



Factors Influencing Social Media Usage and its Impact on the Performance of Small and Medium-sized Enterprises in Kathmandu Valley

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Abstract

Background: SMEs are increasingly using social media to improve their visibility, communication, and reach in the market. It has become important to understand what drives SME's social media usage because its adoption influences business performance.

Purpose: This study aims to investigate the factors contributing to the adoption of social media by SMEs and the relationship between social media adoption and performance. It focuses on the interaction of four key factors: perceived ease of use (PEU), cost-efficiency (CE), compatibility (COMP), and trust (TR), in relation to the social media usage of SMEs and their outcomes, utilizing DOI theory.

Design/methodology/approach: This study employed an explanatory research design, collecting data from 240 SMEs in Kathmandu, Nepal, through a structured questionnaire survey. PLS SEM was employed to test the proposed hypotheses.

Findings: The results revealed that elements such as perceived ease of use, cost-effectiveness, compatibility, and trust influence social media use among SMEs. The findings also showed that SMU significantly mediated the relationship between PEOU, COE, COMP, and T on SMEP.

Conclusion: This study has implications for recognizing the significance and advantages of social media and providing theoretical and practical guidance to inform and support organizations in the strategic adoption of social media for business purposes.

Keywords: Social Media Utilization, SME Performance, PLS SEM

1. Introduction

In recent years, social media utilization has become an indispensable tool for small and medium enterprises (SMEs), significantly shaping their performance across global and local contexts. Platforms such as Facebook, Instagram, YouTube, and Twitter have enabled cost-effective marketing, real-time customer engagement, and data-driven decision-making that enhance business competitiveness and growth (Chowdhury et al., 2024). In Nepal, social media is increasingly utilized for branding, information dissemination, and business development, providing entrepreneurs with effective avenues for communication, innovation, and time-efficient growth strategies (Bhandari et al., 2024). Despite these benefits, challenges such as cyber security threats, misinformation, and limited digital literacy persist, requiring stronger regulatory frameworks and responsible digital practices (Giri et al., 2020). This study aims to fill the gap regarding how the increasing use of social media, in particular, leads to improvements in SMEs' performance outcomes.

The evolution of social media over the past few decades has transformed it into a global phenomenon, reshaping communication, business, and social interactions. Originating with the rise of Web 2.0 technologies in the mid-to-late 2000s, social media shifted news consumption and engagement from print-based mediums to dynamic digital platforms (Mari & Will, 2022). Although its history is relatively short, its rapid transformation in the 21st century has had a profound influence on businesses, cultures, and societies worldwide (Edosomwan et al., 2011). Developed countries such as the United States, Australia, and European nations have leveraged advanced facilities and technologies to maximize SMEs' performance, setting global benchmarks for social media-driven economic growth.

Social media is vital for the sustainable growth of SMEs, serving as a platform for cost-effective market segmentation, targeted brand communication, and enhanced customer engagement. To maximize its potential, businesses must adopt strategic training, digital literacy, and innovative practices while addressing the challenges of misinformation, privacy, and cybersecurity (Rathore et al., 2017). A sustainable approach requires balancing opportunities with responsible usage, ensuring that social media fosters innovation, strengthens branding, and cultivates resilient customer relationships that contribute to long-term business success. Despite evidence from around the world, little is known about how the adoption of social media impacts the performance of SMEs in developing countries like Nepal.

Social media, broadly defined as a digital platform for sharing information, thoughts, images, and videos, plays a transformative role in modern communication and organizational development (Nguyen et al., 2024). Its utilization in SMEs facilitates knowledge transfer, branding, collaboration, and market competitiveness. The central objective of this study is to examine the role of social media in improving SMEs' performance in Kathmandu Valley, particularly in addressing challenges faced by entrepreneurs and investors in a rapidly digitalizing market environment. Social media directly contributes to the performance of SMEs by enhancing marketing efficiency, financial outcomes, customer relations, and information accessibility (Odoom et al., 2017). It enables innovation, strengthens social capital, and fosters interactive engagement with consumers, thereby supporting entrepreneurial success and competitiveness across industries (Qalati et al., 2021). Nevertheless, its uneven integration across sectors underscores the need for industry-specific strategies and contextually tailored adoption models (McKenzie et al., 2024).

This study contributes to both theory and practice by offering insights into how social media adoption can enhance SMEs' performance while addressing prevailing challenges in Nepal. It provides a conceptual foundation for responsible digital engagement, knowledge sharing, and innovation, equipping policymakers and entrepreneurs with evidence-based strategies to foster sustainable growth. By emphasizing regulatory preparedness, capacity building, and mindful utilization, this study supports the development of SMEs in Nepal. It contributes to broader discussions on the role of social media in economic resilience and responsible digital transformation.

