### **RESEARCH ARTICLE:**

# **How Does SME Social Media Adoption Drive Marketing Performance?**

Hayford Amegbe<sup>1</sup>, Nkululeko PraiseGod Zungu<sup>2</sup> and Emmanuel Selase Asamoah<sup>3</sup>

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#### Abstract

This study presents an integrated model investigating the dynamics of small and medium enterprise (SME) social media adoption and its impact on SME marketing performance. Drawing data from a cross-sectional survey among 234 SMEs operating in various sectors in Ghana, this research employed a comprehensive analysis using the statistical package for the social sciences and structural equation modelling to test 14 hypotheses. While trust and interactivity were significant drivers of social media adoption, the results revealed the cost and complexity influence on adoption was not substantiated. Additionally, the study underscored the crucial role of organisational, environmental, and entrepreneurial factors in shaping social media adoption patterns among SMEs. Moreover, the findings highlighted the positive social media adoption impact on both non-financial and financial marketing performance, with non-financial marketing performance further contributing to overall financial marketing performance. Despite its contributions, this study acknowledges certain limitations, including its focus on SMEs exclusively present on social media in Accra and the potential implications of these findings on SMEs operating in other regions of Ghana. Overall, this research provides valuable insights into the complex interplay between SME social media adoption and marketing performance, contributing to the broader understanding of digital marketing strategies within the SME sector.

**Keywords**: technology organisation environment theory; social media; marketing performance; small and medium enterprises

#### Introduction

The prevalence of social media has sparked considerable interest among scholars and business practitioners, as evidenced by the extensive research conducted by Mazurek *et al.* (2018), Al Halbusi *et al.* (2022), Oyewobi *et al.* (2022), and Kanwar and Huang (2022). Since the birth of social media, the business landscape has been different. Social media has changed how business is conducted today, and businesses are looking for the opportunity to tap into the benefits of social media use to improve their performance, particularly among small and medium enterprises (SMEs) in developing and/or emerging economies. There is a rich body of research on social media and SMEs in both developed and developing and/or emerging countries in academic scholarship (Ahmad *et al.*, 2018; Tarsakoo, and Charoensukmongkol, 2019; Basri and Siam, 2019; Sabatini *et al.*, 2022). Globally, the number of social media users is approximately 4.7 billion people, projected to increase in the coming years (Statista, 2022). Given the extensive number of users, Hanafizadeh *et al.* (2021) identified several types of social media that have emerged, such as social networking sites (e.g., WhatsApp, Line, Telegram, and WeChat), content communities (e.g. YouTube, TikTok, Vimeo), blogs (e.g. Twitter, Blogspot), and online forums and discussion platforms (e.g. TripAdvisor, Yelp, and FourSquare). In the Ghanaian context, social media usage has observed a notable surge, with the current user numbers reaching 8.8 million users of social media (Statista, 2022).

<sup>&</sup>lt;sup>2</sup>Durban University of Technology, NkululekoZ1@dut.ac.za | https://orcid.org/0000-0002-7003-0577 
<sup>3</sup>University of Professional Studies, Accra emmanuel.asamoah@upsamail.edu.gh | https://orcid.org/0000-0002-6200-4563



<sup>&</sup>lt;sup>1</sup>Durban University of Technology, <u>22175098@dut4life.ac.za</u> | <u>https://orcid.org/0000-0002-5337-9507</u>

Despite the recognised potential benefits, including improved competitiveness, enhanced brand image, targeted marketing, and increased market efficiency and profitability, social media adoption among SMEs in developing countries remains notably low (Odoom and Mensah, 2018; Osakwe and Ikhide, 2022). This limitation is largely attributed to various resource constraints, encompassing financial, human, and organizational challenges (Oyewobi *et al.*, 2022). Consequently, there is a critical need for further exploration of the practical application and benefits of social media for SMEs in these contexts. This study aims to address this gap by investigating the dynamics of social media adoption among SMEs and its consequential impact on their marketing performance. Drawing on the Technology, Organisation, and environment (TOE) theory, the research endeavours to elucidate the factors influencing SME social media adoption and its correlation with SME marketing performance, both financial and non-financial. The study seeks to contribute not only to the theoretical understanding of social media implications for SMEs in developing countries but also to offer practical insights for SME owners and managers to leverage social media effectively. The next section provides the literature review and hypotheses development, followed by a description of the research methods, with a discussion of the research results. Finally, this paper will conclude by outlining the implications, limitations, and suggestions for future research in this domain.

The TOE theory encompasses a variety of factors crucial to understanding its application. A critical review of the literature shows several researchers (Abed, 2020; Chatterjee et al., 2021) have identified various key technological factors within TOE theory. These include perceived cost (Tajudeen et al., 2018; Ahani et al., 2017), facilitating conditions/ compatibility (Odoom et al., 2017), performance expectancy /perceived usefulness/relative advantage (Abed, 2020), and perceived trust (Ainin et al., 2015; Vongsraluang and Bhatiasevi, 2017), as well as perceived enjoyment (Nawi et al., 2017), interactivity (Ainin et al., 2015; Odoom et al., 2017), and system quality (Vongsraluang and Bhatiasevi, 2017). These have been studied as some factors associated with the technological aspect of TOE theory. However, this study considers four factors: perceived cost, perceived trust, interactivity and complexity. Furthermore, within the organisational component of TOE theory, attention has been drawn to elements such as management and staff support, along with entrepreneurial orientations (Abed, 2020; Lutfi et al., 2022). These organisational factors play a pivotal role in shaping technological innovation adoption and implementation. Similarly, the environmental factor, the final face of TOE theory, has been extensively examined by scholars (Ahmad et al., 2018; Tajudeen et al., 2018; Abed, 2020; Qalati et al., 2022). This factor encompasses internal and external pressures that influence an organisation's decision-making processes. Notably, this study identifies institutional pressure, market pressure (consumer pressure and competitive pressure), industry competition and bandwagon effect as key determinants within the environmental dimension. TOE theory is more flexible and accommodates several factors to test the technological, organisational and environmental (Baker, 2012). It is observed that researchers have used a few different factors to examine TOE theory (Baker, 2012). This is attributed to factors such as the differences in national culture and every industry with its unique factors influencing the industry. Consistent with previous studies (Ghobakhloo and Ching, 2019; Ofosu-Ampong and Acheampong, 2022), this study introduces entrepreneurial factors, such as resource availability and personality traits, as part of TOE theory to examine social media adoption in the Ghanaian context.

The term social media commonly refers to modern media forms that encourage active user participation (Manning, 2014). According to Davis (2015), it encompasses various interactive internet applications that facilitate collaborative content creation, curation, and sharing. Essentially, social media serves as a platform for creating user profiles, establishing explicit connections, and fostering relationships (Wolf *et al.*, 2018). Notable social media platforms include Diggs, MySpace, Facebook, and WhatsApp, as well as Twitter, Instagram, and more. SMEs can effectively utilise these platforms for business promotion. Xiang and Gretzel (2010) highlight the viral potential of social media for marketing products and services. As a dynamic marketing tool, social media is increasingly recognised by marketers as an integral part of their strategies for engaging with customers and enhancing brand visibility. In the context of SMEs, social media marketing has yielded favourable results in both financial and non-financial aspects of marketing performance. These outcomes include fostering business growth, nurturing customer relationships, building and maintaining brand reputation and image, as well as promoting and selling products and services, leading to heightened customer satisfaction, increased sales, customer loyalty, and overall profitability (Odoom and Mensah, 2018; Ratajczak-Mrozek *et al.* 2018). Qalati *et al.* (2022) emphasised the instrumental role social media plays in providing SMEs with valuable insights and information with regard to their products and services, ultimately influencing their overall performance

positively. Within the existing literature, scholars often use the term SME performance to encapsulate both financial and non-financial marketing outcomes, although some variations exist (Akbar, 2021). This study seeks to explore the comprehensive social media marketing impact on both financial and non-financial marketing performance outcomes. Previous research underscored the significant relationship between social media adoption and financial marketing performance, highlighting the importance of social media adoption for SMEs (Ainin *et al.*, 2015; Cao *et al.*, 2018; Akbar, 2021).

