

## **SOCIAL MEDIA ADOPTION EFFECTIVENESS AND ACCOUNTING PERFORMANCE EMPIRICAL EVIDENCE FROM NIGERIA**

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### **ABSTRACT**

*This study investigates social media adoption effectiveness on accounting performance of listed manufacturing firms in Nigeria. Social media enables communication with stakeholders in terms of financial and non-financial achievements through direct, timely and low-cost techniques. Thus, the study draws attention to this relatively new phenomenon that enhances value of corporate entities. The sample consists of thirty-six (36) manufacturing corporations listed on the Nigerian Exchange Group over a ten (10) year period (2014 to 2023) and utilized two (2) key measures of social media adoption: presence of a social media account and breadth of social media engagement. Based on ex-post facto research design, Ordinary Least Square Regression analysis technique was employed to test the study hypotheses and found that both variables of interest have statistically significant effect on accounting performance. However, in line with the results that were obtained, this study recommends among others that corporate managers within the manufacturing sector of the Nigerian economy should do more than just making a presence on social media but such engagement should be deeper by way of employing more social media handles in the dissemination of information and activities since this have been empirically proven to enhance firm performance. Keywords: Social Media Adoption, Accounting Performance, Breadth of Social Media Engagement, Social Media Presence*

### **Introduction**

Technological developments, increasing market competition, globalization, economic changes, dynamic consumer buying behavior and changing environment have initiated substantial changes to the manner in which firms communicate with existing and anticipated customers. (Njeri, 2014; Siamagka, Christodoulides, Michaelidou, & Valvi, 2015). Beyond this, the coronavirus (COVID-19) pandemic that hit the entire globe has stimulated changes in advertising, marketing, promotional and media spends, forcing businesses and brands to reevaluate their thinking about current and future

advertising and marketing campaigns in order to maintain profit. While brands currently seek to strike the right tone during a global health emergency, the future foresees market alteration, increased competition and increased demand for creative and aggressive marketing practices. To this effect, Dodokh, (2017) document that organizations rapidly adapt and adjust in competent way to attain a competitive advantage over other competitors to improve performance. Consequently, firms are forced develop strategies for existence and progress where one of such strategies is firms' involvement in social media adoption (Akmese, Aras & Akmese, 2016).

Social media has been defined as the gathering place for consumers, the depository of consumer information, and acts as a technique of information dissemination in building market presence (Hsu, 2012). Social media platforms are considered as effective innovations that offer significant advantages for firms in reaching new markets and customers, promoting their products and brands, and improving the quality of communication. Currently, organizations have become aware of social media influence which will help them develop long meaningful relationships and improve their performance. Given this fact, firms are now building and sustaining social media public pages to enhance their social network eminence, improve interest in their firms, and build up connections with online public (Parveen, Jaafar, & Ainin, 2016).

This includes numerous online platforms in the likes of: Twitter, Facebook, My-Space, Blogs; User-Sponsored; Multimedia Sites; Collaborative Websites; Company-Sponsored Websites; and Podcasts (Tajudeen, 2014). These innovative online tools have switched the emphasis of internet services from being "consumption-based" towards becoming some more "interactive and cooperative", creating new excellent opportunities for communication between firms and publics (Henderson & Bowley, 2010; Grima & Caruana, 2017). However, some risks which have been highlighted include firm culture, security and privacy issues.

Thus, social media adoption has been thought out to be valuable since it aids increased customer base and improves efficiency and effectiveness reduces costs (Harris & Rea 2009), aids firms in partnership building with other firms, helps organizations to understand customer needs (Parveen et al., 2016), improves communication and cooperation among employees (Meske & Stieglitz 2013), motivates firms to respond to customer needs (Parveen et al., 2016), increases exposure and traffic (Stelzner, 2014), creates

business and consumer relationships (Icha & Agwu, 2015), improves connectivity (Cachia, 2008), and it is a very powerful mobilization tool for firms who are keen to take risks and invest in new products to satisfy customers, get better feedback, and enhance their brand image (ElTantawy & Wiest, 2011; Parveen et al., 2016). Hence, all kinds of firms- ranging from start-ups and small, medium enterprises to large corporations (listed companies) regardless of their size and activities have recognized the significance of adopting social media (Lee, Hyun & Lee, 2008; Bell & Loane, 2010; Nah and Saxton, 2012). Accordingly, based on its importance; firms are progressively investing in social media platforms (Williamson, 2011).

In the last decade, social media adoption in the context of corporate organizations has been subjected to substantial consideration as there exist increasing number of studies concentrating on the usage of social media by companies (Meske & Stieglitz 2013). These studies have asserted the positive impact of social media adoption on firms' operations (Lu & Julian 2007). Extant studies have considered social media use in business-to-consumer contexts while others have examined the impact of social media on consumer purchase decisions (Pookulangara & Koesler, 2011). Other authors such as Siamagka et al., (2015) viewed social media adoption contribution to performance from the dimension of boosting brand recognition or obtaining feedback from customers or how it can provide useful market research data (Rapp et al., 2013) and generate word-of-mouth recommendations (Chang, Ku & Chen 2019). Despite its increasing relevance and perceived value for firms (Durkin, McGowan & McKeown 2013), only a handful of studies across the world have so far examined the use of social media to improve long term performance (Ainin, Parveen, Moghavvemi, Jaafar, & Shuib, 2015), and in particular no similar study to the best of the researcher's knowledge have sampled listed manufacturing companies in Nigeria. Therefore,

*this study Specifically seeks to find out the effect of social media adoption on long term performance of listed manufacturing firms in Nigeria with special emphasis on post COVID-19 period.*

