

Measuring the Effects of Entrepreneurial Orientation on Social Media Adoption and SME's Performance in Kathmandu Valley: Evidence from Structural Equation Modeling Using Smart PLS 4.0

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Abstract

Social media platforms have become crucial for Small and Medium Enterprises (SMEs) to enhance their online presence and engagement in the contemporary digital media landscape. The study highlights the significance of entrepreneurial orientation in utilizing social media for SME growth and performance, especially in the face of challenges like digital literacy and infrastructure gaps. Furthermore, the study outlines its structure and aims to establish

a link between entrepreneurial orientation, social media adoption, and SME performance, offering insights to guide future initiatives. Structural Equation Modeling (SEM) using Partial Least Squares (PLS) was utilized to test four hypotheses among 280 respondents to analyze the connections and causal relationships between the effect of entrepreneurial orientation on social media adoption and SME performance. The findings reveal that a lack of knowledge and skills, limited resources for investing in social media, and privacy and security concerns are significant challenges to adopting social media. SEM results indicate a significant relationship between entrepreneurial orientation ($\beta = 0.264$, $P < 0.01$) and social media ($\beta = 0.150$, $P < 0.05$) in SME performance ($\beta = 0.281$, $P < 0.05$), whereas innovation capability shows an insignificant relationship ($\beta = 0.002$, $P > 0.05$). Respondents also opined that staying updated with the latest trends and collaborating with influencers and digital marketing experts are some managerial solutions to mitigate the challenges. Challenges like knowledge gaps and resource limitations affecting adoption were identified as significant hindrances, while effective social media integration was identified as a performance-impacting factor. Staying updated and collaborating with digital marketing experts are vital for overcoming obstacles and thriving in the evolving Nepali economy through SMEs.

Keywords: *Entrepreneurial Orientation, Social Media Adoption, SME Performance, Partial Least Square*
JEL Code: L25, L26

1. INTRODUCTION

In the rapidly evolving digital landscape, social media platforms have become integral to the success of Small and Medium Enterprises (Bruce et al., 2022). Entrepreneurs today strategically leverage various social media tools to maximize their online presence across multiple platforms (Hanna et al., 2011). They recognize the importance of social media, such as Facebook, for utilizing and creating business pages, engaging with customers, running targeted ads, and monitoring campaign performance (Silvia, 2019; Paudel et al., 2018). Furthermore, entrepreneurs engage in real-time interactions with customers and influencers on Twitter, capitalizing on concise updates to foster engagement (Smith et al., 2012). For industries such as fashion and food, entrepreneurs turn to Instagram, utilizing its visually appealing nature to showcase products, collaborate with influencers, and run captivating ad campaigns (Silalahi, 2021). As a professional networking platform, LinkedIn offers entrepreneurs opportunities to establish connections, share business updates, and recruit talented individuals (Sc, 2015). Additionally, entrepreneurs utilize YouTube to create and share video content, effectively showcasing their products and expertise (Mahajan, 2015). Embracing an entrepreneurial orientation which is also known as entrepreneurial strategy-making, has been defined as a leadership characteristic that favors change and supports activities related to exploiting various forms of innovation, new product/service development, and the creation of superior customer value (Pérez-Luño et al., 2011).

Entrepreneur orientation manifests a strategic direction of the firm toward entrepreneurial activities, which includes identifying and exploiting new opportunities to take calculated risks and innovate to be customer-oriented (Maatoofi & Tajeddini, 2011). Social media are online platforms that allow individuals and organizations to produce and share information, ideas, and multimedia content such as text, photographs, and videos (Adetayo, 2021; Devkota et al., 2021). SMEs have less organizational complexity but can maintain a high entrepreneurial spirit and innovation level due to their flexible organizational structure (Lan & Wu, 2010). The entrepreneurial orientation of startups encourages their desire to use digital technologies in their business operations to acquire insights, make better decisions, and improve organizational flexibility, ultimately enhancing operational performance (Upadhyay et al., 2022). Entrepreneurs expand their reach, enhance brand visibility, engage with customers, and cultivate brand loyalty. According to Meske and Stieglitz (2013) by US-based marketer Constant Contact, 24% of small businesses utilize social media in an organized fashion, while another 20% use it informally, with slightly higher numbers for medium-sized enterprises. Furthermore, due to widespread usage and technological advancements, deploying social media applications is less complicated and expensive, empowering entrepreneurs with limited budgets to compete effectively (Cesaroni & Consoli, 2015). Real-time data and insights on customer preferences enable entrepreneurs to make informed decisions and tailor targeted marketing strategies (Mariani & Nambisan, 2021). By meeting the specific needs of SMEs, such as strategic planning, skill development, performance measurement, and platform selection, entrepreneurs ensure successful social media utilization, driving sustainable growth and long-term success (Bagale et al., 2021).

The Micro, Small & Medium Enterprises (MSME) segment is envisioned as a critical concern in the economy's growth. People are concerned because SMEs are vital to the global economy, producing jobs and increasing innovation (Mukaila & Sidikat, 2011). Developing and refining SMEs' performance is integral to becoming a channel of growth for the country's economy. Social media platforms are constantly evolving, and SMEs that lack entrepreneurial orientation may struggle to keep up with the latest trends and techniques, further hindering their growth potential (Olazo Danzen, 2022). Overall, the challenges faced by SMEs, such as the rise of e-commerce and the resource constraints that SMEs faced in establishing an online presence (Kabanda & Brown, 2017), gave birth to the concept of entrepreneurial orientation. So SMEs have to plan and execute their strategies, such as Targeted support and training programs to increase awareness of social media platforms and their application in business decision-making SMEs can assist in overcoming these hurdles and survive in a constantly changing business environment by engaging in entrepreneurial behaviors or mindset (Firmansyah et al., 2022).

