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Article

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Academic journal of economic studies

Provided in Cooperation with:
Dimitrie Cantemir Christian University, Bucharest

Reference: Sani, Habibu/Shazida Jan Mohd Khan et. al. (2019). Do social capital and small and medium enterprise factors influence the performance of small businesses? : empirical evidence from emerging economy. In: Academic journal of economic studies 5 (4), S. 78 - 87.

Academic Journal of Economic Studies
Vol. 5, No. 4, December 2019, pp. 78–87
ISSN 2393-4913, ISSN On-line 2457-5836

Do Social Capital and Small and Medium Enterprise Factors Influence the Performance of Small Businesses? Empirical Evidence from Emerging Economy

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Abstract This study intends to explore the influence of social capital and SMEs factors on the performance of Small Medium Enterprises (SMEs) in an emerging economy. The huge challenges that SMEs sector faced as a result of the difficulty in accessing finance, shortage of infrastructure, capital accumulation, inadequate personal savings, low level of experience, and innovative technology have motivated this study. Two-stage sampling technique was used to select 139 SMEs as a sample in the two States of North-Western Nigeria (Sokoto and Zamfara). The data for this study were gathered through the means of an online survey. Using the method of Ordinary Least Square (OLS) the findings indicated a significant positive influence amongst networking, technological innovation, and the number of employees with SMEs performance. However, trust has a significant negative relationship with SMEs performance. Accordingly, the findings reveal an inverse relationship between social ties and SMEs performance, which is insignificant in explaining the relationship. The study recommended an execution of social capital aspects and other SMEs factors through adoption of an application of effective strategy, for better outcomes in relation to the performance of SMEs in emerging economies.

Key words Social capital, Number of employees, Technological innovation, SMEs performance, North-Western Nigeria

JEL Codes: L25, L29

Received: 23 September 2019 **Revised: 12 October 2019** **Accepted: 19 October 2019**

1. Introduction

Small and Medium Enterprise (SMEs) sector has been playing a substantial role towards the development of many economies in terms of creation of employment (Ayyagari *et al*., 2011). For instance, Abor and Quartey (2010) reported that SMEs observed closely 85 percent employment generation in the Ghanaian manufacturing sector, and also thought to have contributed approximately 70 percent to the Growth Domestic Product (GDP) of the country. Therefore, well achieved and vital SMEs in Nigeria establish important sources of wealth and the societies enjoy merit of employment and source of income (Etuk *et al.,* 2014). Small and Medium Enterprise Development Agency of Nigeria (SMEDAN) and National Bureau of Statistics (NBS) survey reports (2014) reveals that SMEs in Nigeria provides major employment opportunities and relatively impact on the GDP and the advancement of export among others. These clearly highlighted the immense contribution of SMEs to the GDP of the emerging economies (Qamruzzaman and Jianguo, 2019).

Despite the contribution of the SMEs sector towards the economic development, however, empirical studies have indicated that the sector is still behind their full abilities as a result of dearth in accessing finance among other factors which hinder their operation in most emerging economies. This tends to have a higher rate of failure as compared to large organizations (Radzi *et al*., 2017). Access to finance stands as one of the factors that limit the SMEs performance in less developed economies (International Finance Corporation IFC, 2010). The challenge has negatively influenced the activities of SMEs. This issue has since driven the attention of many scholars which have been making enormous contributions in different dimensions and components toward improving the performance and development of the SMEs sector (Radzi *et al*., 2017). Another factor which slows the ability of SMEs sector is the issue of a large number of SMEs in the emerging economies which could not be covered by MFIs. There is also lack of collateral from SMEs to present to financial institutions, which most of the financial institution held as a security in case of loan default.