*The dreaded corona virus is a pandemic with potential serious implications for people's health. It has posed an unprecedented challenge for our modern society and health systems (Nnaji, Onyeaka, Reuben, Uwishema, Olovo, & Anyogu, 2021; Pokhrel, Hu & Mao, 2020). The consequences of the pandemic for the global economy and all sectors of the economy specially manufacturing companies are unpredictable. However, responses from world governments and health regulators have been relatively prompt and different measures have already been taken to sustain the economy. Sadly, the situation in Nigeria was exacerbated by oil price war resulting to low oil price regime which is largely likely to impact the country's budgeted revenue. Large corporations were forced to lay off staff, trim down on staff salaries, shut down branches, reduce productive/production activities, re-shape and re-organize their business plan.*

*However, as the scope of the dreaded pandemic unfolded, the anxiety for businesses to secure sustainable profit and stay in business remains high. Consequently, this empirical study tends to expand the literature on the subject "Social Media Adoption Effectiveness and Accounting Performance in Nigeria by employing information collected from selected listed manufacturing companies in Nigeria. The rest of this paper proceeds as follows: Section 2 provides conceptual as well as theoretical reviews and expresses the null hypotheses. Section 3 outlines the research method and the model used to test the hypotheses. Presentation and discussion of results are provided in section 4 while in section 5, concludes the study and proffer some recommendations.*

## **Conceptual Literature Review**

### **Social Media Adoption**

*Social media as a concept on its own is relatively ambiguous. Social media has no clearly defined concept. However, Kaplan and Haenlein (2010) defined social media as "a group of Internet based applications that build on the ideological and technological foundations of Web 2.0, and allows the creation and exchange of user-generated content". It includes different forms of online applications such as social networking sites (SNSs), blogs, forums, micro blogs, photo sharing, video sharing, product/service reviews, evaluation communities and social gambling (Aichner & Jacob, 2015). Social media facilitates information sharing and content generation process by individuals (Kim & Johnson 2016). People use different online networks such as Facebook, YouTube, Wikipedia, Twitter, Instagram, TripAdvisor, online forums, ratings and review forums to share their experiences and interact with other users (Chen et al., 2011). Accordingly, social media have been considered as an effective platform for enterprises to connect with large number of potential customers in order to spread their business information (Schaupp & Belanger 2013). According to Hofacker, Malthouse, and Sultan (2016), people and organizations are embracing the use of social media platforms accessible from the network as an avenue to relay information and ideas.*

*The tools and approaches for communicating with customers have changed greatly with the emergence of social media and businesses are learning how to use social media in a way that is consistent with their business plan (Mangold & Faulds 2009). Social media facilitate customer service functions like answering questions, checking account records tracking orders as well as handling customer complaints (Kotler & Armstrong, Ang, Leong, Tan, and Ho-Ming, 2012). It allows firms to relate with customers in a deeper and more meaningful ways rather than relying on a one-way mass media*

message only. Social media allows for more interactive approaches that build targeted two-way customer relationships. The new communication approaches make companies create deeper customer involvement and a sense of community surrounding a brand- to make the brand a meaningful part of consumers' conversations and lives.

### **Financial Performance**

Financial performance analysis has been of great interest to academic research since the great depression of the 1940's. All organizations have financial performance measures as part of their performance management and one of the responsibilities of a finance manager is to evaluate and monitor corporate performance. The most commonly used financial performance measures is profitability which ascertains the extent to which a company produces net income from the use of its resources measured by return on asset and return on equity (Ongore & Kusa, 2013).

### **Social Media Adoption Effectiveness and Financial Performance: The Nexus**

In recent decades, using cyberspace and web-technology has become a common practice in all businesses (Zhang et al., 2017). Organizations are empowered to contact their clients anytime from anywhere by the use of the internet (Chen et al., 2011). Indeed, a social medium attract information seekers to obtain information about the product/service which they intend to purchase and increases the buying intention of consumers (Hajli, 2013). Further, social media as a communication channel enables firms to accomplish different organizational objectives including marketing, public relations, advertising, branding, customer service, human resources and problem solving (Kim & Park 2013; Nisar & Whitehead, 2016). The development of online communities has expanded the interconnectivity between businesses and consumers and enables them to make rapid international communications (Aichner & Jacob

2015). Moreover, social media adoption tends to impact on firms' brand position, brand awareness, customer's loyalty and customers purchasing decisions (Barreda et al., 2015; Nisar & Whitehead, 2016; Siamagka, Christodoulides, Michaelidou, & Valvi, 2015).

Based on network approach, firms are taking advantage of networking activities which lead to superior performance (Naude, Zaefarian, Tavani, Neghabi, & Zaefarian, 2014; Ladkin & Buhalis, 2016; Trainor et al., 2014; Zhang et al., 2017). Fundamentally social media adoption affects the manufacturing industry. According to Jeong & Mindy Jeon (2008) social media is a free-market research tool that focuses on customers' evaluation hence comments from different social networking sites provides ideas to managers about their overall business performance. Through social media adoption, manufacturing companies can positively affect the purchasing and decision-making behavior of their potential customers (Hajli, 2015). High level engagement on social media by managers helps to create awareness about business brand and new product/services (Kim et al., 2016).

Through these medium, they encourage their customers to like, share, make comment/s and rate their product which leads to brand awareness among users (Gensler et al., 2013). In addition to branding, social media contributes to promotion and public relations (Trusov, Bucklin, & Pauwels, 2009). The possibilities inherent in social media, will positively affect sales growth of manufacturing companies (Harrigan et al., 2017). Reaching great number of customers globally will contribute to internationalization and leads to high sales volume and consequently higher profitability (Seth, 2012). Moreover, eWOM (electronic word of mouth) generated by social media, is a very strong marketing tool for manufacturing companies' effective sale growth, branding and profitability (Litvin, Goldsmith, & Pan, 2008). Therefore,

following the review of extant literature the hypotheses of this study is stated as:

**Hypotheses: Social media adoption has a significant positive effectiveness on financial performance of listed manufacturing firms in Nigeria.**

### **Theoretical Framework**

#### **Resource Based View (RBV) Theory**

The literature on social media has been viewed from different theoretical perspectives. The theories are based on adaption of social media at the individual level or organizational level (Schaupp & Belanger 2013). Theories on organizational level include Technology Organization Environment (TOE) theory (Tornatzky, Fleischer & Chakrabarti 1990) and Resource Based View (RBV) theory (Barney, 2001). RBV is a theory that has been used mostly in recent years as a foundation for the link between social media adoption and its effectiveness for firms. This theory supports the assumption that obtaining competitive advantage for firm depend on the application of the firm's bundle of productive resources (Barney, 2001; Wernerfelt, 1984).

