

Digital marketing adoption and financial performance among tourism micro, small, and medium enterprises (MSMEs) in Livingstone, Zambia

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ABSTRACT

Digital marketing has become an important tool for small businesses seeking to expand their customer base at a lower cost than traditional advertising. In Livingstone, Zambia, tourism micro, small, and medium enterprises [MSMEs] continue to face financial strain, yet no prior study has directly tested whether digital marketing adoption improves financial outcomes. This study addresses that gap by examining the adoption-performance relationship and identifying the conditions that shape its impact. Guided by the Technology Acceptance Model, the research employed an explanatory sequential mixed-methods design. The target population comprised 167 MSMEs registered with the Patents and Companies Registration Agency (PACRA) across eight tourism sub-sectors. The survey sample size was calculated using the Yamane formula ($n = N / (1 + N(e)^2)$, where $N = 167$ and $e = 0.05$), yielding a minimum required sample of 118, of which 97 complete questionnaires were returned. Survey data were collected from 97 MSME owners and managers across eight tourism subsectors, complemented by interviews with 12 key informants. The financial performance scale used in the survey demonstrated excellent reliability, with a Cronbach's alpha of 0.932, ensuring confidence in the results. Findings show that 60 of the 97 enterprises had adopted digital marketing, with social media marketing overwhelmingly dominant. Platforms such as Facebook, WhatsApp Business, and Instagram were used by more than nine in ten adopters, meaning social media accounted for nearly two-thirds of all businesses in the sample, while technically demanding tools such as search engine optimisation and email marketing were rarely taken up. Revenue outcomes were stronger among adopters: their average agreement score was 3.68 compared to the neutral baseline of 3.0, and three-quarters reported revenue growth after adoption. A correlation analysis confirmed that adoption was moderately linked to revenue change, with a coefficient of 0.325, showing that businesses using digital marketing were more likely to report growth than those that did not. However, the benefits were not automatic. Nearly half of the enterprises reported lacking the digital skills needed to use digital marketing effectively, while 44.2% cited insufficient funds for ICT investment, and the same proportion struggled with unreliable internet connectivity. These barriers were most acute among microenterprises, which make up more than three-quarters of the sector, explaining why revenue outcomes varied by business size. To capture this reality, the study proposes a conditional impact model that extends the technology acceptance model by explicitly incorporating these enabling conditions. The study concludes that digital marketing adoption can improve financial performance among tourism MSMEs in Zambia, but only when skills, financing, and infrastructure are in place, and it recommends that MSME owners, industry associations, and policymakers prioritise training, affordable ICT financing, and reliable internet access to unlock the full potential of digital marketing in the tourism sector.

Keywords: Conditional Impact Model, E-Marketing, Financial Performance, Micro, Small and Medium Enterprises, Tourism Sector

I. INTRODUCTION

The rise of digital technologies has transformed the way businesses operate across the world. Marketing, once dominated by expensive channels such as television, radio, and print, has shifted toward online platforms that allow even the smallest enterprises to reach wider audiences at a fraction of the cost. For micro, small, and medium enterprises (MSMEs), this shift has been particularly important. MSMEs make up about 90 percent of businesses globally and provide nearly half of the world's jobs, meaning their ability to remain financially sustainable is critical not only for individual owners but for national and global economies (Endris & Kassegn, 2022). Digital tools such as social media, websites, and online booking systems have opened new opportunities for these enterprises to attract customers, build relationships, and compete in markets that were previously out of reach.

In sub-Saharan Africa, the adoption of digital marketing has been linked to improvements in productivity and growth among MSMEs, but the extent of these benefits varies widely. Some countries have seen rapid gains where infrastructure and skills are strong, while others continue to struggle with limited internet access, high costs, and low levels of digital literacy. Researchers such as Nguimkeu and Okou (2021) highlight that infrastructure gaps remain a major obstacle, while Raji et al. (2024) and Achieng and Maphate (2022) point out that differences in market readiness

and sectoral capacity explain why digital adoption does not always translate into financial success. These findings suggest that while digital tools hold promise, their impact is conditional on the environment in which enterprises operate.

In Zambia, MSMEs are central to economic development. They account for more than 60 percent of employment and about 90 percent of registered businesses, underscoring their importance to the national economy (Daka, 2022; Kawimbe & Sihweya, 2024). Livingstone, the country's main tourism destination, is home to MSMEs in accommodation, food service, transport, crafts, and community-based tourism. These enterprises have faced persistent financial challenges, worsened by the COVID 19 pandemic, which reduced tourist arrivals, forced closures, and cut operating capacity (Chanda, 2023). Even before the pandemic, many MSMEs struggled with limited marketing reach, high operating costs, and poor infrastructure. The pandemic made these weaknesses more visible, leaving businesses in urgent need of strategies that could help them recover and grow.

Several studies in Zambia have examined what drives MSMEs to adopt digital marketing. Chicha and Phiri (2024) found that practical support conditions were the strongest predictor of adoption in Livingstone's accommodation sector, while Kawimbe and Sihweya (2024) highlighted the role of infrastructure and financing. Chewe (2025) reported similar findings in Lusaka, noting that electricity disruptions added another layer of difficulty. However, none of these studies directly measured whether adoption actually improves financial outcomes. This gap is significant because MSME owners need evidence of revenue impact before they can justify investing in digital tools. Industry associations cannot design effective support programs without it, and policymakers cannot confidently allocate subsidies or training resources unless there is proof of financial return. This study, therefore, focuses on tourism MSMEs in Livingstone, Zambia. It investigates the types of digital marketing currently used, examines whether adoption is associated with improved financial performance, and identifies the challenges that limit the benefits of adoption. By combining survey data with interviews, the study provides both statistical evidence and practical insights into how digital marketing affects MSMEs in a tourism-driven economy.

