

From Technology Acceptance to SME Performance: The Mediating Role of Digital Marketing Adoption in Kabwe District, Zambia

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Abstract

The increasing digitalization of business operations has made digital marketing a critical strategic tool for enhancing the competitiveness and performance of Small and Medium Enterprises (SMEs). However, limited empirical evidence exists on how technology acceptance translates into improved SME performance through digital marketing adoption in semi-urban emerging economies. This study examined the mediating role of digital marketing adoption in the relationship between technology acceptance and SME performance among SMEs in Kabwe District, Zambia. Anchored on the Technology Acceptance Model (TAM), the study adopted an explanatory cross-sectional research design. Data were collected from 384 SME owners and managers using a structured questionnaire and analysed using descriptive statistics, multiple regression, and mediation analysis. The findings revealed that perceived usefulness ($\beta = 0.480$, $p < 0.001$) and perceived ease of use ($\beta = 0.416$, $p < 0.001$) significantly and positively influenced digital marketing adoption. Additionally, perceived ease of use positively influenced perceived usefulness ($\beta = 0.589$, $p < 0.001$), while digital marketing adoption exerted a strong positive effect on SME performance ($\beta = 0.831$, $p < 0.001$). Mediation analysis further established that digital marketing adoption fully mediates the relationship between technology acceptance and SME performance. The study concludes that favourable perceptions of digital marketing technologies enhance business performance only through their actual adoption and utilization. These findings extend the application of the Technology Acceptance Model and provide context-specific evidence to inform SME digital transformation strategies and policy interventions in Zambia and other emerging economies.

1. Introduction

The rapid advancement of digital technologies has fundamentally transformed the global business environment, reshaping how organizations communicate with customers, promote products, and compete in increasingly dynamic markets (Chaffey & Ellis-Chadwick, 2019). Digital marketing has consequently emerged as a strategic business capability that utilizes online channels such as search engine optimization (SEO), social media, email marketing, content marketing, and online advertising to enhance customer engagement, increase brand visibility, and achieve measurable business outcomes including sales growth and market expansion (Tembo et al., 2025). Unlike traditional marketing approaches, digital marketing enables firms to interact with customers in real time while leveraging data analytics to continuously improve marketing effectiveness and customer experiences Tembo et al., (2025).

Small and Medium Enterprises (SMEs) are widely recognized as the backbone of national economies due to their significant contribution to employment creation, innovation, and economic growth. Globally, SMEs account for approximately 90% of all businesses and contribute more than 50% of employment (World Bank, 2020). Although SME classifications vary across countries (Indeed Editorial Team, 2025), Zambia classifies small enterprises as businesses employing between 11 and 50 employees with an annual turnover of K1–10 million, while medium enterprises employ between 51 and 100 employees with annual turnovers ranging from K10–50 million (Ministry of Small and Medium Enterprise Development, 2023). Collectively, SMEs contribute nearly 70% of Zambia's Gross Domestic Product (GDP), making them indispensable to the country's socio-economic development (Zambia Development Agency [ZDA], 2019).

The increasingly digitalized global economy has intensified competition, compelling SMEs to adopt innovative marketing approaches to remain competitive (Mufalali et al., 2026a). Digital marketing provides SMEs with cost-effective opportunities to promote products and services, strengthen customer relationships, expand market reach, and improve organizational performance through technologies such as social media, email marketing, search engine optimization, and e-commerce platforms (Chaffey & Ellis-Chadwick, 2019; Mapunda, 2021). The rapid growth of e-commerce has further revolutionized business operations by enabling SMEs to access wider markets, improve customer experiences, and enhance competitiveness (Humphrey & Schmitz, 2002). Consequently, digital marketing has evolved from a promotional tool into a strategic resource capable of creating sustainable competitive advantage.

In emerging markets, digital marketing technologies have become increasingly important for improving SME competitiveness and performance. Technologies such as social media marketing, search engine marketing, email marketing, customer relationship management systems, and online advertising have transformed customer communication, marketing processes, and business operations (Amelda et al., 2021; Al Asheq et al., 2021; Chinakidzwa & Phiri, 2020; Cheng & Shiu, 2019). Studies indicate that these technologies enable SMEs to better understand customer needs, improve customer engagement, increase operational efficiency, and strengthen business performance (Foltean et al., 2019; Hernández-Linares et al., 2021). Empirical evidence from Ghana demonstrates that digital marketing adoption significantly improves sales growth, customer engagement, and organizational performance (Deku et al., 2022; Bruce et al., 2023), while studies conducted in Tanzania similarly report positive effects on market expansion and competitiveness (Algumzi, 2022). These findings underscore the growing importance of digital marketing as a driver of SME growth across developing economies.