# **Hypotheses and Conceptual Framework Development**

Technological factors play a significant role within the TOE theory framework, drawing substantial attention to previous studies (Chatterjee *et al.*, 2021). For example, Qalati *et al.* (2021) conducted an empirical study examining the relationship between social media adoption and performance among 423 SME owners, managers, and executives in Pakistan, emphasising the influence of technological factors as outlined in TOE theory. That study's findings highlight the direct impact of these technological factors on social media adoption among SMEs included in the sample. Furthermore, a separate study conducted by Ahani *et al.* (2017: 651) in Kuala Lumpur, Malaysia, focused on 140 SMEs, examining social media adoption within the context of TOE theory. The research by Ahani *et al.* (2017) further underscored the notable influence of technology factors on social media adoption, providing valuable insights into the mechanisms shaping the technological aspect of the TOE framework. In the context of SMEs, past studies, such as: Abed (2020), Lorente-Martínez *et al.* (2020) and Lutfi *et al.* (2022), examined the relationship between organizational factors and social media adoption. For instance, Lorente-Martínez *et al.* (2020) studied the influence of TOE theory on big data adoption among SMEs in Jordan. The results showed organizational factors significantly positively influence technology adoption. In Palestine, Mujahed *et al.* (2022) used 400 SMEs to understand their intention to adopt the technology, where that study revealed organizational factors influence social media adoption. Based on the empirical review, the study put forward the following hypotheses for testing.

- H1: There is a significant positive relationship between perceived cost and SME social media adoption.
- H2: There is a significant positive relationship between perceived trust and SME social media adoption.
- H3: There is a significant positive relationship between interactivity and SME social media adoption.
- H4: There is a significant positive relationship between complexity and SME social media adoption.
- H5: There is a significant positive relationship between management and staff support and SME social media adoption.
- H6: There is a significant positive relationship between entrepreneurial orientation and SME social media adoption.
- H7: There is a significant positive relationship between personality trait and SME social media adoption.
- H8: There is a significant positive relationship between resources available to the entrepreneur and SME social media adoption.
- H9: There is a significant positive relationship between market pressure and SME social media adoption.
- H10: There is a significant positive relationship between industry competition and SME social media adoption.
- H11: There is a significant positive relationship between the bandwagon effect and SME social media adoption.

Several scholars (for example, Akbar, 2021; Khamaludin *et al.*, 2022) have observed SMEs that use social media derive several benefits, such as building strong customer relationships, engaging with customers, creating a brand image, as well as advertising and promoting products and services. Researchers have, in the past, identified the relationship between SME social media adoption and financial and non-financial marketing performance outcomes. For instance, Akbar (2021) studied the use of Instagram on both financial and non-financial marketing outcomes by using 352 Malaysian SMEs. The outcome reveals a positive and significant relationship between these constructs. Khamaludin *et al.* (2022) studied social media marketing and marketing performance in the Indonesian SME sector, sampling 300 SMEs. The results also show a significant positive relationship between social media adoption and non-

financial marketing performance. Based on the above empirical review, the study suggests the following hypotheses for testing.

- H12: There is a significant positive relationship between SME social media adoption and non-financial marketing performance.
- H13: There is a significant positive relationship between SME social media adoption and financial marketing performance.
- H14: There is a significant positive relationship between SME non-financial and financial marketing performance.

## **Conceptual Framework Development**

The study developed a conceptual framework (Figure 1) based on an extensive literature review. The conceptual framework shows the TOE and entrepreneurial factors leading to social media adoption. SME social media adoption leads to financial and non-financial marketing performance, and non-marketing performance also leads to financial marketing performance.

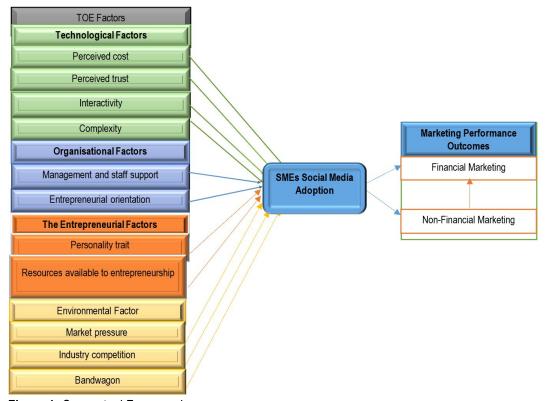


Figure 1: Conceptual Framework

### Methodology

In academic research, two prominent methodologies are widely recognised: qualitative and quantitative research (Saunders *et al.*, 2009). Qualitative research, as described by Aspers and Corte (2019), involves interpreting and examining phenomena in their natural contexts, centering on the subjective understanding derived from people's interpretations. In contrast, quantitative research, as defined by Slevitch (2011), entails systematically investigating phenomena through numerical data collection and statistical, mathematical, or computational techniques. For this study, a quantitative approach, grounded in positivism, was selected. This decision was based on its capacity to establish clear links between research variables and apply rigorous statistical methods for data analysis.

In this study, the sample size of 234 SME owners/managers was determined using the conventional formula suggested by Saunders *et al.* (2019: 302). The decision for this sample size was based on careful consideration of various factors, including the required degree of confidence to estimate the true population value, the precision essential for accurate estimates from the sample, the inherent variability in the data, and the target population size. Additionally, the study objectives, available resources, time constraints, and cost implications were considered during the sample size determination process (Taherdoost 2017: 237; Saunders *et al.* 2019: 302). The selection of 234 respondents was based on a 95 percent confidence level and a five percent margin of error, ensuring a high probability that the true population value falls within the specified margin. Employing purposive or subjective sampling facilitated gathering information from knowledgeable and experienced SME owners/managers, thus enriching the depth of the study. This approach not only enhances the quality of the information obtained but also aligns with previous research methodologies, as demonstrated by the work of Campbell *et al.* (2020: 80).

The data for this study were collected using a questionnaire as the primary instrument, segmented into various sections. The first section of the questionnaire assessed demographic information regarding the SMEs, including owner/manager gender, age, and education levels. The subsequent section examined specific details of the enterprises. The measurement framework for the TOE factors comprised 28 items, drawing upon key insights from the works of Odoom et al. (2017), AlSharji et al. (2018), and Qalati et al. (2021). In line with the literature, the items concerning social media adoption encompassed five key elements, incorporating insights from studies by Eid et al. (2019) and Eze et al. (2021). Moreover, the criteria for evaluating marketing performance outcomes, comprising both financial and non-financial aspects, were defined by six key indicators, sourced from comprehensive research conducted by Ainin et al. (2015), Charoensukmongkol and Sasatanun (2017), Cao et al. (2018), and Magno and Cassia (2019). Furthermore, the study incorporated two crucial statistical analytical tools, namely the Statistical Package for Social Sciences (SPSS) and Structural Equation Modelling-Partial Least Squares (SEM-PLS), for data analysis, providing comprehensive insights into the research findings.