The scope of the study is limited to MSMEs in Livingstone's tourism sector, covering enterprises in accommodation, food and beverage, transport, tour operations, crafts, and community-based tourism. The justification lies in the urgent need for evidence that can guide owners, associations, and policymakers in making informed decisions about digital adoption. The purpose of the study is to measure the relationship between digital marketing and financial performance and to identify the enabling conditions that determine whether adoption translates into real financial gains.

1.1 Statement of the Problem

The Technology Acceptance Model (Davis, 1989) holds that people adopt a technology when they believe it will be useful and sufficiently easy to use. When applied to e-marketing, the model predicts that MSME owners who see digital tools as useful for attracting customers will adopt them, and that adoption will lead to better financial results. This prediction has been supported empirically in studies from Bangladesh (Gao et al., 2023), Jordan (Sharabati et al., 2024), Tanzania (Mushi, 2024), Ghana (Chatterjee et al., 2021), Uganda (Kikawa et al., 2022), and India (Verma, 2024).

In Livingstone, however, the available evidence covers only adoption behaviour, not financial outcomes. Chicha and Phiri (2024) studied 286 hotel and lodge MSMEs in Livingstone and found that practical support conditions were the strongest driver of e-marketing adoption, explaining 52.2% of adoption behaviour, but did not examine whether adoption translated into higher revenue. No prior Zambian study has tested the adoption-financial performance relationship for tourism MSMEs using primary data collected through both a survey and structured interviews. This specific gap is the focus of the present study.

The consequences of this gap are concrete. Without evidence of revenue, MSME owners cannot make informed decisions about investing in e-marketing. Industry associations cannot design evidence-based support programs. Policymakers in the Ministry of Small and Medium Enterprises cannot confidently direct digital subsidies toward tools with proven financial returns. This study was therefore designed to provide the first mixed-methods evidence base on financial performance for e-marketing in the Zambian tourism sector, thereby generating actionable insights for each of these stakeholder groups.

1.2 Research Objectives

- i. To identify the types of e-marketing currently used by tourism MSMEs in Livingstone, Zambia, as a basis for understanding the digital marketing landscape within which financial performance outcomes occur.
- ii. To examine whether tourism MSMEs in Livingstone that have adopted e-marketing report improved financial returns compared to the period before adoption.
- iii. To determine the challenges that tourism MSMEs in Livingstone face in implementing e-marketing and to assess how these challenges shape the extent of the financial performance benefit derived from adoption.

1.3 Research Questions

- i. What types of e-marketing are used by tourism MSMEs in Livingstone, Zambia?
- ii. Has the adoption of e-marketing led to improved financial returns among tourism MSMEs in Livingstone, Zambia?
- iii. What challenges do tourism MSMEs in Livingstone face in implementing e-marketing, and how do these challenges affect the size of the financial performance benefit?

II. LITERATURE REVIEW

2.1 Theoretical Review

2.1.1 The Technology Acceptance Model

Davis (1989) developed the Technology Acceptance Model (TAM) to explain why people in organisations adopt or reject new technology. The model identifies two core determinants of adoption: perceived usefulness, which reflects the degree to which an individual believes that using a technology will enhance performance, and perceived ease of use, which is the degree to which the technology is expected to require minimal effort. While TAM is foundational to understanding technology uptake, scholars have noted that its original constructs may not fully capture the barriers and motivators specific to MSMEs, including resource scarcity, management capacity, and limited digital literacy, which are especially salient in developing economies (Musa et al., 2024). Several TAM extensions have therefore been proposed to incorporate these contextual variables. The Conditional Impact Model presented in this study constitutes one such extension, retaining TAM's core constructs while explicitly incorporating the enabling conditions that determine whether adoption produces measurable financial gains. Hasani (2025), studying SMEs in Albania and Kosovo, confirmed that both perceived usefulness and perceived ease of use drive adoption outcomes, with limited digital skills and financial constraints moderating the benefit that adoption delivers, a pattern that directly reflects the enabling conditions identified in this study.

The application of TAM in the present study helps explain why some Livingstone tourism MSMEs adopt e-marketing while others do not, and why adoption alone does not automatically translate into improved financial performance. This grounding underpins the second and third research objectives: TAM predicts that adoption will be associated with better financial outcomes where perceived usefulness is high and enabling conditions are present, but that this association will be constrained where skills, financing, or infrastructure are inadequate.

2.1.2 The Collective Intelligence Theory

Levy (1997) proposed that groups produce better results through shared knowledge and collaboration than individuals working alone. For tourism MSMEs, this theory is relevant in two distinct ways. First, social media platforms create a shared information environment in which customer reviews, shared destination content, and word-of-mouth posts extend the reach of any individual business's e-marketing effort beyond what that business could achieve in isolation. Second, the shared destination marketing portals recommended by key informants in this study represent a direct application of the collective intelligence principle, whereby pooling digital presence across multiple MSMEs generates greater aggregate visibility and booking conversion than any single enterprise could achieve independently. This theoretical underpinning grounds the industry association recommendations presented in Section 5.2.