Despite these benefits, SMEs continue to experience numerous challenges in adopting digital marketing technologies. Financial constraints, inadequate digital infrastructure, limited technological capabilities, insufficient digital skills, and resistance to organizational change remain significant barriers, particularly within developing countries (Jean & Kim, 2019; Yousaf et al., 2018; Liu et al., 2020; Wang, 2020). Similarly, Mufalali et al. (2026b) found that Portuguese SMEs face difficulties arising from inadequate digital marketing knowledge and shortages of skilled personnel despite the positive returns associated with digital marketing investments. These challenges often limit SMEs' ability to exploit digital marketing effectively and reduce the potential performance gains arising from digital transformation.

In Zambia, digital marketing adoption has increased alongside improvements in internet connectivity and mobile technology. According to the Zambia Information and Communications Technology Authority (ZICTA, 2022), more than 60% of the population has access to mobile internet services. Previous studies further indicate that perceived usefulness, competitive pressure, institutional support, and technological readiness significantly influence digital marketing adoption among SMEs (Tembo et al., 2025). Additionally, government initiatives promoting e-commerce and digital entrepreneurship have sought to strengthen SME competitiveness through digital transformation (Phiri & Silwimba, 2026). Nevertheless, many SMEs continue to face persistent challenges including high internet costs, limited access to finance, inadequate technological infrastructure, and insufficient digital competencies (Chicha, 2024). These barriers are particularly pronounced in semi-urban districts such as Kabwe, where digital infrastructure and technological literacy remain relatively underdeveloped compared to major urban centres.

Although previous studies have examined technology adoption using frameworks such as the Technology Acceptance Model, the Technology–Organization–Environment Framework, and the Unified Theory of Acceptance and Use of Technology, they have largely focused on adoption determinants or organizational performance independently, with limited evidence from Small and Medium Enterprises operating in semi-urban emerging economies (Mufalali et al., 2026c). Accordingly, this study applies the Technology Acceptance Model to examine the mediating role of digital marketing adoption in the relationship between technology acceptance and the performance of Small and Medium Enterprises in Kabwe District, Zambia, thereby contributing context-specific evidence to the digital transformation and Small and Medium Enterprise literature.

Research Hypothesis

H₁: Perceived usefulness positively influences digital marketing adoption.

H₂: Perceived ease of use positively influences digital marketing adoption.

H₃: Perceived ease of use positively influences perceived usefulness.

H₄: Digital marketing adoption positively influences SME performance.

H₅: Digital marketing adoption mediates the relationship between technology acceptance and SME performance.

2 Literature Review

2.1 Theoretical Framework

Technology Acceptance Model Theory

This study is anchored on the Technology Acceptance Model (TAM), developed by Davis (1989), one of the most widely applied theories for explaining the adoption and use of information technologies. The model posits that an individual's acceptance and use of a technology are primarily influenced by two cognitive beliefs: perceived usefulness and perceived ease of use. Perceived usefulness refers to the extent to which an individual believes that using a particular technology will enhance job or organizational performance, whereas perceived ease of use refers to the degree to which the technology is perceived as effortless to learn and operate (Davis, 1989). These beliefs shape users' attitudes, behavioural intentions, and ultimately their actual technology usage. Venkatesh and Davis (2000) further extended the model by demonstrating that perceived ease of use positively influences perceived usefulness, thereby strengthening technology adoption decisions.

The Technology Acceptance Model has been extensively applied in studies examining the adoption of digital technologies by Small and Medium Enterprises, particularly in the areas of digital marketing, e-commerce, and electronic business. Empirical studies have shown that SMEs are more likely to adopt digital marketing tools such as social media platforms, search engine optimization, email marketing, and online advertising when they perceive these technologies as useful for improving customer engagement, increasing sales, enhancing brand visibility, and expanding market reach (Boateng et al., 2022; Bruce et al., 2023). Conversely, technological complexity, limited digital skills, and inadequate infrastructure reduce perceived ease of use and consequently hinder technology adoption.