Developed countries, such as the United States and Europe, have quickly adopted social media for increased audience reach and performance (Sehl, 2020), while developing countries, like India and China, have been slower to adopt this trend (Cohen, 2004). SMEs in Saudi Arabia have hurdles in using social media due to poor technical infrastructure and low levels of digital literacy (Alotaibi, 2019). Developed countries, such as the United Kingdom and the United States, leverage social media to gain a competitive advantage by building brand awareness, engaging customers, and innovating products (Perumal et al., 2017). Developing countries prioritize infrastructure upgrades and training for SMEs to overcome barriers to social media adoption, such as a lack of internet access and low technical skills (Neumeyer et al., 2021; Paudel et al., 2018a). Despite the challenges, social media provides significant opportunities for SMEs to reach new audiences, develop innovative products, and gain a competitive edge (Yadav, 2017). Governments and organizations are expected to continue providing assistance and initiatives to help SMEs effectively leverage social media in their operations in developed and developing countries. (Lee, 2008).

In the context of Nepal, industrial marketing and SMEs are progressively concentrating on the circumstances and context in which SM affects SME performance (James, 2021). There is a need on government programs supporting SME's in using social media effectively. (Millennium Project, 2020). Therefore, further research could explore the impact of different types of government assistance and initiatives on SMEs' social media usage and identify best practices for supporting SMEs in developing effective social media strategies (Vrgović et al., 2012). Nepalese SMEs have displayed hurdles such as natural disasters, post-conflict conditions, and economic blockades (Shrestha, 2020). The Nepalese government has taken several initiatives to support SMEs using social media, including training and workshops to enhance digital skills, financial incentives, and help to create and maintain an online presence (Bagale et al., 2023). However, previous studies do not measure its effects on entrepreneurial orientation on social media adaptation and SME performance. Thus, the study tries to measure the impact of entrepreneurial orientation on social media and SME performance with the help of Dynamic Capability and Resources Based View theory. These theories measure SME performance through the entrepreneurial orientation of social media. This study finds a significant relationship between entrepreneurial orientation (EO), social media, and SME performance: whereas innovation capability shows an insignificant relationship. The result of the study indicates that social media adoption is helpful tool for creating the innovative ideas and hence increase the performance of the business.

This study is structured into four sections. The first part highlighted the purpose of the study. The second section outlines the research methodology, including the

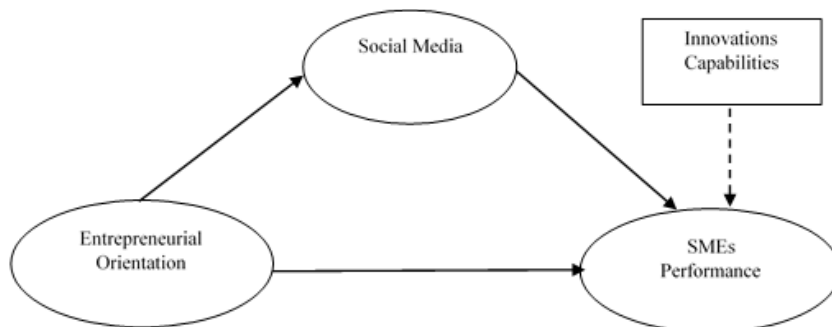
research design, conceptual framework, hypotheses, variables, sample size, research instruments, and data analysis approach. The third section presents the analysis and discussion of the study's results. Finally, the last section summarizes the study, conclusions, and recommendations.

2. RESEARCH METHODS

2.1 Conceptual Framework

The increased use of digital tools and techniques has resulted in new ideas for enhancing new business strategy. With this statement, this study has reviewed several theories to measure the effects of entrepreneurial orientation on social media adoption and SME performance. Dynamic Theory (Helfat & Peteraf, 2009) and Social Cognitive Theory (Conner & Norman, 2006) are among the theories. Theory of Planned Behaviour (Parker et al., 1992), Diffusion Innovation Theory (Sanson-Fisher, 2004), Resource Based View (Rouse & Daellenbach, 1999) are notably found in the field of business and entrepreneurs' orientations on SMES performance. The Dynamic Theory emphasizes the importance of strategic adaptation to changing internal and external environments (Teece, 2018, Hanelt et al., 2021; Ghosh et al., 2022), while Social Cognitive Theory highlights the role of individual cognition and behavior in shaping social outcomes. Similarly, the Theory of Planned Behaviour concerns how intentions and a sense of control might affect behavior (Mahidin et al., 2019; Aizen, 2020). The Diffusion of Innovation Theory also explains how new ideas, technologies, and behaviors are spread and adopted (Sanson-Fisher, 2004; Makhdoom et al., 2019). Furthermore, Resource Based View theory suggests that a company's unique and valued resources, capabilities, and competencies can give it a long-lasting competitive edge (Safari et al., 2020; Estensoro et al., 2022). The studies from different researchers show that all of these theories are related to the performance of the business regarding the adaptation of the technology in the industry.

Figure 1: Conceptual Framework



Source: Fan et al. (2021)

Based on the theories reviewed, this study has used the blend of both Dynamic Capability and Resource Based View to measure SME performance through the entrepreneurial orientation of social media. To develop a model for this study, Dynamic Capability Theory helps emphasize achieving an organization's competitive advantage through new and innovative ideas, as El and Kerzazi (2020) mentioned. The Resource-Based View theory emphasizes the effective utilization of diverse resources that possess the qualities of being rare, difficult to replicate, and not easily replaceable. Leveraging such resources has the potential to enhance overall performance (Varadarajan, 2020). By integrating the Dynamic Theory and Resource Based View, firms can examine the effect of entrepreneurial orientation on social media and SMEs performance, which this study aims to measure.

