibility positively correlates social media usage by the selected MSMEs.

Perceived Cost

Social media networking applications are dependent on the cost and availability of internet connections. Internet connectivity may therefore influence the innovation's uptake (Chigombe et al., 2022). In developed nations, the accessibility and affordability of the Internet, along with positive environmental and technological factors, have led to the emergence of a business community that is adept at social media (Alsharji et al., 2017). The affordability and accessibility of the internet is a major factor in developing nations' adoption of technology. According to Chigombe et al (2022), the cost of accessing social networking sites and the lack of financial resources are significant barriers to social media marketing for MSMEs in the Zimbabwean construction industry. Patma et al (2021), demonstrated that the cost factor influences the adoption of social media to sustain MSMEs during the COVID-19 pandemic (Patma et al., 2021). In addition, MSMEs with limited budgets can benefit from social media marketing's relatively low cost. It is assumed that businesses will utilise social media due to its perceived cost-effectiveness. Therefore, the hypothesis H1d is postulated as:

H1d: Social media usage is positively influenced by the cost effectiveness of social media by the selected MSMEs.

Technology Competence

Technology competency includes technology infrastructure and a skilled, innovative workforce (Azam, 2014; Jere & Ngidi, 2020; Schaupp & Belanger, 2014) Utilizing social media necessitates a fast internet connection (Rahman et al., 2020). Despite having limited resources, small businesses have been able to use social media effectively due to its cost effectiveness (Schaupp & Belanger, 2014). Furthermore, small businesses in developing countries prefer to use smartphones to update their business activities rather than laptops or tablets which are costly. Furthermore, internet access is prohibitively expensive the speed very slow and coverage is problematic in some areas in developing countries (Gurure & Takavarasha, 2020; Maphosa & Maphosa, 2022; Mokhtar et al., 2016; Moyo & Takavarasha, 2020; Yadav & Mahara, 2018). In addition, and usage is hindered by frequent power outages, thereby affecting social media adoption (Gurure & Takavarasha, 2020; Maphosa & Maphosa, 2022; Mokhtar et al., 2016; Moyo & Takavarasha, 2020; San et al., 2020; Khaled et al., 2019; R. Yadav & Mahara, 2018). Lack of understanding and interest in potential social media platforms can impede their widespread adoption (Oji et al., 2017; Moyo & Takavarasha, 2020). Knowledge of social media influences the decision to adopt social media (Islam & Aswajit, 2021; Al-Sharji et al., 2017; Chiu et al., 2017; Matikiti et al., 2018; Schaupp & Bélanger, 2014). Small-business owners in developed nations should invest in the training and skill-upgrading of their employees so that they can effectively utilise ICT innovations like social media. However, employee capability has no correlation with SMEs' intent to adopt social media if employees have prior social media experience (Ali Abbasi et al., 2022). Thus, the hypothesis H1e is stated as follows:

H1e: Employee social media competency has a positive effect on social media usage by the selected MSMEs.

Security, Trust and Privacy

Security is the protection of data or systems against unauthorised intrusions or leaks (Awiagah et al., 2016; Lippert & Govindarajulu, 2006). Due to security concerns, cyber-attacks, data loss, hacking, and viruses have had a significant impact on ICT adoption in recent years (Scupola, 2009). Social media application usage has increased in both the developed and developing worlds due to the affordability and accessibility of the internet and the cost-effectiveness of smartphones. Despite the benefits of using social networks, research indicates that security concerns have a significant impact on the social media usage of MSMEs (Alshamaila, 2018; Rahman et al., 2020). Social networking applications manage a vast quantity of users and data, making them ideal targets for cyberattacks (Musungwini et al., 2014). Intrusions by hackers into ICT systems impede the uptake of ICT technologies such as ecommerce (Musungwini et al., 2014). According to Sarfaraz (2017), the adoption and utilisation of any ICT innovation is contingent on its level of privacy. Therefore, trust is essential for technological acceptance. Certain governments have implemented safeguards to protect users of these cyber applications (Ghanem & Hamid, 2021). Therefore, it is intriguing to examine the impact of security, trust, and privacy on social media. As such, the hypothesis H1f is stated as follows:
H1f: Security, trust, and privacy in social media has a positive effect on usage by the selected MSMEs.