The study focused on SMEs with a presence on at least one social media platform, with participating SME owners/managers assured their involvement was voluntary and they could withdraw at any time. The study items were measured on a 5-point Likert scale, where participants indicated their level of agreement or disagreement with each statement on a response range from "strongly agree" to "strongly disagree."

#### **Presentation of Results**

The results analysis, presentation, and interpretation were based on the quantitative data collected. Concerning the demographic information, respondents comprised 128 males (54.7 percent) and 106 females (45.3 percent) (Table 1). Regarding age distribution, the majority SME owners/managers are within the 30-39 age group, accounting for 109 individuals (46.6 percent). The subsequent significant age group was 21-29 years, constituting 70 respondents (30 percent), followed by the 40-49 age group, encompassing 31 participants (13.2percent). The least represented age group was 18-20 years, comprising nine individuals (3.8percent).

Table 1: Section one (1) - Gender and age group

Characteristics	Frequency	Percent	
Gender:			
Female	106	45.3	
Male	128	54.7	
Age:			
18-20 years	9	3.8	
21-29 years	70	30	
30-39 years	109	46.6	
40-49 years	31	13.2	
50 and above years	15	6.4	

The findings of this study regarding the qualifications of SME owners/managers reveal all individuals held formal education, with the highest qualification a Master's Degree, represented by 28 individuals (12 percent). Notably, a

significant proportion of SME owners/managers, accounting for 91 individuals (38.8 percent), possessed a Higher National Diploma (HND), as tabled below (Table 2).

**Table 2**: Section one (1) - Participants educational qualification

Characteristics	Frequency	Percent
Educational Qualification:		
Basic Education Certificate Examination(BECE)	1	.43
Degree	55	23.5
Diploma	44	18.8
HND	91	38.8
Masters	28	12
West African Senior School Certificate Examination (WASSCE)	15	6.4

The findings concerning information of SMEs indicate the organizations were predominantly led by individuals serving as managers or holding the positions of owners, CEOs, or managing directors. Specifically, 113 respondents (48.2 percent) were identified as managers, while 100 respondents (42.7 percent) were categorised as owners, CEOs, or managing directors (Table 3). Recognising the specific roles and responsibilities within these SMEs is essential to gain a comprehensive understanding of the leadership dynamics and organisational structures at play within the surveyed business.

**Table 3**: Section two (2) - Enterprise related information

Characteristics	Frequency	Percent	
Position			
Accountant	21	9	
Manager	113	48.2	
Owner, CEO or MD	100	42.7	

The findings concerning industry operations of participating SMEs reveal the largest proportion, representing 78 cases (33.3 percent), as engaged in the food processing industry. Following closely was the textiles and garment sector, comprising 77 cases (33 percent). The distribution of the remaining SMEs across various other industries is tabled below (Table 4). Understanding the predominant industries in which these SMEs operate provides valuable insights into the specific sectors driving business activities and economic contributions within the scope of the study.

**Table 4**: Section two (2) - Enterprise-related information

Characteristics	Frequency	Percent	
Industry in which SMEs Operate	-		
Agriculture and Agro-Processing	17	7.3	
Food Processing	78	33.3	
Health	18	7.7	
Textiles and Garment	77	33	
Utilities	44	19	

The findings concerning annual SME sales indicate the majority responding SMEs (78 or 33.3 percent) in the sample reported sales within the range of GH¢ 10000 to GH¢ 15000. Additionally, 75 SMEs (32 percent) reported sales between GH¢ 5000 to GH¢ 10000. According to the results regarding their market area, a significant proportion of SMEs, accounting for 105 businesses (45 percent), operate within the local market, while a smaller subset of 21 SMEs (nine percent) ventured into the international market (Table 6). Understanding the distribution of annual sales and the market scope is crucial in assessing the financial performance and global reach of the surveyed SMEs within the study context.

**Table 5**: Section two (2) - enterprise related information

Characteristics	Frequency	Percent	
SMEs Annual Sales			
Less than GH¢ 5000	11	4.7	

GH¢ 5000 to GH¢ 10000	75	32	
GH¢ 10000 to GH¢ 15000	78	33.3	
GH¢ 15000 to GH¢ 20000	53	23	
GH¢ 20000 and above	17	7.3	
Market Area			
International market	21	9	
Local Market	105	45	
National market	52	22	
Regional market	56	24	

### Measurement model

The measurement model was performed based on guidelines provided by Sarstedt *et al.* (2022). The process begins by checking whether the individual items meet the acceptable threshold, with those that do not, deleted. The outcomes show most loadings exceeded the conventional threshold of 0.708 (Hair *et al.*, 2019; Sarstedt *et al.*, 2022). The variance inflation factor (VIF) ere also less than the prescribed threshold of five (Hair *et al.*, 2017). A reliability test of the various constructs was performed using internal consistency, Cronbach's alpha (α), rho\_A, and composite reliability (Dijkstra and Henseler, 2015; Hair, Howard and Nitzl 2020; Sarstedt *et al.*, 2021). The details of the outcome (Table 6) show the score of the item composite reliability and the rho\_A, respectively, exceed the conservative threshold of 0.70 (Dijkstra and Henseler, 2015; Sarstedt *et al.*, 2022). Similarly, the convergent validity was performed in line with the Average Variance Extracted (AVE). The outcomes reveal the AVE exceeded the acceptable results of 0.50 (Hair *et al.*, 2017; Sarstedt *et al.*, 2022. Hence, the findings confirm acceptable reliability and validity levels for the study.

Table 6: Loadings, VIF, reliability and validity

Constructs	Constructs Items	Loadings	VIF	Cronbach's alpha	Composite reliability (rho_a)	Average variance extracted (AVE)
Complexity				0.848	0.862	0.686
	ComPI1	0.785	1.641			
	ComPl2	0.885	2.697			
	ComPl3	0.823	1.724			
	ComPI5	0.815	2.305			
Interactivity				0.758	0.804	0.677
	IntRa1	0.885	1.944			
	IntRa2	0.889	2.055			
	IntRa3	0.776	1.273			
Perceived Cost				0.737	0.740	0.791
	PC1	0.899	1.515			
	PC3	0.879	1.515			
Perceived Trust				0.785	0.799	0.611
	TRus1	0.765	1.294			
	TRus3	0.843	1.928			
	TRus4	0.834	1.920			
	TRus5	0.772	1.507			
Entrepreneurial				0.731	0.735	0.788
Orientation	E01	0.876	1.496			
	EO2	0.899	1.496			
				0.708	0.772	0.609