The Technology Acceptance Model is particularly relevant to this study because it provides a robust theoretical foundation for explaining how technology acceptance influences the adoption of digital marketing among Small and Medium Enterprises in Kabwe District, Zambia. In this study, perceived usefulness and perceived ease of use are conceptualized as the key antecedents of digital marketing adoption, while digital marketing adoption serves as the mechanism through which technology acceptance translates into improved business performance. The model therefore offers an appropriate framework for understanding how favourable perceptions of digital marketing technologies can enhance customer engagement, market expansion, sales growth, and the overall performance of Small and Medium Enterprises in the context of an emerging economy.

2.2 Empirical Review

Empirical evidence consistently demonstrates that digital marketing adoption has become an important driver of competitiveness and business performance among Small and Medium Enterprises (SMEs). Across developed and developing economies, studies indicate that the adoption of digital marketing technologies enables SMEs to improve customer engagement, strengthen brand visibility, expand market reach, and increase sales growth. Chaffey and Ellis-Chadwick (2019) observed that digital marketing enhances SME competitiveness by facilitating cost-effective communication with customers, while Tiago and Verissimo (2014) found that firms utilizing digital marketing tools experience higher levels of customer loyalty, marketing efficiency, and organizational performance. Similarly, Simasiku et al., (2026) reported that strategic adoption of digital technologies significantly improves SME performance by increasing operational efficiency and supporting business innovation, whereas Marcon (2022) established that innovation capability strengthens firms' ability to adopt digital technologies and sustain competitive advantage.

Existing literature further demonstrates that the adoption of digital marketing is influenced by several technological, organizational, and environmental factors. Technologically, perceived usefulness, perceived ease of use, relative advantage, complexity, and cost have consistently emerged as significant determinants of adoption. According to Boateng et al., (2022), SMEs are more likely to adopt digital marketing technologies when they perceive them as beneficial and easy to use. Likewise, Amoah, et.al., (2023) found that perceived relative advantage, particularly in terms of improved customer reach, reduced marketing costs, and enhanced competitiveness, positively influences adoption decisions. Conversely, Amoah et al. (2023) reported that perceived complexity discourages adoption, especially among SMEs with limited digital competencies. Similarly, Tembo et.al., (2025) identified implementation and maintenance costs as major barriers to digital marketing adoption among resource-constrained SMEs in developing economies.

Beyond technological considerations, organizational factors have also been shown to influence successful digital marketing adoption. Leadership commitment, financial support, organizational readiness, and employee digital capabilities are frequently identified as critical enablers of technology adoption. Amoah, et.al., (2023) observed that SMEs whose top management actively supports digital initiatives are more likely to invest in digital technologies and realize positive business outcomes. Furthermore, firms with adequate financial resources and employees possessing digital skills demonstrate higher adoption rates and improved organizational performance than those lacking such capabilities (Amoah, et.al., 2023). These findings suggest that successful digital marketing adoption depends not only on technology characteristics but also on organizational preparedness.

Environmental factors equally play an important role in influencing SME adoption of digital marketing technologies. Previous studies indicate that increasing competitive pressure, changing customer expectations, and vendor support motivate firms to embrace digital technologies to remain competitive. Amoah, et.al., (2023) reported that SMEs facing intense market competition are more likely to adopt digital marketing to differentiate themselves and sustain market relevance. Similarly, Mufalali et al. (2026a) argued that growing customer demand for online engagement compels businesses to integrate digital marketing into their operations. Vendor support through technical assistance, training, and after-sales services further facilitates technology adoption by reducing implementation risks and enhancing organizational confidence Amoah, et.al., (2023).

Empirical evidence from Africa similarly demonstrates the positive contribution of digital marketing to SME performance. Bruce et al. (2023) found that digital marketing adoption significantly improves business growth among SMEs in Ghana, while Deku et al. (2022) reported that digital marketing technologies positively influence organizational performance by strengthening customer engagement and improving competitiveness. Studies conducted in South Africa also identified managerial support, technological readiness, digital skills, and financial capacity as key determinants of successful technology adoption (Eze et al., 2023; Chatterjee et al., 2021). Likewise, research on e-commerce adoption has consistently shown that SMEs adopting digital platforms experience improved market access, operational efficiency, customer acquisition, and revenue growth (Anabila et al., 2024; Celestin et al., 2024). However, persistent challenges including inadequate digital literacy, infrastructure deficits, and financial constraints continue to limit the realization of these benefits (Mufalali et al., 2026b).