Organisation Context

A number of studies in both the low and high income nations, confirm that organisational context significantly affects the variance in social media adoption (Alkhateeb & Abdalla, 2021; Chigombe et al., 2022; Khalifan et al., 2021). The context includes user-perceived factors that contribute to the success of social media adoption, such as management support and organisational size (Potluri & Johnson, 2022). Thus, hypothesis H2 is proposed as follows:
H2: Organisational factors have a positive influence on social media usage by selected MSMEs

Top Management Support

Multiple studies for both developing and developed nations indicate that management participation is essential for organisational decisions regarding technology adoption and social media adoption in particular (Ahmad et al., 2019; Alkhateeb & Abdalla, 2021; Alsharji et al., 2017, 2018; Chigombe et al., 2022; Chiu et al., 2017; Matikiti et al., 2018; Moyo & Takavarasha, 2020). It is imperative that top management demonstrate support by allocating funds and resources, thereby creating an adoption-friendly environment (Chigombe et al., 2022; Chiu et al., 2017; Effendi et al., 2020; Siagian et al., 2022). According to Qalati et al (2022), a lack of trust, skills, and understanding of which platform to use may prevent top management from supporting the adoption of social media. Therefore, it is plausible to assume that management support may influence the adoption and utilisation of technology. Consequently, H2a is stated as follows:

H2a: Support from top management positively influences the use of social media by the selected MSMEs.

Organisation Size

Start-ups and small businesses are more receptive to adopting cloud services than large, established companies (Alshamaila et al., 2013; Chiu et al., 2017). Despite their financial strength, excessive bureaucracy impedes the innovation process for large enterprises (Acs & Audretsch, 2018; Chiu et al., 2017). Nonetheless, when it comes to the adoption of more complex ICT systems, such as ERP, only large, well-established businesses with the necessary resources adopt. Nevertheless, Makiwa (2018); Rahayu & Day (2015) found that the organisational size factor no longer has a significant impact, as everyone now has access to online tools. According to Gono et al (2016), the size variable cannot be used conclusively by itself. Therefore, it is plausible to assume that the size of the enterprise may influence the adoption and application of social media. Consequently, hypothesis H2b is stated as follows:
H2b: The size of the enterprise has a positive effect on the social media usage by the selected MSMEs.

Environment Context

Due to environmental pressure, some organisations adopt innovations when the perceived benefits are not readily apparent. The perceived benefits of social media adoption are unknown to MSMEs with a low perception of social media awareness (Ahmad et al., 2019). Customer and competitor pressure affects SME adoption of social media (AlSharji et al., 2017; Fityan & Huseynov, 2018). Thus, technological proficiency and market forces are essential precursors to social media adoption (Schaupp & Belanger, 2014). According to empirical evidence (AlSharji et al., 2018; Ndekwa & Katunzi, 2016), environmental context and organisational context factors from the TOE framework have a substantial effect on the adoption of social media by MSMEs in developing economies. In both studies, one of which involved the tourism industry, it was determined that technology was an insignificant variable. Competition, government support, regulations, and uncertainty are the most influential environmental factors on how MSMEs in a developing nation like Zimbabwe use technology (Chigombe et al., 2022; Makiwa, 2018; Maphosa & Maphosa, 2022). Thus, the hypothesis H3 is formulated as:

H3: Environmental factors have a positive influence on social media usage by selected MSMEs

Competitive Pressure

Due to the level of competition in the industry, social media is gaining popularity. MSMEs compete in the market to remain profitable. A significant factor motivating MSME social media usage is competitive pressure (Tripopsakul, 2018). Therefore, regardless of the type of business being conducted, social media is regarded as one of the essential business platform tools used to compete with other businesses. Customers have numerous options for purchasing products and deciding on services (Mokhtar et al., 2016). Competition compels MSMEs to adopt a positive stance toward social media adoption (Ahmad et al., 2019). Local studies in Zimbabwe confirm that technological adoption is driven by competitive pressures (Chigombe et al., 2022; Gurure & Takavarasha, 2020; Matikiti et al., 2018; Moyo & Takavarasha, 2020). In countries with low ICT intensity, however, the motivation to adopt technology may stem from a desire to avoid falling behind the technological curve, rather than a perceived competitive advantage. Consequently, countries with a high ICT intensity are subject to greater competitive pressure (Chiu et al., 2017). Due to the COVID-19 pandemic, MSMEs in developing nations are expected to have adopted social media; leading to less

pressure from competitors but constant pressure from customers. However, some studies contain inconsistencies. According to the findings of Qalati et al., 2022, competitive pressure does not influence the adoption of social media. In addition, Abbasi et al (2022) demonstrated that perceptions of competitive pressure have no effect on firms in industries with low levels of competition. Therefore, when determining how competition and uncertain research results influence how individuals use social media, the H3a hypothesis states:

H3a: Competitive pressure positively influences the usage of social media by the selected MSMEs.