2. Literature Review

The literature on social media adoption by SMEs demonstrates that digital platforms have evolved from simple communication tools into strategic enablers of business performance. Studies have shown that social media supports marketing, customer engagement, operational efficiency, and innovation, thereby creating competitive advantages for resource-constrained firms (Mangold & Faulds, 2009; OECD, 2023). Theoretical contributions, such as the Technology Acceptance Model (TAM), the Unified Theory of Acceptance and Use of Technology (UTAUT), and the Diffusion of Innovation (DOI), have been used to explain adoption dynamics. Among these, the DOI is particularly relevant because it emphasizes the processes through which new technologies spread within a population, making it suitable for examining the digital transformation of SMEs (Rogers, 2003; Ainin et al., 2015). This theoretical foundation provides the basis for analyzing how SMEs adopt and integrate social media into their business models.

Diffusion of Innovation (DOI) theory posits that the independent variables are consistent with adoption constructs such as relative advantage, compatibility, and complexity (Rogers, 2003). Perceived ease of use is associated with the complexity dimension, as ease of use can facilitate the adoption of simpler technologies at a faster rate. Cost-effectiveness in terms of the relative advantage provides SMEs with marketing and communication capabilities at low costs. Compatibility relates to DOI dimensions, which focus on how well the innovation fits into existing business practices. Finally, trust reduces the perceived risk of innovation, thereby increasing the likelihood that SMEs will adopt social media as an innovation tool (Oliveira et al., 2014; Ainin et al., 2015). By applying DOI, this study can systematically examine how Nepalese SMEs embrace social media, what influences their adoption behavior, and how this translates into improved performance outcomes.

An empirical review provides a synthesis of prior research findings, grounded in evidence and real-world observations. Unlike theoretical analyses, empirical studies validate concepts by measuring impacts on sales, customer retention, and operational outcomes, offering practical implications for SMEs (Ashley & Tuten, 2015; Boateng, 2016). The primary role of empirical literature is to confirm or challenge theoretical assumptions, identify research gaps, and provide data-driven insights that strengthen decision-making (Donthu & Gustafsson, 2020; Kumar et al., 2021). For SMEs, empirical studies demonstrate how social media adoption enhances business resilience, supports innovation, and drives financial sustainability, particularly in resource-constrained environments.

Social media has become increasingly important for the development of SMEs, given the rising penetration of the internet and the increasing use of smartphones. Research shows that SMEs in Nepal leverage platforms such as Facebook, Instagram, and TikTok for marketing, customer service, and branding, though adoption remains uneven between urban and rural enterprises (Adhikari & Maharjan, 2022; Bhattarai et al., 2023). While Kathmandu-based SMEs utilize advanced tools such as analytics and paid advertising, rural businesses primarily rely on basic promotional activities due to digital literacy and infrastructure gaps (Subedi & Paudel, 2021; FNCCI, 2024). Nevertheless, studies confirm that SMEs using social media consistently report higher sales growth, customer acquisition, and visibility compared to traditional methods (Basnet & Bahadur, 2023; Shakya & Gurung, 2022). These findings underscore the need for capacity-building, strategic planning, and policy support to leverage social media's potential fully.

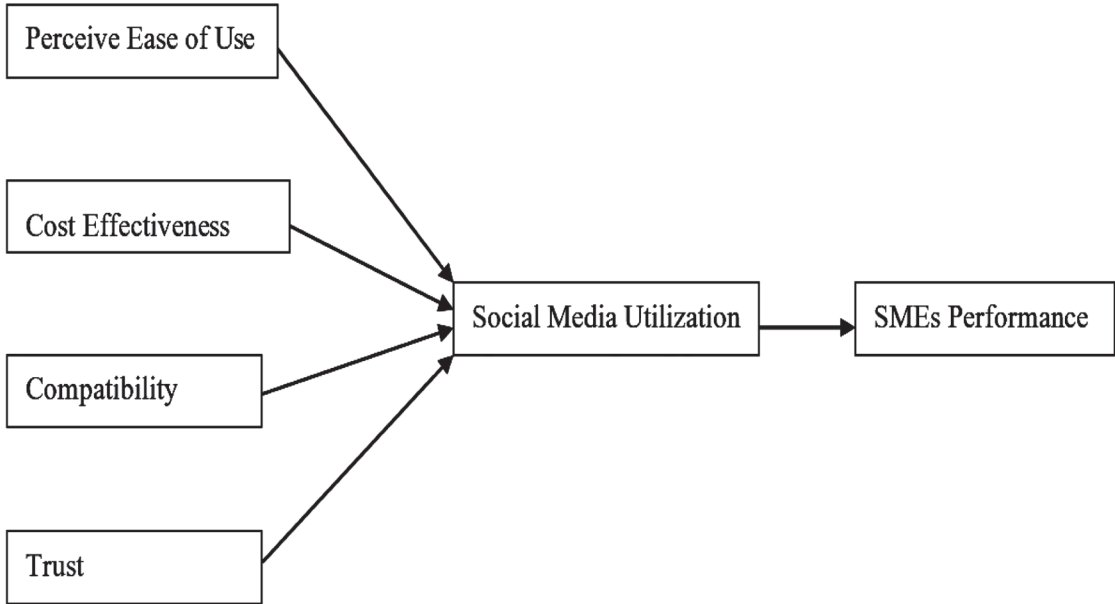
This study contributes to the literature by clarifying the multifaceted role of social media in enhancing SME performance. It identifies financial, operational, and innovation-related outcomes, emphasizing how SMEs can build competitive advantages through digital adoption (Hudson et al., 2015; Tiago & Veríssimo, 2014). It also advances theoretical understanding by applying DOI to explain adoption behavior and provides empirical relevance by contextualizing findings within Nepal's SME sector (Barney, 1991; Teece et al., 1997). Furthermore, it offers practical implications for entrepreneurs and policymakers by illustrating how strategic use of social media fosters resilience, competitiveness, and sustainable growth (McKinsey, 2023; OECD, 2023). Overall, this study positions social media as a transformative tool that can help SMEs in Nepal overcome structural barriers and expand both locally and globally.