According to this theory, firm resources and capabilities that are valuable, rare, inimitable and distinctive are considered as an essential source of competitive advantage and superior performance (Barney, 2001; Peteraf, 1993). The resources which are the central drivers of the manufacturing industry (Gannon, Roper & Doherty 2015) includes; physical resources (building exteriors and interiors, geographic location, facilities, and finances), human resources (staff and managerial skills) and organizational resources (culture, business processes and strategies, information technology, knowledge sharing) (Gannon et al., 2015; Leonidou, Leonidou, Fotiadis, & Zeriti, 2013). They all contribute to value creation strategies for manufacturing firms (Fraj, Matute, & Melero, 2015). On the other hand,

capabilities refer to the skills of a firm in taking advantage of its resources and assets. Therefore, social media provide the opportunity to maximize benefit from a firm's information technology resources and networking capabilities (Trainor et al., 2014). In the manufacturing industry, knowledge acquired by firm's networking activities can promote organizational performance (Harrington & Ottenbacher 2011). Online social platforms are playing critical role in sharing knowledge among firm and consumers (Sigala & Chalkiti, 2012). Hence, shared information on social media is very effective in enhancing the purchasing and decision-making behavior of customers in manufacturing firms (Barreda et al., 2015).

Zik-Rullahi and Nwosu (2024) explored the impact of financial technology (fintech) on financial performance of manufacturing firms in Nigeria, with a focus on two fintech business models: the Payment Business Model (PBM) and the Wealth Management Business Model (WMBM). The study utilized ex-post facto research design, analyzing secondary data from the audited financial statements of selected consumer goods firms in Nigeria for the period 2018-2022. The research employed multiple regression analysis, using Return on Assets as the measure of financial performance. The results indicated that the PBM had a statistically significant negative impact on the financial performance, with every 1% increase in PBM associated with a 2% decrease in ROA. Conversely, while the WMBM also showed a negative relationship with ROA, it was not statistically significant. The study, grounded in the Digital Transformation Model, highlighted the importance of carefully evaluating the adoption of different fintech business models in the manufacturing sector, considering their potential adverse effects on financial performance. The data sources were firm-level financial statements, and the analysis underscored the need for manufacturing firms to thoroughly assess the risks

associated with fintech adoption to optimize outcomes.

Ilo, Aina, and Isiaq (2024) conducted a study on the impact of emerging technology adoption on financial performance of Deposit Money Banks (DMBs) in Nigeria, utilizing monthly data from 2012 to 2019. The study focused on key technologies, including Web Payment, Mobile Money operators, Automated Teller Machines (ATMs), and Point of Sale (POS) terminals, and analyzed their influence on the return on assets. The study employed a Fully Modified Ordinary Least Squares (FMOLS) regression technique to explore the long-run relationships between the emerging technologies and bank performance. The results indicated that all the emerging technology variables had a positive significant effect on financial performance of DMBs in Nigeria, with ATMs and POS terminals being the most impactful. The study was grounded in the Resource-Based Theory (RBT), suggesting that firms leverage their resources, such as technology, to gain competitive advantages and improve performance. Data was sourced from the Central Bank of Nigeria (CBN) and the Nigeria Inter-Bank Settlement System (NIBSS), with the FMOLS approach chosen due to its efficiency in handling the potential lags and noise in the data. The findings underscore the importance of continuous investment in emerging technologies for enhancing bank performance in Nigeria's competitive banking environment.

Pukon and Ekienabor (2024) conducted a study to investigate the impact of social media on employee performance, specifically focusing on employee commitment and productivity within selected information technology companies in Nigeria. The research employed a survey design, utilizing primary data collected from 200 respondents at Andela and Flutterwave companies. The data was analyzed using Spearman's rho correlation coefficient. The results demonstrated a significant positive relationship between social media use and employee commitment ( $r = 0.917$ )

as well as between social media use and employee productivity ( $r = 0.909$ ), both significant at the 0.01 level. The study was theoretically underpinned by the Distraction–Conflict Theory and Connectivism Theory, highlighting the dual role of social media as both a potential distraction and a tool for enhancing learning and information sharing. The authors concluded that while social media significantly boosts employee commitment and productivity, there is a need for strategic management of its use within organizations to harness its benefits while mitigating potential drawbacks.

Ibekwe et al. (2019) conducted a study to investigate the relationship between social media adoption and the performance of telecommunication firms in Nigeria, utilizing the frameworks of Innovation Diffusion Theory and the Technology Acceptance Model. The research focused on telecommunication firms operating in the South-Eastern region of Nigeria, analyzing data from 198 respondents out of a sample size of 306, gathered from employees of four major firms in the region. The study's variables included perceived ease of use, perceived usefulness, and attitude towards social media adoption as independent variables, and profitability, service quality, and cost efficiency as measures of organizational performance. The research employed a cross-sectional survey design, and data analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM) to examine the relationships between the variables. The findings revealed a positive significant relationship between perceived ease of use of social media and profitability, perceived usefulness and service quality, and attitude towards social media adoption and cost efficiency.

Miqdad and Oktaviani (2021) investigated the impact of social media value on financial performance of Indonesian companies listed on the Indonesia Stock Exchange (IDX), using a quantitative approach with Multivariate Analysis of Variance (MANOVA) to assess the effects on profitability, liquidity, and company value. The study analyzed data from 308 companies across

various sectors, measuring social media value through the number of followers on platforms like Twitter, Instagram, and YouTube. The research, grounded in Single-Person Decision Theory and Signaling Theory, found that while social media value had a significant impact on profitability (3.7% variance in Gross Profit Margin) and company value (2.8% variance in Price to Book Value), it did not significantly affect liquidity, as measured by the Debt to Asset Ratio.