For measuring SME performance through social media, various models have been developed so far; they comprise entrepreneurial orientation and firms performance (Abdelkarcem et al., 2022; Fan et al., 2022), intangible resources, and dynamic capabilities (Monteiro et al., 2019), social media and business performance (Marolt et al., 2022) and at last digital transformation and competitive advantage (Shehadeh et al., 2023). Among the models, Fan et al. (2022) integrate both Dynamic Capability and Resources Based View to measure the SME performance, which is considered suitable for the analysis. Hence, this study follows the model proposed and developed by Fan et al. (2022). As per this model of entrepreneurial orientation and farm's performance, there is a mediation role of social media between entrepreneurial orientation and SME's performance and a moderation role of innovation capabilities. Through these variables, it is helpful to know the effect of entrepreneurial orientation on SME performance through the impact of social media and innovation capabilities.

Entrepreneurial Orientation (EO) and SMEs Performance

Entrepreneurial Orientation (EO) is a distinctive organizational capability valued for identifying and executing new opportunities (Liu, 2021). It offers a sustainable competitive advantage, as it cannot be easily replicated. EO aligns with Dynamic Capabilities (DC) and enables firms to recognize and respond to market opportunities, enhancing performance (Naskar, 2023). EO encompasses innovation, proactive industry posture, and risk-taking investments. Measured through innovativeness, proactiveness, and risk-taking (Abdalla & Mohamed, 2020), it significantly improves firm performance. The link between EO and SME performance requires contextual examination, and subjective performance measures offer valuable insights.

H1: There is a positive relationship between EO and SME performance.

Entrepreneurial Orientation (EO) and Social Media

Entrepreneurial Orientation (EO) plays a vital role in the competitive e-commerce business environment, encompassing practices and decision-making styles to act entrepreneurially (Fang et At., 2022). Higher EO levels lead to a greater inclination for enterprises to adopt innovative technologies like social media (SM), driven by proactivity, risk-taking, and innovativeness (Nguyen et al., 2022). While limited research exists on the EO and social media adoption link, previous studies suggest a positive effect, particularly in exporting firms. This study argues that SMEs with higher EO are more likely to adopt social media to drive growth and profitability.

H2: There is a positive relationship between EO and SM adoption.

Social Media Adoption and SME Performance

Social media, an internet-based resource capability, offers synergies and complements organizational resources, which provides significance across various functions such as research, sales, customer support, operations, and marketing (Matarazzo et al., 2021). Platforms like Facebook are critical in enhancing information accessibility, marketing insights, and customer relationships (Adam et al., 2020). The adoption of social media has become common among businesses of all sizes, allowing the creation and sharing of user-generated content (Qalati et al., 2021). Social media adoption provides SMEs a competitive advantage by facilitating knowledge sharing among stakeholders (Muna et al., 2022). While previous studies highlight its importance, further exploration of the relationship between social media adoption and SME performance necessitates a comprehensive and longitudinal approach.

H3: There is a positive relationship between SM adoption and SME performance.

H4: SM adoption mediates the positive Relationship between Entrepreneurial Orientation and SME performance.

Innovation Capabilities and SMEs Performance

Innovation capabilities are the firm's vital capability to deploy resources innovatively, creating value and enhancing organizational performance (Makhloufi et al., 2021). Innovation is essential for SMEs, enabling them to respond competitively and attain sustainable advantages (Jeong & Chung, 2023). IC should be an integral part of a firm's strategy, as higher innovativeness fosters improved cooperation and coordination within the organization (Phonthanukitithaworn et al., 2023)

H5: Innovation Capabilities (IC) moderates the relationship between Social media and SME performance.

The relative items of each construct were developed to test the hypothesis. Entrepreneurial orientation has eight items; social media has 13 items; SME performance has seven items; and innovation capability uses five items to measure the Entrepreneurial orientation on social media and SME's performance (Table 1).

Table 1: Variable and its Definition

Construct	Observed Variables	Variable notation	Explanation
Entrepreneurial orientation (EO)	Value of Innovation	EO_1	Innovation is highly valued.
	Innovation focus	EO_2	Focus on R&D, leadership, and innovation.
	Risk-oriented	EO_3	Promote risk-taking as a priority
	Risk-seeking employees	EO_4	Employees are eager to take risks.
	Product innovation	EO_5	Multiple recent product or service launches
	Proactive market entry	EO_6	Prioritize entry before competitors in markets
	Innovative leadership	EO_7	Lead competition with innovative products/procedures.
	Market leadership.	EO_8	Desire to be the market leader
Social Media Adoption			
SM for marketing	Market Insight.	SM_1	Enhances marketing through research.
	Beneficial Recommendations.	SM_2	Social proof boosts recommendations and trust
	Marketing Power	SM_3	Promotes products/services.
	Service Enhancement	SM_4	Enhances customer service delivery.
Customer Relationship	Customer connection	SM_5	Enhances customer relations through SM
	Customer Interaction	SM_6	Improve customer engagement.
	Service Management	SM_7	conducting service activities
	Feedback Collection	SM_8	Gather valuable customer feedback online
	Product Insight	SM_9	Capture insights for new product development
	Customer Outreach	SM_10	Reaching new customers.

Construct	Observed Variables	Variable notation	Explanation
Information Accessibility	general information	SM_11	Easy access to diverse information
	Competitor Insight	SM_12	Competitor information search
	customer information	SM_13	customer information search
Innovation capabilities	Idea generation	INN_1	Constant generation of innovative ideas.
	R&D funding	INN_2	Continuous R&D funding for new approaches
	Operational creativity	INN_3	Creative methods in the firm's operations
	Market pioneer	INN_4	A company is a market pioneer firm that often leads the market.
	R&D support	INN_5	R&D support fuels frequent product innovation
SME performance	Customer satisfaction.	SP_1	Better customer connections
	Service excellence.	SP_2	Improved service standards
	Customer involvement.	SP_3	Engaging with customers effectively
	Brand recognition.	SP_4	Boosting brand recognition and reputation
	Customer loyalty.	SP_5	Strengthening customer loyalty and retention
	Service improvement.	SP_6	Elevating customer service experience
	Market expansion.	SP_7	Raising product/service awareness, capturing the market.