Conceptual frameworks serve as structured blueprints that guide the research process by mapping the logical relationships between independent, mediating, and dependent variables (Miles & Huberman, 1994). They provide clarity on how key constructs interact, thereby offering a systematic foundation for empirical inquiry. In this study, the independent variables (perceived ease of use, cost-effectiveness, compatibility, and trust) are theorized to influence social media utilization, which functions as the mediating variable, ultimately impacting the dependent variable, SMEs' performance. Such frameworks not only organize the research problem but also enable hypothesis testing and theory validation by integrating constructs into a coherent, testable model (Jabareen, 2009).

Social media utilization has shown to have a positive impact on SME performance by enhancing market access, reducing transaction costs, and facilitating stronger customer engagement (Ainin et al., 2015; Chatterjee et al., 2020). Empirical evidence demonstrates that SMEs adopting social media benefit from improved financial outcomes such as sales growth and profitability, alongside non-financial advantages including customer satisfaction, innovation, and organizational learning (Bruce et al., 2022; Martín-Rojas et al., 2023). In resource-constrained environments, the strategic use of social platforms allows SMEs to overcome structural barriers, adapt to dynamic markets, and achieve sustainable competitiveness (Fernando & Kalindu, 2023). Thus, social media utilization functions as a catalyst for strengthening both short-term performance and long-term resilience.

Figure 1 illustrates the conceptual framework developed for this research, depicting the pathways through which perception-driven factors influence SME performance. The figure positions perceived ease of use, cost-effectiveness, compatibility, and trust as independent variables, with social media utilization serving as the mediating factor between these variables and SMEs' performance as the dependent outcome. This structure aligns with the Diffusion of Innovation theory (Rogers & Williams, 1983) which emphasizes how perceptions shape technology adoption processes. The framework emphasizes that enhanced SME performance is not directly derived from perceptions alone, but rather emerges through the effective utilization of social media platforms, thereby offering a logical and testable model for examining digital transformation in SMEs (Qalati et al., 2021).

Figure 1: Conceptual Framework



Source: Adopted and Modified from Ainin et al. (2015)

Research Hypothesis

Perceived Ease of Use (PEOU)

Perceived Ease of Use (PEOU) refers to the degree to which SME owners and managers believe that using social media for business activities requires minimal effort (Davis, 1989). It encompasses the ease of learning social media marketing skills, identifying and understanding customer needs, retrieving customer data, and promoting products effectively through social media platforms (Venkatesh & Bala, 2008). A higher perceived ease of use is expected to positively influence social media adoption.

H1: Perceived ease of use significantly impacts social media utilization among SMEs

Cost Effectiveness (COE)

Cost Effectiveness (COE) captures the extent to which SMEs perceive social media as a financially advantageous tool compared to traditional marketing channels (Odoom et al., 2017). It includes reductions in expenses related to customer inquiries, customer acquisition, training, advertising, and overall operational efforts. Cost and time savings achieved through social media platforms are critical drivers of sustained utilization.

H2: Cost effectiveness significantly impacts social media utilization among SMEs.

Compatibility (COM)

Compatibility (COM) represents the alignment of social media use with organizational values, existing IT infrastructure, and daily work practices (Young, 2017). It measures how well social media integrates into business operations, supports marketing goals, and receives organizational backing, such as training and resource allocation. Higher compatibility encourages continued and effective use of social media tools.

H3: Compatibility significantly impacts social media utilization among SMEs.

Trust (T)

Trust (T) refers to the confidence that SMEs place in the safety, reliability, and credibility of social media platforms (Rajkovic et al., 2017). This construct assesses perceptions related to information security, dependable issue resolution, and the accuracy of online information. Trust is essential for reducing the perceived risks associated with digital adoption.

H4: Trust in social media significantly impacts social media utilization.

Social Media Utilization (SMU)

Social Media Utilization (SMU) defines the actual use of social media platforms for business purposes, including customer engagement, marketing, brand promotion, feedback collection, and relationship building (Ainin et al., 2015). It reflects the behavioral manifestation of the above perception-driven factors and mediates their effect on performance outcomes

H5: Social media utilization significantly impacts SMEs' performance.