### Methodology

This study adopts ex-post facto research design due to the historical nature of the panel data set. Annual report of the sampled companies was employed to gather the required data set due to its degree of reliability and widespread acceptability by organizational stakeholders (Deegan & Rankin, 1997; Haniffa & Cooke, 2005). The sample consists of thirty-six (36) manufacturing corporations listed on the Nigerian stock exchange over a ten (10) year period (2014 to 2023). This study employed Panel Least Square Regressions analysis technique in testing the hypotheses. However, before proceeding to interpret the estimated coefficients, it was ensured that the estimated model meets the assumption of homoscedasticity as recommended by Greene (2017). Specifically, diagnostic result reveals the

absence of heteroscedasticity. In this study, social media adoption effectiveness on financial performance in Nigeria was examined by utilizing two (2) key brands of social media adoption: Presence of a Social Media account and Breadth of Social Media Engagement adopted from prior related studies of Du and Jiang, 2015; Uyar and Boyar, 2015) Uyar, Boyar and Kuzey (2018) with two control variables; firm age and firm size. In relation to future profitability this study employs long term performance measure- Tobin Q replicated from the study of Dodokh, (2017).

The model for this study follows similar model obtained from the study of Uyar, Boyar and Kuzey (2018) and the functional form is specified as:

$$QRATIO = f(SMP, SMB, FSIZE, FAGE)$$

The econometric model is expressed as:

$$QRATIO_{it} = \beta_0 + \beta_1 SMAP_{it} + \beta_2 SMAB_{it} + \beta_3 FSIZE_{it} + \beta_4 FAGE_{it} + \varepsilon_{it}$$

Aprior Expectation:  $\beta_1, \beta_2, \beta_3$  and  $\beta_4 > 0$

### Where:

QRATIO = Tobin Q

SMAP = Social Media Account Presence

SMAB = Social Media Account Breadth

FSIZE = Firm Size

FAGE = Firm Age

**Table 1**

Variable

### Operationalization of Variables

Measurement

Dependent	Variable
Tobin Q	Market Capitalization + Total Liabilities -Cash flow divided by Total asset
<b>Independent Variables</b>	
Social Media Account Presence	Dummy variable measure of '1' if the firm has at least on social media platform
Social Media Account Breadth	No of Social Media Account engaged by the firm within that particular year
Firm Size	Natural Logarithm of Total Asset
Firm Age	The difference between current year minus year of listing on the stock exchange + 1

**Authors' Compilation 2024**

### Presentation and Discussion of Results

**Table 2 Descriptive Statistics**

VARIABLE	OBS	MEAN	STD. DEV.	MIN	MAX
QRATIO	297	1.824242	1.512912	.12	9.29
FAGE	351	27.36752	13.8012	1	55
FSIZE	351	7.098319	.9258209	5.09	9.35
SMAP	357	.7927171	.4059289	0	1
SMAB	357	3.40056	2.118485	0	7

**Authors Computation (2024)**

The descriptive analysis results provide valuable insights into social media adoption effectiveness and accounting performance among manufacturing firms listed on the Nigerian Exchange Group from 2014 to 2023. The QRATIO, representing Tobin's ratio, has an average value of 1.824, with a significant standard deviation of 1.513, indicating variability in the market valuation of these firms relative to their assets. The firm age (FAGE) averages 27 years, with a broad range from 1 to 55 years, suggesting a diverse mix of both new and established firms. The average firm size (FSIZE), measured by the logarithm of total assets, is 7.098, with relatively low variation (standard deviation of 0.926), indicating that most firms have similar asset sizes.

Regarding social media presence (SMAP), the mean value of 0.793 shows that nearly 80% of the firms have adopted at least one social media handle, reflecting a widespread recognition of social media's importance. However, the breadth of social media usage (SMAB), with an average of 3.401 accounts per firm and a maximum of 7 accounts, points to varying degrees of social media engagement among the firms. The zero minimum values for both SMAP and SMAB suggest that some firms have not yet adopted social media, highlighting potential areas for growth and its impact on performance. Overall, the analysis indicates a significant presence of social media among the firms.

**Table 3 Correlation Analysis**

<div> <div>Key</div> <div>rho</div> <div>Number of obs</div> <div>Sig. level</div> </div>					
	TOBIN	FAGE	FSIZE	SMAP	SMAB
QRATIO	1.0000 294				
FAGE	0.0531 294 0.3647	1.0000 294			
FSIZE	0.2826* 294 0.0000	0.2257* 294 0.0001	1.0000 294		
SMAP	0.0584 294 0.3180	-0.0838 294 0.1520	0.0944 294 0.1064	1.0000 294	
SMAB	0.2539* 294 0.0000	-0.1258* 294 0.0310	0.2257* 294 0.0001	0.7058* 294 0.0000	1.0000 294

**Authors Computation (2024)**

The correlation analysis using the Spearman rank correlation technique provides valuable insights into the relationships between Tobin's Q ratio (QRATIO), firm age (FAGE), firm size (FSIZE), social media presence (SMAP), and social media account breadth (SMAB) among manufacturing firms listed on the Nigerian Exchange Group. Tobin's Q ratio (QRATIO), which reflects the market valuation of firms relative to their assets, shows a positive correlation with firm size (FSIZE), with a rho coefficient of 0.2826.

This suggests that larger firms have a higher market valuation relative to their assets. Similarly, there is a positive correlation between QRATIO and social media account breadth (SMAB), with a

rho coefficient of 0.2539. This implies that firms with a broader social media presence have a higher Tobin's Q ratio, potentially reflecting the market's positive perception of firms that actively engage with multiple social media platforms. The correlation between QRATIO and firm age (FAGE) is relatively weak, with a rho coefficient of 0.0531. This weak correlation suggests that both older and newer firms on the Nigerian Exchange Group have positive market valuations, regardless of how long they have been listed. Interestingly, the correlation between QRATIO and social media presence (SMAP) is also weak, with a rho coefficient of 0.0584.