Customer Pressure

Studies confirm that customer pressure influences social media adoption positively (Alsharji et al., 2018; Matikiti et al., 2018; Qalati et al., 2022; Rahman et al., 2020). According to Qalati et al (2022), SMEs must use social media to maintain customer relationships; otherwise, they run the risk of losing customers to competitors and spreading negative word-of-mouth. However, contrary to the findings of a number of researchers (Abbasi et al., 2022), they found no correlation between customer pressure and the intention to implement social media marketing. The scholars argue, however, that if there is no market competition, then the use of social media to attract customers is ineffective. However, the absence of consumers that utilise the technology may inhibit MSMEs from adopting it. For instance, Zimbabwean MSMEs will not utilise e-commerce due to a lack of e-commerce customers (Gurure & Takavarasha, 2020). Consequently, it is reasonable to assume that customer pressure influences social media usage. Consequently, hypothesis H3b is stated as follows:

H3b: Customer pressure positively influences the usage of social media by the selected MSMEs.

Government Support

According to Mokhtar et al (2016), MSMEs must be aware of government regulations such as the online registration of new businesses. Existing legislation, policies, and laws in Zimbabwe pertaining to MSMEs pose a significant impediment to their functioning (Makiwa & Steyn, 2016), although Gurure and Takavarasha (2020) contradicts this claim. According to the findings of the former, the government has made significant efforts to encourage MSMEs' use of e-commerce. However, is noted that there are few policy and programme incentives that support and promote the use of ICT technologies (Gurure & Takavarasha, 2020). Moreover, lack of knowledge and comprehension of government policies pertinent to MSMEs has a moderate impact on the adoption of ICT-based technologies (Makiwa & Steyn, 2016). Therefore, the following constitutes the study's H3c hypothesis:

H3c: Government support positively influences the usage of social media by the selected MSMEs.

Environment Uncertainty

The business environment is not immune to the effects of climate change-induced natural disasters, such as floods and storms, and debilitating pandemics such as COVID-19. In response to the period of uncertainty, new business models have been developed as a result of the unfavourable environment. MSMEs must adopt new business models to sustain and grow their operations. Examining the impact of pandemics and disasters caused by climate

change on MSMEs' use of social media to sustain their businesses is worthwhile. In order to sustain growth, it is plausible to examine the effects of social media usage during disasters. It is imperative that MSMEs adopt new business models in order to sustain and expand their businesses. According to studies, social networking platforms can increase sales while keeping global standards (Kumar & Nishu, 2021). When owner-managers of MSMEs are equipped with knowledge, they apparently will turn to social media due to its low cost (Effendi et al., 2020). Thus, the following is postulated regarding hypothesis H3d:
H3d: Environmental uncertainty has a positive effect on the use of social media by the selected MSMEs.

Owner-Manager Context
The owner-manager context also known as the individual context in literature, is one of the most influential factors in the adoption of ICT-based solutions by MSMEs (Kumar & Nishu, 2021; Rahayu & Day, 2015; Stockdale et al., 2012). MSME owners typically serve as operational managers as well in developing countries (Stockdale et al., 2012). There are significant correlations between owner-manager qualities and innovation, which, in turn, affect business performance (Makate et al., 2019). According to research, the owner-manager context includes the owner's innovativeness, social media awareness, level of competency, and owner-manager traits (AlBar & Hoque, 2019; Kumar & Nishu, 2021; Rahayu & Day, 2015). Few studies have utilised the TOE paradigm to examine the adoption of social media in low-income nations for the selected MSMEs, particularly Zimbabwe. Consequently, this framework will expand the owner-manager context that serves as the theoretical foundation for this investigation. Therefore, hypothesis H4 is stated as:
H4: Owner-Manager characteristics have a positive influence on social media usage by selected MSMEs

Competence Level
Some MSMEs may have lost market share during the pandemic because they did not use social media to communicate with clients (Salam et al., 2021). Lack of social media knowledge prevented the MSME owners from utilising the applications. According to Ramdani et al (2013), a person's level of competence is also dependent on their social media proficiency. Consequently, H4a is stated as:
H4a: Owner-manager's level of social media competence positively influences social media usage by the selected MSMEs.