Management and							
Staff Support	ManSS1	0.727	1.782				
	ManSS2	0.782	1.858				
	ManSS3	0.829	1.170				
Personality Trait				0.754	0.766	0.669	
	PTr1	0.874	1.973				
	PTr2	0.790	1.778				
	PTr3	0.786	1.309				
Resources				0.895	0.900	0.826	
Available to the	RAE1	0.802	2.915				
entrepreneur	RAE2	0.727	3.302				
	RAE3	0.898	2.326				
Bandwagon				0.789	0.815	0.700	
•	BaDw1	0.786	1.608				
	BaDw2	0.860	1.947				
	BaDw3	0.862	1.599				
Industry				0.651	0.652	0.741	
Competition	InDCop1	0.855	1.304				
	InDCop2	0.867	1.304				
Market Pressure	·			0.813	0.816	0.842	
	MKTP1	0.812	1.885				
	MKTP2	0.724	1.885				
SMEs Social Media				0.923	0.879	0.942	
Adoption	SMA1	0.875	2.761				
	SMA2	0.867	2.822				
	SMA3	0.809	3.804				
	SMA4	0.702	3.599				
	SMA5	0.821	2.237				
Financial	<b>5</b> 11 15	0.02.		0.722	0.740	0.642	
Marketing	FPP	0.725	1.369	VII ==	••	V.V.=	
Performance	FPSG	0.818	1.406				
	FPSV	0.855	1.658				
Non-Financial	1100	0.000	1.000	0.739	0.811	0.657	
Marketing	NFPBd2	0.889	1.896	0.100	V.U11	0.007	
Performance	NFPCuSat1	0.730	1.243				
	NFPLoy2	0.730	1.243				
	NI FLUYZ	0.005	1.000				

The discriminant validity of the study was assessed using the Fornell-Larcker criterion, the Heterotrait-monotrait ratio (HTMT) and cross-loadings (Henseler *et al.*, 2015). Based on the Fornell-Larcker criterion (Fornell and Larcker, 1981), Table 4 shows acceptable levels of discriminant validity. Fornell and Larcker (1981) suggested the square root of the AVE for each construct should be greater than 0.5 in its correlations with other constructs. In line with the Fornell-Larcker criterion, the values of the HTMT in the study are below the 0.85 threshold (Henseler *et al.*, 2015). Hence, the values of the cross-loading, the HTMT, and the Fornell-Larcker criterion show the constructs are statistically discriminant (Tables 7, 8, and 9).

Table 7: Fornell-Larcker criterion

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
BaDw (1)	0.837															
ComPl (2)	0.465	0.828														
EO (3)	0.573	0.500	0.887													
EP (4)	0.620	0.484	0.588	0.829												
FP (5)	0.572	0.458	0.582	0.762	0.801											
InDCop (6)	0.580	0.561	0.558	0.544	0.525	0.861										
IntRa (7)	0.669	0.520	0.718	0.656	0.621	0.554	0.709									
MKTP (8)	0.501	0.685	0.574	0.512	0.519	0.524	0.513	0.786								
ManSS (9)	0.603	0.648	0.604	0.653	0.651	0.573	0.572	0.670	0.781							
NFP (10)	0.625	0.482	0.496	0.727	0.723	0.462	0.524	0.447	0.591	0.811						
PC (11)	0.463	0.419	0.481	0.463	0.456	0.637	0.463	0.428	0.482	0.397	0.889					
PTr (12)	0.737	0.504	0.588	0.656	0.627	0.564	0.629	0.491	0.572	0.672	0.439	0.818				
RAE (13)	0.554	0.510	0.535	0.599	0.589	0.554	0.555	0.536	0.581	0.572	0.453	0.544	0.653			
SMA (14)	0.622	0.456	0.612	0.747	0.717	0.557	0.551	0.527	0.797	0.648	0.498	0.615	0.564	0.875		
SP (15)	0.615	0.435	0.563	0.801	0.752	0.536	0.564	0.489	0.656	0.696	0.476	0.632	0.604	0.809	0.873	
TRus (16)	0.507	0.522	0.477	0.527	0.504	0.745	0.475	0.442	0.528	0.480	0.788	0.510	0.535	0.557	0.782	0.62

Complexity= ComPl, Interactivity =IntRa, Perceived Cost =PC, Perceived Trust =TRus Entrepreneurial Orientation=EO, Management and Staff Support=ManSS, Personality Trait=PTr, Resources Available to the entrepreneur= RAE, Bandwagon= BaDw, Industry Competition= InDCop, Market Pressure= MKTP, SMEs Social Media Adoption=SMA, FP=Financial Marketing, Performance=FP, Non-Financial Marketing Performance=NFP

Table 8: Heterotrait-monotrait ratio (HTMT)

	1	2	3	4	5	6	7	8	9	10	11	13	16
BaDw (1)													
ComPl (2)	0.554												
EO (3)	0.739	0.627											
FP (5)	0.723	0.573	0.790										
InDCop (6)	0.797	0.748	0.754	0.760									
IntRa (7)	0.869	0.629	0.820	0.822	0.773								
MKTP (8)	0.617	0.823	0.637	0.681	0.720	0.670							
ManSS (9)	0.766	0.899	0.837	0.866	0.857	0.817	0.827						
NFP (10)	0.812	0.645	0.897	0.919	0.673	0.750	0.578	0.787					
PC (11)	0.603	0.526	0.602	0.622	0.922	0.674	0.552	0.663	0.527				
PTr (12)	0.926	0.611	0.827	0.835	0.787	0.858	0.617	0.745	0.904	0.579			
RAE (13)	0.639	0.579	0.702	0.722	0.723	0.670	0.625	0.731	0.673	0.552	0.653		
SMA (14)	0.712	0.503	0.870	0.872	0.717	0.758	0.606	0.895	0.758	0.603	0.722	0.617	
TRus (16)	0.637	0.630	0.661	0.661	1.062	0.651	0.559	0.708	0.633	1.041	0.651	0.632	0.631

Table 9: Cross loadings

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
BaDw1	0.786	0.338	0.411	0.343	0.420	0.511	0.393	0.410	0.387	0.386	0.564	0.320	0.433	0.357
BaDw2	0.860	0.381	0.429	0.434	0.478	0.519	0.388	0.482	0.512	0.346	0.580	0.456	0.476	0.407
BaDw3	0.862	0.435	0.570	0.613	0.542	0.630	0.466	0.592	0.630	0.423	0.686	0.575	0.620	0.487
ComPl1	0.350	0.785	0.423	0.338	0.462	0.440	0.576	0.461	0.325	0.358	0.332	0.371	0.354	0.404
ComPl2	0.446	0.885	0.414	0.401	0.521	0.426	0.622	0.530	0.442	0.362	0.471	0.475	0.422	0.492
ComPl3	0.390	0.823	0.457	0.422	0.454	0.469	0.528	0.663	0.428	0.345	0.446	0.445	0.420	0.435
ComPl5	0.337	0.815	0.346	0.340	0.406	0.373	0.540	0.461	0.392	0.319	0.410	0.381	0.282	0.382
EO1	0.510	0.422	0.876	0.527	0.470	0.590	0.467	0.498	0.452	0.401	0.563	0.459	0.516	0.408
EO2	0.508	0.464	0.899	0.507	0.519	0.681	0.549	0.572	0.431	0.451	0.486	0.489	0.568	0.438
FPP	0.365	0.296	0.425	0.725	0.352	0.434	0.429	0.475	0.380	0.331	0.400	0.371	0.509	0.343
FPSG	0.486	0.375	0.468	0.818	0.393	0.496	0.373	0.511	0.718	0.331	0.513	0.480	0.589	0.390
FPSV	0.507	0.420	0.504	0.855	0.508	0.556	0.458	0.578	0.594	0.435	0.578	0.549	0.619	0.471

