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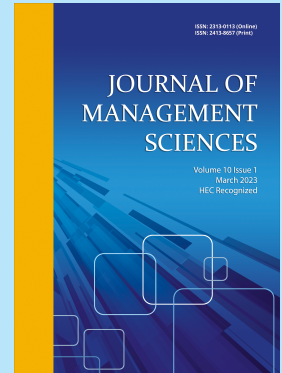
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Investigating Social Media Impact on Construction Firms' Performance in Developing Economies

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Abstract: Modern technologies play a crucial role in enhancing the productivity and competition among businesses. The construction sector has consistently been regarded as one of the sectors with less usage of social media technologies. Given this, there is increasing concern from scholars, practitioners and academia in exploring social media adoption and usage within construction firms in the small and medium-sized enterprises (SMEs) context. Hence, this study aims to examine the impact of social media on construction firms' performance. The study used structure questionnaire to collect data from 430 managers and employees in the construction sector in Ghana. questionnaire. Using a Partial-least-squares-structural equation-modeling (PLS-SEM) for the analysis, the result revealed that social media has a strong and direct effect on customer orientation, organizational learning capability, marketing capabilities and informational capabilities. However, the study found insignificant relationship between social media usage and construction firms' performance. This study offers both theoretical and practical implications.

Keywords: Social media, construction firms, customer orientation, marketing capabilities, Ghana.

Introduction

The evolution of digital technologies has paved the way for the use of different applications such as Web 2.0 applications. Web 2.0 applications help in internet capability transfer through social media that provide unique user experience (Di Gangi & Wasko, 2016). Social media is defined as "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content". Fan et al. (2021) postulates that firms with higher social media usage achieved better performance than businesses without social media usage. Social media applications provide opportunities for firms to engage customers, satisfy users' interests through online customer participation (Di Gangi & Wasko, 2016). Similarly, Qalati, Ostic, Shuibin, and Mingyue (2022) observed that social media usage create value through user engagement. Social media helps in information sharing, leading to idea generation, internal communication and enhanced business growth. Through social media, firms reach target audience, increase brand awareness, facilitate customer

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service and informed business decisions. The construction sector is considered to be one of the promising sectors, with an impressive average growth of 7-10 percent per annum (Ghana Statistical Service, 2015); contributing to the economy through provision and construction of roads, water supply and electricity lines. As digital media are changing and transforming business operations and societal life, firms in Ghana are adopting and taking advantage of this innovative tool to move away from traditional media to facilitates effective communication with customers and other stakeholders (Tang, Griffith, Stevens, & Hardie, 2020).

However, the construction industry is often criticized and not perceived as technological innovation compared to other industries (Azhar & Abeln, 2014; Zhang, Oo, & Lim, 2022). In this context, Azhar and Abeln (2014) proposed that social media technologies are significant and proved to be highly-innovative for construction firms to connect to potential or current customers. According to Adedeji, Rapheal, and Opeyemi (2018), construction firms need sophisticated strategies in the form of marketing tools to survive and compete with the foreign firms who are in control of most of the projects in developing countries. Tembo, Muleya, and Bulaya (2021) study agrees that construction firms are underperforming due to their poor marketing strategies and lack of usage of emerging technologies; and suggests adoption of new technologies for business performance. Social media can also help in operational efficiency and innovativeness. Besides, customers of construction firms can share their experiences and recommend to prospective buyers through social media networking sites to improve business performance. Regardless of profound effects and relevance of social media in contemporary businesses; existing empirical studies still remain inadequate with regards to construction firms' usage of social media (Adedeji et al., 2018; Azhar & Abeln, 2014). Moreover, prior studies have examined the impact of social media on firms' performance and sustainability (Ye, Yu, Zheng, & Zheng, 2022); nonetheless many areas are still at the infancy phase, including the adoption and utilization of social media in construction context and the impact on construction firm performance. To date, limited research has been devoted to social media usage and construction firm performance in developing countries like Ghana, leading to calls for further empirical studies to examine social media impact on construction firms' performance in Ghana (Dansoh, Oteng, & Frimpong, 2017).