2.2 Empirical Review

2.2.1 E-marketing Adoption and Financial Performance in MSMEs

Studies across several developing economy contexts have established a positive link between digital marketing adoption and financial performance among MSMEs. Gao et al. (2023), surveying 212 MSMEs across three districts of Bangladesh, found that e-commerce adoption was significantly associated with financial performance, that digital marketing strategies generated meaningful revenue gains during and after the COVID-19 pandemic, and that financial performance mediated the link between e-commerce adoption and long-term sustainability. Sharabati et al. (2024) reached similar conclusions in Jordan, where online advertising, social media marketing, search engine optimisation, and digital customer engagement collectively drove stronger financial performance for SMEs. In India, Verma (2024) found that digital marketing adoption improved customer engagement, brand awareness, and return on investment compared to traditional marketing.

Across Africa, Anyadighibe et al. (2024) studied 327 Nigerian MSMEs and found that social media use had significant positive effects on marketing performance, with business owners possessing stronger entrepreneurial competencies deriving greater performance benefit. Bruce et al. (2025), studying 450 Ghanaian start-ups, found that social media use was directly and positively linked to performance, with brand image mediating this relationship. In East Africa, Mushi (2024) found a positive link between digital marketing strategies and sales growth among 335 Tanzanian SMEs, while Kikawa et al. (2022) found that social media marketing significantly predicted performance

among 152 Ugandan SMEs, with owner age and gender moderating the strength of the adoption-performance relationship.

2.2.2 Digital Marketing in Tourism MSMEs

Tourism is a particularly relevant sector for examining the effects of digital marketing because tourist decisions rely heavily on online reviews, booking platforms, visual content, and destination information. Zhao et al. (2023) found that e-commerce capabilities directly improved strategic performance among tourism firms, with customer engagement amplifying this effect. Khaki and Khan (2023) studied 401 tourism MSMEs and found that social media marketing improved performance, with innovation capabilities strengthening this relationship. Nikopoulou et al. (2023), surveying 502 hoteliers and managers, found that financial resource availability and organisational digital maturity were the strongest predictors of whether hospitality MSMEs actually benefited from digital technology adoption, confirming that financial resources and internal capability are enabling conditions without which adoption does not produce performance gains.

Alford and Page (2020) found that small English tourism businesses that learned digital marketing through peer-led programs developed stronger capability and improved outcomes, a pattern that informs the industry association recommendations in this study. Lama et al. (2020), using a mixed-methods approach across 198 Nepalese tourism MSMEs, found that adoption was shaped by national digital infrastructure, organisational ICT resources, and top management support. These three factors correspond directly to the enabling conditions in the Conditional Impact Model proposed in the present study, providing cross-regional evidence that a conditional rather than automatic adoption-performance relationship is the norm in developing economy tourism contexts.

2.2.3 Barriers to E-marketing Adoption among African MSMEs

Research across sub-Saharan Africa consistently identifies a cluster of interlinked barriers that limit both e-marketing adoption and the financial results it produces. Achieng and Maphate (2022) reviewed 44 studies on SME digital transformation in the region and found that economic, market, and technical constraints worked together to suppress digitisation. Cueto et al. (2022), studying young entrepreneurs in the Philippines during economic disruption, found that skills gaps, internet infrastructure problems, and financial limitations combined to limit the effectiveness with which small businesses could use digital tools. Raji et al. (2024) compared US and African SME digital transformation and found that infrastructure gaps and limited capital create challenges absent in developed economies.

In Zambia specifically, Kawimbe and Sihweya (2024) found that poor infrastructure, high internet costs, limited skills, and insufficient funds were the main barriers to the adoption of digital marketing. Chewe (2025) found the same pattern in Lusaka, with electricity disruptions as an additional constraint. Chicha and Phiri (2024) found that practical support conditions were the strongest predictor of e-marketing adoption in Livingstone's accommodation sector. Nguimkeu and Okou (2021) and Kallmuenzer et al. (2024) both found that digital productivity gains only materialise when skills training, policy support, and infrastructure investment are already in place, reinforcing the theoretical logic that underpins the third research objective. Akpe et al. (2023) found that actual digital tool use remained low despite high awareness among small business owners, attributing this to limited digital skills, perceived difficulty, and the absence of affordable connectivity.

2.3 Research Gap

Three interrelated gaps provide the rationale for this study. First, while several studies have explored the drivers of e-marketing adoption among tourism MSMEs in Zambia, none have directly measured the financial performance outcomes of adoption in Livingstone or anywhere in the Zambian tourism sector. Second, research in Zambia and the surrounding region has not proposed or empirically tested a framework that recognises adoption as a necessary but insufficient condition for financial gain and that identifies the enabling conditions required. Third, no prior Zambian study has integrated quantitative survey evidence with systematic qualitative triangulation to examine this question. This study addresses all three gaps within a single explanatory sequential mixed-methods design, linking each objective to one of the gaps identified.

III. METHODOLOGY

3.1 Research Design

An explanatory sequential mixed-methods design was employed (Creswell & Plano Clark, 2018). This design was selected because the study required both a survey to establish the statistical relationship between e-marketing adoption and financial performance and structured interviews to explain the mechanisms and boundary conditions of that relationship. The design was anchored in a pragmatist philosophical approach, which is appropriate for studies integrating measurable financial outcomes with qualitative insights into barriers and lived experiences (Lim, 2023).