2.2 Study Area, Population, and Sampling Techniques

The study area is focused on the Kathmandu Valley in Nepal, specifically in the Bagmati province. This valley includes three districts: Kathmandu, Bhaktapur, and Lalitpur. Geographically, it's located between 27° 32' 13" and 27° 49' 10" north latitude and 85° 11' 31" and 85° 31' 38" east longitude (Adhikari et al., 2021; Shrestha et al., 2020). The valley sits at an average height of around 1,300 meters (4,265 feet) above

sea level. The Kathmandu Valley is situated in the central part of Nepal and is home to approximately 1.5 million people, as mentioned in a study (Rajbhandari et al. in 2022)

The Kathmandu Valley has been chosen as the study area because it's Nepal's capital city, has many businesses, and is densely populated. These factors make it an excellent place to conduct research and collect accurate data. The valley has other advantages like high mobile phone usage, active social media, improved infrastructure, funding options, business development services, digital marketing expertise, and government initiatives. These factors make it easier to investigate the impact of an entrepreneurial mindset on social media use and small-to-medium business performance in the area. The study focuses on small business owners, specifically those in the retail industry, to better understand how entrepreneurship affects social media use and business performance in the valley.

Non-probability with convenience sampling technique will be used for the study due to the lack of official information detailing the population of small retail shops in Kathmandu. The convenience sampling method is used for the survey as accessible or readily available people use this method. Cochran developed Equation to generate $n_0 = \frac{z^2 pq}{e^2}$ relative sample for proportions in large populations, which is given as: $n_0 = \frac{z^2 pq}{e^2}$, Where n_0 = sample size for study, Standard tabulated value for 5% level of significance (z) = 1.96, Prevalence or proportion of an event 50% = 0.50, p= 0.5, q =1-P, = 0.5, Allowable error that can be tolerated (e) = 6%. This study also undertakes a 5% non-response error. Thus, the sample size taken for the study was 280.

2.3 Research Instrument, Data Collection, and Analysis

This study used a structured questionnaire as a primary research instrument. The questionnaire was designed to collect preliminary data and survey participants, focusing on the effects of entrepreneurial orientation on social media adoption and SME performance. The questionnaire included open-ended and close-ended questions, formulated clearly and straightforwardly to ensure respondent understanding and relevant answers. After developing the questionnaire, the researcher carefully examined its sequencing and arrangement. The structured questionnaires were entered into the Kobo Toolbox for data collection. A pilot survey was conducted with a limited sample size of approximately 20 participants to validate the instrument's accuracy and reliability. The pilot survey aimed to confirm the proper sequencing and arrangement of questions and assess the appropriateness and effectiveness of the questionnaire language in collecting the necessary information. Data collection took place from May 2023 to June 2023

3. RESULTS

3.1 Socio-Demographic Analysis

A total of 280 respondents were surveyed in this study. Both male and female entrepreneurs actively participated, of which 51.07% were male respondents, while the rest were female. It is notably the similar study by Nguyen et al. (2022), where the male participation is 47.42 %, and the female is 52.58%. Among the respondents, 62.14 % falls within the 20-35 age range, indicating that younger entrepreneurs are mainly engaging in SME business. Unmarried entrepreneurs constitute a significant portion, accounting for 78.21 % of the respondents, while married entrepreneurs represent 21.79 %.

Additionally, most respondents possess a bachelor's degree (50 %), which shows that the SME business has educated personnel. The result is similar to the study by Fan et al. (2021); Fang et al. (2022), where a significant (29.8%) of the respondents are bachelor's degree holders. Most SMEs (44.64%) earn 200000-500000 monthly (Table 2). When considering the years of experience in business, the data reveals that 50.36 % of the respondents have less than one year of experience, indicating a substantial influx of new entrepreneurs in SME business is increasing. Similarly, Analyzing the distribution of business types, clothing stores/tailoring emerges as the most prevalent category, representing 27.14 % of the respondents. Fancy shops, electronics, and furniture shops account for 18.21 %, and other sector respondents are the least. At the socio-demographic level, this study is based on a youthful and educated entrepreneur, most unmarried individuals, and a concentration of businesses in specific sectors, aligning with comparable studies. It emphasizes the evolving landscape of SME participation and preferences.

Table 2: Socio-Demographic Variables

Title	Category	Number	Percentage (%)
Gender	Male	144	51.42
	Female	136	48.57
Age	20-35	213	76.07
	35-45	54	19.28
	45-50	8	2.85
	Above 50	5	1.78
Marital Status	Unmarried	219	78.21
	Married	61	21.79

Title	Category	Number	Percentage (%)
Years of experience in business	Less than one year	141	50.36
	1-3 years	102	36.43
	4-6 years	25	8.93
	7-10 years	7	2.5
	More than ten years	5	1.79
Business Type	Clothing stores/ tailoring	76	27.14
	Fancy shops	51	18.21
	Electronics	38	13.57
	Furniture shop	38	13.57
	Others	30	10.71
	Home appliances	20	7.14
	Café and restaurants	13	4.64
	Supermarket	8	2.86
	Book stores	6	2.14
Education Level	Bachelor	140	50
	Intermediate	118	42.14
	Master	14	5
	SLC/SEE	8	2.86
Income Level	Below 50,000	3	1.07
	50,000-100,000	25	8.92
	100,000-200,000	100	35.71
	200,000-500,000	125	44.64
	500,000-10,00000	25	8.92
	Above 1000000	15	5.36