Hence, this study seeks to explore the impact of social media usage on the construction firm performance within Ghanaian context to fill the gap. As a result, this paper advances theories on social media usage and construction firm performance, within developing countries perspective.

Literature Review

Social Media

In recent technological world, social media is regarded as the online platform for innovation and business growth. Social media networks have become a hub for marketing intelligence and organizational learning capabilities. Poulis, Rizomyliotis, and Konstan-

toulaki (2019) pointed out that small firms have become proactive through the usage of social media technologies. Thus, firms react to dynamic business environment via the information obtained on the social media platforms. Consequently, they produced to satisfy consumers, which in turn increased customer loyalty. It has been argued that social media technologies enable firms to achieve organizational objectives in the form of promotional activities, quality customer services, recruiting and internal communication (Poulis et al., 2019; Athanasopoulou, Giovanis, & Ioakimidis, 2021).

In the context of construction industry, Azhar and Abeln (2014) recommend the use of social media to interact with existing and potential customers effectively. As indicated by Adedeji et al. (2018), social has helped construction firms to identify market needs and monitor external environment, which is significant for sustainable growth. Prior studies have also evidenced that social media usage positively contributes to increased sales turnover (Ajibola, Afolabi, Olanrewaju, & Abba, 2022).

Customer Orientation

Businesses are leveraging on social media networks to effectively communicate with customers and improve their performance. Zhao (2022); Rashid and Zeeshan (2018) have argued that social media networking sites such as Facebook, Twitter, Instagram etc. can be used to directly engage potential and existing customers. Following to this, Nurfarida, Sarwoko, and Arief (2021) insists that social media can utilized to acquire information regarding information on company's products and services from the customer perspective. Besides, companies can share information on their products and service on social media networking sites for easy accessibility by customers.

Past literature have suggested that social media helps in growing customer-base and foster their relationships (Rodriguez, Peterson, & Ajjan, 2015). Studies (Leung, Chang, Cheung, & Shi, 2022) have evidenced that a significant impact of social media in customer orientation and firm performance. Schendzielarz, Alavi, and Guba (2022) study on social media on customer acquisition witnessed social media as an essential tool to enhanced customer orientation and increased sales. Accordingly, the study proposes as following:

H1a: Social media usage will significantly affect customer orientation.

H1b: Customer orientation will positively affect construction firms' performance.

Organizational Learning Capability (OLC)

According to Cohen and Levinthal (1990), firms achieve innovativeness through application of external knowledge. When firms are opened to learn and ready to adopt innovation, it is likely to succeed. In this context, Volk et al. (2017) argued that social media has been regarded as strategic resource for organizational learning. Veldhuizen, Hultink, and Griffin (2006) proffers that social media has helped in knowledge sharing, value creation and organizational learning. In addition, findings of Zheng, Liu, Zhang, and Xu (2022) advocated that firms utilized social media to handle customer complaints, exploits

opportunities and strengthens business networks and connectivity. Furthermore, other scholars have also found social media direct effect on organizational learning capabilities. Accordingly, the present study proposed that that construction firms can use social media capabilities to improve organizational learning, hence the following hypothesizes:

H2a: Social media usage will significantly affect organization learning capability.

H2b: Organization learning capability will positively affect construction firms' performance.

Marketing Capabilities

Previous studies of evidence have acknowledged the relevance of social media in firms marketing capabilities (Yasa et al., 2021; Cartwright & Davies, 2022). Azhar and Abeln (2014) stated that social media provides a medium through which firms can innovate, generate ideas, promote goods and services, leading to improve business performance. Hazzam and Wilkins (2022) acknowledged that social media has a significant and positive influence on firm marketing capabilities. Prior works of Malesev and Cherry (2021) have further demonstrated that social media usage can lead to improve performance in terms of marketing intelligence, product innovation management, when successfully integrated and implemented. Thus, we argue that social media usage enhances construction firms marketing capabilities:

H3a: Social media usage will significantly affect marketing capabilities.

H3b: Marketing Capabilities will positively affect construction firms' performance.