3.2 Study Area and Target Population

The study was conducted in Livingstone, Zambia's primary tourism destination, where MSMEs operate across accommodation, restaurants, transport, tour operations, craft shops, and community-based tourism. Rayman-Bacchus and Molina (2001) characterise tourism as an information-intensive industry in which digital tools play a central role in customer acquisition and destination visibility. The target population comprised 167 MSMEs registered with the Patents and Companies Registration Agency (PACRA) across eight tourism sub-sectors.

3.3 Sample Size and Sampling

The survey sample size was calculated using the Yamane (1967) formula ($n = N / (1 + N(e)^2)$, where $N = 167$ and $e = 0.05$), yielding a minimum required sample of 118. In practice, 97 complete questionnaires were returned, representing an 18% shortfall below the calculated minimum, primarily because of business closures and the unavailability of qualifying respondents during fieldwork. The survey sample was selected through stratified random sampling, with proportional allocation across all eight sub-sectors. For the qualitative component, 12 key informants were purposively selected to cover enterprise owners and managers, sector association leaders, regulatory officers, and a professional digital marketing consultant, collectively representing 165 years of industry experience.

3.4 Instruments and Data Collection

The structured questionnaire comprised five sections: respondent background; e-marketing adoption status and types used; financial performance, rated on a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree); e-marketing implementation challenges; and open-ended suggestions for improvement. Internal consistency of the three-item financial performance scale was assessed prior to analysis and found to be excellent (Cronbach's alpha = 0.932), well above the 0.70 minimum recommended by Nunnally (1978), with item-total correlations of Q12 ($r = 0.918$), Q13 ($r = 0.836$), and Q14 ($r = 0.835$). The interviews followed a semi-structured guide aligned with the three research objectives. Member checking, neutral prompting, and maintenance of an audit trail were employed throughout to reduce researcher bias.

3.5 Data Analysis

Quantitative data were analysed in SPSS using descriptive statistics, a one-sample t-test, and Pearson correlation. The one-sample t-test was conducted on the 60 e-marketing adopters against a neutral reference point of 3.0 and constitutes the primary test of the adoption-performance relationship, directly addressing the second research objective. Pearson's correlation examined the bivariate association between adoption status, coded as a binary variable (1 = adopter, 0 = non-adopter), and a general revenue change variable measuring each respondent's business revenue direction over the study period. This general revenue change question was applicable to all respondents regardless of adoption status, and the correlation was calculated across all 65 respondents who provided valid revenue change responses, comprising the 60 adopters and 5 non-adopters. Both tests used a two-tailed significance threshold of $\alpha = 0.05$. Interview data were analysed using the six-phase thematic analysis framework of Braun and Clarke (2017), producing four main themes. Both data strands were formally integrated through triangulation to identify convergence and divergence.

3.6 Methodological Strengths and Transferability

Several features of the research design enhance the analytical transferability of this study. The explanatory sequential mixed-methods design, the structured approach to instrument development, and the systematic integration of quantitative and qualitative data provide methodological rigour that can inform future research in comparable settings. Detailed documentation of sample calculation, stratified sampling justification, and the application of validated financial performance scales is relevant to researchers studying tourism-focused MSMEs in other resource-constrained developing economies. The explicit outlining of analytic techniques and bias mitigation measures establishes a transparent methodological framework that can be adapted to settings facing similar structural and sectoral challenges.

IV. FINDINGS & DISCUSSION

4.1 Participant Profile

Of the 97 enterprises surveyed, micro businesses employing between one and ten workers formed the largest group, accounting for 77.3% of the sample. Small enterprises with 11 to 50 employees represented 21.6%, while only one medium enterprise was included, making up 1.0%. Respondents were almost evenly split between managers who represented 52.6% and proprietors who represented 47.4%, ensuring that all participants were directly involved in both marketing decisions and financial management. This profile reflects the structure of tourism MSMEs in Livingstone, where micro enterprises dominate the sector and decision-making is concentrated at the owner-manager level. The achieved sample therefore provides a depiction of the businesses most affected by digital marketing adoption and its

financial implications, which reflect the descriptions of Zambian tourism MSMEs in earlier studies Chicha and Phiri (2024) and Kawimbe and Sihweya (2024).

Table 1

Demographic and Firm Characteristics of Survey Respondents

Characteristic	Category	n	%
Position in business	Manager	51	52.6
	Proprietor	46	47.4
Enterprise size	Micro (1–10 employees)	75	77.3
	Small (11–50 employees)	21	21.6
	Medium (51–100 employees)	1	1.0

Note. N = 97. Percentages may not sum to 100 due to rounding.

4.1.1 Types of E-marketing Used by Tourism MSMEs in Livingstone

The first objective was to identify the types of e-marketing currently used by tourism MSMEs in Livingstone. Of the 97 surveyed MSMEs, 61.9% (n = 60) actively used e-marketing tools, while 38.1% (n = 37) did not. Among the 60 adopters, social media marketing was by far the most common type at 93.3% (n = 56), with Facebook, WhatsApp Business, and Instagram cited most often. Website marketing ranked second at 26.7% (n = 16), followed by content marketing at 25.0% (n = 15), search engine optimisation at 11.7% (n = 7), and email marketing at 10.0% (n = 6). The dominance of social media at 93.3% compared to the next most common type at 26.7% is unambiguous and directly addresses the first research objective with a conclusion that social media marketing is significantly more prevalent than any other e-marketing type used by tourism MSMEs in Livingstone.