SME Performance (SMEP) is conceptualized as the impact of social media on various business outcomes, such as growth, sales, customer connections, service quality, employee creativity, and information accessibility (Kaplan & Haenlein, 2010). Performance is measured both in financial terms (e.g., increased sales) and non-financial outcomes (e.g., enhanced customer relationships).

H6a: Social media utilization mediates the relationship between perceived ease of use and SME performance.

H6b: Social media utilization mediates the relationship between cost-effectiveness and SME performance.

H6c: Social media utilization mediates the relationship between compatibility and SME performance.

H6d: Social media utilization mediates the relationship between trust and SME performance.

3. Research Methods

This research adopts the positivist paradigm, which considers an objective reality that can be systematically measured and analyzed. Guided by this philosophy, a quantitative approach was adopted, which highlighted objectivity, replicability, and statistical rigor. An explanatory research design was used. To consider the causal effect of perception-driven factors, including ease of use, trust, compatibility, and cost-effectiveness, on SME performance with social media use as a mediating variable. A cross-sectional survey strategy was employed to provide a snapshot of current practices and perceptions, using the Kathmandu Valley as the location due to its economic significance and higher concentrations of SMEs across a range of sectors.

The primary instrument for data collection was a structured questionnaire survey. The questionnaire consisted of both open-ended and closed-ended questions, drafted in simple language, presented in a sequential order, and clearly articulated to provide accurate and relevant responses to each question. The study employed a convenience sample because there was no existing comprehensive SME register, with the owners and managers of SMEs from the wholesale and retail industries serving as the sample population. Guided by PLS-SEM procedures, which recommend a sample size of at least 200 (Jhantasana, 2023), the study initially collected 260 responses from participants. After removing outliers and accounting for non-completion, 240 valid responses were retained.

The KOBO Toolbox was used to digitize the questionnaire, facilitating data management and administration. Between April and May 2025, a combination of direct interaction with SME owners and managers, as well as online distribution, was used to gather data. Prior to full deployment, a pilot test with ten participants was conducted to assess clarity, sequencing, and reliability, resulting in minor adjustments to phrasing and structure. Inferential statistics, specifically Structural Equation Modeling (SEM) using SmartPLS, were employed to test the hypothesized relationships and assess the mediating role of social media usage. Descriptive statistics were used to summarize socio-demographic details, levels of social media use, and challenges to adoption. Data entry and tabulation were done in Excel, and the results were clearly displayed using tables and graphs.

Table 1 below lists the key study variables, their conceptual definitions, and related sources:

Table 1: Definition of Variables

Construct	Definition	Number of Items	Source	Items
Perceived Ease of Use	The degree of effort to acquire knowledge and use social media for marketing and customer engagement	5	Davis (1989); Alalwan et al. (2017)	Learning, Identification, Demand, Retrieval, Advertising
Cost Effectiveness	The cost and time benefits of social media compared to traditional channels.	7	Chong (2011); Ghobakhloo et al. (2012)	Inquiries, Acquisition, Training, Advertising, Cost, Saving, Effort
Compatibility	The consistency of social media with the operational values, practices, and IT systems of the organization.	7	Oliveira & Martins (2011)	Compatibility, Usage, Training, Marketing, Systems, Values, Goals
Trust	The belief in the safety, security, reliability, and credibility of social media.	5	McKnight et al. (2002); Pavlou (2003)	Protection, Security, Measures, Reliability, Dependability

Social Media Utilization	The actual use of platforms to market, engage with customers, build branding, and collect feedback	8	Tiago & Veríssimo (2014); Ahmad et al. (2019)	Support, Accessibility, Marketing, Attraction, Relationships, Branding, Feedback, Awareness
SMEs Performance	The business level of performance encompasses various aspects, including sales, growth, customer relationship management, quality of service, creativity, and accessibility.	7	Soto-Acosta et al. (2014); Ainin et al. (2015)	Performance, Sales, Connection, Understanding, Creativity, Accessibility, Service.

4. Result

Socio-Demographic Profile

According to the socio-demographic profile, most respondents belonged to the age group between 25 and 35 (38.85%), nearly 44% had a bachelor's degree, and men predominated (67.31%) with increasing female participation (32.69%). With most SMEs making between Rs. 100,000 and Rs. 200,000 per month, electronics (46.15%) led the sector, indicating that youth, education, and digital activity all contribute to the performance of SMEs.