Informational Capability

According to Tembo et al. (2021) social media is associated with cost effectiveness. The authors revealed that social media positively affect information sharing and on organizational performance. Prior studies Jiang, Liu, Fey, and Jiang (2018) have examined the role of social media technologies in firms' informational capability. Jara, et al. (2014) for instance recognize that social media can be used as a communication tool. The authors remarked social media usage significantly influences firm's information capabilities. Furthermore, based on resourced-based view (RBV) and dynamic capabilities, (Venciute, 2018) explored social media marketing as a capability tool. The study focused on SMEs and witnessed the importance of social media as a tool for organizational capability. The study further proved that social media usage has a positive influence on a firm's informational capability and overall performance. Besides, Barney-McNamara, Peltier, Chen-namaneni, and Niedermeier (2021) added that usage of social media have a robust association with informational capabilities of an organization. Moreover, other studies have witnessed the significant effect of social media on firm informational capabilities and on sales and organizational performance (Ahmed, Sadri, Pradhananga, Elzomor, & Pradhananga, 2020; Tang et al., 2020). Hence, the study hypothesized that:

H4a: Social media usage will significantly affect informational capabilities.

H4b: Informational capabilities will positively affect construction firms' performance.

Firm Performance

Scholars have recognized the pivotal role of social media technologies in firms' performance. Kwabena, Li, Bonsu, Faamaa, and Alexander (2020) stated that social media provides a medium through which firms can handle customer queries. The authors concluded that social media capabilities significantly affect firm's performance. A study carried out by Wang and Kim (2017) examined how social media affect customer relationship capabilities. The study sampled 232 companies with Facebook business page and demonstrated that social media has a direct impact on customer relationship management, which in turn lead to organizational firm performance. Rialp-Criado and Rialp-Criado (2018) argued that social media technologies facilitate innovation and improve organizational collaboration. Their study suggest that social media capabilities can be utilized as strategic resource to achieve competitive advantage. Furthermore, Malesev and Cherry (2021); Ye et al. (2022) hypothesized that social media has a direct and positive influence on firms' performance. Therefore, we argue that construction firms should incorporate social media as a marketing strategy for business growth. Hence, the following hypothesis:

H5: Social media usage will have a direct positive relationship with construction firm performance.

Methodology

Research Model

Sample, Data Collection, and Analytic Techniques

Organizations are increasingly accepting social media as an innovative tool for business processes and perform other organizational function in the form of recruiting, internal communication and collaborative information and achieve competitive advantage. As indicated by Adedeji et al. (2018), the construction firms have always been traditional in its operation, specifically using traditional media for marketing purposes. Recently, scholars have studied the relevance of digital technologies as an innovative information and communication tool in the construction setting. However, little is known on how social media usage have impacted on construction firms' performance (L. O. Oyewobi, Adedayo, Olorunyomi, & Jimoh, 2021). Given this, we sought to examine how the usage of social media affect the activities of construction firms in Ghana (L. Oyewobi, Adedayo, Olorunyomi, & Jimoh, 2022; Dansoh et al., 2017).

The study employed randomized sample technique, especially convenience sampling technique to choose the participants. Convenient sampling was deemed necessary due

to its low cost, fastest and easiest way of data collection, desire to churn out the essential information required to execute to aim of the study and finally, the readiness of the respondents to participate. The structure questionnaire was classified into two components. Section A presents information about the respondents and Section B provides questionnaire about study constructs. Specifically, thirty-five questions were administered by the selected participants from the construction setting. To be more precise, managers and employees of the selected SME construction firms who primarily utilized social media applications for business activities were selected to answer the structured questionnaire. The respondents were chosen based on the objective of the study and also to get solid proof that would be beneficial to both theory and practice.

A web-based survey was used for the data collection. Thus, semi-structured questionnaire was designed via Goggle form and administered among the SMEs from the construction industry in selected regions in Ghana through WhatsApp, Telegram and participants' emails to facilitate response. Participant/respondents were limited to answer only one question on the online google form to avoid duplication of responses. Besides, consent statement, data confidentiality and purpose of data collection were added in order to comply with research ethic consideration rules. Particularly, informed consent were sought from the managers and employees of the selected SMEs construction firms via their emails prior to the data collection. To be specific, a sizeable number of questionnaire were distributed since the authors has in mind to produce substantial outcome.