Source: Survey data

3.2 General Understanding of Entrepreneurs on Social Media Adoption

The study demonstrates the general understanding of entrepreneurial orientation on social media of SMEs. The study reveals the time duration of social media used by the SMEs, the different platforms used by them, and the major features used by SMEs on the various social media platforms. The result demonstrates that all most all respondents use social media (98.57%), while they have been using the social media platform for 1-3 years (80%). The majority of SMEs use Facebook (98.21%) and Instagram for their business, while other platforms such as Pinterest (39.29), TikTok (7.86%), and others (0.36%) are least used by the SMEs (Table 3). The result is similar to the study by Qalati et al. (2022), SMEs have been using the social media platform for 1-5 years (53.02%), and a majority of SMEs are using Facebook (57.22%) for their business. Additionally, (87.86 %) of the respondents reveal that people's flow in the business is increased due

to the use of social media. In comparison (88.21%) feel that social media presence has increased business activities and sales. Furthermore, social media is mainly used for comments and replies (96.79%), Stories (94.29%), Live streaming (55.71%), and least by others. In essence, as other similar studies Meekaewkunchorn et al. (2021), Fatima and Bilal (2019), Qalati et al. (2022), Qalati et al. (2020), this study also reveals SMEs' strong social media engagement over 1-3 years, with Facebook and Instagram as key platforms, driving increased customer flow and business activity.

Table 3: General Understanding of Entrepreneurs on Social Media Adoption

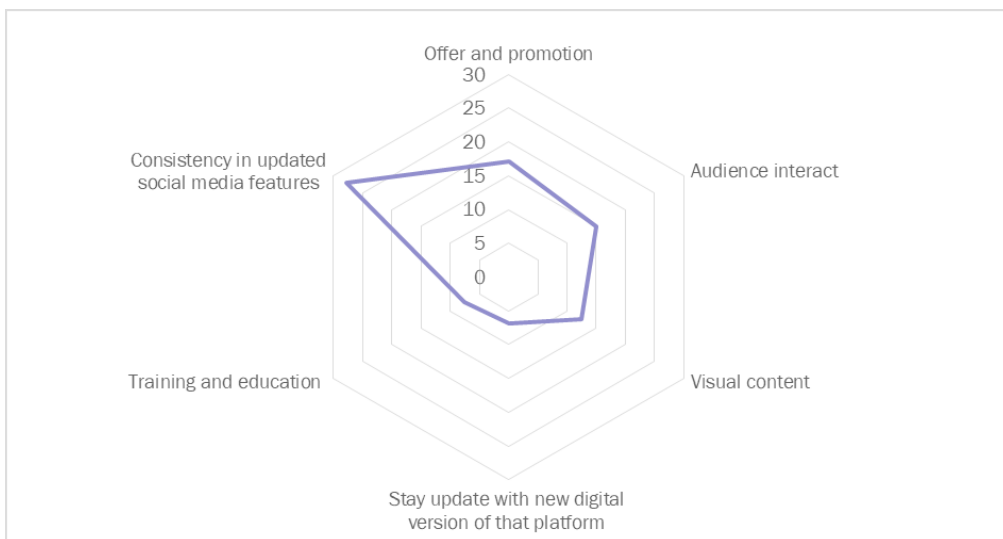
Variables	Explanation	Number	Percentage
Social media used by business	Yes	276	98.57
	No	4	1.43
Time duration of business using social media	Less than one year	39	13.93
	1-3 years	224	80
	3-5 years	17	6.07
	5-10 years	0	0
	Above ten years	0	0
Social media platforms used by business	Facebook	275	98.21
	Instagram	253	90.36
	Pinterest	110	39.29
	Tiktok	22	7.86
	Others	1	0.36
Businesses gain new customers or clients increased by using social media efforts.	Yes	246	87.86
	No	34	12.14
Social media features are used mainly by businesses to engage	Comment and replies	271	96.79
	Stories	264	94.29
	Live streaming	156	55.71
	Hashtags	65	23.21
	Others	16	5.71
Social media presence has increased business activities and sales	Yes	247	88.21
	No	33	11.79

3.3 Challenges faced by Entrepreneurs in the Adoption of Social Media Platforms

The study uncovered significant challenges in SMEs' utilization of social media. An overwhelming majority (99.64%) of respondents identified obstacles, with audience building (90.36%) and lack of platform skills (79.64%) as primary issues. Insufficient

expertise (76.07%), resources (75%), and privacy concerns (67.5%) compounded the challenges. To address these hurdles, respondents proposed diverse managerial approaches: education and training (93.57%), customer engagement (86.79%), resource availability (79.64%), and staying current with trends (67.86%). Support from educational institutions (92.14%), government policies (83.57%), industry networks (71.43%), and successful entrepreneurs (60.36%) emerged as crucial for mitigating SMEs’ challenges. Respondents also suggested leveraging updated platforms, promotions, interactive content, visual elements, technological advancements, and training for enhanced social media utilization (Figure 2).

Figure 2: Suggestion for Enhancing the Scope of Social Media Adoption Among Entrepreneurs



3.4 Inferential Analysis

The inferential analysis derives meaningful insights from sample data by employing a range of statistical tests to establish relationships between variables, assess disparities, and formulate predictions (Chatfield, 1995). The analysis encompasses various components, including a measurement model to address common method bias, a structural model, and path analysis. The examination of common method bias involves meticulous scrutiny of collinearity through the Variance Inflation Factor (VIF), with recommended VIF thresholds typically set at <3.33, <5, and <10. In the present study, the analysis revealed no concerns regarding multicollinearity, suggesting that shared methodological influences do not significantly distort the interrelationships between variables.

Measurement Model

The measurement model is assessed to measure the reliability and validity of the constructs. The outer model was assessed by evaluating the internal consistency through composite reliability, even though evaluations of Cronbach's alpha have become standard processes in research. It typically provides conservative assessment in PLS-SEM (Tavakol & Dennick, 2011). Previous literature has suggested using "Composite Reliability" as a replacement (Bagozzi and Yi, 1988; Hair et al., 2012). Whereby considering that all values of composite reliability are >0.7 , indicating a satisfactory level of internal consistency.