Innovativeness
In numerous regions, the innovativeness of the owner-manager has a substantial impact on the adoption of ICT-based technology by MSMEs (AlBar & Hoque, 2019; Rahayu & Day, 2015; Rogers, 1983, p. 245). The innovativeness of the owner-manager is regarded as a crucial factor in the survivability of businesses (Pateli et al., 2020). Thus, the following is the formulation of hypothesis H4b:
H4b: Owner-manager's innovativeness positively influences social media usage by the selected MSMEs.

Age and Level of Education
If the owners are familiar with contemporary business trends in their industry, they are likely to use social media. Therefore, owner-managers with some education are likely to influence

their company's social media adoption. Even managers with average education and aptitude are likely to employ technology (Oji et al., 2017). According to Oji et al (2017), businesses that disregard digital technology during a crisis are likely to sustain substantial financial losses. In contrast Matikiti et al (2018) found no correlation between the age of management and attitude toward the adoption of social media marketing. In light of the inconclusiveness of the research findings, the following is stated as hypothesis H4c:

H4c: Owner-manager's age and level of education positively influences social media usage by the selected MSMEs.

Social media Adoption on MSME Performance

Small and micro businesses may benefit from social networking websites because they are practical and affordable (Patma et al., 2021; Rahman et al., 2020). The use of social media has a significant impact on the long-term success of MSMEs (Ghanem & Hamid, 2021; Patma et al., 2021; Qalati et al., 2022; Rahman et al., 2020). Social media networks provide opportunities for promoting services, products, and businesses through interaction with prospective customers (Chatterjee & Kar, 2020; Qalati et al., 2022; Rahman et al., 2020). Thus, the client interactions, revenue growth, and brand loyalty of MSMEs improve. Despite the uncertainty of the pandemic, MSMEs that utilise social media for business are able to sustain operations. However, Ahmad et al (2019) found that social media had little effect on the performance of SMEs. Possible explanation: the majority of social media users are young and have a moderate level of education. This indicates that they are early adopters who intend to utilise the application for business purposes. However, when MSMEs utilise social media effectively, the outcome is likely to be positive. This can be investigated scientifically by formulating hypothesis H5 as follows:

H5: Social media usage has a positive impact on the business operations of the selected MSMEs.