Table 2

Types of E-marketing Used by Adopting Tourism MSMEs

Type of e-marketing	n	% of adopters
Social media marketing (Facebook, WhatsApp Business, Instagram)	56	93.3
Website marketing	16	26.7
Content marketing	15	25.0
Search engine optimisation (SEO)	7	11.7
Email marketing	6	10.0

Note. N = 60 adopters. Multiple responses were permitted; percentages sum to more than 100.

This pattern validates the evidence from across Africa. Anyadighibe et al. (2024) and Mushi (2024) both found that social media was the primary digital marketing channel for MSMEs in Nigeria and Tanzania, respectively. Bermeo-Giraldo et al. (2022), studying 120 Colombian SMEs, similarly found that Instagram and Facebook dominated, driven by perceived customer benefits and ease of use relative to more technical alternatives. Raji et al. (2024) attribute social media dominance in African contexts to low-cost access to platform, mobile phone penetration, and the absence of infrastructure and skills needed for SEO or email automation. The 61.9% adoption rate found here is slightly higher than the 52.2% Chicha and Phiri (2024) reported for Livingstone's accommodation sub-sector, likely reflecting this study's broader sectoral coverage and the post-pandemic acceleration in digital tool adoption documented by the Ministry of Small and Medium Enterprises (2023) and Zambia Development Agency (2023).

The concentration in social media is well explained by TAM (Davis, 1989). Social media platforms score substantially higher on perceived ease of use than SEO systems or email marketing platforms, which require technical setup, ongoing management, and a financial commitment for subscriptions or developer fees. Musa et al. (2024), in a review of 1,089 TAM studies, confirmed that ease of use is especially decisive in adoption decisions among small business owners with limited digital training. Key Informant 7 independently corroborated this by observing that younger business owners appeared to lead adoption in the sector, which is a pattern that is similar to the Generational Theory of Jurkiewicz and Brown (1998). The very low uptake of SEO and email marketing means that most Livingstone MSMEs are not using the channels most likely to reach international tourists who search on global booking platforms, a structural constraint that directly limits the financial performance possibilities examined under the second objective.

4.1.2 Effect of E-marketing on Financial Performance

The second objective was to assess whether tourism MSMEs that have adopted e-marketing report improved financial returns. Table 3 presents a comparative analysis of mean revenue change agreement scores for e-marketing adopters relative to the neutral baseline.

Table 3*Comparison of Mean Revenue Change Agreement Scores (E-marketing Adopters vs Neutral Reference)*

Group	N	Mean	SD	t (df)	p-value	95% CI for Mean Difference
E-marketing Adopters	60	3.683	0.983	5.386 (59)	< .001	[0.429, 0.937]
Neutral Reference (Baseline)	—	3.000	—	—	—	—

The one-sample t-test on the 60 e-marketing adopters showed that their mean revenue change agreement score ($M = 3.683$, $SD = 0.983$) was significantly higher than the neutral reference point of 3.0 ($t(59) = 5.386$, $p < .001$; 95% CI for mean difference [0.429, 0.937]). This result answers the second research question affirmatively: tourism MSMEs that adopted e-marketing do report significantly improved financial returns. Because the study design is cross-sectional and relies on self-reported data, these results establish a significant positive association rather than a causal relationship. In practical terms, 75.4% of the 60 adopters reported that their business revenue had grown following adoption: 36.9% reported a significant increase and 38.5% a slight increase. Only 1.5% ($n = 1$) reported a slight decrease, and no respondent reported a significant decrease. Overall, 60.0% ($n = 39$) of adopters were satisfied or very satisfied with their e-marketing tools regarding financial returns, with a mean satisfaction score of 3.57 ($SD = 0.87$).

To further examine the adoption-performance association, Pearson correlation was computed between adoption status (binary: adopter = 1, non-adopter = 0) and a general business revenue change variable. This variable asked all 65 respondents who provided valid revenue responses, regardless of adoption status, how their business revenue had changed over the study period, so that both adopters and the 5 non-adopters could provide comparable responses on revenue direction. The correlation confirmed a moderate positive association ($r = 0.325$, $p = .007$; 95% CI [0.09, 0.53]; $n = 65$), indicating that businesses that had adopted e-marketing tended to report better revenue outcomes than those that had not. A strong positive relationship was also found between the revenue agreement score and the reported revenue impact level ($r = 0.551$, $p < .001$), showing that adopters who believed their returns had increased also reported the highest actual revenue impact levels.

These results are similar to evidence from comparable developing economy contexts. Gao et al. (2023) found significant associations between digital marketing and financial performance in Bangladesh. Sharabati et al. (2024) found the same in Jordan. Bruce et al. (2025) found a direct positive link between social media use and performance among Ghanaian start-ups. Mushi (2024) found positive associations in Tanzania but no environmental moderation, whereas this study's qualitative evidence indicates that tourism seasonality influences financial performance independently of e-marketing effort. Khaki and Khan (2023) found that social media marketing improved tourism MSME performance when innovation capabilities were present, which directly connects directly to the digital skills thereby enabling condition examined under the third objective.