**Table 4 Shapiro-Wilk Test for Normal Data**

VARIABLE	OBS	W	V	Z	PROB>Z
QRATIO	297	0.75008	52.772	9.305	0.00000
FAGE	351	0.92463	18.462	6.896	0.00000
FSIZE	351	0.98068	4.733	3.677	0.00012
SMAP	357	0.98732	3.153	2.718	0.00329
SMAB	357	0.94858	12.788	6.032	0.00000

Authors Computation (2024)

The Shapiro-Wilk normality test results provide insight into the distribution of the data for various variables related to the social media adoption effectiveness and accounting performance of manufacturing firms listed on the Nigerian Exchange Group from 2013 to 2022. The results suggest that none of the variables—

including Tobin's Q ratio, firm age, firm size, social media presence, and social media account breadth—follow a normal distribution. This non-normality implies that the data may require non-parametric statistical methods for further analysis, as parametric tests typically assume normality of the data.

**Table 5 Regression Result**

Variables	Social Media Account Presence	Social Media Account Breadth	Firm Age	Firm Size	Constant
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Panel Least Square Regression Model

$R^2 = 0.1479$  Prob. F = 4.28, 0.0000, VIF = 1.14

Coefficient	-0.513	0.134	0.005	0.163	-0.978
t_Statistics	(-3.19)	(4.25)	(1.58)	(3.80)	(-3.25)
Probability_t	{0.002} **	{0.000} ***	{0.115}	{0.0000} ***	{0.001} **

Note: t & z -statistics and respective probabilities are represented in () and {}

Where: \*\* represents 5% level of significance

Source: Authors' Computation (2024)

From the regression analysis results presented in table 5, the probability F statistic

(0.0000), is statistically significant at 1% level hence the overall model can be considered as

good fit. *R-squared*, which is the coefficient of determination shows that about 15% of the variation in expectation of future profit of listed manufacturing firms in Nigeria is explained by the selected social media and other variables in the specified model. A closer look at the result presented in the table above reveal that, social media account breadth which represents the extent to which manufacturing companies engage more than one social media platform in their business process has a significant negative effect on firm expectation of future profit during the period under investigation. This outcome can be tied to the concerns of Iyanda and Ojo, (2008); Rogers, (2003); Vishwanath, (2009) who noted that the primary reason businesses are expected to adopt new technologies is for anticipated benefits.

However, these anticipated benefits are largely perceived rather than actual which depend on knowledge and understanding within the firm. As a result of anticipated benefits which have not been properly identified, managers are carried away and may not border about the possible dangers emanating from risking their reputations and the possibility of quick information sharing. The result is also in tandem with those of Beatty et al., (2001), McCann and Barlow (2015) who documented that the use of social media makes it difficult to control disseminated or leaked information since external stakeholders are free to comment upon corporate messages--negatively as well as positively (Kaplan & Haenlein, 2010). However, missteps or failures by managers could be transmitted quickly to a large mass of users (Reilly & Hynan, 2014) which may go a long way to damage the firm's reputation consequently lowering profit expectations.

Further, the findings corroborate those of World Finance, (2016) which documented that circulation of information regarding environmental disasters, cheating on regulations, data breaches, or endangering biodiversity by a reputable company could potentially cost millions, even

billions, of dollars of devaluation in firm value due to a substantial decrease in share prices. More importantly, the negative finding is likely due to bandwagon pressure. This is consistent with Naslund et al (2019); Naslund & Riefer (2018) whose assertion states that many businesses adopt new technologies simply because everybody else in the market is doing so even when it is difficult to assess whether such technology could improve business performance. In line with this study, many manufacturing firms may be unsure of its benefits, but have adopted it because of its popularity or fear of falling behind competitors hence the inverse effect on future profitability (Rogers, 2010).

On the other hand, social media account presence is seen to be beneficial to manufacturing companies. This outcome is consistent with prior studies such as those of; Hassan et al. (2015), Damanpour et al., (1989), Scupola and Nicolajsen (2013) Thong, (2001) Tushman and Nadler (1986), Zhu et al., (2003), Gera & Gu, (2004), Paniagua & Sapena (2014) Hakala & Kohtamäki (2011), Ainin et al., (2015), Parveen et al., (2014) Rodriguez et al., (2012), Rodriguez et al. (2015) and Ferrer et al. (2013) who noted that the adoption of social media positively affected organizational social capital which in turn affects performance. Further, the outcome aligns with that of Wong (2012) and Kwok and Yu (2013) who found that Facebook adoption had a significant positive effect on sales performance.

### **Recommendation**

In line with the results obtained, this study carefully recommends that corporate managers within the manufacturing industry of the Nigerian economy should do more than just putting up a presence on social media. Manufacturing firms should engage deeper by way of employing more social media networks in dissemination of information and activities. To use social media effectively, businesses must have a strategy for its use and consider why they are using it, since

social media adoption can only provide value if adopters use it as a tool to support existing strategies and business objectives, and not as an end in itself. Managers are advised to approach social media risks differently from perceived financial, operational, strategic, and compliance risks since traditional risk management techniques may not be adequate to counter social media related risks. Manufacturing companies taking a proactive approach towards social media and who then leverage it to their advantage can offset potential drawbacks and liabilities, and enhance their firm value.