Within Zambia, available studies equally support the positive relationship between digital technology adoption and SME performance. Tembo et.al., (2025) found that perceived usefulness and institutional support significantly influence digital marketing adoption among SMEs, while Mufalali et al., (2026c) reported that firms utilizing digital platforms experience improvements in business performance. Mwiya et.al., (2025) further established that social media platforms such as Facebook and WhatsApp contribute to sales growth and customer acquisition despite challenges associated with limited digital skills and trust. Similarly, studies on e-commerce adoption found that digital technologies positively influence market expansion, customer reach, and competitiveness among Zambian SMEs (Chisanga & Mwansa, 2022). Nevertheless, inadequate infrastructure, limited digital capabilities, and financial resource constraints remain significant barriers to digital transformation.

Although existing empirical literature provides substantial evidence regarding the determinants and benefits of digital marketing adoption, important gaps remain. Most previous studies have been conducted in developed countries or major urban centres, with limited attention given to SMEs operating in semi-urban settings within emerging economies. Furthermore, existing research has largely examined technology adoption determinants and organizational performance independently, with relatively few studies integrating technology acceptance constructs, digital marketing adoption, and SME performance within a single analytical framework using mixed-methods approaches. This study addresses these theoretical, contextual, and methodological gaps by examining the mediating role of digital marketing adoption in the relationship between technology acceptance and the performance of Small and Medium Enterprises in Kabwe District, Zambia.

3 Methodology

3.1 Research Design

This study adopted an explanatory cross-sectional research design to examine the relationship between social media entrepreneurial exposure and cognitive determinants on entrepreneurial intentions among youths in Kabwe District, Zambia. An explanatory design is appropriate for testing theoretically grounded relationships between variables and determining the extent to which independent variables influence a dependent variable

(Bryman & Bell, 2011; Mundia et.al., 2023; Mufalali et.al., 2026b). The cross-sectional approach involves collecting data at a single point in time and is widely used in entrepreneurship behavioral research where constructs such as attitudes, intentions and perceptions are relatively stable (Creswell, 2014; Mwiya et.al., 2025). This design was suitable for the present study as it enabled the analysis of how social media exposure, entrepreneurial self-efficacy, attitude toward entrepreneurship, subjective norms and perceived behavioral control influence entrepreneurial intentions.

3.2 Study Area

The study was conducted in Kabwe District, located in Zambia's Central Province. Kabwe is one of the country's major commercial centres, hosting numerous Small and Medium Enterprises (SMEs) operating in retail, manufacturing, agriculture, and service sectors. Increasing internet penetration, widespread smartphone use, and growing adoption of digital platforms have created opportunities for SMEs to utilize digital marketing in enhancing business performance (Zambia Information and Communications Technology Authority, 2023). However, challenges such as limited digital skills, inadequate technological infrastructure, and financial constraints persist. These characteristics make Kabwe District an appropriate setting for examining digital marketing adoption and SME performance.

3.3 Population

The target population comprised registered Small and Medium Enterprises (SMEs) operating in Kabwe District, Zambia, as recorded by the Kabwe Municipal Council. The study included SMEs from various sectors, including retail, manufacturing, agriculture, and services, because of their significant contribution to the local economy and increasing use of digital marketing to enhance business performance. The unit of observation consisted of SME owners or managers, who were considered knowledgeable about their enterprises' digital marketing adoption and performance.

3.4 Sampling Techniques and Sample Size

A simple random sampling technique was employed to ensure that each registered Small and Medium Enterprise (SME) owner or manager had an equal chance of selection, thereby minimizing selection bias and enhancing sample representativeness. The sample size was determined using Cochran's (1977) formula for an infinite population, resulting in 384 respondents. This sample size was considered adequate for multiple regression and mediation analyses, ensuring sufficient statistical power and reliable findings (Cohen, 1992; Hair et al., 2019).