Table 2: General Perspective of Respondents of SMEs on Social Media Utilization

Category	Details / Variables	Percentage (%)
Most Effective Social Media Platforms	Facebook	88.08
	TikTok	73.46
	Instagram	65.77
	YouTube	56.15
	WhatsApp	46.54
	LinkedIn	6.54
	Twitter/X	3.46
	Other	11.54
Duration of Social Media Use	Less than 6 months	7.31
	6 months – 1 year	8.08
	1 – 3 years	10.38
	3 – 5 years	12.31
	5 – 8 years	21.54
	8 – 10 years	0
	10 years above	40.38
Key Factors Influencing Social Media Use	Marketing & brand awareness	41.92
	Cost-effectiveness	34.23
	Customer engagement	23.85
	Interaction opportunities	15.00
	Easy access & management	15.00
	Competitor presence	10.77
	Market research	10.00
	Skilled social media talent	9.62
	Influence of digital trends	7.69
	Wide advertising	7.69
	Others	11.54

Types of Content	Promotional offers & discounts	41.92
	Customer testimonials & reviews	33.85
Generating Most Engagement	Informational & educational content	33.85
	Company culture & BTS content	13.08
	Live videos & product demos	12.31
	Interactive content (polls, quizzes, contests)	6.92
	Other	11.92

Note: Field Survey

Table 2 illustrates the use of social media in SMEs, providing a breakdown of trends within social media in terms of widely used platforms, reasons for usage, and types of content shared. Facebook is the most widely used social media platform (88.08%), followed by TikTok (73.46%), Instagram (65.77%), LinkedIn (6.54%), and Twitter (3.46%), which are less widely used options. SMEs mainly use social media platforms for marketing and brand awareness (41.92%), cost (34.23%), and customer engagement (23.85%). Regarding the content shared, promotional offers/discounts (41.92%), customer testimonials (33.85%), and informative/educational content (33.85%) support activities that encourage engagement and foster business development.

Respondents also identified significant challenges and recommendations for fast-track adoption of social media for SMEs. The primary barriers are insufficient budget (53.08%), insufficient knowledge and expertise (34.23%), and insufficient creativity (29.23%), which hinder financial investment, platform navigation, and engaging content creation. In addressing these challenges, 65% of respondents suggested updating knowledge of social media as the top priority, followed by selecting the best platforms and specifying content strategies and clear goals, in that order. Other suggestions included posting accurate product/brand information, utilizing free tools to engage customers best, and providing social media training.

Measurement Model Assessment

Following Hair et al. (2019), the measurement model was examined to ensure reliability and validity for reflective constructs. To assess indicator reliability, factor loadings needed to exceed 0.60. Several weak terms (e.g., COM6, COE3, PEOU1, PEOU2, SMEP1, SMEP2, SMEP7, SMU1, SMU2, SMU3, SMU7) were removed from the measurement model due to factor loadings below the cut-off, to improve fit, while ensuring that AVE was above 0.50. Internal consistency was verified using both Cronbach's Alpha and Composite Reliability estimates that exceeded 0.70. Convergent validity was assessed using the square root of the AVE, which was above 0.50, indicating that the latent construct explains more than half of the variance in the indicators. Table 4 confirms the reliability, internal consistency, and convergent validity of the model for the subsequent structural analysis.

Table 3: Reliability and Validity Analysis

Coding	Latent Variables and Items	Factors Loadings	AVE	CR	Cronbach's Alpha
COM	Compatibility				
COM_1	Compatibility	0.797	0.677	0.913	0.88
COM_2	Usage	0.795			
COM_3	Training	0.883			
COM_5	Systems	0.8			
COM_7	Goals	0.834			

COE	Cost Effectiveness	0.656			
COE_1	Inquiries	0.692	0.513	0.808	0.685
COE_2	Acquisition	0.753			
COE_4	Advertising	0.76			
COE_6	Saving				
PEOU	Perceive Ease of Use				
PEOU_3	Demand	0.865	0.733	0.892	0.733
PEOU_4	Retrieval	0.814			
PEOU_5	Advertising	0.887			
SMEP	SMEs Performance				
SMEP_3	Connection	0.874	0.739	0.919	0.882
SMEP_4	Understanding	0.856			
SMEP_5	Creativity	0.874			
SMEP_6	Accessibility	0.835			
SMU	Social Media Utilization				
SMU_4	Attraction	0.891	0.818	0.931	0.889
SMU_6	Branding	0.905			
SMU_8	Awarness	0.917			
T	Trust				
T_1	Protection	0.894	0.789	0.949	0.933
T_2	Security	0.85			
T_3	Measure	0.908			
T_4	Reliability	0.883			
T_5	Dependability	0.906			

Table 3 shows the discriminant validity of the constructs. Discriminant validity was assessed using the Fornell and Larcker criterion, where the square root of each construct's AVE was larger than the correlations of the constructs with the other constructs, indicating sufficient distinction among the variables (Afthanorhan, 2014). All HTMT ratios were below the recommended 0.90 level (Henseler et al., 2015), suggesting the empirical distinctness of the constructs and absence of multicollinearity. These results suggest that the latent variables measure distinct concepts as part of the model.

Further evidence of discriminant validity was obtained from the cross-loading analysis of the indicators. Each indicator cross-loaded on its own construct with a higher magnitude than any other construct. Overall, the primary loading for each indicator was higher than 0.60, and cross-loadings were below 0.70. The results provide support for the empirical distinction between constructs and confirm the measurement model, thereby completing the structural analysis.