Apart from the primary issues mentioned, there are other issues within the SMEs, which also influence their performance. Social capital is one of the driving forces toward enhancing the performance of employees in an organization which may influence the general performance of the firm. The theory of social capital indicated that social capital of a firm is information shared within the organization via network, mutual exchange and collective action toward attaining a specific organizational objective (Murphy, 2002). Trust and networking are the main features of social capital which are found to be important contributors to the firm's social capital. Murphy (2002) stated that network and trust contributed immensely to the overall firm's performance. However, despite the positive influence of the social capital

aspects towards the growth and performance of a firm, it has been argued that there is lack of definitive consistency and precision in explaining its development process in a more reasonable term (Arrow, 2000). Additionally, Seierup (1996) contended that if networking is deeply embedded in a small attribution, access to information might be muffled and therefore, the relationship outside a particular structure of networking might be established poorly. As a result, some scholars view the social capital approach towards achieving a successful organizational performance as being difficult while others see the approach as sceptical (Murphy, 2002). Prior empirical studies have highlighted other issues that obstruct SMEs performance which include but not limited to inadequate technological innovation, low level of experience, skills which also caused business failure (Chukwunweike *et al*., 2015; SMEDAN & NBS Survey Report, 2014).

Therefore, both social capital components and the SMEs factors discussed in this study are carried out in order to evaluate their influences on SMEs performance as various studies conducted similar research with one or two factors and in some different settings. For instance, some studies are carried on in the Czech Republic (Musteen *et al*., 2010), UK (Brown *et al.*, 2015), while some in Ghana (Mensah, 2004) and some in China (Shen *et al.*, 2009), also some in the East-African Tanzania (Kessy and Temu, 2010) among others. Some of these previous studies used one or two of the SME factors. For instance, there is a study conducted by Tundui and Tundui (2013) that focused on bonding, bridging, and linking social capital and ignoring trust and networking. Also, a study conducted by Dai, Mao, Zhao and Mattila (2015) focused on a network in determining the performance of hospitality firm in Chinese hotel using hierarchical moderated regression analysis. On the other hand, Brown *et al*., (2015) explores the relationship between the employee trust of managers and performance of the working condition.

Hence, based on the differences in these previous studies with regards to the areas and methods used, this research motivated to examine the influence of the social capital components and SMEs factors on the performance of SMEs, using Sokoto and Zamfara State in North-Western Nigeria. Another motivator of this study is the contradictory results of the previous studies, with some studies found a positive influence on SMEs performance and some previous studies like Andrej and Hajdeja (2005) revealed a negative relationship between interpersonal trust and SMEs performance. Therefore, the argument in current and the preceding sections render this study relatively new especially in these two States of the North-Western parts of Nigeria, because, there is a paucity of empirical studies of such nature which employs the factors (variables) utilized in this study in the area. Thus, in consideration, this study is a contribution to the existing body of knowledge as there exist heterogeneity in the economic activities, culture, tradition, and social norms from one area to another.

The categories (size) of enterprises utilized in this study are Small, and Medium Enterprise (SMEs). The categories of SMEs are normally based on country's level of businesses in relation to their economic activities as a result of the differences in the nature of the economic activities in each country (Abe *et al.*, 2015). Therefore, the definition of the categories of SMEs in Nigeria is indicated in Table 1.

Table 1. Categories of SMEs in Nigeria

Size of the Enterprise	Number of Employees	Assets in Naira value (N) (Million)
Small Enterprise	10 to less than 50	10 to less than 100 Million
Medium Enterprise	50 to less than 200	100 to less than 1 Billion

Source: SMEDAN (2014)

As stipulated in the guidelines, an enterprise should at least have one of the two criteria (in terms of number of employees and Assets) across different sizes.

2. Literature review

2.1. Performance of SMEs

The SMEs performance is vital for both the general society, economic and social development of emerging economies (Abor and Quartey, 2010). Stam *et al.* (2013) noted that performance of a firm has been a multidimensional concept that could be used in a variety of indicators. Kanter and Brinkerhoff (1981) contended that measurement of firm's performance issues is essential to sympathetic firms and what is measured is as important based on how it is measured. The general view of Penrose Theory of Growth of a Firm (PTGF) emphasized the collection of productive resources of a firm in coordination and authoritative network which could makes goods and services available in the market in order to realize a profit. In a nutshell, the coordinated activities and authoritative network expressed the boundaries of a firm (Penrose, 1959). The resources of a firm, according to the PTGF could be combined by a firm in order to achieve growth. Based on the argument of the PTGF this study investigates the influence of SMEs factors on their performance.