3.5 Data Collection Methods and Instrument

Data were collected using a structured self-administered questionnaire comprising closed-ended questions measured on a five-point Likert scale. The questionnaire consisted of five sections: Section A captured respondents' demographic characteristics, while Sections B–E measured perceived usefulness, perceived ease of use, digital marketing adoption, and SME performance, respectively. The measurement items were adapted from validated scales developed by Davis (1989), Venkatesh and Davis (2000), and related empirical studies to ensure validity and reliability. The structured questionnaire facilitated the collection of standardized and comparable data for statistical analysis (Saunders et al., 2019; Mundia et al., 2025).

3.6 Validity and Reliability

To ensure the validity and reliability of the research instrument, several measures were undertaken. Content validity was established through an extensive review of relevant literature and the adaptation of measurement items from validated scales developed by Davis (1989), Venkatesh and Davis (2000), and other empirical studies on digital marketing adoption and SME performance. Construct validity was assessed using Exploratory Factor Analysis (EFA) to confirm that the measurement items adequately represented the underlying constructs (Hair et al., 2019; Simasiku et al., 2026). Reliability was evaluated using Cronbach's Alpha, with a coefficient of 0.70 or above considered acceptable for internal consistency (Hair et al., 2019; Pallant, 2020). These procedures ensured that the instrument was both valid and reliable for measuring the study variables.

3.7 Data Analysis Procedures

Data analysis involved both descriptive and inferential statistical techniques. Descriptive statistics were used to summarize the demographic characteristics of the respondents and provide an overview of the study variables. Inferential analysis, specifically multiple regression analysis, was employed to examine the relationships among perceived usefulness, perceived ease of use, digital marketing adoption, and Small and Medium Enterprise performance. This approach enabled the estimation of the relative contribution of the independent variables to digital marketing adoption and SME performance while controlling for overlap among the predictors.

3.8 Ethical Considerations

Ethical clearance for the study was obtained prior to data collection. Participation was voluntary and respondents were informed of the study's purpose before giving their informed consent. Anonymity and confidentiality were strictly maintained and all data collected were used solely for academic purposes. These ethical procedures align with the principles of responsible and ethical research practice outlined by Bryman and Bell (2011) and Creswell and Clark (2017).

4 Findings and Discussion

This section presents the study findings. Literature and related studies assisted in the discussion of the findings. The section begins with demographics and then moves into the analysis of data.

4.1 Profile of Study Participants

This section provided a detailed analysis of the demographics of the participants.

Table 1: Profile of Study Respondents

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	214	55.7
	Female	170	44.3
	Total	384	100
Age Group	Below 30 Years	126	32.8
	31–40 Years	142	37
	41–50 Years	78	20.3
	Above 50 Years	38	9.9
	Total	384	100
Highest Level of Education	Secondary School	96	25
	Certificate	62	16.1
	Diploma	88	22.9
	Bachelor's Degree	112	29.2
	Master's Degree	26	6.8
	Total	384	100
Position in the Enterprise	Owner	238	62
	Manager	86	22.4
	Marketing Officer	42	10.9
	Other Management Staff	18	4.7
	Total	384	100
Business Sector	Retail Trade	168	43.8
	Services	74	19.3
	Manufacturing	52	13.5
	Agriculture	46	12
	Hospitality	28	7.3
	Other	16	4.1
	Total	384	100
Years in Business	Below 2 Years	92	24
	2–3 Years	138	35.9
	4–5 Years	96	25
	Above 5 Years	58	15.1
	Total	384	100
Primary Digital Marketing Platform Used	Facebook	206	53.6
	WhatsApp Business	134	34.9
	Instagram	26	6.8
	LinkedIn/X/Other	18	4.7
	Total	384	100

Table 1 presents the demographic and business characteristics of the respondents. The majority of the respondents were male (55.7%), while 44.3% were female, indicating representation from both genders. Most respondents were aged 31–40 years (37.0%), followed by those below 30 years (32.8%), suggesting that the study largely captured economically active SME operators. Regarding educational attainment, the majority possessed at least a Bachelor's degree (29.2%), followed by secondary school (25.0%) and diploma qualifications (22.9%), indicating that most respondents had the educational background necessary to understand and utilize digital marketing technologies. The majority of the respondents were business owners (62.0%), followed by managers (22.4%), implying that the data were obtained from individuals directly involved in strategic business decision-making. In terms of business sectors, retail trade (43.8%) constituted the largest proportion, followed by service enterprises (19.3%) and manufacturing firms (13.5%), reflecting the diversity of SMEs operating in Kabwe District. Most enterprises had been in operation for 2–3 years (35.9%), while 53.6% primarily utilized Facebook as their digital marketing platform, followed by WhatsApp Business (34.9%), demonstrating the growing adoption of social media platforms for business promotion. The diversity of respondents enhanced the representativeness of the study and provided comprehensive insights into digital marketing adoption and SME performance in Kabwe District.