Table 4: Fornell-Larcker Criterion and HTMT Ratio

	Fornell-Larcker Criterion						HTMT Ratio					
Construct	COE	COM	PEOU	SMEP	SMU	T	COE	COM	PEOU	SMEP	SMU	T
COE	0.716											
COM	0.51	0.823					0.645					
PEOU	0.537	0.731	0.856				0.712	0.861				
SMEP	0.539	0.766	0.755	0.86			0.688	0.867	0.888			
SMU	0.589	0.761	0.757	0.795	0.905		0.746	0.859	0.887	0.896		
T	0.588	0.772	0.761	0.81	0.792	0.888	0.729	0.848	0.867	0.89	0.865	

Structural Model Assessment

Following the measurement model, the proposed hypotheses were evaluated by bootstrapping the structural model with 10,000 resamples. After hypothesis testing, the analyses included a review of collinearity, model fit, PLS-predict, effect size (f^2), coefficient of determination (R^2 and adjusted R^2), and model fit.

Multicollinearity was identified through Variance Inflation Factor (VIF) values, where values under 3 indicate ideal conditions, 3 to 5 indicate moderate collinearity, and values greater than 5 indicate serious concerns (Hair et al., 2014, 2022). The results obtained likewise showed acceptable values for all constructs: COE (1.579), COM (2.824), PEOU (2.759), SMU (1.000), and trust (3.357). All of these values are well below the cut-off point of 5, thus resulting in no serious multicollinearity concern. Therefore, these values confirm that the predictors are adequately independent and can therefore provide an unbiased estimation of the path coefficients. Since multicollinearity was not an issue, the following calculations were applied: collinearity, model fit, PLS-predict, effect size (f^2), coefficient of determination (R^2 and adjusted R^2), and model fit.

The coefficient of determination (R^2) was used to assess the predictive ability of the structural model (Purwanto & Sudargini, 2021). Social Media Utilization (SMU) recorded an R^2 of 0.722 (adjusted 0.701), reflecting a robust degree of prediction, while SMEs' Performance (SMEP) also indicated an R^2 of 0.632 (adjusted 0.612), showing a moderate to strong level of explanatory power. This validates the model's explanation of a considerable amount of variance in the mediating variables and the dependent variable accounted for by the model. These findings underscore the importance of social media use in enhancing SME performance.

Effect size (f^2) was calculated to examine the chi-square values of exogenous constructs in relation to endogenous variables (Hair et al., 2014). Based on Cohen (1988), PEOU presented a medium effect on Social Media Utilization ($f^2 = 0.291$) and small effects on COE (0.248) and Trust (0.067), while COM had a negligible effect (0.041). For SME Performance, COE had a medium effect (0.320), while SMU (0.184) and PEOU (0.11) had small effects. COM (0.06) and Trust (0.01) had marginal effects. The findings indicated that PEOU had the most prominent effect on social media utilization, and COE had the most significant effect on SME Performance. Despite COM and Trust having limited effects, they added an incremental value that highlights the multi-dimensional nature of the model.

Table 5: Predictive Relevance

Predictors	Outcome Variable	R^2	R-square adjusted	f^2
PEOU	SMU	0.632	0.612	0.291
COE				0.248
COM				0.041
T				0.067
SMU				0.184
PEOU	SMEP	0.722	0.701	0.11
COE				0.32
COM				0.06
T				0.01

The structural path model was analyzed to assess the causal paths amongst the study variables, testing five direct paths and four indirect paths. Hypotheses were deemed supported by $p < .05$ and $t > 1.65$. The analysis demonstrated that PEOU positively predicted SMU ($\beta = 0.298$, $p < .01$), thus supporting H1. However, three factors were predictors of SMU: COE ($\beta = 0.192$, $p < .01$), COM ($\beta = 0.312$, $p < .01$), and Trust ($\beta = 0.364$, $p < .01$). The study found Trust to be the greatest predictor; H2, H3, and H4 were also

supported. Regarding the last hypothesis, SMU positively predicted SMEP ($\beta = 0.442, p < .01$), indicating H5 was again supported. Figure 2 and Table 6 indicate that all five direct hypotheses were supported. Trust had the largest influence on social media utilization, followed by compatibility, perceived ease of use, and cost effectiveness. Each of these constructs indicated an important role in social media engagement for SMEs.