## REFERENCES

- Aichner, T., & Jacob, F. (2015). Measuring the degree of corporate social media use. *International Journal of Market Research*, 57(2), 257-276.
- Ainin, S., Parveen, F., Moghavvemi, S., Jaafar, N. I., & Shuib, N. L. M. (2015). Factors influencing the use of social media by SMEs and its performance outcomes. *Industrial Management & Data Systems*.
- Akmese, H., Aras, S., & Akmese, K. (2016). Financial performance and social media: A research on tourism enterprises quoted in Istanbul stock exchange (BIST). *Procedia Economics and Finance*, 39, 705-710.
- Barney, J. B. (2001). Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view. *Journal of Management*, 27(6), 643-650.
- Barreda, A. A., Bilgihan, A., Nusair, K., & Okumus, F. (2015). Generating brand awareness in online social networks. *Computers in Human Behavior*, 50, 600-609.
- Bátiz-Lazo, B., & Woldesenbet, K. (2006). The dynamics of product and process innovations in UK banking. *International Journal of Financial Services Management*, 1(4), 400-421.
- Beatty, L. A., Wheeler, D., & Gaiter, J. (2004). HIV prevention research for African Americans: Current and future directions. *Journal of Black Psychology*, 30(1), 40-58.
- Bell, J., & Loane, S. (2010). 'New-wave' global firms: Web 2.0 and SME internationalization. *Journal of Marketing Management*, 26(3-4), 213-229.
- Boehlje, M. (2002). Risk in US agriculture: new challenges and new approaches (No. 1239-2016-101591).
- Cachia, R. (2008). Social computing: Study on the use and impact of online social networking. *IPTS Exploratory Research on the Socio-economic Impact of Social Computing*, 2(3), 565-581.
- Chang, Y. C., Ku, C. H., & Chen, C. H. (2019). Social media analytics: Extracting and visualizing Hilton hotel ratings and reviews from TripAdvisor. *International Journal of Information Management*, 48, 263-279.
- Chen, Y., Fay, S., & Wang, Q. (2011). The role of marketing in social media: How online consumer reviews evolve. *Journal of Interactive Marketing*, 25(2), 85-94.
- Damanpour, F. (1989). Organizational innovation: A meta-analysis of effects of determinants and moderators. *Academy of Management Journal*, 34(3), 555-590.
- Deegan, C., & Rankin, M. (1997). The materiality of environmental information to users of annual reports. *Accounting, Auditing & Accountability Journal*.
- Dodokh, A. M. I. (2017). The impact of social media usage on organizational performance: A field study on Dead Sea products companies in Jordan. Middle East University, Amman, Jordan. Master of Business Administration. Master Thesis.
- Du, H., & Jiang, W. (2015). Do social media matter? Initial empirical evidence. *Journal of Information Systems*, 29(2), 51-70.
- Durkin, M., McGowan, P., & McKeown, N. (2013). Exploring social media adoption in small to

- medium-sized enterprises in Ireland. *Journal of Small Business and Enterprise Development*.
- Eltantawy, N., & Wiest, J. B. (2011). The Arab Spring| social media in the Egyptian revolution: Reconsidering resource mobilization theory. *International Journal of Communication*, 5, 18.
- Ferrer-Conill, R., & Tandoc Jr, E. C. (2013). The audience-oriented editor: Making sense of the audience in the newsroom. *Digital Journalism*, 6(4), 436-453.
- Fraj, E., Matute, J., & Melero, I. (2015). Environmental strategies and organizational competitiveness in the hotel industry: The role of learning and innovation as determinants of environmental success. *Tourism Management*, 46, 30-42.
- Gannon, J. M., Roper, A., & Doherty, L. (2015). Strategic human resource management: Insights from the international hotel industry. *International Journal of Hospitality Management*, 47, 65-75.
- Gensler, S., Völckner, F., Liu-Thompkins, Y., & Wiertz, C. (2013). Managing brands in the social media environment. *Journal of Interactive Marketing*, 27(4), 242-256.
- Greene, R. (2017). *Human behavior theory: A diversity framework*. Routledge.
- Grima, S., & Caruana, L. (2017, October). The effect of the financial crisis on emerging markets. A comparative analysis of the stock market situation before and after. In *DIEM: Dubrovnik International Economic Meeting* (Vol. 3, No. 1, pp. 228-254). Sveučilište u Dubrovniku.
- Gu, W., & Surendra, G. (2004). The effect of organizational innovation and information technology on firm performance. Available at SSRN 1404689.
- Hajli, M. N. (2013). A study of the impact of social media on consumers. *International Journal of Market Research*, 56(3), 387-404.
- Hajli, N. (2015). Social commerce constructs and consumer's intention to buy. *International Journal of Information Management*, 35(2), 183-191.
- Hakala, H., & Kohtamäki, M. (2011). Configurations of entrepreneurial-customer-and technology orientation. *International Journal of Entrepreneurial Behavior & Research*.
- Haniffa, R. M., & Cooke, T. E. (2005). The impact of culture and governance on corporate social reporting. *Journal of Accounting and Public Policy*, 24(5), 391-430.
- Harrigan, P., Evers, U., Miles, M. P., & Daly, T. (2018). Customer engagement and the relationship between involvement, engagement, self-brand connection and brand usage intent. *Journal of Business Research*, 88, 388-396.
- Harrington, R. J., Ottenbacher, M. C., & Kendall, K. W. (2011). Fine-dining restaurant selection: Direct and moderating effects of customer attributes. *Journal of Foodservice Business Research*, 14(3), 272-289.
- Harris, L., Hansel, S., Rajan, E., Post, J., Stark, D., Crowell, M., ... & Leighton, J. (2009). Does the Beat Go On? Does the Video Still Play? Results from the Largest Series to Date on the Safety of Capsule Endoscopy in Patients with Implantable Cardiac Devices: 1406. *American Journal of Gastroenterology*, 104, S528-S529.
- Hassan, S., Ahmad Nadzim, S. Z., & Shiratuddin, N. (2015). Strategic use of social media for small business based on the AIDA model. *Procedia-Social and Behavioral Sciences*, 172, 262-269.
- Henderson, A., Edwards, L., & Bowley, R. (2010). Authentic dialogue? The role of "friendship" in a social media recruitment