The construction sector contributes about 14.34 per cent to the Ghana's GDP (GSS 2018). This sector mainly includes the construction and real estate companies. A convenience sampling technique was employed in the study to select respondents from firms that falls under the construction and real estate industries list of SMEs in Ghana. This was due to the fact that, firms that are located within the same geographical location and were willing to participate in the study. As stated above, they were selected based on their predominant use of social media for organizational processes. As depicted in Table 1, each segment of the construction firm was chosen based on the sizes and the number of employees, notwithstanding, others were apparent in the process. As indicated by [J. Hair, Hollingsworth, Randolph, and Chong \(2017\)](#), respondents of about 300 deemed fit for data analysis in a research study. Based on this, five hundred and ten construction firms in the SME setting across Ghana were selected through the application of convenience sampling; thus to solicit the views on the subject matter and to collect the needed information for data processing/analysis. Eighty (80) of the questionnaire were not correctly filled and some were with errors. A total of 430 of the questionnaire administered by the participants deemed substantial for the data analysis after the successful removal of the abnormalities. More explicitly, the construction firms' managers were selected due to their role of making technology adoption and implementation decisions; being abreast with both internal and external business environments. In addition, employees were also chosen because they significantly use the technology in the business operations. Furthermore, it is worth noted that, the present study applied cross-sectional research since the data was refined and analyzed once as compared to longitudinal type of research design. The cross-sectional data approach has proven to be less costly, provide avenue to analyze findings and outcomes of a study and as well as usage of less time.

Again, pilot study was carried out preliminary to the main data, consisting of 50 respondents to test the constructs under study. This implies that the current study was under high ethical standards. It was also conducted to ascertain the constructs reliability and validity based on Cronbach alpha values. Moreover, items indicated in the questionnaire were valid because they fell within the permitted reliability threshold, which is 0.5 thresholds as established by [J. F. Hair, Risher, Sarstedt, and Ringle \(2019\)](#). The data collection process span (from November, 2022- February, 2023). To be more precise, each respondent spent about seven to ten minutes on a questionnaire. The authors adopted Smart PLS technique, particularly, the SmartPLS 3.3 version of the software to finalized the data. More importantly, PLS-SEM, SmartPLS 3.3 version was adopted based on its capability to estimate and evaluate complex models, specifically the method's flexibility in data requirement and specification of measurement. Regardless, other researchers have claimed that there are inconsistency and inadequacy regarding the use of PLS-SEM. The information of the participants/respondents is summarized in (Table 1).

Table 1
Descriptive Statistics and Correlation Matrix

Details		Frequency	Percentage (%)
Gender	Male	280	65.12
	Female	150	34.88
Age	20-25years	120	27.91
	26-30years	110	25.58
	31-35years	78	18.14
	36-40years	56	13.02
	Above 41years	66	15.35
Educational Level	High School Certificate	100	23.26
	Diploma	170	39.53
	Bachelor /Masters	86	20
	Others	74	17.21
No of Employees	Micro (1-10 employees)	130	30.23
	Small (11-50 employees)	82	19.07
	Medium (51-100 employees)	118	27.44
	Large (Above 100 employees)	100	23.26
Social Media Platforms	WhatsApp	67	15.58
	Twitter	93	21.63
	Facebook	149	34.65
	Others	121	28.14
How often do you use SM	Basic	180	41.86
	Moderate	100	23.26
	Extensive	150	34.88
Social Media Devices	Mobile Device Only	125	29.07
	PC/Computer	105	24.42
	Both	200	46.51
Do you use social media for construction purposes?	Yes	245	56.98
	No	185	43.02
	Yes	338	78.64
Do you use social media?	No	92	21.39
	Wall Postings	98	22.79
	Videos	102	22.79
Social media tools Used	Photo Gallery	79	18.37
	Pop-Ups	81	18.83
	Displays	70	16.28
Sample Size (n)		430	100

Source: (field data from November 2022-February 2023)

Measurement of the Constructs

The current study adapted constructs measures from past literature, Social Media (Adedeji et al., 2018; Azhar & Abeln, 2014), Customer Orientation (Ndiege, 2019; Nurfarida et al., 2021), Organizational learning capability (Venciute & Auruskeviciene, 2017; L. O. Oye-wobi et al., 2021), Marketing capabilities (Zhang et al., 2022), Informational Capability (Yasa et al., 2021), and Firm Performance (Dansoh et al., 2017; Zhang et al., 2022), utilizing a five-point Likert scale (1 = strongly disagree to 5 = strongly agree) to establish the variables validity.