Research Methodology

Conceptual Model

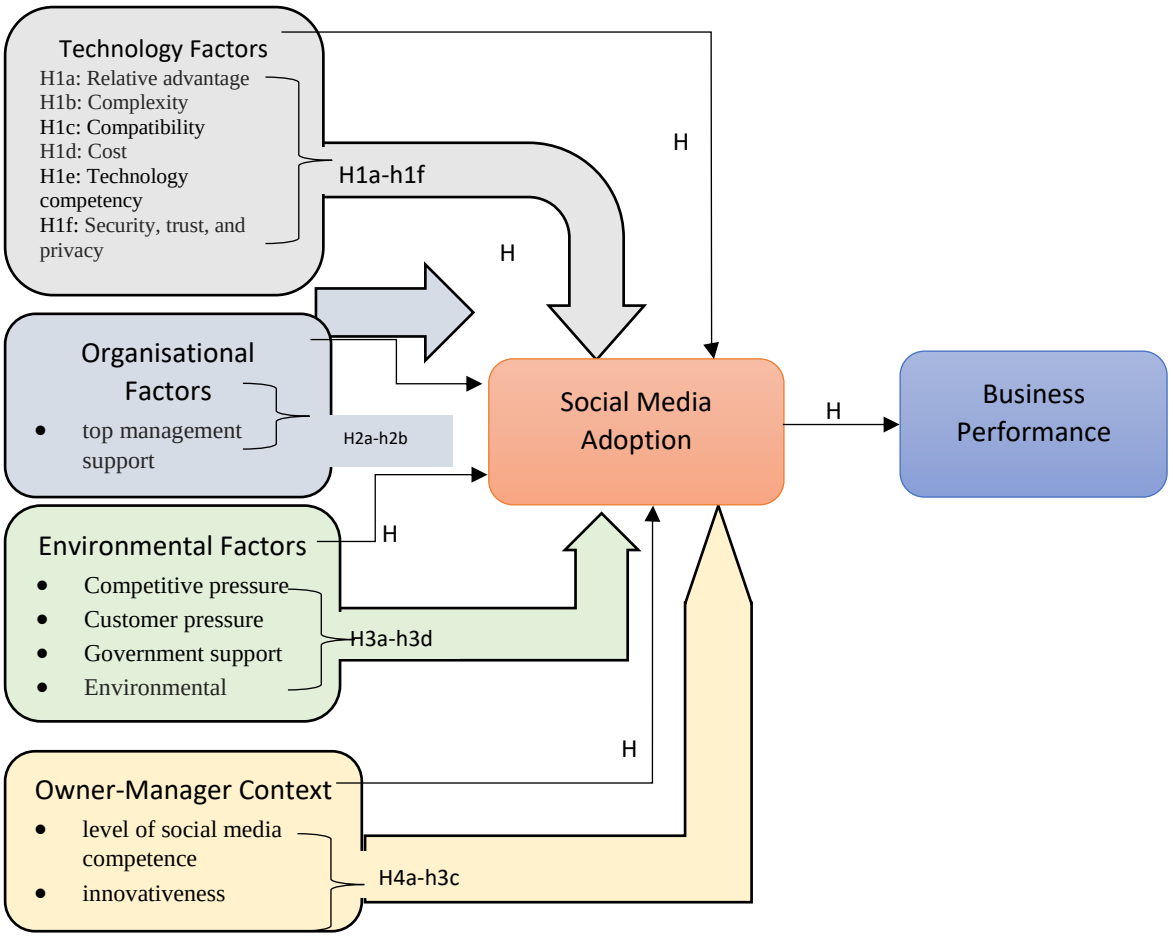

Figure 1: Social Media Adoption Model

Technological factors are fundamental implementation components that are supplemented by a comprehensive technical plan in which innovation is integrated with the existing technical system and a metric for measuring the implementation's efficacy (Angeles, 2013). Empirical studies (Ilona et al., 2019) reveal that social media had a significant relationship with the technological context of SMEs that adopted social media in a developed nation. Clearly, studies based on the TOE framework have limitations. The variables of the TOE model are not informative and vary from circumstance to circumstance (Wang et al., 2010). Major generalisations are insufficient to explain technology adoption (Low et al., 2011; Wang et al., 2010). As a result, additional constructs have been added to the TOE framework to strengthen it. The technological context contains innovative elements (DOI model) including innovative characteristics (Chiu et al., 2017; Hwang et al., 2016; Jere & Ngidi, 2020; Low et al., 2011; Nur et al., 2016; Pateli et al., 2020; Tripopsakul, 2018). The organisational context takes into account characteristics of innovative technology such as management support and organisational size (Chiu et al., 2017; Hwang et al., 2016; Jere & Ngidi, 2020; Nur et al., 2016). Environmental context factors include competitive pressure; government support; customer pressure; and environmental uncertainty (Chiu et al., 2017; Hwang et al., 2016; Jere & Ngidi, 2020; Nur et al., 2016; Tripopsakul, 2018). (Chiu et al., 2017; Hwang et al., 2016; Jere & Ngidi, 2020; Nur et al., 2016; Tripopsakul, 2018). The perception of owner-manager has a direct

impact on the decision to adopt. Consider the owner or manager's social media knowledge, their attitude toward social media, and their level of commitment (Nur et al., 2016).

Summary of Findings

The technological context influences the performance of MSMEs in relation to the social media platforms utilised in the enterprise's environment (Alsharji et al., 2017; Scupola, 2009). Studies demonstrate that a variety of technologies facilitate a variety of business activities and improve business efficiency. Among these technologies are mobile applications, cloud computing, and e-commerce (Ahmad et al., 2019). Small businesses can anticipate perceived benefits from embracing social media (Alsharji et al., 2017; Rogers, 1995). Relative advantage is often used in research studies utilising the DOI and TOE frameworks (Abbasi et al., 2022; Alsharji et al., 2018; Chigombe et al., 2022; Matikiti et al., 2016). According to several studies, relative advantage is one of the most influential factors in determining the adoption of technology. As emphasised by a number of scholars, it is essential that social media networks are simple to comprehend and effectively utilised, as this influences their adoption by MSMEs (Makiwa & Steyn, 2016). A straightforward, user-friendly application is adopted more quickly than one that requires the adopter to acquire new skills (Opoku et al., 2016). The adoption decisions and usage patterns of customers and businesses are consequently relatively high.