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InDCop1	0.464	0.467	0.432	0.448	0.855	0.426	0.407	0.463	0.410	0.572	0.486	0.463	0.470	0.738
InDCop1	0.534	0.498	0.528	0.455	0.867	0.526	0.494	0.523	0.387	0.526	0.485	0.491	0.488	0.730
IntRa1	0.576	0.483	0.702	0.561	0.520	0.884	0.532	0.583	0.510	0.489	0.536	0.522	0.400	0.477
IntRa2	0.541	0.482	0.636	0.569	0.490	0.889	0.473	0.542	0.551	0.442	0.572	0.523	0.564	0.453
IntRa3	0.556	0.402	0.383	0.377	0.329	0.776	0.291	0.383	0.367	0.313	0.491	0.317	0.388	0.400
MKTP1	0.425	0.617	0.525	0.419	0.489	0.498	0.812	0.591	0.371	0.396	0.402	0.469	0.465	0.409
MKTP2	0.492	0.640	0.529	0.530	0.474	0.494	0.724	0.637	0.447	0.389	0.496	0.514	0.501	0.402
ManSS1	0.385	0.737	0.433	0.407	0.473	0.431	0.571	0.727	0.411	0.364	0.387	0.446	0.408	0.434
ManSS2	0.495	0.589	0.553	0.482	0.499	0.508	0.702	0.782	0.421	0.406	0.449	0.513	0.498	0.402
ManSS3	0.512	0.355	0.456	0.590	0.417	0.513	0.405	0.829	0.524	0.375	0.488	0.434	0.822	0.419
NFPBd2	0.524	0.406	0.460	0.643	0.387	0.541	0.400	0.533	0.889	0.347	0.607	0.534	0.587	0.420
NFPCuSat1	0.477	0.494	0.288	0.338	0.343	0.309	0.320	0.391	0.730	0.240	0.517	0.274	0.341	0.360
NFPLoy2	0.540	0.350	0.434	0.701	0.405	0.532	0.373	0.506	0.885	0.364	0.538	0.527	0.598	0.402
PC1	0.402	0.405	0.441	0.451	0.554	0.494	0.399	0.463	0.392	0.899	0.379	0.424	0.462	0.712
PC3	0.423	0.337	0.414	0.357	0.581	0.417	0.360	0.392	0.311	0.879	0.402	0.380	0.423	0.689
PTr1	0.601	0.391	0.483	0.581	0.483	0.592	0.371	0.496	0.614	0.388	0.875	0.521	0.541	0.448
PTr2	0.477	0.301	0.476	0.473	0.345	0.511	0.340	0.363	0.480	0.285	0.790	0.369	0.397	0.318
PTr3	0.698	0.516	0.485	0.477	0.527	0.477	0.479	0.519	0.541	0.385	0.786	0.426	0.545	0.461
RAE1	0.510	0.463	0.483	0.508	0.469	0.503	0.447	0.489	0.484	0.351	0.493	0.802	0.466	0.429
RAE2	0.498	0.453	0.475	0.548	0.509	0.504	0.485	0.524	0.545	0.414	0.511	0.727	0.516	0.487
RAE3	0.504	0.474	0.499	0.547	0.528	0.531	0.524	0.565	0.526	0.461	0.480	0.898	0.549	0.533
SMA1	0.555	0.403	0.548	0.666	0.508	0.594	0.507	0.660	0.614	0.460	0.580	0.526	0.872	0.508
SMA2	0.530	0.375	0.494	0.573	0.450	0.539	0.445	0.625	0.529	0.416	0.490	0.465	0.866	0.474
SMA3	0.572	0.441	0.592	0.660	0.533	0.604	0.478	0.670	0.607	0.468	0.581	0.528	0.809	0.518
SMA4	0.543	0.406	0.574	0.632	0.515	0.565	0.459	0.695	0.552	0.457	0.535	0.504	0.702	0.508
SMA5	0.520	0.366	0.463	0.600	0.426	0.520	0.413	0.831	0.529	0.378	0.500	0.442	0.829	0.427
TRus1	0.394	0.337	0.423	0.323	0.674	0.427	0.367	0.380	0.292	0.598	0.370	0.352	0.358	0.766
TRus3	0.408	0.476	0.378	0.456	0.556	0.401	0.343	0.444	0.425	0.666	0.438	0.448	0.486	0.843
TRus4	0.430	0.460	0.367	0.401	0.613	0.412	0.376	0.470	0.424	0.588	0.381	0.467	0.449	0.834
TRus5	0.358	0.348	0.341	0.384	0.519	0.357	0.306	0.355	0.347	0.618	0.404	0.397	0.437	0.772

#### Structural model assessment

The study examined the structural relationships to determine the significance level and path coefficients (Sarstedt et al., 2022). For the study to test the proposed hypotheses, bootstrapping with a 5 000 resample (Hair et al., 2020) was used to generate the standard deviation, t-values, and p-values. Researchers such as Sarstedt et al. (2022) and Hair et al. (2020: 102) indicated the p-values of path coefficients may, as a general rule, range from +1 to -1, and values for the t-statistics must be 1.96 or greater.

Table 7: Path analysis and decision

Paths	β	Sample mean	Standard deviation	T Values	P values	Decision
ComPI -> SMA	0.063	0.063	0.044	1.426	0.154	Not Supported
IntRa -> SMA	0.465	0.466	0.049	9.458	0.000	Supported
PC -> SMA	0.016	0.018	0.068	0.239	0.811	Not Supported
TRus -> SMA	0.276	0.277	0.078	3.560	0.000	Supported
EO -> SMA	0.204	0.203	0.038	5.413	0.000	Supported
ManSS -> SMA	0.674	0.676	0.029	23.278	0.000	Supported
PTr -> SMA	0.438	0.438	0.044	9.923	0.015	Supported
RAE -> SMA	0.327	0.327	0.046	7.096	0.001	Supported
BaDw -> SMA	0.328	0.328	0.049	6.747	0.000	Supported
InDCop -> SMA	0.179	0.175	0.050	3.592	0.000	Supported
MKTP -> SMA	0.178	0.177	0.045	3.962	0.000	Supported
SMA -> FP	0.428	0.428	0.048	8.838	0.000	Supported
SMA -> NFP	0.649	0.650	0.030	21.289	0.000	Supported
NFP -> FP	0.752	0.752	0.021	35.888	0.000	Supported

### **Discussion**

This study empirically investigated social media adoption and marketing performance by drawing insight from using the TOE theory. The study examined marketing performance from both financial and non-financial perspectives and further tested the relationship between non-financial and financial marketing performance. The study tested 14 hypotheses, with 12 supported, and two unsupported. The different results are discussed in line with the current literature. The study tested four technological factors, namely perceived cost, perceived trust, interactivity and complexity, as influencing SME social media adoption. The results of the study show a significant relationship between perceived trust and SME social media adoption ( $\beta$  = 0.276; t=3.560; p= 0.000). These findings are in line with previous studies (including Ainin et al., 2015; Nawi et al., 2017; Vongsraluang and Bhatiasevi, 2017), which found trust influencing the adoption of social media among SMEs. This underscores the importance of establishing and fostering trust as a fundamental component in encouraging SMEs to embrace social media as part of their business strategy. The study, furthermore, revealed a strong positive relationship between interactivity and SME social media adoption (\(\beta = 0.465; \text{ t=9.458}; \text{ p= 0.000}\), suggesting the importance of interactive engagement in fostering customer relationships, consistent with previous literature emphasising the role of two-way communication in social media platforms (for instance, Odoom et al., 2017; Tajudeen et al., 2018; Qalati et al., 2021). However, the study did not find significant support for the influence of perceived cost ( $\beta = 0.016$ ; t=0.239; p= 0.811) and complexity ( $\beta = 0.063$ ; t=9.923; p= 0.154) on SME social media adoption, consistent with the variable nature of these factors; as evidenced in existing literature (for example, Tajudeen et al., 2018; Yadegaridehkordi et al., 2020). This suggests the need for further investigation into the subtle nature of these factors in the context of social media adoption.