Test of Common Method Variance (CMV)

The study pinpoints the possibility of common method variance (bias). As mentioned earlier, the participants were assured of confidentiality and data privacy during the questionnaire administering, thus adhering to research ethical standards (Bagozzi, Yi, & Phillips, 1991). Participants also had the chance to opt out any time. As mentioned by J. F. Hair et al. (2019), the study, again utilized VIF (variance inflation factor) to conduct multi-collinearity test to analyse the presence of common method variance (bias). Our post-hoc evaluation result shows minimal presence of bias (see table 3), since the the thresholds is less than ten (10) as established by Bagozzi et al. (1991); J. F. Hair et al. (2019). To conclude, CMB were found to be less significant due to its minimal presence in the current study.

Empirical Results

Model Assessment

The present study utilized Jöreskog's Rho (pc) with Cronbach alpha coefficients to vigorously assess the constructs' reliability and validity. As mentioned by Bagozzi et al. (1991), coefficient value greater than 0.5, (see table below), signifies the strongest construct coefficient. In addition, the study employed SmartPLS 3.3 version to evaluate psychometric properties of the study constructs. Table 2 shows the composite reliability of the variables, establishing that Jöreskog's Rho (pc) and Composite reliability were accepted, hence meeting the basic requirement (minimal and maximal levels of 0.7 and 0.8 respectively).

Table 2
Descriptive Statistics and Correlation Matrix

Constructs	Cronbach's Alpha	Jöreskog's rho	CR	AVE
Informational Capabilities	0.916	0.926	0.941	0.798
Marketing Capabilities	0.902	0.915	0.927	0.718
Organizational Learning Capability	0.885	0.887	0.921	0.744
Social Media	0.925	0.926	0.947	0.816
Firm Performance	0.937	0.705	0.92	0.744
Customer Orientation	0.923	0.924	0.945	0.812

Source: Field data (November 2022 - February 2023), retrieved from Google form

Table 3
Descriptive Statistics and Correlation Matrix

Construct	Indicator	Loading	VIF
Social Media	SM1: Social media supports promotional activities	0.838	2.290
	SM2: Social media helps in attracting customers	0.904	3.241
	SM3: Social media networks helps in providing products information to customers.	0.927	3.980
	SM4: Social media helps to reach target audience	0.903	3.231
Customer Orientation	CO1: Social media enables to communicate effectively with customers.	0.863	2.413
	CO2: Social media promotion helps to conceive a positive image about a firm	0.905	3.012
	CO3: In my view, social media aids to build mutual relationships with existing customers	0.883	2.812
	CO4: Social media allows us to understand customers' better and provide after-sales services	0.797	1.756
Organizational Learning Capability	OLC1: Social media helps firms to achieve competitive advantage and superior performance.	0.888	3.259
	OLC2: Social media enables firms to build networks with shareholders	0.838	3.045
	OLC3: Helps firms to larger market both local and international.	0.777	2.220
	OLC4: Social media helps firms to react to the changing needs of customers	0.862	2.970
Marketing Capabilities	OLC5: Social media aids knowledge sharing, hence creating value	0.867	2.931
	MC1: Social media reduces firms marketing costs	0.886	2.816
	MC2: In my view, social media enhances brand visibility and positioning	0.899	3.088
	MC3: Social media enhances consumer brand engagement	0.921	3.680
Informational Capabilities	MC4: Social media helps to monitor customers buying and repurchase decisions	0.907	3.186
	IC1: Social media helps firms to exploit opportunities	0.883	2.600
	IC2: Enable firms to generate ideas from the market	0.902	3.361
	IC3: Social media helps to monitor information about competitors' products.	0.923	3.996
Firm Performance	IC4: Provide information about the company's business and products through social media	0.896	3.033
	FP: Social media enhance firms' efficiency	0.797	4.269
	FP2: Social media helps in determining customers' needs In my view,	0.731	4.311
	FP3: Social media increases product sales	0.923	4.314
	FP4: In my view, social media help firms to achieve superior performance	0.977	3.909