Figure 2: Graphical Representation of the Structural Relationship

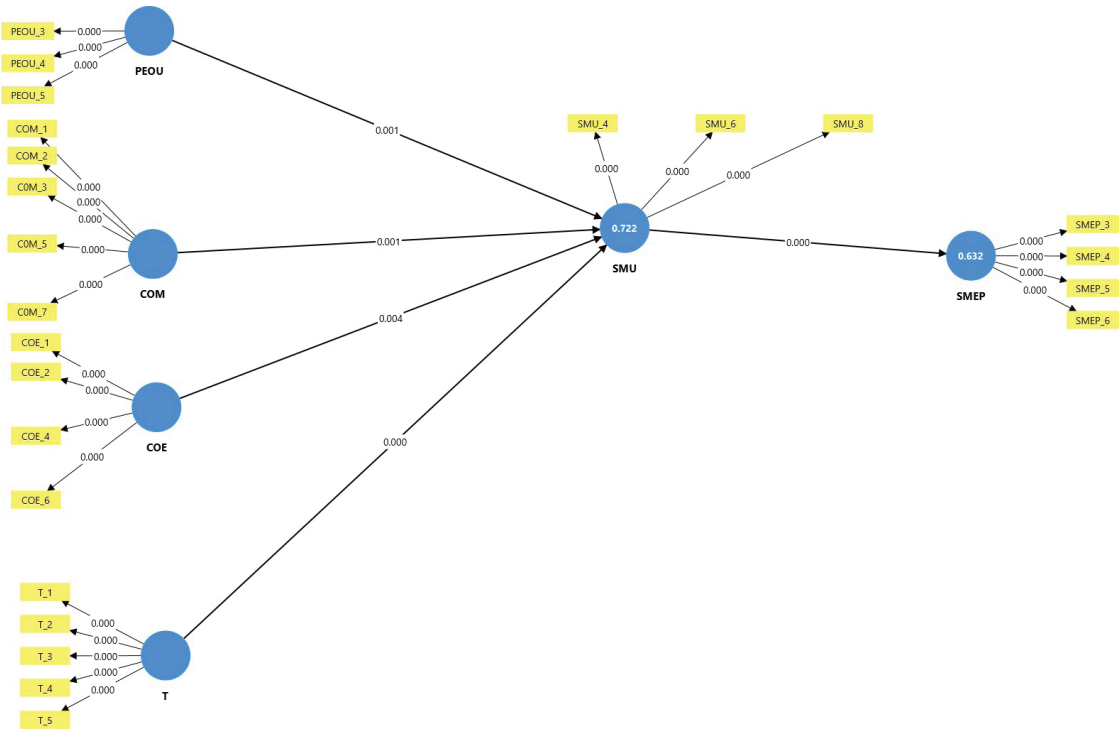


Table 6: Structural Model Result

Direct Effect							
Structural Path	(β)	SD	t-value	LLCI	ULCI	p-value	Conclusion
H1: PEOU \rightarrow SMU	0.298	0.058	5.138	0.183	0.401	0.000	Supported
H2: COE \rightarrow SMU	0.192	0.049	3.918	0.098	0.281	0.000	Supported
H3: COM \rightarrow SMU	0.312	0.061	5.115	0.198	0.426	0.000	Supported
H4: T \rightarrow SMU	0.364	0.066	5.515	0.229	0.478	0.000	Supported
H5: SMU \rightarrow SMEP	0.442	0.074	5.973	0.306	0.564	0.000	Supported
Indirect Effect							
Structural Path	(β)	SD	t-value	LLCI	ULCI	p-value	Conclusion
H6a: PEOU \rightarrow SMU \rightarrow SMEP	0.197	0.059	3.339	0.092	0.322	0.001	Supported
H6b: COE \rightarrow SMU \rightarrow SMEP	0.105	0.037	2.866	0.033	0.175	0.004	Supported
H6c: COM \rightarrow SMU \rightarrow SMEP	0.211	0.063	3.365	0.098	0.34	0.001	Supported
H6d: T \rightarrow SMU \rightarrow SMEP	0.255	0.073	3.499	0.102	0.394	0.000	Supported

The study also investigated how SMU mediated the relationships between the four independent variables PEOU, COE, COM, and T, and SMEP. The findings revealed significant indirect effects for all four mediating paths. SMU significantly mediated the relationships between the antecedent variables and SMEP. The indirect effects were significant for PEOU ($\beta = 0.197$, $p = 0.001$), COE ($\beta = 0.105$, $p = 0.004$), COM ($\beta = 0.211$, $p = 0.001$), and Trust ($\beta = 0.255$, $p < 0.001$), with confidence intervals confirming each mediation. Trust exerted the strongest mediating effect, followed by COM, PEOU, and COE. These results indicate that social media utilization effectively channels the influence of key predictors, enhancing SME performance. Overall, all four mediating hypotheses were supported.

5. Discussion

This paper examined the factors influencing social media utilization and its impact on the performance of SMEs, grounded in DOI theory. The objective of the research was to explore both direct and indirect effects of Trust, Compatibility, Perceived Ease of Use, and Cost Effectiveness on SME Performance, with Social Media Use as a mediating variable, based on DOI. The results of the study provide a critical contribution to the strategic understanding of SMEs in relation to social media.