On the other hand, the Dynamic Theory of Profit (DTP) stated that profit is the difference between the price and the cost of production of goods and services (Clark, 1902). Clark added that profit is the result of dynamic changes. The theory is build based on specific general changes which may include an increase in capital, improvement in the technique of production and the want of the consumer among others. These changes are reacting on the structure of society and that profit is the result of these specific changes (Clark, 1902). The DTP in general, explains the changes as an indication of the relationship between the entrepreneurial factors and structure of the environmental and economic behaviours. Stam *et al.* (2013) asserted that the important aspect of firm performance is to be able to identify the financial performance measures of a firm. Financial performance shows the success of the economic objective of the organization, which may have an impact on the organization's general operational efficiency. As such, this study employs profitability and sales growth as the indicators of performance of a firm as supported by Auer *et al.* (2011) which stated that firm performance is considered to be the most important consequence of an enterprise, which signifies the profitability growth of a firm. Similarly, Brown *et al.* (2015) measured SME's performance in terms of an increase or decrease of the firms' profit and sales turnover. Moreover, other studies have measured SMEs performance in term of Annual Net Sales (ANS) and Gross Profit Margin (GPM) (Mohammed, 2014; Morobe, 2015).

2.2. Social Capital

Social capital is regarded as the organizational or group aspects such as networks, and trust that enable coordination and cooperation for their mutual benefit. Putnam (1995) asserted that social capital is an assembly between person's social networks and standards of reciprocity, trust, and honesty that rise within person's, which will enhance the effectiveness of culture by enabling coordinated activities. Moreover, social capital is said to be a form of relational organizational capital which may relatively be among the vital factors that firms adopted, with the aim of increasing their performance (Cainelli *et al*., 2007). Fine (2010), stated that the features of social capital are based on what it is and what it does, which could be understood in almost any form of personal and social interaction with different interpretations. Furthermore, Coleman (1988) asserted that social capital is a function that consists variety of different entities, which encompasses features of social structures and the facilitation of actions of performers in relation to either individuals or organizational actors.

2.3. Trust

Trust is often regarded as one of the main aspects of social capital that are found to be the key basic contributors to the organisational social capital, which contributed vastly to the overall firm's performance (Murphy, 2002). A study conducted by Curado and Vieira (2019) explore the influence of trust and mediating effect of knowledge sharing, with SMEs performance. Using 582 SMEs in Portuguese, they found a significant positive influence of trust on the performance of SMEs. They show a partly role of knowledge sharing in mediating trust and SMEs performance. Other studies which found positive significant of trust on the performance of SMEs include, Ofori and Sackey (2010) and Kiprotich (2014).

Despite the stream of studies which found a positive relationship between trust and SMEs performance, however, there are few studies which highlighted a negative impact on trust on the performance of a firm. For instance, Andrej and Hajdeja (2005) examine the impact of different types of trust on SMEs performance. Using a stratified sampling technique, from Bosnia and Slovenia, they found that interpersonal trust negatively affects the performance of SMEs. These studies were conducted in different countries with conflicting results, and therefore, cannot be generalized to other countries like Nigeria. This study examines the influence of social capital, technological innovation and number of employees on the performance of SMEs in Sokoto and Zamfara States of the North-Western Nigeria.

2.4. Networking

Networking is one of the important components of social capital and it rises as one of the corresponding theaters driving forces for (firm performance) innovation output (Cainelli *et al.,* 2007). Empirically, previous studies like Stam, *et al.* (2013) investigates the influence of SMEs personal networks on SMEs performance. They found a significant positive relationship between the network diversity of SMEs and the firm performance. Additionally, Tundui and Tundui (2013) explore the impact of social capital on SMEs performance, using ordered probit method; they revealed that SMEs who receives advice and support from informal networks in their businesses in Tanzania observed improvement in their profit than SMEs who have not received such benefits. On contrary, a similar study conducted in Bulgaria by Manev *et al.* (2017) assessed the role of competitive approaches and social capital on business performance. They found a negative moderating impact of networking with the performance of a firm. Also, they asserted that entrepreneur's network makes an impact in determining the influence of strategies on performance by possibly keeping variation and cost leadership approach.