In terms of organisational factors, the results underscored the critical role of management and staff support and SME social media adoption ( $\beta$  = 0.674; t=23.278; p= 0.000) and entrepreneurial orientation ( $\beta$  = 0.204; t=5.413; p= 0.000),

in facilitating effective social media adoption within SMEs. This aligns with previous studies conducted by Abed (2020). Qalati et al. (2021) and Lutfi et al. (2022), which emphasise the importance of internal support and an entrepreneurial mindset in leveraging social media for business growth. The orientation of SME owners/managers towards technological innovation would, in addition, influence them to use social media, as these factors are shown in the literature to influence social media adoption. The result of the entrepreneurial factors also shows a significant positive relationship between personality traits and social media adoption ( $\beta = 0.438$ ; t=6.747; p= 0.015) and the relationship between resources available to the entrepreneur and social media adoption (β = 0.327; t=7.096; p= 0.001). These findings reflect the outcome of past studies (Obschonka et al., 2017; Vandor, 2021). For instance, Obschonka et al. (2017) indicated resource availability among SMEs is essential in adopting technology. Personality trait is also an important entrepreneurial factor in technology adoption, because it impacts SME owner/manager decisions (Vandor, 2021). The study finds support for all the environmental factors. A positive relationship is found between market pressure ( $\beta = 0.178$ ; t=3.962; p= 0.000), industry competition ( $\beta = 0.179$ ; t=3.592; p= 0.000), and the influence of market pressure and the bandwagon effect ( $\beta = 0.328$ ; t=6.747; p= 0.000) on social media adoption among SMEs, aligning with prior studies, (for example, Qalati et al., 2022), highlighting the significance of external market dynamics in shaping social media adoption strategies. This study also tested the relationship between social media adoption, financial marketing performance, non-marketing performance and non-financial marketing performance on financial marketing performance. The results reveal a significant positive relationship between SME social media adoption and both non-financial marketing performance ( $\beta = 0.649$ : t=21.289: p= 0.000) and financial marketing performance ( $\beta = 0.649$ : t=21.289: p= 0.000) and financial marketing performance ( $\beta = 0.649$ : t=21.289: p= 0.000) and financial marketing performance ( $\beta = 0.649$ : t=21.289: p= 0.000) and financial marketing performance ( $\beta = 0.649$ : t=21.289: p= 0.000) and financial marketing performance ( $\beta = 0.649$ : t=21.289: p= 0.000) and financial marketing performance ( $\beta = 0.649$ : t=21.289: p= 0.000) and financial marketing performance ( $\beta = 0.649$ : t=21.289: p= 0.000) and financial marketing performance ( $\beta = 0.649$ : t=21.289: p= 0.000) and financial marketing performance ( $\beta = 0.649$ : t=21.289: p= 0.000) and financial marketing performance ( $\beta = 0.649$ : t=21.289: p= 0.000) and financial marketing performance ( $\beta = 0.649$ : t=21.289: p= 0.000) and financial marketing performance ( $\beta = 0.649$ : t=21.289: p= 0.000) and financial marketing performance ( $\beta = 0.649$ : t=21.289: p= 0.000) and financial marketing performance ( $\beta = 0.649$ : t=21.289: p= 0.000) and financial marketing performance ( $\beta = 0.649$ : t=21.289: p= 0.000) and financial marketing performance ( $\beta = 0.649$ : t=21.289: p= 0.000) and financial marketing performance ( $\beta = 0.649$ : t=21.289: p= 0.000) and financial marketing performance ( $\beta = 0.649$ : t=21.289: p= 0.000) and financial marketing performance ( $\beta = 0.649$ : t=21.289: p= 0.000) and financial marketing performance ( $\beta = 0.649$ : t=21.289: p= 0.000) and financial marketing performance ( $\beta = 0.649$ : t=21.289: p= 0.000) and financial marketing performance ( $\beta = 0.649$ : t=21.289: p= 0.000 and financial marketing performance ( $\beta = 0.649$ : t=21.289: p= 0.000 and financial marketing performance ( $\beta = 0.649$ : t=21.289: p= 0.000 and financial marketing performance ( $\beta = 0.649$ : t=21.289: p= 0.000 and financial marketing performance ( $\beta = 0.649$ : t=21.289: p= 0.000 and financial marketing performance ( $\beta = 0.649$ ) and t=21.289: p= 0.000 and financial marketing performance ( $\beta = 0.649$ ) and t=21.289: p= 0.000 0.428; t=8.838; p= 0.000), affirming the critical role social media plays in enhancing marketing outcomes for SMEs. Finally, the study confirmed the strong relationship between non-financial marketing performance and financial marketing performance ( $\beta = 0.752$ ; t=35.888; p= 0.000), emphasising the interconnected nature of marketing performance indicators within the context of social media adoption. These findings conform with past studies (Akbar, 2021; Khamaludin et al., 2022).

This study represents a significant contribution to the field of TOE theory. More importantly, the study enriched the robustness of TOE theory by examining technology, organisation, environmental and entrepreneurial factors, to understand factors influencing social media adoption in an organisational context, such as SMEs. By investigating the intricate interplay of these factors, the study enriches the depth and breadth of the existing TOE framework, providing a nuanced understanding of how these elements collectively shape the adoption dynamics of social media technologies in organisational settings. Moreover, the study's notable theoretical contribution lies in its holistic approach, which not only identifies the key determinants of social media adoption among SMEs in the Accra region but also elucidates the intricate relationship between this adoption and the consequent impact on the firms' marketing performance outcomes, encompassing both financial and non-financial dimensions. This multifaceted exploration signifies a pivotal advancement in the current literature landscape, which has traditionally focused on evaluating TOE factors in SME social media adoption, often overlooking the critical implications for their broader marketing performance and sustainability endeavours. By bridging this gap, the study sheds new light on the understated connections between technology adoption, organisational dynamics, and the overarching strategic goals of SMEs, in a rapidly evolving digital landscape.

The current study offers practical contributions helpful to SME owners/managers and policymakers. Developing a conceptual framework that can be relied upon by SMEs in Ghana to examine TOE factors influencing social media adoption, marketing performance, and sustainability, will enable SME owners/managers to determine the conditions under which social media can be adopted and the different factors that could influence their decision to adopt social media. This study enables SME owners/managers to understand the numerous benefits associated with using social media regarding marketing and enable strategic social media deployment. Furthermore, the study shows how SMEs would take advantage of social media to become sustainable and competitive in both the short- and long-term. The conceptual framework would also serve as a point of reference for SMEs yet to adopt social media in the future, to remain abreast of factors influencing social media adoption and how social media impacts marketing performance.