Interview data strengthened the statistical picture considerably. Nine of the twelve key informants confirmed that e-marketing had contributed to revenue growth. Key Informant 6 explained that broader reach through digital platforms had directly translated into increased bookings. Key Informant 12 offered a practically important qualification: the revenue benefit was substantially larger for businesses that used their e-marketing tools consistently and with a clear strategy than for those posting occasionally without a plan. Key Informant 9, speaking from a micro-enterprise perspective, noted that many of the smallest businesses had not yet seen any increase in revenue. This size-differentiated pattern agrees with Anyadighibe et al. (2024), who found that entrepreneurial and digital competencies moderate the social media-performance relationship, and with the evidence that micro enterprises are the group most often lacking these competencies. This outcome highlights the third objective.

4.1.3 Challenges in E-marketing Implementation

The third objective was to determine the challenges tourism MSMEs face in implementing e-marketing and to assess how these challenges shape the financial performance benefit. A total of 79.4% ($n = 77$) of respondents reported implementation challenges, confirming that difficulties are the norm rather than the exception. Among those 77, limited digital skills were most prevalent at 46.8% ($n = 36$), followed equally by lack of ICT investment funds at 44.2% ($n = 34$) and poor internet connectivity at 44.2% ($n = 34$). Electricity supply disruptions were reported by 16.9% ($n = 13$), and cybersecurity concerns by 9.1% ($n = 7$). The evidence supports the third research objective: these three leading barriers demonstrably constrain the financial performance benefit, as shown by the concentration of revenue gains among MSMEs with the enabling conditions in place, and their absence among those without them. Table 4 summarises the prevalence of each barrier among respondents who reported implementation challenges.

Table 4*Challenges in E-Marketing Implementation among Tourism MSMEs (N = 97)*

Rank	Implementation Barrier	n	% *	Classification
<i>Principal Barriers (Enabling Conditions of the Conditional Impact Model)</i>				
1	Limited Digital Skills	36	46.8	Principal Barrier
2	Lack of ICT Investment Funds	34	44.2	Principal Barrier
3	Poor Internet Connectivity	34	44.2	Principal Barrier
<i>Secondary Barriers</i>				
4	Electricity Supply Disruptions	13	16.9	Secondary Barrier
5	Cybersecurity Concerns	7	9.1	Secondary Barrier
Respondents Reporting Any Challenge		77	79.4 **	

Note. * Percentages are computed relative to respondents who reported at least one challenge (n = 77). Multiple responses were permitted; therefore percentages do not sum to 100%. ** 79.4% of the total sample (N = 97) reported one or more implementation challenges. All five barriers were independently confirmed by all 12 key informants without prompting. The three principal barriers constitute the enabling conditions of the Conditional Impact Model (Section 4.5).

These three barriers directly shape the boundaries of the adoption-performance relationship confirmed under the second objective. The Pearson's correlation coefficient $r = 0.325$ between adoption status and revenue change indicates a significant but moderate association, suggesting that adoption accounts for only a limited share of revenue variation. The barriers explain much of the remainder: where digital skills are absent, where ICT financing is unavailable, or where connectivity is poor, the financial benefit of adoption either does not materialise or remains small. This logical connection links the challenge findings directly to the financial performance findings and constitutes the empirical core of the Conditional Impact Model presented in Section 4.5. The finding is most consequential for the 77.3% of surveyed businesses that are micro enterprises, for whom these enabling conditions are most commonly absent or insufficient.

All twelve (12) key informants independently confirmed each of these barriers without prompting. Key Informant 1 stated that most operators did not know how to use the internet for business purposes. Key Informant 4 noted that enterprises lacked the trained staff needed for digital marketing. Key Informant 3 identified web hosting and platform subscription costs as unaffordable for many micro enterprises. Key Informant 7 described financial constraints as the principal reason most MSMEs could not invest meaningfully in marketing. Key Informants 9 and 12 both independently cited unreliable internet and power cuts as making it very difficult to maintain a consistent digital marketing presence.

These findings align closely with comparable evidence. Kawimbe and Sihweya (2024) identified the same barrier cluster as the main digital marketing constraints for Zambian MSMEs. Chew (2025) found the same pattern in Lusaka, with electricity shortages as an additional element, suggesting the Livingstone electricity finding reflects a structural feature of Zambian digital operating environments. Cueto et al. (2022) found the identical cluster of constraints among digital entrepreneurs in the Philippines, indicating that this barrier profile extends across developing economies. Nikopoulou et al. (2023) confirmed in a hospitality MSME context that financial resources and digital maturity were the strongest predictors of whether digital technology adoption actually produced performance benefits. Hasani (2025) found in Albania and Kosovo that limited skills, financial constraints, and weak institutional support reduce the benefits of adoption regardless of adoption intent.

4.2 The Conditional Impact Model

When the findings from all three objectives are read together, they reveal a clear and theoretically coherent pattern that this study formalises as the Conditional Impact Model for e-marketing and financial performance among tourism MSMEs in developing economies. The model holds that e-marketing adoption significantly improves financial performance, but only when three enabling conditions are in place: digital skills, defined as the ability of MSME owners and managers to design and implement digital marketing campaigns; ICT financing, meaning access to the financial resources required to invest in and sustain digital tools; and digital infrastructure, including reliable internet connectivity and consistent electricity supply. Figure 1 presents the model graphically.