Again, the current study examined the factor loading for all the constructs in order to load and check if the meet the criterion of 0.6, which denotes the efficacy of the indicators. In the current study, 0.731 was shown as the coefficients of the associated constructs, indicating the minimum loading while 0.977 was revealed as the greatest loading as shown in the table 3 below. Additionally, the common method variance (CMV) were utilized in the study to prove the variance inflation factor (VIF), thus to deal with the issue of multicollinearity. It has been suggested that CMV is not of significance if VIF is less than five (5) compared to maximum threshold of ten (10) as indicated by Hair et al., 2019 (Table 3).

The study employed Fornell-Larcker criteria to assess the discriminant validity of the latent variables as described by Henseler (2017). Table 4 below shows all figures/values on the diagonal form, exceeded the minimum threshold of 0.5 which invariably indicates the Average Variance Extracted (AVE). Fornell-Larcker criteria (1981) described that research variables fundamental and rigorous assumptions deemed fit if having greater values (both column and row position) as against other study variables (see table 4 below).

Table 4
Descriptive Statistics and Correlation Matrix

Constructs	Informational Capabilities	Marketing Capabilities	Org. Learning Capability	Social Media	Firm Performance	Customer Orientation
Informational Capability	0.893					
Marketing Capabilities	0.777	0.847				
Org. Learning Capability	0.873	0.799	0.863			
Social Media	0.801	0.751	0.797	0.903		
Firm Performance	0.082	0.034	0.051	0.046	0.863	
Customer Orientation	0.830	0.791	0.811	0.774	0.051	0.901

Hypothesis Testing - PLS-SEM

The path analysis was carried out to ascertain the model fit. This is mainly to determine the causal association between the study constructs. Four of the study hypothesis were

Table 5
Descriptive Statistics and Correlation Matrix

Constructs	Original Sample	Mean	S D	T- Statistics	P Values	Decision
H1a: SM ->CO	0.774	0.776	0.038	20.37	0.000	Supported
H1b: CO ->FP	-0.027	0.017	0.149	0.180	0.857	Not Supported
H2a: SM ->OLC	0.797	0.799	0.037	21.75	0.000	Supported
H2b: OLC ->FP	-0.061	-0.001	0.154	0.395	0.693	Not Supported
H3a: SM ->MC	0.751	0.752	0.039	19.30	0.000	Supported
H3b: MC ->FP	-0.046	-0.018	0.117	0.391	0.696	Not Supported
H4a: SM ->IC	0.801	0.804	0.042	18.97	0.000	Supported
H4b: IC ->FP	0.212	0.073	0.194	1.094	0.275	Supported Agreed
H5: SM ->FP	-0.013	-0.033	0.120	0.108	0.914	Not Supported
		R Square		R Square Adjusted		
Informational Capabilities		0.642		0.640		
Marketing Capabilities		0.564		0.563		
Organizational Learning Capabilities		0.636		0.634		
Firm Performance		0.012		-0.007		
Customer Orientation		0.599		0.598		

Source: processing from SmartPLS 3.3 software

Note: SM=Social Media, CO=Customer Orientation, OLC=Organizational Learning Capability, MC=Marketing Capabilities, FP=Firm Performance and IC=Informational Capabilities.

found to have a positive and significant effect on the dependent construct, thus (firm performance). Furthermore, the constructs' regression coefficients, Beta (β), and significant value, T-values >1.96 (or P-values 0.05), are displayed in Table 5. Again, prediction ability (coefficient of determination), research model (coefficient of determination (R^2) of the regression was assessed. This is to show the variation in the dependent variable and independent (predictor) variable as shown in Table five (5).