- campaign. *Journal of Communication Management*.
- Hofacker, C. F., Malthouse, E. C., & Sultan, F. (2016). Big data and consumer behavior: Imminent opportunities. *Journal of Consumer Marketing*.
- Hollensen, S., & Raman, A. (2014). Social media marketing. *Marketing Canada-Journal*.
- Hsu, M. H. (2011). Exploring the antecedents of trust in virtual communities. *Behaviour & Information Technology*, 30(5), 587-601.
- Ibendahl, G. (2016). Using solvency ratios to predict future profitability. *Journal of ASFMRA*, 195-201.
- Icha, O., & Agwu, P. E. (2015). Effectiveness of social media networks as a strategic tool for organizational marketing management. *Journal of Internet Banking and Commerce*, S2.
- Jeong, M., & Mindy Jeon, M. (2008). Customer reviews of hotel experiences through consumer generated media (CGM). *Journal of Hospitality & Leisure Marketing*, 17(1-2), 121-138.
- Johansson, M. (2010). Social media and brand awareness: A case study in the fast-moving consumer goods sector.
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons*, 53(1), 59-68.
- Kim, S., & Park, H. (2013). Effects of various characteristics of social commerce (s-commerce) on consumers' trust and trust performance. *International Journal of Information Management*, 33(2), 318-332.
- Kim, Y., Wang, Y., & Oh, J. (2016). Digital media use and social engagement: How social media and smartphone use influence social activities of college students. *Cyberpsychology, Behavior, and Social Networking*, 19(4), 264-269.
- Kotler, P., Armstrong, G., Ang, S. H., Leong, S. M., Tan, C. T., & Ho-Ming, O. (2012). *Principles of marketing: An Asian perspective*. Pearson/Prentice-Hall.
- Krause, J., Croft, D. P., & James, R. (2007). Social network theory in the behavioural sciences: Potential applications. *Behavioral Ecology and Sociobiology*, 62(1), 15-27.
- Kwok, L., & Yu, B. (2013). Spreading social media messages on Facebook: An analysis of restaurant business-to-consumer communications. *Cornell Hospitality Quarterly*, 54(1), 84-94.
- Ladkin, A., & Buhalis, D. (2016). Online and social media recruitment. *International Journal of Contemporary Hospitality Management*.
- Larson, K., & Watson, R. (2011). The value of social media: Toward measuring social media strategies.
- Lee, J. Y., Hyun, S. M., & Lee, C. S. (2008). U.S. Patent Application No. 29/270,421.
- Leonidou, L. C., Leonidou, C. N., Fotiadis, T. A., & Zeriti, A. (2013). Resources and capabilities as drivers of hotel environmental marketing strategy: Implications for competitive advantage and performance. *Tourism Management*, 35, 94-110.
- Litvin, S. W., Goldsmith, R. E., & Pan, B. (2008). Electronic word-of-mouth in hospitality and tourism management. *Tourism Management*, 29(3), 458-468.
- Lu, V. N., & Julian, C. C. (2007). The internet and export marketing performance. *Asia Pacific Journal of Marketing and Logistics*.
- Mangold, W. G., & Faulds, D. J. (2009). Social media: The new hybrid element of the promotion mix. *Business Horizons*, 52(4), 357-365.
- McCann, M., & Barlow, A. (2015). Use and measurement of social media for SMEs.

- Journal of Small Business and Enterprise Development.*
- Meske, C., & Stieglitz, S. (2013, June). Adoption and use of social media in small and medium-sized enterprises. In *Working Conference on Practice-driven Research on Enterprise Transformation* (pp. 61-75). Springer, Berlin, Heidelberg.
- Miller, S. (2001). *Social action: A teleological account*. Cambridge University Press.
- Nah, S., & Saxton, G. D. (2013). Modeling the adoption and use of social media by nonprofit organizations. *New Media & Society*, 15(2), 294-313.
- Naslund, J. A., Aschbrenner, K. A., McHugo, G. J., Unützer, J., Marsch, L. A., & Bartels, S. J. (2019). Exploring opportunities to support mental health care using social media: A survey of social media users with mental illness. *Early Intervention in Psychiatry*, 13(3), 405-413.
- Naslund, J., & Riefer, M. (2018, May 23). Engagement and recovery: social media/technology for outreach and engagement [Webinar]. In *Recovery to Practice*, SAMSHA Webinar Series.
- Naudé, P., Zaefarian, G., Tavani, Z. N., Neghabi, S., & Zaefarian, R. (2014). The influence of network effects on SME performance. *Industrial Marketing Management*, 43(4), 630-641.
- Nisar, T. M., & Whitehead, C. (2016). Brand interactions and social media: Enhancing user loyalty through social networking sites. *Computers in Human Behavior*, 62, 743-753.
- Njeri, C. K. (2014). *Effect of internal controls on the financial performance of manufacturing firms in Kenya*. Unpublished Thesis.
- Nnaji, N. D., Onyeaka, H., Reuben, R. C., Uwishema, O., Olovo, C. V., & Anyogu, A. (2021). The deuce-ace of Lassa Fever, Ebola virus disease and COVID-19 simultaneous infections and epidemics in West Africa: Clinical and public health implications. *Tropical Medicine and Health*, 49(1), 102.
- Ojo, O. S., & Iyanda, O. (2008). Motivation, influences, and perceived effect of ICT adoption in Botswana organisations. *International Journal of Emerging Markets*, 1(1), 20-29.
- Ongore, V. O., & Kusa, G. B. (2013). Determinants of financial performance of commercial banks in Kenya. *International Journal of Economics and Financial Issues*, 3(1), 237.
- Paniagua, J., & Sapena, J. (2014). Business performance and social media: Love or hate? *Business Horizons*, 57(6), 719-728.
- Parveen, F., Jaafar, N. I., & Ainin, S. (2016). Social media's impact on organizational performance and entrepreneurial orientation in organizations. *Management Decision*.
- Peteraf, M. A. (1993). The cornerstones of competitive advantage: A resource-based view. *Strategic Management Journal*, 14(3), 179-191.
- Pokhrel, P., Hu, C., & Mao, H. (2020). Detecting the coronavirus (COVID-19). *ACS Sensors*, 5(8), 2283-2296.
- Pookulangara, S., & Koesler, K. (2011). Cultural influence on consumers' usage of social networks and its' impact on online purchase intentions. *Journal of Retailing and Consumer Services*, 18(4), 348-354.
- Rapp, A., Beitelspacher, L. S., Grewal, D., & Hughes, D. E. (2013). Understanding social media effects across seller, retailer, and consumer interactions. *Journal of the Academy of Marketing Science*, 41(5), 547-566.
- Reilly, A. H., & Hynan, K. A. (2014). Corporate communication, sustainability, and social media: It's not easy (really) being green. *Business Horizons*, 57(6), 747-758.