2.5. Social Ties

Social ties is one of the social capital component within an organization that is internal social capital that exists between the employees, departments or sections and the assets available through these ties (Dai *et al.,* 2015). Prior studies focused on social ties (internal social capital) in exploring its impact on the SMEs performance. (e.g. Maurer *et al*., 2011), some studies focused on external ties (institutional ties) (e.g. Lau, Bruton, 2011). Dai *et al.* (2015) Used 125 sample in exploring the influence of social ties on the firm's performance and found positive impact between social ties and firm's performance. However, they ignore other social capital component and SMEs factors like networking and trust. Thus, this study employs both trust, networking and social ties. Furthermore, Lee *et al.* (2001) examined the impact of social ties (internal capabilities) and external ties on the performance of small and start-up firms. They employ the ordinary least square (OLS) method of analysis, using sampled from 137 enterprises in technology-based Korean firms. They discover an important positive impact on the social ties indicators, entrepreneurial orientation, technological innovation, and financial resources investment on sales growth. On contrary, Edelman *et al.* (2004) explore the drawbacks and the benefit of social capital and found a negative impact of social capital on firms' performance. They argued that social context which internal social capital is created has a significant impact on its form of usage. Similarly, there are other studies that found a negative influence of social ties on firms' performance (e.g. Kiprotich, 2014). For example, Kiprotich (2014) found a negative impact on internal social capital (social ties) and the sales growth of SMEs. These conflicting results might be because of the method of approach utilized in different studies or might be as a result of the economic condition in different study areas. Therefore, the result cannot be generalized.

2.6. Technological Innovation

Technological innovation denotes to a comprehensive process for new product or process for market application, which involved a sequence of actions like, viable production and explosion and the development of new ideas (Liu *et al*., 2012). Technological innovation is generally accepted by the entrepreneurs as an avenue that allows firms to meet the need of their clients, stay ahead of the competition and strategized firm's strengths with market prospects (Rujirawanich *et al*., 2011). Previous studies have found a positive impact between technological innovation and the growth of a firm (e.g. Ebersberger *et al.*, 2010). Similarly, Kafetzopoulos and Psomas (2015) revealed that technological innovation has a direct influence on operational performance of a firm. Contradictorily, Lin *et al.* (2006) examined the influence of social capital, entrepreneur's ability on the performance of technology-based new ventures, they found a negative relationship between the entrepreneurial structure, competence and orientation and social capital. Though, most of the studies in relation to the technological innovation and number of employees, with the exception of Zeng *et al.* (2010) focused on the performance of a firm without specifically directing their scope towards SMEs performance in their analysis, which the scope of the studies might be limited to large firms, and thus the scope and structure of large firms in terms of profitability, size and assets cannot be generalised to SMEs.

2.7. Number of Employees

A number of employees have been considered amongst the avenues to firm's performance which some studies measure it as one of the indicators of firm performance (non-financial) (e.g. Fowowe, 2017). Some studies measure the number of employees as part of the size of the firm (e.g. Fang *et al.*, 2015). Previous studies have found significant positive impact between the number of employees and performance of SMEs. (e.g. Crook *et al.,* 2011; Lööf and Heshmati, 2008; Takeuchi *et al.*, 2007). For instance, Takeuchi *et al.* (2007) found that an increase in the number of employees has a corresponding increase on the performance of employees, which is positively related to firm's overall growth, while, a rise in the growth of firm results to a growth in a number of employees (Lööf and Heshmati, 2008). Similarly, Robson and Bennett (2000) examine the growth of SMEs in British firms and observed a significant positive association between the number of employees and profitability growth. However, despite the positive impact of a number of employees Khalique *et al.* (2015) maintained that human capital (number of employees) does not play a significant role in influencing firm performance. These existing studies confirmed that SMEs in a diverse context, such as economic, social, environmental or cultural background may perform differently. As a result, it clearly testifies the conflicting findings on the performance of SMEs in different countries, which may be a result of dynamic economic changes and many factors. Consequently, a study on the SMEs performance carried on in another setting under consideration is a contribution to the current literature.