Compatibility is one of the most influential elements in social media adoption as well as the adoption of other technologies, such as mobile broadband applications (Chiu et al., 2017; Alsharji et al., 2017). Social media is compatible with the current infrastructure of SMEs, as it can be easily applied and leveraged within the context of an SME. Therefore, anyone with an internet connection can use social media applications (Qalati et al., 2022; Rahman et al., 2020). Cost is a determining factor in the adoption of innovative technologies (Siagian et al., 2022). If owner-managers believe adopting social media will be expensive, they are less likely to do so (Abbasi et al., 2022). If MSME owner-managers prioritise technological innovation, then the cost factor may no longer be a barrier Rahman et al. (2020). As a result of the importance of technology competence in determining technology adoption, both small and large businesses invest in human capital and infrastructure (Schaupp & Belanger, 2014; Rahman et al., 2020). The use of these social networking sites has raised concerns regarding data management issues, including security, trust, and privacy (Alshamaila, 2018; Ghanem & Hamid, 2021). Sarfaraz (2017) states that fear of additional security issues or loss of privacy, as stated by Sarfaraz (2017), may discourage SMEs from adopting and implementing new innovations. Owner-managers who take the initiative and demonstrate dedication foster an environment that accelerates the adoption of new technologies (Rahman et al., 2020). For example, the COVID-19 pandemic has prompted MSME managers to take the initiative and collaborate with employees to prepare an online marketing infrastructure (Effendi et al., 2020). The most important factor in identifying an innovator is the size of the business. As such, small businesses are more likely than large businesses to adopt new technologies due to their size and flexibility (Acs & Audretsch, 2018; Alshamaila et al., 2013; ITU, 2016; Rogers, 2003).

Recent studies demonstrate that competitive pressure drives adoption of social media (Ali Abbasi et al., 2022; Chigombe et al., 2022; Effendi et al., 2020; Moyo & Takavarasha, 2020). Alsharji et al. (2018) state that the increase in social media usage could be a result of competitive pressure, competitive intensity, and the bandwagon effect in anticipation of

market trends. Government laws and policies are required for SMEs to utilise social media since they can either aid or hinder the adoption process (Alkhateeb & Abdalla, 2021). The government can assist MSMEs by implementing legislation that facilitates their use of social media for business purposes (Effendi et al., 2020). According to studies, social networking platforms can increase sales while keeping global standards (Kumar & Nishu, 2021). The COVID-19 crisis heightened awareness of social media, hence increasing the likelihood of adoption (Effendi et al., 2020). Nevertheless (Effendi et al., 2020), they found that some SME managers are still unaware of the availability and benefits of utilising social media to sustain operations during uncertain times.

Discussion

The level of social media competence is another significant factor that determines the adoption of online platforms by SMEs. Their usage is connected with the characteristics of owner-managers that greatly influence the adoption of social media marketing. If they understand how to utilise the tools to, for example, organise meetings or interact with people, they are more likely to implement them in their business (Chigombe et al., 2022). The owner-manager's attitude is related to his or her receptivity to novel concepts (Alkhateeb & Abdalla, 2021; Alshamaila et al., 2013; Dahnil et al., 2014; Matikiti et al., 2018; Salam et al., 2021). Age and level of education dictate the use of technology for business purposes most of the time (Chigombe et al., 2022; R. Yadav & Mahara, 2018). Younger managers are hence more inclined to use social media. (Puriwat & Tripopsakul, 2021) determined that younger individuals use social media more frequently and have superior IT skills than older folks. According to studies (Alsharji et al., 2017; 2018; Ahmad et al., 2019), 70 % or more of owner-managers are under the age of forty and have a high level of education.

Conclusion, and Recommendations

Using a framework for future research, this paper seeks to examine the relationship between the technological, organisational, environmental, and owner-manager contexts and MSMEs' adoption of social media integrated into business operations. Based on the TOE framework, the suggested conceptual model consists of four fundamental constructs. They are stated in the contexts of technology, organisation, environment, and owner-manager. The TOE framework helps detect the antecedents of MSMEs' adoption of social media. The owner-manager context represents the role of the MSME owner in supporting the enterprise by providing resources for the implementation of social media. The owner-manager context also investigates the firm owner's inventive potential. Scholars have listed a number of obstacles that MSMEs must overcome to sustain and enhance business performance. Social networking applications serve as a way of survival. Literature study suggests that the four primary constructs presented in the conceptual model influence social media adoption. In turn, social media adoption influences corporate performance.

To reap the benefits of social media, MSMEs must consider the tangible and intangible benefits derived from the platforms and begin investing in training using a top-down strategy. According to the literature, empowering business owners and managers with technology competence skills will foster an environment conducive to innovation adoption. Therefore, a comprehensive social media training programme should be implemented and incorporated into the existing service training for all employees. In addition to integrating social media into the existing system, metrics for measuring its effectiveness should also be incorporated. The

government must facilitate the use of online tools for business purposes, notably social media applications.

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