Table 4: Reliability and Validity

Coding	Latent Variables and Items	Factor Loadings	AVE	CR	Cronbach Alpha	Inner VIF
EO	Entrepreneurial Orientation					
EO_1	Innovation is highly valued.	0.891				
	Lead competition with innovative products/	0.604	0.579	0.726	0.300	1.493
EO_7	procedures.					
INN	Innovativeness					
INN_1	Constant generation of innovative ideas.	0.98	0.512	0.608	0.101	1.146
INN_2	Continuous R&D funding for new approaches	0.251				
SP	SME Performance					
SP_1	Better customer connections	0.794				
SP_2	Improved service standards	0.763				
SP_3	Engaging with customers effectively	0.709	0.546	0.856	0.796	1
SP_4	Boosting brand recognition and reputation	0.588				
SP_5	Strengthening customer loyalty and retention	0.817				
SM	Social Media					
SM_1	Enhances marketing through research.	0.865				
SM_9	Capture insights for new product development	0.508	0.581	0.798	0.602	1.438
SM_11	Easy access to diverse information	0.858				

The reliability and validity concern of the study composite reliability and average variance inflator is above the requirement level, i.e., 0.5 and 0.7, respectively, factor loading is considered reliable. (Ramayah et al., 2018). Further, the convergent validity of the model was assessed using average variance extracted (AVE). Convergent validity demonstrates how closely the construct's items are related. A good indicator of convergent validity is an AVE value greater than 0.5 (Fornell & Larcker, 1981). All scores were >0.5. All deals were above the recommended threshold. A few of the item's construct were deleted, as represented in Table 1, to achieve the minimum acceptance level of AVE (Hair et al., 2014)

Discriminant Validity

The Fornell-Larcker criterion can be used to assess discriminant validity to determine how different one element in the model is from the other construct (Fornell & Larcker, 1981). Fornell and Lacker alone, however, are insufficient to test discriminant validity. According to Henesler et al. (2015), the cross-loading technique and the Heterotrait-Monotrait (HTMT) ratio scale are additional measures to test discriminant validity. Fornell and Lacker's criterion was checked and satisfied as the all-AVE square roots were more significant than the corresponding correlations (Hair et al., 2020).

HTMT is based on the estimation of the correlation between the constructs. Discriminant validity is established based on the HTMT ratio. However, the threshold for HTMT is debated in the existing literature. Kline (2023) suggested a threshold of 0.85 or less, while Kock (2022) and Henseler et al. (2015) recommended a liberal threshold of 0.90 or less. All the HTMT ratios are below the threshold value of 0.9, which further confirms the discriminant validity of this study.

Table 5: Discriminant Validity- Fornell and Larcker Criterion

	Fornell and Larcker Criterion				HTMT Result			
	EO	INN	SM	SP	EO	INN	SM	SP
EO	0.761							
INN	0.45	0.715			2.121			
SM	0.538	0.362	0.762		1.158	1.207		
SP	0.345	0.093	0.291	0.739	0.694	0.494	0.394	

Discriminant validity was further verified using cross-loadings. Cross-loading determines if an item strongly loads onto its parent construct rather than the other construct in the study. Table 5 demonstrates that all items have more significant factor loadings on the underlying constructs to which they belong than on any other construct

(Wasko & Faraj, 2005). Additionally, there is no cross-loading problem because the item's cross-loading values with other constructs are less than 0.7 (Hair et al., 2020).

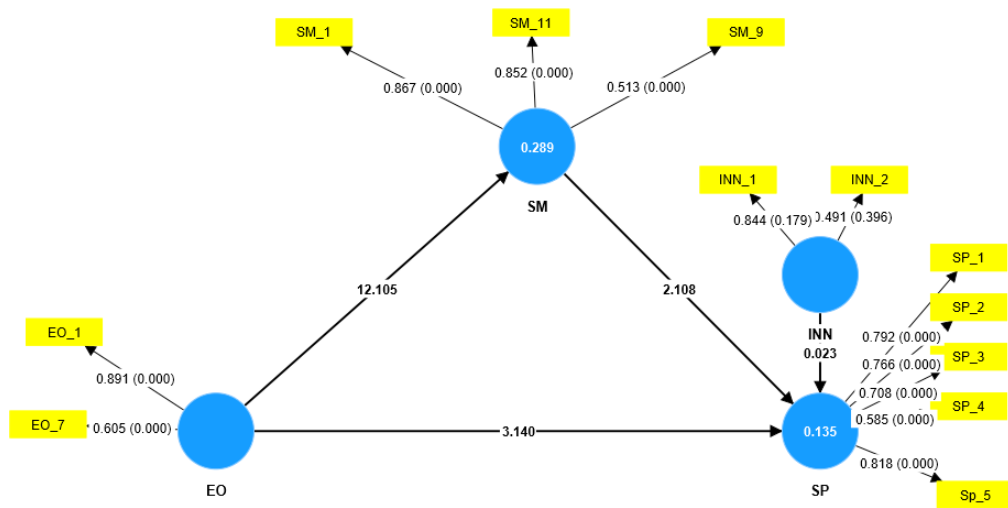
Table 6: Discriminant Validity – Cross Loadings

	EO_	INN	SM	SP
EO_1	0.891	0.476	0.553	0.241
EO_7	0.604	0.138	0.195	0.324
INN_1	0.446	0.98	0.358	0.11
INN_2	0.088	0.251	0.074	-0.067
SM_1	0.43	0.275	0.865	0.276
SM_11	0.445	0.308	0.858	0.173
SM_9	0.337	0.235	0.508	0.213
SP_1	0.292	0.081	0.291	0.794
SP_2	0.286	0.071	0.202	0.763
SP_3	0.102	-0.041	0.101	0.709
SP_4	0.176	0.086	0.179	0.588
Sp_5	0.312	0.089	0.226	0.817