3. Methodology of research

3.1. Number of Employees

The instrument of data collection used in this study was based on structural questionnaire, and the sample size was based on Krejcie and Morgan (1970) as follows:

$$S = \frac{NP(1-P)}{\left(\frac{B}{C}\right)^2 (N-1) + P(1-P)}, \quad S = \frac{(220X0.5)(1-0.5)}{\left(\frac{0.05}{1.96}\right)^2 (220-1) + 0.5(1-0.5)}, \quad S = \frac{55}{0.395}, \quad S = 139.24$$

Where: S represent sample size, N signify the size of the population (220) (i.e. the overall SMEs used in this research in 'Sokoto and Zamfara State). (P) represent the proportionate population expected to reply in a specific way (0.50), while B represent the extent of accuracy stated as a proportion, which is 0.05. C denote the value of Z-statistic in relation to the confidence level, which is 1.96 selected for the 95 percent level of confidence. Therefore, approximately 139 SMEs in Sokoto and Zamfara States were selected as the size of the sample in this study and it represent a good sample in an empirical study (Sekaran, 2003).

3.2. Sampling method

A random selection in each cluster was made, in order to have a representative of the sample in the study area (Saunders *et al.*, 2009). The two-stage sampling technique firstly, selected SMEs in Sokoto State. Out of the 841 (SMEDAN and NBS, 2014) in Sokoto State, 60 SMEs each represent the population sample of in both Sokoto north and south, which is 120 SMEs accordingly. On the other hand, the second stage was the selection of population sample in Zamfara State. The listed SMEs is 593 of which 100 SMEs were selected from the (14) Local Government Area (LGA) of the State as the population sample. Therefore, a total of 220 online questionnaire surveys were administered to the SMEs in Sokoto and Zamfara State as the population of the study. A total of 50% questionnaires were added based on Babbie (2014) to tackle the problem of non-response rate.

3.3. Specification of the model

To achieve the objective of this study which is assessing the influence of Social capital component and SMEs internal factors, therefore, the method of Ordinary Least Square (OLS) was used, as it is the most popular method used in estimating the parameters of the multiple regression models and normally fit for explaining cross-sectional data as in this research. Gujarati (2004) asserted that the estimators of OLS are exclusively specified based on observable (X, Y) quantities which could be simply calculated. Studies have used OLS regression (e.g. Lee *et al.*, 2001). Therefore, the OLS model that depicts the association between the regressand and the regressors is regarded as follows:

$$Y_i = \beta_0 + \beta_1 X1_i + \beta_2 X2_i + \cdots\cdots + \beta_k XK_i + U_i$$

The model is linear in its parameters. Empirically, in this study, the model describes the relationship between the performance of SMEs and the determinants. Thus, to achieve this objective, the model is estimated as:

$$SGRT_i = \beta_0 + \beta_1 TRT_i + \beta_2 NW_i + \beta_3 ST_i + \beta_4 TCI_i + \beta_5 NE_i + U_i \quad \ldots\ldots\ldots (1)$$

$$PGRT_i = \beta_0 + \beta_1 TRT_i + \beta_2 NW_i + \beta_3 ST_i + \beta_4 TCI_i + \beta_5 NE_i + U_i \quad \ldots\ldots\ldots (2)$$

Where: SGRT is the sales growth, PGRT is the profitability growth, TRT represent trust, NW is networking, ST is the social ties, NE is the number of employees and TCT represent the technological innovation whereas: β_0, β_1, β_2 … β_5 which are the parameters to be estimated while U_i is the error term.

3.4. Results of the Study variables

Table 2. Frequency of Respondents' Demographic Profile (N=139)

Sample Size (n)	%	N	S Size (n)	%	N	S Size (n)	%	N
Age			**H Hold Size**			**Education L.**		
20 – 29	14.4	20	2	16.5	23	Secondary	20.1	28
30 – 39	39.6	55	3 – 5	54.7	76	NEC/Diploma	19.4	27
40 – 49	37.4	52	6 – 8	17.3	24	Degree/HND	34.5	48
50 and above	8.6	12	9 and above	11.4	16	Post Graduate	25.9	36
Total	100.0	139	Total	100.0	139	Total	100.0	139
Marital Status			**Gender**					
Single	19.4	27	Male	68.3	95			
Married	77.7	108	Female	31.7	44			
Divorced	2.9	4	Total	100.0	139			
Total	100.0	139						

Source: Authors' Computation Using Stata 14

Note: H Hold Size= House hold size, S Size= Sample Size

Table 2 represent the frequency distribution of demographic profile of respondents on age, marital status, household size, gender and the educational levels.