4.2 Determinants of Digital Marketing Adoption and SME Performance

Table 2 presents the results of the regression analyses conducted to test the proposed hypotheses. The analysis examined the influence of perceived usefulness and perceived ease of use on digital marketing adoption, the effect of perceived ease of use on perceived usefulness, and the influence of digital marketing adoption on SME performance. The findings provide empirical evidence on the relationships among the study variables and the extent to which the proposed hypotheses are supported.

Table 2: Regression Results for Hypotheses

Hypothesis and Relationship	B	Std Error	Beta	t	p-value	Decision
H1: Perceived usefulness → Digital marketing adoption	0.524	0.042	0.48	12.619	<0.001	Supported
H2: Perceived ease of use → Digital marketing adoption	0.455	0.042	0.416	10.928	<0.001	Supported
H3: Perceived ease of use → Perceived usefulness	0.591	0.042	0.589	14.246	<0.001	Supported
H4: Digital marketing adoption → SME performance	0.888	0.03	0.831	29.163	<0.001	Supported

Perceived usefulness and Digital Marketing Adoption

The results revealed that perceived usefulness has a positive and statistically significant influence on digital marketing adoption among Small and Medium Enterprises (SMEs) in Kabwe District ($B = 0.524$, $\beta = 0.480$, $t = 12.619$, $p < 0.001$), leading to the acceptance of Hypothesis 1. This finding implies that SME owners and managers are more likely to adopt digital marketing technologies when they perceive them as capable of improving business performance through increased sales, enhanced customer engagement, improved brand visibility, and expanded market reach.

The finding strongly supports the Technology Acceptance Model (Davis, 1989), which posits that perceived usefulness is one of the most influential determinants of technology adoption. According to the model, individuals are more willing to embrace a technology when they believe it will improve their work performance. In the context of SMEs, digital marketing technologies are therefore adopted because they are perceived to create tangible business value.

The findings are consistent with previous empirical studies. Boateng et al., (2022) reported that SMEs are significantly more likely to adopt digital marketing technologies when they perceive clear business benefits. Likewise, Amoah, et.al., (2023) found that perceived relative advantage - including improved customer reach, cost-effectiveness, and competitiveness - is a major predictor of digital technology adoption. Similar conclusions were reached by Bruce et al. (2023) who established that perceived usefulness significantly promotes digital marketing adoption among SMEs in Ghana and Zambia, respectively. Collectively, these findings suggest that SMEs prioritize technologies that demonstrate measurable returns in terms of marketing effectiveness and organizational performance.

Perceived ease of use and Digital Marketing Adoption

The study further established that perceived ease of use exerts a significant positive influence on digital marketing adoption ($B = 0.455$, $\beta = 0.416$, $t = 10.928$, $p < 0.001$), thereby supporting Hypothesis 2. This finding indicates that SMEs are more likely to embrace digital marketing technologies when they perceive them as simple to learn, operate, and integrate into their daily business activities.

This finding reinforces the Technology Acceptance Model, which argues that technologies requiring minimal effort to understand and operate are more readily accepted by users (Davis, 1989). Venkatesh and Davis (2000) further contend that ease of use lowers users' cognitive burden, thereby encouraging behavioural intention and actual technology usage.

The present findings corroborate earlier empirical evidence. Boateng et al., (2022) similarly reported that ease of use significantly predicts SMEs' adoption of digital marketing technologies. Amoah, et.al., (2023) likewise observed that technologies perceived as user-friendly experience higher adoption rates, while Amoah et al. (2023) demonstrated that perceived complexity discourages SMEs from embracing digital marketing, particularly where digital competencies are limited. These findings are also consistent with studies conducted in South Africa by Eze et al. (2023) and Chatterjee et al. (2021), which identified digital skills and technological readiness as critical determinants of successful technology adoption. The implication is that simplifying digital marketing platforms and improving digital literacy among SME owners could significantly accelerate digital transformation within the sector.