The hypothesis testing confirmed that all four perception-based constructs, Trust, Compatibility, Perceived Ease of Use (PEOU), and Cost Effectiveness (COE) had significant positive relationships with SMU. H1, H2, H3, H4, H5, and H6 are significant in this study. H1 indicates that perceived ease of use plays a significant role in the utilization of social media by SMEs. This finding resonates with Davis (1989) and Venkatesh and Davis (2000) but also suggests that while usability matters, it is insufficient on its own to drive adoption in the SME context; trust and strategic alignment appear to take precedence. Likewise, this study confirmed that cost-effectiveness has a significant impact on social media utilization. The respondents from the Kathmandu Valley also highlighted that, in terms of motivation, they emphasized cost-effectiveness, reflecting the utilitarian outlook highlighted by Durkin et al. (2013) and Ahmad et al. (2019), who argue that SMEs leverage digital tools to broaden their market reach with minimal investment. Compatibility also demonstrated a robust effect, aligning with Oliveira et al. (2014) and Chong (2014), who found that digital tools are more likely to be adopted when they align with existing workflows and business models. This highlights the relevance of technological fit theory, suggesting that alignment between technology and business processes increases the likelihood of adoption. Similarly, among all the constructs, trust emerged as the strongest predictor. These results partially align with existing literature. The significant impact of Trust is consistent with Gefen et al. (2003) and Hajli (2015), who argue that perceived integrity and security have a strong influence on digital adoption. Given the rising concern over data privacy and fraud, SMEs may hesitate to engage with social platforms unless they are perceived as trustworthy, thereby reinforcing DOI's observability and trialability components. Users must trust that observable results will follow from adoption.

Hypothesis 6 is supported, indicating that social media utilization has a significant impact on the performance of SMEs. Since the path from SMU to SMEP was strongly supported, this finding aligns with studies by Durkin et al. (2013), Ainin et al. (2015), and Ahmad et al. (2019), which demonstrate that effective social media use enhances customer acquisition, brand positioning, and revenue generation for SMEs. Furthermore, mediation analysis indicated that SMU mediated the relationship between all four independent variables (PEOU, COE, COM, and T) and SMEP in the context of SME digital transformation. These findings suggest that while perception-based factors do not directly influence performance, they exert their impact by shaping the extent and quality of social media use. This aligns with Baron and Kenny's (1986) mediation logic and reflects a process-oriented adoption model where perceptions lead to behavior (SMU), which in turn drives outcomes (SMEP). Furthermore, the results support the development of an extended DOI-based model integrating TAM and trust-based perspectives. The model posits that perception (PEOU, COE, COM, T) \rightarrow utilization (SMU) \rightarrow performance (SMEP) constitutes a valid causal chain, especially relevant for SME digital transformation.

This hybrid model aligns with the Technology-Organization-Environment (TOE) framework, as it emphasizes the roles of trust and compatibility within organizations. Thus, it contributes to theoretical pluralism and encourages a broader examination of digital adoption in SMEs. These findings suggest that while perception-based factors do not directly influence performance, they exert their impact by shaping the extent and quality of social media use. This finding aligns with Baron and Kenny's (1986) mediation logic and reflects a process-oriented adoption model where perceptions lead to behavior (SMU), which in turn drives outcomes (SMEP).

6. Conclusion and Recommendations

The use of social media is a crucial factor in the performance of SMEs, particularly in areas such as marketing, building brand credibility, and engaging with customers. Adoption factors are primarily driven by trust, compatibility, and perceived ease of use of social media, with cost being less influential. Trust appears to be the most important predictor of successful adoption, highlighting the need for security and trustworthiness in the digital adoption process. The use of social media also mediates the effects of perception-based factors on performance, reinforcing the integrated DOI framework.

SMEs are encouraged to align their social media practices more closely with organizational interests, strengthen customer relationships, and improve competitiveness. It is also recommended that policymakers consider designing supportive digital initiatives to enhance the capacity of SMEs to leverage social media for growth. Future research should broaden the sample to incorporate various regions and organizational sizes, as well as longitudinal study designs to examine how adoption factors evolve. Likewise, incorporating cultural, social, and psychological factors would further enhance the understanding of social media's role in SME development in Nepal and similar situations.

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Annex

Title	Category	Percentage (%)
Gender	Male	67.31
	Female	32.69
Age	19–25	18.46
	25–35	38.85
	35–45	27.69
	45–55	11.54
	55–65	3.46
Education Level	No formal education	4.23
	Up to SLC/SEE	26.54
	Intermediate	13.85
	Bachelors	43.85
	Masters and above	11.54
Business Type	Electronics (Mobile/TV/Radio etc.)	46.15
	Automobiles	6.54
	Fancy shops	5.77
	Café and Restaurants	4.23
	Gift shop	4.23
	Hookah Shop	3.08
	Grocery/Supermarkets	2.31
	Others	27.69
Month Average Transaction	Below Rs. 50,000	21.15
	Rs. 50,000–100,000	18.08
	Rs. 100,000–200,000	29.23
	Rs. 200,000–500,000	17.31
	Rs. 500,000–1,000,000	8.85
	Above Rs. 1,000,000	5.38