Discussions of Results

The construction industry is under immense pressure to adopt modern technologies for business operations (Azhar & Abeln, 2014). This is because, construction firms are perceived to be non-technological innovation sector compared to other sectors. With the presence of social media technologies, becoming the key marketing tool for businesses, construction firms are of the view that adoption and utilizing social media will have positive impact on their performance. In this view, the study thus examined the impact of social media on construction firm performance in Ghana. The study first, hypothesized that, social media usage will significantly affect customer orientation (H1a); the current study demonstrated that social media has a significant effect on customer orientation, obtaining p-value of 0.000, which supported the (H1a). The study outcome was in line with studies (Nurfarida et al., 2021; Ndiege, 2019), affirming that social platform provides avenue for construction firms to communicate effectively with customers and achieve greater effectiveness. This implies that social media significantly influence customer orientation. As indicated by Rodriguez et al. (2015), social media technologies play a crucial role in identifying customers' needs and reach the masses, confirming its positive effect on customer orientation.

Although the current study evidenced a positive association between social media usage and customer orientation, (H1b) result suggests otherwise. The hypothesis (H1b) that customer orientation will positively affect construction firms' performance was found to be insignificant. The study obtained p-value of 0.857, which shows insignificant effects as depicted in (Table 5). This research implies that, achieving customer orientation does not have positive influence on firm performance, according to the current findings. Regarding H2a, the researchers proposes that social media usage will significantly affect organization learning capability. The relationship between social media usage and organizational learning capability was proved to be significant and meaningful, supporting the H2a (p-value of 0.000). The hypothesis results witnessed that social media usage significantly affect organization learning capability. Relatedly, L. O. Oyewobi et al. (2021) recognized that social media capabilities enhance a firm's ability to improve brand visibility, convey information and foster customer relationships. Moreover, these outcomes inferred that social media has become an essential innovative tool for contemporary businesses to continually exploit opportunities from the external environment. Practically, firm's ability and efficacy to exploit the environment recently depends on the use of social media technologies.

However, the preposition that organization learning capability will positively affect

construction firms' performance was not supported (H2b). Though the H2b was not supported (p-value of 0.693), other scholars have affirmed that organizational learning capability contribute positively to firm performance (Alegre & Chiva, 2013; Kalmuk & Acar, 2015). Their results assert that social media enable firms to improve organizational knowledge sharing and organizational productivity. In this study, it is proposed that firms can be proactive and also obtain innovative ideas from customers through constant interactions with them on social media platforms, which ultimately affect firm's performance, proven that organization learning capability are positively related to firm-performance, which the present finding proved oppositely. Moreover, social media usage effect on marketing capabilities was found to be positive, supporting H3a, (p-value of 0.000). This implies that social media usage has a direct positive impact on marketing capabilities. Additionally, results showed no positive link between social media usage and marketing capabilities (p-value of 0.696); hence, H3b was not supported.

Regarding the effect of social media on informational capabilities (H4a), the results proved positive (p-value of 0.000). This implies that social media usage was established to have direct and positive effect on informational capabilities. In addition, Yasa et al. (2021) contend that usage of social media firms has a profound effect on firms' informational capabilities, indicating that construction can use social media technologies to promote products and services, reach target audience, which leads to sales turnover. Again, the present study further revealed no significant effect of informational capabilities on construction firm performance (p-value of 0.275), hence H4b was not supported. A study by Fan et al. (2021) for instance, proffer that integrating social media technologies into construction firms marketing strategy would help to achieve superior performance in the market and improve customer information accessibility.

Social media has driven SMEs to respond to recent business environment. Based on this, the study hypothesized that social media usage will have a direct positive relationship with construction firm performance (H5). Surprisingly, given the essential role social media played in the business operations recently, the (H5) results was quiet astonishing. The current study demonstrated that social media usage has no significant effect on firm performance, obtaining a p-value of 0.914, however, H5 not supported. Our results were not in line with Fan et al. (2021) that have found a significant impact of social media usage on firm performance. The current study specify that social media is key to improving firm performance in terms of information accessibility, improved customer orientation, marketing intelligence and organizational learning. Accordingly, due to numerous capabilities of social media technologies, it is suggested that utilization of social media by construction firms will go a long way to help them achieve competitive advantage and increases overall firm performance.