### Conclusion

The current study contributes to the understanding of social media adoption, marketing performance outcomes and sustainability through the lens of TOE theory by extending the theory to include another factor from the perspective of a developing country context, where there is a need for more studies. As social media use among SMEs is burgeoning, a study of this nature is important, since it provides a holistic view of social media adoption, marketing performance and SME sustainability. Therefore, this study provides foundational work for future scholars to build upon and for policymakers in Ghana. This study set out to advance knowledge of the factors influencing social media adoption by SMEs in Ghana and how the adoption translates into their marketing performance. This has been achieved through the objectives and hypotheses set for this study. However, irrespective of the study contribution towards the academic and practical domains, this study has limitations; hence, the findings should be considered in light of these limitations. The various limitations incorporate the focus on only SMEs that have adopted social media in their enterprise. The study did not consider social media non-adopters, making it impossible for those not on social media to be part of this study. Another concern was the selection of the sample frame for the study. The entire population of SMEs was unknown; hence, selecting a sample representative of the entire population was problematic. Efforts were, nonetheless, made to address this issue through a careful examination of the same and relying on past empirical studies.

### References

Abed, S. S. 2020. Social Commerce Adoption Using TOE Theory: An Empirical Investigation of Saudi Arabian SMEs. *International Journal of Information Management*, 53: 1-11.

Ahani, A., Rahim, N. Z. A. and Nilashi, M. 2017. Forecasting Social CRM Adoption in SMEs: A Combined SEM-Neural Network Method. *Computers in Human Behavior*, 75: 560-578.

Ahmad, S. Z., Ahmad, N. and Bakar, A. R. A. 2018. Reflections of Entrepreneurs of Small and Medium-Sized Enterprises Concerning the Adoption of Social Media and Its Impact on Performance Outcomes: Evidence from the UAE. *Telematics and Informatics*, 35(1): 6-17.

Ainin, S., Parveen, F., Moghavvemi, S., Jaafar, N. I. and Mohd-Shuib, N. L. 2015. Factors Influencing the Use of Social Media by SMEs and Its Performance Outcomes. *Industrial Management and Data Systems*, 115(3): 570-588.

Akbar, A. 2021. Factors Influencing the Usage of Instagram for Business and Its Effect on Financial Performance and Non-Financial Performance. *Journal of Digitovation and Information System*, 1(1): 43-55.

Al Halbusi, H., Alhaidan, H., Abdelfattah, F., Ramayah, T. and Cheah, J. H. 2022. Exploring Social Media Adoption in Small and Medium Enterprises in Iraq: Pivotal Role of Social Media Network Capability and Customer Involvement. Available: <a href="https://doi.org/10.1080/09537325.2022.2125374">https://doi.org/10.1080/09537325.2022.2125374</a> (Accessed 28 November 2023).

AlSharji, A., Ahmad, S. Z. and Bakar, A. R. A., 2018. Understanding Social Media Adoption in SMEs: Empirical Evidence from the United Arab Emirates. *Journal of Entrepreneurship in Emerging Economies*, 10(2): 302-328.

Aspers, P. and Corte, U. 2019. What is Qualitative in Qualitative Research. Qualitative Sociology, 42: 139-160.

Baker, J. 2012. The Technology–Organization–Environment Framework. In: Dwivedi, Y., Wade, M. and Schneberger, S. (Ed). *Information Systems Theory. Integrated Series in Information Systems*, New York: Springer, 231-245.

Basri, W. S. M. and Siam, M. R. 2019. Social Media and Corporate Communication Antecedents of SME Sustainability Performance: A Conceptual Framework for SMEs of Arab world. *Journal of Economic and Administrative Sciences*, 35(3): 172-182.

Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters, D. and Walker, K. 2020. Purposive Sampling: Complex or Simple? Research Case Examples. *Journal of Research in Nursing*, 25(8): 652-661.

Cao, Y., Ajjan, H., Hong, P. and Le, T. 2018. Using Social Media for Competitive Business Outcomes: An Empirical Study of Companies in China. *Journal of Advances in Management Research*, 15(2): 211-235.

Charoensukmongkol, P. and Sasatanun, P. 2017. Social Media Use for CRM and Business Performance Satisfaction: The Moderating Roles of Social Skills and Social Media Sales Intensity. *Asia Pacific Management Review*, 22(1): 25-34

Chatterjee, S., Rana, N. P., Dwivedi, Y. K. and Baabdullah, A. M. 2021. Understanding Al adoption in Manufacturing and Production Firms Using an Integrated TAM-TOE Theory. *Technological Forecasting and Social Change*, 170: 1-14

Davis, J. L. 2015. Social Media. Available: <a href="https://www.researchgate.net/publication/314581845">https://www.researchgate.net/publication/314581845</a> Social Media. (Accessed 12 August 2023).

Dijkstra, T. K. and Henseler, J. 2015. Consistent Partial Least Squares Path Modelling. *Management Information Systems Quarterly*, 39(2): 297-316.

Eid, R., Abdelmoety, Z. and Agag, G. 2020. Antecedents and Consequences of Social Media Marketing Use: An Empirical Study of the UK Exporting B2B SMEs. *Journal of Business and Industrial Marketing*, 35(2): 284-305.

Eze, S. C., Chinedu-Eze, V. C. and Bello, A. O. 2021. Some Antecedent Factors that Shape SMEs Adoption of Social Media Marketing Applications: A Hybrid Approach. *Journal of Science and Technology Policy Management*, 12(1): 41-61.

Fornell, C. and Larcker, D. F. 1981. Structural Equation Models with Unobservable Variables and Measurement Error: Algebra and Statistics. New York: Sage Publications, Inc.

Ghobakhloo, M. and Ching, N. T. 2019. Adoption of Digital Technologies of Smart Manufacturing in SMEs. *Journal of Industrial Information Integration*, 16: 1-14.

Hair, J. F., Howard, M. C. and Nitzl, C. 2020. Assessing Measurement Model Quality in PLSSEM Using Confirmatory Composite Analysis. *Journal of Business Research*, 109: 101-110.

Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M. and Thiele, K. O. 2017. Mirror, Mirror on the Wall: A Comparative Evaluation of Composite-Based Structural Equation Modelling Methods. *Journal of the Academy of Marketing Science*, 45(5): 616-632.

Hair, J. F., Page, M. and Brunsveld, N. 2019. Essentials of Business Research Methods. New York: Routledge.

Hanafizadeh, P., Shafia, S. and Bohlin, E. 2021. Exploring the Consequence of Social Media Usage on Firm Performance. *Digital Business*, 1(2): 1-15.

Henseler, J., Ringle, C. M. and Sarstedt, M. 2015. A New Criterion for Assessing Discriminant Validity in Variance-Based Structural Equation Modelling. *Journal of the Academy of Marketing Science*, 43(1): 115-135.

Kanwar, A. and Huang, Y. C. 2022. Exploring the Impact of Social Media Influencers on Customers' Purchase Intention: A Sequential Mediation Model in Taiwan Context. *Entrepreneurial Business and Economics Review*, 10(3): 123-141.