Path Analysis

This study tested hypotheses using Partial Least Square Equation Modeling (PLS-SEM) with SmartPLS 4.0. In this study, bootstrapping was employed using SmartPLS 4.0 to determine the path coefficients and their associated t-value for direct and mediating relationships. Figure 3 depicts five latent constructs, each with several observed variables. Following the guidelines by Henseler et al. (2015) and Hair et al. (2011), the R^2 values of 0.75, 0.50, and 0.25 indicate significant, moderate, and weak predictive power, respectively. The R^2 value Strategic performance (SP) and Social media (SM) are 13.5 and 28.9, respectively, indicating sufficient predictive power of the model. Table 7 demonstrates the results of the structural path model. Figure 3 shows the path coefficient and R^2 value of the structural model. The value of R^2 depicts the predictive power of the model. It explains the variance in the endogenous variable defined by the exogenous variables (Hair et al., 2014). Higher values of the R^2 denote a more substantial explanatory power, which ranges from 0 to 1. According to Henseler et al. (2015) and Hair et al. (2011), the R^2 values of 0.75, 0.50, and 0.25 are significant, moderate, and weak, respectively. The model explains 28.9% of the variance, i.e., R^2 , in social media (SM) and 13.5% in Strategic performance (SP), although the R^2 is not high as suggested. Thus, we considered the model satisfactory in explaining the variation in the endogenous variable. A similar study by Fan et al. (2020) shows the impact of social media on strategic performance by 37.1% and overall 32.4%.

Figure 3: Path Analysis



To assess the significance of each path coefficient, bootstrapping with 5000 samples is used. Among the four hypotheses, all hypothesis except H4 is not accepted, i.e., INN -> SP ($\beta=0.002$, $t\text{-value}=0.023$; $P<0.05$). Further, the result depicts that entrepreneurial orientation (EO) has a significant relationship with strategic performance ($\beta=0.002$, $t\text{-value}=0.023$; $P<0.05$), entrepreneurial orientation (EO) has a significant relationship with social media ($\beta=0.537$, $t\text{-value}=12.105$; $P<0.001$) social media has a significant relationship with strategic performance ($\beta=0.150$, $t\text{-value}=2.108$; $P<0.05$) (see Table 7).

Table 7: Hypothesis Testing

Hypothesis	Linkages	Beta Value	SD	t-Value	p-value	95% Confidence Interval		Hypothesis Result
						LL	UL	
H1	EO -> SP	0.264	0.084	3.140	0.002	0.107	0.436	Supported
H2	EO -> SM	0.537	0.044	12.105	0.000	0.450	0.623	Supported
H3	SM -> SP	0.150	0.071	2.108	0.035	0.013	0.296	Supported
H4	INN -> SP	0.002	0.080	0.023	0.981	-0.189	0.119	Rejected

Mediation Analysis

The research employs mediation analysis to examine the potentially significant impact between entrepreneurial orientation, social media, and strategic performance. The

mediation analysis reveals both direct and indirect effects within the model. The study is grounded on the hypothesis $EO \rightarrow SM \rightarrow SP$. The direct effect is denoted as (c'), while the indirect effect is represented by the product of coefficients ($a*b$). The assessment of the direct effect is based on the p-value criteria, with thresholds set at $p \leq 0.05$, $p \leq 0.01$, and $p \leq 0.001$.

Conversely, evaluating the indirect effect utilizes the lower and upper values obtained from the Bootstrap method. The study's findings demonstrate that the relationship $EO \rightarrow SM \rightarrow SP$ satisfies the criteria for both direct and indirect effects, thereby indicating the presence of partial mediation between these variables. Additionally, the Value of the Average Variance Extracted (VAF) is recorded as 0.20, further supporting the evidence for partial mediation. In a similar study by Fan et al. (2020), social media mediates the relationship between entrepreneurial orientation and strategic performance and shows a partial relationship.

Table 8: Mediation Analysis

Hypothesis	Direct Effect	Indirect Effect	BootLLCI	BootULCI
	Effect (C')	Effect ($a*b$)		
$EO \rightarrow SM \rightarrow SP$	0.281	(0.081)*	0.007	0.169

Note: * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$

Moderation Effect

This research also employs moderation analysis to examine the potential impact of innovation on strategic performance, specifically focusing on the moderating influence of a third variable on the relationship between innovation and strategic performance. However, the results of the moderation analysis indicate a lack of statistical significance, as evidenced by a non-significant beta value and a relatively high p-value (Table 9). Consequently, the study does not find sufficient support for the notion that innovation moderates the relationship between strategic management and strategic performance. This lack of significance implies that the data used by the study does not provide compelling evidence for a meaningful or impactful connection between these variables. At the same time, the result is contradicted by the study by Fan et al. (2020) and shows the relationship between innovation capability with the strategic performance.

Table 9: Moderation Effect

Hypothesis	Beta Value	P-value	BootLLCI	BootULCI	Result
INN x SM -> SP	-0.055	0.500	-0.194	0.097	Not supported

Note: *p ≤ 0.05; **p ≤ 0.01; ***p ≤ 0.001

4. DISCUSSION

The reliability test and multiple linear correlations were utilized to measure the effects of entrepreneurial orientation on social media adoption and SME performance. This analysis confirms the relationship between entrepreneurial orientation, social media adoption, and SME performance. The results of hypotheses H1, H2, and H3 are statistically significant among the four hypotheses undertaken.