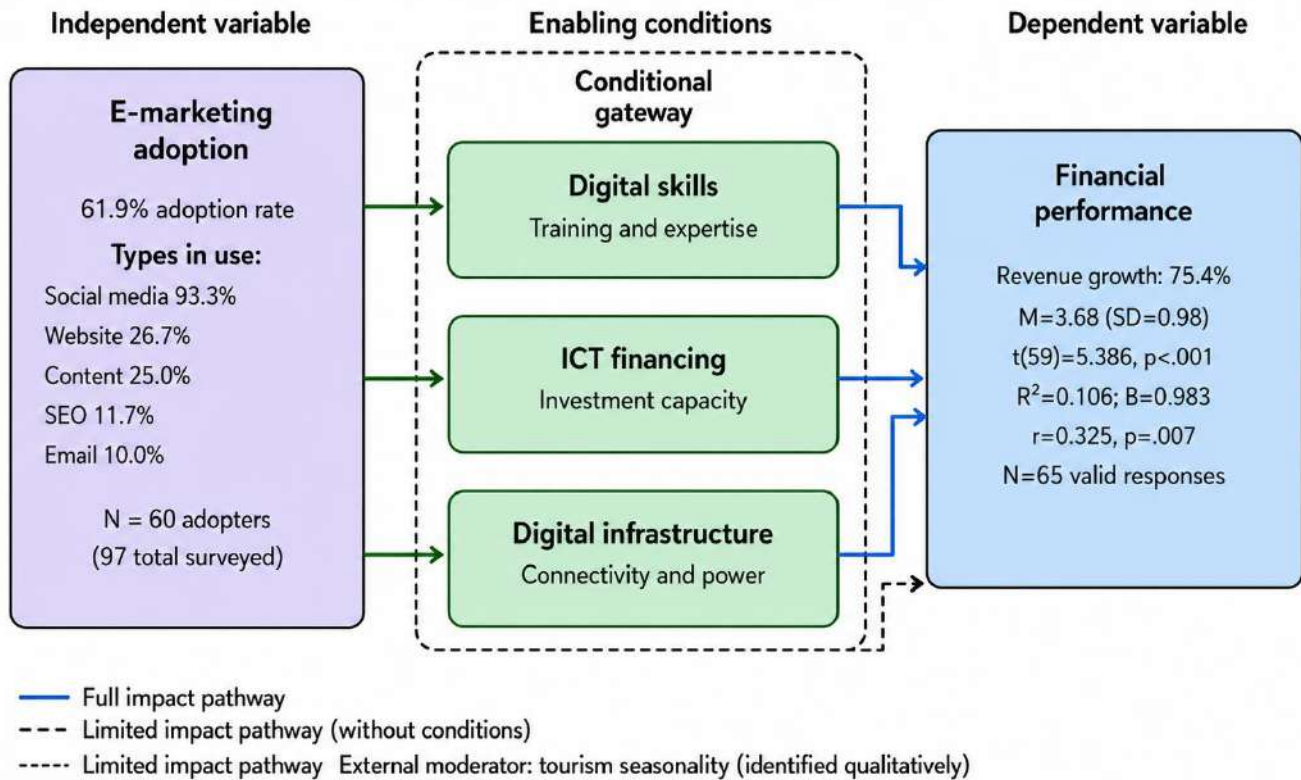


Figure 1
Conditional Impact Model: E-Marketing Adoption and Financial Performance of Tourism MSMEs in Livingstone, Zambia

Where all three conditions are met, the data confirm that adoption produces statistically significant and practically meaningful revenue gains: 75.4% of adopters reported revenue growth and the t-test returned a mean significantly above the neutral baseline ($t(59) = 5.386, p < .001$). Where conditions are absent, particularly for microenterprises that constitute 77.3% of the sector, adoption may occur informally without producing clear or stable financial improvements. This conditional finding reflects what is in Chatterjee et al. (2021), who found that leadership support moderated the financial benefit Indian SMEs derived from social media marketing; with Nguimkeu and Okou (2021), who found that digital productivity gains across sub-Saharan Africa required skills, policy support, and infrastructure to materialise; and with Nikopoulou et al. (2023), who found that financial resources and digital organisational maturity determined whether hospitality MSME technology adoption improved business outcomes.

The mixed-methods integration also produced a finding that neither strand could have generated alone. While both data sources confirmed the centrality of enabling conditions, the interviews also identified tourism seasonality as a factor shaping financial performance independently of e-marketing efforts. Key Informant 7 noted that businesses naturally attract more customers during peak tourist seasons regardless of their digital marketing efforts. This seasonal pattern is a moderating variable that the quantitative instruments were not designed to capture, and its identification through the interview strand illustrates what Braun and Clarke (2017) describe as the productive contribution of methodological complementarity: each data strand reveals a dimension of the phenomenon inaccessible to the other. Future quantitative studies should include seasonal demand as a measured control variable to obtain cleaner estimates of the e-marketing revenue effect.