Khamaludin, K., Syam, S., Rismaningsih, F., Lusiani, L., Arlianti, L., Herlani, A., Fahlevi, M., Rahmadi, R., Windyasari, V. and Widiyatun, F. 2022. The Influence of Social Media Marketing, Product Innovation and Market Orientation on Indonesian SMEs Marketing Performance. *International Journal of Data and Network Science*, 6(1): 9-16.

Lorente-Martínez, J., Navío-Marco, J. and Rodrigo-Moya, B. 2020. Analysis of the Adoption of Customer Facing InStore Technologies in Retail SMEs. *Journal of Retailing and Consumer Services*, 57: 1-9.

Lutfi, A., Alsyouf, A., Almaiah, M. A., Alrawad, M., Abdo, A. A. K., Al-Khasawneh, A. L. and Saad, M. 2022. Factors Influencing the Adoption of Big Data Analytics in the Digital Transformation Era: Case Study of Jordanian SMEs. *Sustainability*, 14(3): 1-17.

Magno, F. and Cassia, F. 2019. Establishing Thought Leadership through Social Media in B2B Settings: Effects on Customer Relationship Performance. *Journal of Business and Industrial Marketing*, 35(3): 437-446.

Manning, J. 2014. Social Media, Definition and Classes. In: Harvey, K. ed. *Encyclopedia of Social Media and Politics*. Thousand Oaks, CA: Sage, 1158-1162.

Mazurek, G., Korzyński, P. and Górska, A. 2018. Social Media in the Marketing of Higher Education Institutions in Poland: Preliminary Empirical Studies. *Entrepreneurial Business and Economics Review*, 7(1), 117-133.

Mujahed, H. M. H., Musa Ahmed, E. and Samikon, S. A. 2022. Factors Influencing Palestinian Small and Medium Enterprises Intention to Adopt Mobile Banking. *Journal of Science and Technology Policy Management*, 13(3): 561-584.

Nawi, N. B. C., Al Mamun, A., Nasir, N. A. B. M., Raston, N. B. A. and Fazal, S. A. 2017. Acceptance and Usage of Social Media as a Platform among Student Entrepreneurs. *Journal of Small Business and Enterprise Development*, 24(2): 375-393.

Obschonka, M., Fisch, C. and Boyd, R. 2017. Using Digital Footprints in Entrepreneurship Research: A Twitter-Based Personality Analysis of Superstar Entrepreneurs and Managers. *Journal of Business Venturing Insights*, 8: 13-23.

Odoom, R. and Mensah, P. 2018. Brand orientation and Brand Performance in SMEs: The Moderating Effects of Social Media and Innovation Capabilities. *Management Research Review*. 42(1): 155-171.

Odoom, R., Anning-Dorson, T. and Acheampong, G. 2017. Antecedents of Social Media Usage and Performance Benefits in Small-and Medium-Sized Enterprises (SMEs). *Journal of Enterprise Information Management*, 30(3): 383-399.

Ofosu-Ampong, K. and Acheampong, B. 2022. Adoption of Contactless Technologies for Remote Work in Ghana Post-Covid-19: Insights from Technology-Organisation-Environment Framework. *Digital Business*, *2*(2): 1-10.

Osakwe, C. N. and Ikhide, J. E. 2022. Institutional Isomorphism and Social Media Adoption – A Study within the Microenterprise Context. *Aslib Journal of Information Management*. 74(6): 989-1006.

Oyewobi, L., Adedayo, O. F., Olorunyomi, S. O. and Jimoh, R. A. 2022. Influence of Social Media Adoption on the Performance of Construction Small and Medium-Sized Enterprises (SMEs) in Abuja–Nigeria. *Engineering, Construction and Architectural Management*, 30(9): 4229-4252.

Qalati, S. A., Ostic, D., Sulaiman, M. A. B. A., Gopang, A. A. and Khan, A. 2022. Social Media and SMEs' Performance in Developing Countries: Effects of Technological-Organizational-Environmental Factors on the Adoption of Social Media. *SAGE Open*, 12(2): 1-13.

Qalati, S. A., Yuan, L. W., Khan, M. A. S. and Anwar, F. 2021. A Mediated Model on the Adoption of Social Media and SMEs' Performance in Developing Countries. *Technology in Society*, 64: 1-12.

Ratajczak-Mrozek, M., Fonfara, K. and Hauke-Lopes, A. 2018. The Impact of Conflicts in Foreign Business Relationships on SME Performance. *Entrepreneurial Business and Economics Review*, 6(2): 171-183.

Sabatini, A., Cucculelli, M. and Gregori, G. L. 2022. Business Model Innovation and Digital Technology: The Perspective of Italian Incumbent Small and Medium-Sized Firms. *Entrepreneurial Business and Economics Review*, 10(3): 23-35.

Sarstedt, M., Hair, J. F., Pick, M., Liengaard, B. D., Radomir, L. and Ringle, C. M. 2022. Progress in Partial Least Squares Structural Equation Modelling Use in Marketing Research in the Last Decade. *Psychology and Marketing*, 39(5): 1035-1064.

Saunders, C., Murray-Bruce, J. and Goyal, V. K., 2019. Computational Periscopy with an Ordinary Digital Camera. *Nature*, 565(7740): 472-475.

Saunders, M., Lewis, P. and Thornhill, A. 2003. Research Methods for Business Students. Prentice Hall: Financial Times.

Slevitch, L., 2011. Qualitative and Quantitative Methodologies Compared: Ontological and Epistemological Perspectives. *Journal of Quality Assurance in Hospitality and Tourism*, 12(1): 73-81.

Statista. 2022. Social media - Statistics and Facts. Available: <a href="https://www.statista.com/topics/1164/social-networks/">https://www.statista.com/topics/1164/social-networks/</a> (Accessed 17 December 2022).

Taherdoost, H. 2017. Determining Sample Size; How to Calculate Survey Sample Size. *International Journal of Economics and Management Systems*, 2: 1-3.

Tajudeen, F. P., Jaafar, N. I. and Ainin, S. 2018. Understanding the Impact of Social Media Usage among Organisations. *Information and Management*, 55(3): 308-321.

Tarsakoo, P. and Charoensukmongkol, P. 2020. Dimensions of Social Media Marketing Capabilities and their Contribution to Business Performance of Firms in Thailand. *Journal of Asia Business Studies*, 14(4): 441-461.

Vandor, P. 2021. Are Voluntary International Migrants Self-Selected for Entrepreneurship? An Analysis of Entrepreneurial Personality Traits. *Journal of World Business*, 56(2): 1-15.

Vongsraluang, N. and Bhatiasevi, V. 2017. The Determinants of Social Commerce System Success for SMEs in Thailand. *Information Development*, 33(1): 80-96.

Wolf, M., Sims, J. and Huadong, Y. 2018. Social Media? What Social Media? Proceedings from *UK Academic for Informational Systems Conference*. Available: <a href="https://core.ac.uk/download/pdf/301375878.pdf">https://core.ac.uk/download/pdf/301375878.pdf</a> (Accessed 15 August 2023).

Xiang, Z. and Gretzel, U. 2010. Role of Social Media in Online Travel Information Search. *Tourism Management*, 31: 179-188.

Yadegaridehkordi, E., Nilashi, M., Shuib, L., Nasir, M. H. N. B. M., Asadi, S., Samad, S. and Awang, N. F. 2020. The Impact of Big Data on Firm Performance in Hotel Industry. *Electronic Commerce Research and Applications*, 40: 1-120.