Hypothesis 1 establishes a meaningful connection between entrepreneurial orientation (EO) and social media (SM) within SMEs, highlighting the positive impact of EO on SM adoption and subsequent enhancement of SME performance. As Albasri (2020), Siahaan and Tan (2022), and Zahra and Covin (1995), EO, an intrinsic capability, aligns with dynamic capabilities, facilitating market recognition and response for improved performance. EO encompasses innovation, proactiveness, and risk-taking, effectively measured through innovativeness, proactiveness, and risk-taking behaviors (Al-Mamary & Alshallaqi, 2022; Abdalla & Mohamed, 2020; Ringo et al., 2022). The study demonstrates the substantial influence of EO in driving SMEs to leverage SM platforms for effective customer interaction, cost-efficient marketing, competitor insights, and environmental scanning. These findings are reinforced by prior research showcasing a strong positive relationship between EO, SM, and SME performance (Fang et al., 2022; Nguyen et al., 2022). The symbiotic relationship between EO, SM, and performance underscores the importance of strategic SM adoption for sustained competitive advantage and business success (Fang et al., 2022).

Similarly, hypothesis 2 is confirmed as the study finds a significant connection between adopting social media (SM) and Entrepreneurial Orientation (EO), indicating that businesses with higher EO levels are inclined to embrace SM platforms. Social Media platforms grant entrepreneurs easy access to extensive information, potentially driven by the desire to maintain a competitive edge against rivals (Susanti et al., 2023; Susanto et al., 2023; Qalati et al., 2020). EO's importance in the competitive e-commerce landscape is underscored, encompassing entrepreneurial practices and decision-making styles (Fan et al., 2021). Elevated EO levels prompt a greater propensity for innovative technology adoption, such as SM, driven by proactivity, risk-taking, and innovativeness (Abdalla & Mohamed, 2020; Ringo et al., 2022). While limited research

exists on the EO-SM link, prior studies (Fang et al., 2022; Nguyen et al., 2022) highlight its positive influence, particularly in exporting firms. In their lineup, this study suggests that SMEs with stronger EO tendencies are more likely to integrate SM for enhanced growth and profitability in a dynamic business environment.

Likewise, hypothesis 3 confirms the positive impacts of social media on business performance, encompassing heightened customer interactions, cost savings, and improved information accessibility. Social media, an internet-based resource capability, synergistically complement various organizational functions like research, sales, customer support, operations, and marketing (Hurmelinna-Laukkanen et al., 2020; Van et al., 2022). Key platforms such as Facebook significantly enhance information access, marketing insights, and customer relations (Meekaewkunchorn et al., 2021; Fatima & Bilal, 2019, Qalati et al., 2022, Qalati et al., 2020). Its widespread adoption enables user-generated content sharing, benefiting businesses of all scales (Ahmad, 2019). Particularly for SMEs, social media fosters a competitive edge by promoting stakeholder knowledge exchange (Crammond et al., 2018). As studies mentioned, this study supports the multifaceted potential of social media to enhance business operations and outcomes.

Amidst today's dynamic digital environment, entrepreneurs strategically harness various social media platforms to elevate their online presence and optimize Small and Medium Enterprises' achievements (Bruce et al., 2022). Platforms such as Facebook, Twitter, Instagram, LinkedIn, and YouTube serve to engage customers, strategically advertise, showcase products, and share cost-effective videos and ideas (Fatima & Bilal, 2019; Qalati et al., 2022; Qalati et al., 2020). Real-time data facilitates precise marketing (Freixanet et al., 2021). Strategic planning and digital skill development empower effective social media use, fostering SME growth and sustained success (Fang et al., 2022; Nguyen et al., 2022). This study aligns with previous research and affirms entrepreneurs' adept utilization of diverse social media, propelled by entrepreneurial orientation (EO) and dynamic capabilities for SME triumph. The paper is based on dynamic and resource-based theories, with the significance of undertaken hypotheses. This study validates their applicability in Nepalese SMEs, emphasizing strategic social media adoption for competitive advantage. That means a strong EO correlation with social media adoption indicates heightened EO drives SMEs to embrace it for information access and competitive edge.

Despite its applicability, the present has several limitations, such as the sample size of 280 respondents is constrained, potentially limiting the representation of the entire population. Focusing solely on Kathmandu Valley's SMEs restricts the generalizability to other regions. Relying exclusively on SME owners' perspectives disregards insights

from other stakeholders like employees or customers. Time and budget constraints may have impacted research design, sampling, and data collection. The absence of comparative analysis with larger organizations or other studies limits contextual understanding. Future research could expand the sample size to improve statistical robustness. Engaging diverse stakeholders and conducting cross-city or regional comparisons would offer a holistic view of social media adoption impacts. Qualitative methods like interviews could uncover motivations and challenges. Exploring adoption differences between SMEs and larger firms would unveil unique dynamics and challenges specific to SMEs in Kathmandu.

5. CONCLUSION

In conclusion, this study thoroughly examined the intricate interplay among entrepreneurial orientation (EO), social media adoption (SM), and the strategic performance (SP) of SMEs. The findings underscore a notable linkage between EO, SM, and SP, underscoring the pivotal role of social media in enhancing strategic performance. However, the study identified significant barriers, including expertise gaps, resource constraints, privacy apprehensions, and content-related challenges, hindering SMEs from embracing social media. The resultant lack of proficiency in leveraging these platforms curtails business growth. SMEs are advised to invest in comprehensive digital training, keep abreast of evolving social media trends, and actively engage audiences through compelling content and advertising campaigns to surmount these obstacles. This approach aligns aptly with the requisites of the digital era, allowing SMEs to effectively harness the potential of social media for heightened business performance. The insights from this study bear significance for SMEs and business associations aiming to optimize social media for amplified efficacy. Strategies encompassing targeted marketing campaigns, digital tool education, and training are recommended to exploit these benefits fully. Hence, as a key takeaway, SMEs can embrace social media for innovation, engagement, and visibility, investing in digital skills. Policymakers must promote SM adoption, offer incentives, and create a supportive environment. To support SMEs and Policymakers, governments should provide infrastructure, digital literacy programs, and funding to enable SMEs to prosper in the digital realm. This paper is valuable for scholars and practitioners in similar geo-political contexts, offering insights into social media's pivotal role in enhancing global SME operations. It is an indispensable resource for investigating social media's substantial influence on SMEs across diverse contexts.

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