Perceived Ease of Use and Perceived Usefulness

The findings further indicate that perceived ease of use positively and significantly influences perceived usefulness ($B = 0.591$, $\beta = 0.589$, $t = 14.246$, $p < 0.001$), supporting Hypothesis 3. The regression model explained 34.7% of the variation in perceived usefulness ($R^2 = 0.347$), suggesting that SMEs tend to perceive digital marketing technologies as more valuable when they are easy to understand and operate.

This result provides strong empirical support for the extension of the Technology Acceptance Model proposed by Venkatesh and Davis (2000), which argues that perceived ease of use enhances perceived usefulness because technologies that are less complex allow users to realize their functional benefits more effectively. In practical terms, SME owners are more likely to appreciate the business value of digital marketing technologies when they encounter minimal technical difficulties during implementation and use.

The finding is further supported by Boateng et al., (2022), who found that ease of use enhances SMEs' perceptions of the usefulness of digital marketing technologies. Similarly, Amoah et al. (2023) reported that perceived complexity reduces users' appreciation of technological benefits, while Amoah, et.al., (2023) emphasized that user-friendly technologies facilitate successful digital integration within SMEs. The result therefore reinforces the importance of investing in intuitive digital platforms, user training, and technical support to strengthen SMEs' perceptions of digital marketing value.

Digital Marketing Adoption and SME Performance

The study established that digital marketing adoption has a strong positive and statistically significant influence on SME performance ($B = 0.888$, $\beta = 0.831$, $t = 29.163$, $p < 0.001$), supporting Hypothesis 4. The model explained approximately 69.0% of the variance in SME performance ($R^2 = 0.690$), indicating that digital marketing adoption is a major determinant of business success among SMEs in Kabwe District.

This finding suggests that SMEs adopting digital marketing technologies experience improvements in customer acquisition, customer engagement, sales growth, market expansion, and overall organizational performance. The result aligns with the central proposition of the Technology Acceptance Model, which posits that successful technology acceptance ultimately translates into improved performance outcomes through actual technology utilization (Davis, 1989).

The findings are consistent with extensive empirical evidence. Chaffey and Ellis-Chadwick (2019) argued that digital marketing strengthens SME competitiveness by facilitating cost-effective customer communication, while Tiago and Verissimo (2014) demonstrated that digital marketing enhances customer loyalty and marketing effectiveness. Similarly, Simasiku et al., (2026) reported that strategic digital technology adoption improves organizational performance by enhancing innovation and operational efficiency. Marcon (2022) further found that digital capabilities strengthen firms' competitiveness in dynamic business environments.

The findings also corroborate evidence from emerging economies. Bruce et al. (2023) and Deku et al. (2022) found that digital marketing significantly improves SME growth and organizational performance in Ghana, while Anabila et al. (2024), and Celestin et al. (2024) reported that digital technologies enhance market access, customer acquisition, revenue generation, and operational efficiency. Within the Zambian context, Chisanga and Mwansa (2022) similarly established that digital platforms positively influence SME sales growth, market expansion, and competitiveness. Collectively, these findings reinforce the argument that digital marketing has become a strategic capability that enables SMEs to compete more effectively in increasingly digitalized markets.

4.3 The Mediating Role of Digital Marketing Adoption

Mediation analysis was conducted to determine whether digital marketing adoption mediated the relationship between technology acceptance - represented by perceived usefulness and perceived ease of use - and SME performance.