V. CONCLUSION & RECOMMENDATIONS

5.1 Conclusion

This study produced three principal conclusions, each corresponding to one of this study’s three objectives. First, social media marketing through platforms such as Facebook, WhatsApp Business, and Instagram emerged as the dominant form of digital marketing among tourism MSMEs in Livingstone. Out of the 97 enterprises surveyed, 60 reported adopting digital marketing, and within this group 93.3% relied on social media. This means that social media alone accounted for 61.9% of all businesses in the sample, while more technically demanding tools such as SEO and email marketing were taken up by fewer than 12% of adopters. The evidence shows that ease of use and affordability

drive adoption far more than technical sophistication, a pattern that aligns closely with the Technology Acceptance Model's emphasis on perceived usefulness and ease of use.

Second, adoption was clearly linked to improved financial performance. The average revenue agreement score among adopters was 3.68, significantly higher than the neutral baseline of 3.0, and three-quarters of adopters reported revenue growth after using digital marketing. The correlation analysis reinforced this finding, showing a moderate positive relationship of 0.325 between adoption status and revenue change. These results provide the first empirical evidence in Zambia's tourism sector that digital marketing adoption is associated with stronger financial outcomes. While the cross-sectional design prevents claims of causation, the evidence across both statistical tests and interview insights echoes and strengthens the case that adoption contributes meaningfully to performance.

Third, the extent of these benefits was shaped by barriers that were both widespread and consequential. Nearly half of the enterprises reported lacking the digital skills needed to use digital marketing effectively, 44.2% cited insufficient funds for ICT investment, and an equal share struggled with unreliable internet connectivity. These obstacles were most acute among micro enterprises, which make up more than three-quarters of the sector, and they explain why revenue outcomes varied by business size. The Conditional Impact Model proposed in this study extends the Technology Acceptance Model by explicitly incorporating these enabling conditions, offering a framework that captures the realities of small businesses in developing economy tourism contexts.

Finally, the study uncovered an additional moderating factor that is tourism seasonality. Regardless of digital marketing efforts, seasonal fluctuations shaped revenue outcomes, suggesting that future research should measure this variable directly. Overall, the findings close a critical gap in Zambian tourism research by providing empirical evidence of the adoption-performance relationship, while also showing that digital skills, financing, infrastructure, and seasonality must be addressed if MSMEs are to fully realise the financial benefits of digital marketing.

5.2 Recommendations

The data confirm that businesses that use e-marketing consistently and with a clear strategy report larger revenue gains than those who use it sporadically without a plan. On this basis, MSME owners and managers should develop a written e-marketing plan aligned to their target customers, posting schedules, seasonal patterns, and measurable performance goals. To evaluate the impact of their digital marketing activities, they should track indicators such as website traffic, social media engagement, customer inquiry volume, booking conversion rates, and customer acquisition sources. Since limited digital skills are the most prevalent barrier, owners and managers should actively seek training through industry association workshops, free online learning platforms, and structured peer learning groups. Businesses with the financial capacity to invest should progressively diversify beyond social media into website marketing with integrated booking functionality, which directly supports revenue conversion from international tourists who rely on search engines and global booking platforms.

The Livingstone Tourism Association, the Livingstone Lodges and Guest Houses Association, and the Livingstone Chamber of Commerce should implement three coordinated actions. First, develop a shared destination marketing portal that enables even the smallest micro enterprise to maintain a professional web presence and online booking capability at minimal individual cost, putting the Collective Intelligence principle of Levy into operational practice and directly responding to the proposals of Key Informants 7 and 12. Second, convene regular digital marketing workshops, mentorship programs, and peer learning sessions specifically designed for the resource constraints of micro and small enterprises, building on the peer-group learning model that are effective for small tourism businesses. Third, coordinate joint seasonal destination marketing campaigns that pool individual MSME digital marketing efforts to achieve aggregate visibility that no single enterprise could generate on its own.

The Ministry of Technology and Science, the Ministry of Small and Medium Enterprises, the Zambia Development Agency, and the Citizens Economic Empowerment Commission should prioritise three interventions. Based on the patterns identified in this study, the data suggest a logical sequence, though policymakers should adapt this order to local conditions and resource availability, as this study does not empirically test the temporal ordering of interventions. First, expanding affordable and reliable broadband and mobile internet coverage in Livingstone and other tourism destinations should be treated as a prerequisite for effective digital marketing, given that 44.2% of surveyed MSMEs cited connectivity as a barrier to converting adoption into revenue. Reducing import taxes on ICT equipment would further lower the upfront cost for MSMEs entering the digital space. Second, a national MSME digital literacy program, developed in partnership with technology firms, universities, and development organisations, should deliver certified training in social media management, website development, content creation, and digital performance tracking. Third, targeted micro-financing schemes enabling MSMEs to invest in digital infrastructure and platform subscriptions should be made accessible through the Zambia Development Agency and Citizens Economic Empowerment Commission, with eligibility criteria realistic for informal micro and small enterprises.

Three research priorities follow directly from this study's limitations. First, studies using actual financial records from tax returns, bank statements, or accounting software rather than self-reported perceptions of revenue change would yield more precise estimates of the e-marketing revenue impact and enable a proper return-on-investment calculation.

Second, longitudinal designs tracking the same tourism MSMEs through at least one full tourist season before adoption and two or more seasons after adoption would provide stronger evidence on the causal direction of the adoption-performance relationship. Third, a comparative study extending the analysis to Lusaka, Ndola, Kasama, and other Zambian cities would establish whether the conditional patterns observed in Livingstone hold nationally or are specific to a tourism-driven destination economy.

Declaration of Interest

The authors declares that they have no known competing financial interests or personal relationships that could have influenced the work reported in this paper.

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