- Roberts, P. W., & Amit, R. (2003). The dynamics of innovative activity and competitive advantage: The case of Australian retail banking, 1981 to 1995. *Organization Science*, 14(2), 107-122.
- Rodriguez, M., Ajjan, H., & Peterson, R. M. (2015). Social media in large sales forces: An empirical study of the impact of sales process capability and relationship performance. *Journal of Marketing Theory and Practice*, 24(3), 365-379.
- Rodriguez, M., Peterson, R. M., & Krishnan, V. (2012). Social media's influence on business-to-business sales performance. *Journal of Personal Selling & Sales Management*, 32(3), 365-378.
- Rogers, E. M. (2003). *Diffusion networks. Networks in the Knowledge Economy*, 130-179.
- Rogers, E. M. (2010). *Diffusion of innovations*. Simon and Schuster.
- Schaupp, L. C., & Bélanger, F. (2019). Social commerce benefits for small businesses: An organizational level study. In *Social Entrepreneurship: Concepts, Methodologies, Tools, and Applications* (pp. 1237-1255). IGI Global.
- Schivinski, B., & Dąbrowski, D. (2013). The impact of brand communication on brand equity dimensions and brand purchase intention through Facebook. *GUT FME Working Paper Series A*. Gdansk (Poland): Gdansk University of Technology, Faculty of Management and Economics, 4(4), 1-24.
- Scott, R. E. (2000). The limits of behavioral theories of law and social norms. *Virginia Law Review*, 86(8), 1603-1647.
- Scupola, A., & Nicolajsen, H. W. (2013). Using social media for service innovations: Challenges and pitfalls. *International Journal of E-Business Research (IJEER)*, 9(3), 27-37.
- Seth, G. (2012). *Analyzing the effects of social media on the hospitality industry*. UNLV Theses, Dissertations, Professional Papers, and Capstones. 1346
- Shafie, L. A., Nayan, S., & Osman, N. (2012). Constructing identity through Facebook profiles: Online identity and visual impression management of university students in Malaysia. *Procedia-Social and Behavioral Sciences*, 65, 134-140.
- Siamagka, N. T., Christodoulides, G., Michaelidou, N., & Valvi, A. (2015). Determinants of social media adoption by B2B organizations. *Industrial Marketing Management*, 51, 89-99.
- Sigala, M., & Chalkiti, K. (2012). Knowledge management and web 2.0: Preliminary findings from the Greek tourism industry. *Social Media in Travel, Tourism and Hospitality: Theory, Practice and Cases*, 261.
- Stelzner, M. A. (2014). *How marketers are using social media to grow their businesses*. Social Media Marketing Industry Report.
- Stokes, D., & Lomax, W. (2002). Taking control of word-of-mouth marketing: The case of an entrepreneurial hotelier. *Journal of Small Business and Enterprise Development*.
- Stutzman, F. (2006). An evaluation of identity-sharing behavior in social network communities. *Journal of the International Digital Media and Arts Association*, 3(1), 10-18.
- Tajudeen, F. P. (2014). *Social media usage and its impact on Malaysian organizations* (Doctoral dissertation, University of Malaya).
- Thong, J. Y. (2001). Resource constraints and information systems implementation in Singaporean small businesses. *Omega*, 29(2), 143-156.

- Tornatzky, L. G., Fleischer, M., & Chakrabarti, A. K. (1990). *Processes of technological innovation*. Lexington Books.
- Trainor, K. J., Andzulis, J. M., Rapp, A., & Agnihotri, R. (2014). Social media technology usage and customer relationship performance: A capabilities-based examination of social CRM. *Journal of Business Research*, 67(6), 1201-1208.
- Trusov, M., Bucklin, R. E., & Pauwels, K. (2009). Effects of word-of-mouth versus traditional marketing: Findings from an internet social networking site. *Journal of Marketing*, 73(5), 90-102.
- Tushman, M., & Nadler, D. (1986). Organizing for innovation. *California Management Review*, 28(3), 74-92.
- Urquhart, C., & Vaast, E. (2012). Building social media theory from case studies: A new frontier for IS research.
- Uyar, A., & Boyar, E. (2015). An investigation into social media usage of publicly traded companies. *Journal of Corporate Accounting & Finance*, 27(1), 71-78.
- Uyar, A., Boyar, E., & Kuzey, C. (2018). Does social media enhance firm value? Evidence from Turkish firms using three social media metrics. *The Electronic Journal Information Systems Evaluation*, 21(2), 131-142.
- Vishwanath, A. (2009). Using frames to influence consumer willingness to pay for the patient health record: A randomized experiment. *Health Communication*, 24(5), 473-482.
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(2), 171-180.
- Williamson, A. (2011, April). Driving civic participation through social media. In *European Workshop on Perspectives of Web* (Vol. 2).
- Wong, A. (2012). Social media towards social change: Potential and challenges for museums. In *Museums, Equality and Social Justice* (pp. 329-341). Routledge.
- Woodcock, N., Green, A., & Starkey, M. (2011). Social CRM as a business strategy. *Journal of Database Marketing & Customer Strategy Management*, 18(1), 50-64.
- Zhang, T. C., Omran, B. A., & Cobanoglu, C. (2017). Generation Y's positive and negative eWOM: Use of social media and mobile technology. *International Journal of Contemporary Hospitality Management*.
- Zhu, L., Anagondahalli, D., & Zhang, A. (2017). Social media and culture in crisis communication: McDonald's and KFC crises management in China. *Public Relations Review*, 43(3), 487-492.