Conclusion

Small and medium enterprises (SMEs) is regarded as the backbone of world economy. The recent internet evolution has had immense effect on businesses (sectors) including the construction sector. Specifically, SMEs are increasingly adopting social media tech-

nologies for business operations. However, little is known regarding social media usage and its effect on the performance of construction firms located in the developing countries. Against this background, this study aimed at examining the impact of social media on the performance of construction firms in Ghana. The questionnaire was administered to 430 managers and employees of construction firms in the SME setting, and SmartPLS technique for analysis. The current empirical study findings revealed that social media is significant in business operations of construction firms in Ghana. The present study confirmed that social media usage positively affects customer orientation, organizational learning capability, marketing capabilities and informational capabilities. However, the study found insignificant relationship between these factors (customer orientation, organizational learning capability, marketing capabilities and informational capabilities) and on firm performance. The study further indicated that social media could be used as a key marketing tool to create awareness, effectively communicate with customers and to be competitive. Thus, construction firms in developing nations are advocated to utilize social media applications for improve business performance and sustainable performance. Furthermore, the outcome of the study provides beneficial guidelines for practitioners to adopt social media technologies to engender business performance. Again, the present study advanced the existing knowledge on social media and SMEs performance.

Theoretical Implications

Social media technologies are undoubtedly gaining popularity as a key marketing tool for contemporary businesses, especially large firms to achieve superior performance. With this, SMEs in developing economies have re-strategize, mainly to focus on usage of modern technologies specifically, social media in order to compete with larger firms and become sustenance. Construction firms are under scrutiny for not adopting modern technologies for business operations in the developing economies, and called for empirical studies, in regard to the relationship between social media technologies and construction firms' performance. Hence, this study seeks to examine the impact of social media on SMEs construction performance in Ghana. The empirical results evidenced a direct and significant influence of social media on organizational learning capability, customer orientation, marketing capabilities and informational capabilities. This amplifies and offer support that construction firms can utilize social media technologies to reach the masses, interact with potential and existing customers, and improve business performance.

Theoretically, this current study advances the existing knowledge on relationship between antecedent of social media and construction firm performance from a developing economies context. Besides, this study lengthens and provide comprehensive support to social media applications and its importance. The results of the study, moreover, evidenced a positive impact of social media usage on construction firm performance, which could motivate new insights for research on construction firm innovation performance in developing nations, especially Ghana. Furthermore, the present study has also advances existing knowledge on social media usage and construction firms performance in Ghana, which is often under-explored. Our empirical evidence strengthens the construction firms understanding of social media applications as an innovative tool to drive and

achieve business performance. For this reason, this preliminary research complement the social media literature by examining social media adoption within the construction firm in SME settings.

Practical Implications

This empirical finding demonstrated and suggests contemporary practical implications for construction firms in the SME setting. Specifically, the outcome of the current study provide foundation to the managers and decision makers in the construction industry on how they can integrate and apply social media applications to enhance overall construction firm performance in emerging economies like Ghana. The study's findings reinforce that construction firms' adoption of social media technologies has a direct influence on performance, as it improves internal and external operations, brand visibility, better collaboration with customers and achieving competitive advantage at large. Moreover, the outcome of the study advocate that successful adoption of this innovative tool can enhance customer engagement, networking capabilities and reach wider audience. The study further highlighted that construction firms' managers/ need to review and analyse and understand how they can take advantage of their online presence to fuel their business operations and deepens the cordial relationship between particular brand and customers.

To remain competitive and achieve sustainability, the findings indicate that construction firms can utilize social media applications such as Facebook, Twitter and Instagram to exploit opportunities, continuously interact with customers and increased loyal customer base, hence sustainable growth. Thus, study proffers that construction firms can utilize social media technologies to meet the sustainable needs of major stakeholders including customers. It is also notable that construction firms in developing countries especially Ghana should provide effective training on successful implementation of this marketing strategy and also provide guidance on its application to improve construction firms' performance.

Limitations

This research pinpoints some limitations which present insights for future studies. Firstly, the geographical context limits the study findings result generalization. Second, future research could explore another SME segment using similar constructs in the present study, increased sample size to test the validity of the results. Moreover, future researchers can again add mediators and moderators to probe their effects on utilizing social media networking sites, using large firms.

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