Table 3. Frequencies of Demographic Profile of sampled SMEs in Sokoto and Zamfara State

Firm Age	%	N	Number of Employees	%	N	Nature of Operation	%	N
Less than a year	2.9	4	Less than 10	62.6	87	Manufacturing	39.6	55
1 to 5 years	54.0	75	10 to 49	34.5	48	Agric sector	17.3	24
6 to 10 years	31.7	44	50 to 199	2.9	4	Furniture sector	8.6	12
11 to 15 years	5.8	8	Total	100	139	Service sector	17.3	24
Above 15 years	5.8	8	**Firm ownership**	%	N	Medical Sector	5.8	8
Total	100	139	Single owner.	74.1	103	Building sector	8.6	12
Tech. Innovation			Core ownership	25.9	36	Trading	2.9	4
Modern Tech.	79.9	111	Total	100	139	Total	100	139
Traditional Tech.	20.1	28						
Total	100	139						

Source: Authors' Computation Using Stata 14

Table 3 depicts the frequencies (number) of the demographic profile of sampled SMEs in Sokoto and Zamfara. The table also contains the number of the useable questionnaires which is the frequency of the respondents (139). The items include firm ownership, number of employees, firm age, technological innovation and nature of the operation of the firm.

Table 4. Reliability Analysis of Trust and Networking Items

Constructs	Items	Corrected Item-Total Correlation	Cronbach's alpha if item deleted	Cronbach's alpha	Sample Size
Trust	Trust01	0.749	0.696	0.806	139
	Trust02	0.574	0.779		
	Trust03	0.452	0.844		
	Trust04	0.749	0.696		
Networking	Ntwksup1	0.820	0.671	0.844	139
	Ntwksup2	0.575	0.903		
	Ntwksup3	0.770	0.736		

Source: Authors' Computation Using Stata 14

Table 4 is the reliability analysis which highlighted the constructs, the number of items of the construct. Each construct possessed its number of items. The Cronbach's alpha for trust is (0.806) and that of networking is (0.844).

Table 5. Descriptive Statistics of the Dependent Variables

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Sales growth	139	0	3200	581.76	824.227
Profitability growth	139	0	960	194.48	238.981

Source: Authors' Computation Using Stata 14

Table 5 presents the descriptive statistics of the dependent's variables, involving the mean, minimum, maximum and standard deviation of the continuous variables in this study, which were computed by means of Stata 14.

Table 6. Pearson Correlation Matrix

Variables	N	1	2	3	4	5	6	7
SLG	139	1	0.971***	-0.162*	0.269***	-0.311***	0.256***	0.546***
PFT	139		1	-0.216**	0.265***	-0.327***	0.249***	0.524***
TRT	139			1	0.493***	-0.095	-0.200**	-0.070
NTW	139				1	-0.270***	0.045	0.177**
SCT	139					1	-0.229***	-0.337***
TCI	139						1	-0.108
NOE	139							1

Source: Authors' Computation Using Stata 14

Note: ***, **, * significant at the 1%, 5%, and 10% respectively.

Table 6 depicts the Pearson correlation results which show the connections amongst the variables. For example, the correlation between sales growth (SLG) and the number of employees (NOE) is about (54.6%) while the correlation between social ties (SCT) and technological innovation (TCI) is (-22.9%). Profitability growth (PFT) and technological innovation are (0.249). Therefore, the highest correlation amongst the independent variables is 0.493 that is the correlation between trust (TRT) and networking (NTW). In general, there no issue of multicollinearity in this study since all the correlation coefficients are less than the threshold of 0.8 (Gujarati, 2004) or 0.9 (Hair et al., 2014) as presented in Table 6.