Table 3: Direct and Indirect Effects

Effect	Coefficient	p-value / 95% Bootstrap Confidence Interval	Interpretation
Total effect: Perceived usefulness → SME performance	0.48	p < 0.001	Significant
Total effect: Perceived ease of use → SME performance	0.37	p < 0.001	Significant
Direct effect: Perceived usefulness → SME performance, controlling for adoption	−0.003	p = 0.959	Not significant
Direct effect: Perceived ease of use → SME performance, controlling for adoption	−0.050	p = 0.294	Not significant
Digital marketing adoption → SME performance, controlling for technology acceptance	0.921	p < 0.001	Significant
Indirect effect: Perceived usefulness → Adoption → Performance	0.483	95% CI [0.401, 0.571]	Significant
Indirect effect: Perceived ease of use → Adoption → Performance	0.42	95% CI [0.332, 0.516]	Significant

The mediation analysis revealed that digital marketing adoption fully mediates the relationship between technology acceptance and SME performance. Before introducing digital marketing adoption into the model, perceived usefulness ($B = 0.480$, $p < 0.001$) and perceived ease of use ($B = 0.370$, $p < 0.001$) significantly predicted SME performance. However, after digital marketing adoption was included, the direct effects of perceived usefulness ($B = -0.003$, $p = 0.959$) and perceived ease of use ($B = -0.050$, $p = 0.294$) became statistically insignificant, while digital marketing adoption remained a strong predictor of SME performance ($B = 0.921$, $\beta = 0.862$, $p < 0.001$). The bootstrap confidence intervals for the indirect effects excluded zero, confirming statistically significant mediation. Accordingly, Hypothesis 5 was supported.

These findings strongly support the Technology Acceptance Model (Davis, 1989), which posits that perceived usefulness and perceived ease of use influence organizational outcomes through actual technology adoption. The findings further align with Venkatesh and Davis (2000), who argued that favourable perceptions of technology encourage its adoption, which subsequently leads to improved organizational performance. In this study, SMEs that perceived digital marketing technologies as useful and easy to use were more likely to adopt them, resulting in improved customer engagement, market expansion, sales growth, and overall business performance.

The findings are consistent with previous studies reporting that digital marketing adoption enhances SME competitiveness and performance (Chaffey & Ellis-Chadwick, 2019; Tiago & Verissimo, 2014; Simasiku et al., 2026; Bruce et al., 2023; Deku et al., 2022). They also support evidence from Zambia, where digital marketing has been shown to improve market expansion, customer acquisition, and sales performance among SMEs (Phiri & Silwimba, 2026). By demonstrating that digital marketing adoption is the mechanism through which technology acceptance translates into improved SME performance, this study extends the application of the Technology Acceptance Model and contributes context-specific evidence on digital transformation among SMEs in Kabwe District, Zambia.

5 Conclusion and Recommendations

5.1 Conclusion

This study examined the mediating role of digital marketing adoption in the relationship between technology acceptance and the performance of Small and Medium Enterprises (SMEs) in Kabwe District, Zambia. The findings revealed that both perceived usefulness and perceived ease of use significantly influence digital marketing adoption, while perceived ease of use also positively enhances perceived usefulness. Furthermore, digital marketing adoption was found to have a strong positive effect on SME performance and fully mediated the relationship between technology acceptance and business performance. These findings validate the Technology Acceptance Model by demonstrating that favourable perceptions of digital marketing technologies translate into improved organizational performance only through actual technology adoption. The study therefore contributes context-specific evidence on digital transformation among SMEs in emerging economies and underscores digital marketing adoption as a strategic driver of business competitiveness and sustainable performance.

5.2 Recommendations

Based on the findings, the study recommends that SME owners and managers should prioritize the adoption and effective utilization of digital marketing technologies as a strategic means of enhancing customer engagement, expanding market reach, and improving overall business performance. Efforts should be directed toward adopting user-friendly digital platforms such as Facebook, WhatsApp Business, and other emerging marketing technologies that align with business needs.

The Government of Zambia, through the Ministry of Small and Medium Enterprise Development, the Zambia Development Agency, and the Zambia Information and Communications Technology Authority, should strengthen policies and programmes that promote SME digital transformation. This should include affordable internet access, digital infrastructure development, financial incentives, and subsidized digital marketing training to improve technology acceptance and adoption among SMEs.

Training institutions, universities, and business development service providers should develop practical digital marketing capacity-building programmes to enhance SME owners' digital competencies and confidence in using digital technologies. Such initiatives would improve perceptions of usefulness and ease of use, thereby accelerating technology adoption.

Finally, future studies should extend this research by examining additional determinants of digital marketing adoption, such as organizational readiness, innovation capability, competitive pressure, and institutional support, while employing longitudinal or comparative designs across different regions and sectors to enhance the generalizability of the findings.

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Ethical considerations

The article followed all ethical standards appropriate for this kind of research.

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