Table 7. Normality Test

Variables	N	Skewness		Kurtosis	
		Statistics	standard error	Statistics	Standard error
SLG	139	1.046	0.174	2.608	0.346
PFT	139	1.077	0.174	2.903	0.346
TRT	139	0.252	0.174	-0.874	0.346
NTW	139	-0.495	0.174	-0.599	0.346
SCT	139	1.595	0.174	0.549	0.346
TCI	139	1.512	0.174	0.288	0.346
NOE	139	0.875	0.174	-0.321	0.346
Valid "N" (listwise)	139				

Source: Authors' Computation Using Stata 14

Though, achieving normality of study variables is not a constant requirement for analysis, however, the result of the analysis is considerably better if the variables are found to be normally distributed. For the purpose of this study, statistical approach skewness and kurtosis were employed to test for normality of the data distribution as suggested by Kline (2011). According to West, Finch, and Curran (1995), skewness and kurtosis values should be less than 2 and less than 7 respectively. Therefore, all variables in this study are found to be normally distributed since the value of skewness ranges from (-0.495 to 1.595) and the value of the kurtosis ranges from (-0.874 to 2.903) as indicated in Table 7. Hence, based on Kline (2011) the data in this study does not deviate from normality distribution. Based on the assumption of the OLS that if the variance of the error term is constant (i.e. homoscedasticity) on the other hand if the error term does not have constant variance hence, they are called heteroscedasticity. In this study, the Breusch-Pagan LM hettest X^2 (p-value) =1.13(0.264). The error term has the same variance. Hence, homoscedasticity exists. It can be seen in Table 8.

Table 8. Multiple Regression Results

Variables	Model 1 (Sales growth)		Model 2 (Profitability growth)		Multicollinearity	
	Coef. β	t-stat./(p-value)	Coef. β	t-stat./(p-value)	Tolerance	VIF
Constant	-543.758	-.764(0.446)	106.872	.528(0.598)		
Independent:						
Trust	-369.152	-2.693(0.008)***	-152.514	-3.852(0.000)***	.667	1.500
Networking	273.724	3.371(0.001)***	91.531	3.903(0.000)***	.670	1.493
Social Ties	-75.291	-.473(.637)	-48.044	-1.046(0.298)	.769	1.300
Tech. Innovation	506.796	3.508(0.001)***	122.260	2.930(0.004)***	.828	1.208
N. of Employees	750.887	6.93(0.000)***	194.466	6.213(0.000)***	.794	1.260
R^2		0.452		0.456		
Adj. R^2		0.431		0.436		
F. Stat.		21.944(0.000)***		22.32(0.000)***		
DW Stat.		1.54		1.67		
N		139		139		
Test of Heteroskedasticity		Breusch-Pagan LM hettest X^2 (p-value) =1.13(0.264)				

Source: Authors' Computation Using Stata 14

Note: *** significant at 1%, ** at 5% and * is significant at 10% (# = one-tailed)

The result of the regression in Table 8 depicts that the value of the R^2 for sales growth model is (45.2%), and the adjusted R^2 is 43.1% while the R^2 for profitability growth is (45.6%) and the adjusted R^2 is 43.6%. The result of the regression shows that trust on the sales growth model is (coefficient = -369.152, p<0.01), and networking for the sales growth model show (coefficient = 273.724, p<0.01). However, social ties on the sales growth model show (coefficient = -75.291, p>0.01), technological innovation depict (coefficient = 506.796, p<0.01), while the number of employees shows (coefficient =750.887, p<0.01) all in the sales growth model. Similarly, with regards to the profitability growth model, the

regression result of trust depicts (coefficient = -152.514, p<0.01) a negative value while networking (coefficient =91.531, p<0.01) have a positive value. But social ties of the profitability growth model like that of the sales growth model shows a converse impact of (coefficient = -48.044, p>0.01). The regression of the technological innovation in the profitability growth model shows a positive value (coefficient =122.260 p>0.01). Also, the result of the number of employees displays a positive value of (coefficient =194.466 p>0.01).

4. Discussions of findings

In testing the expected result for the models (Profitability and Sales) in this study, OLS regression was utilized in order to evaluate the influence of SMEs factors on the firm performance in the Sokoto and Zamfara States of the North-Western Nigeria. The value of the R^2 for sales (45.2%), and the adjusted R^2 (43.1%) testifies that the variation in sales of SMEs in Sokoto and Zamfara State is elucidated by the regressors in this study. While the R^2 for profitability growth (45.6%) and the adjusted R^2 is (43.6%) explains the variation of the profitability of SMEs by the independent variables utilised. In addition, the result of trust reveals a negative significant influence on both sales growths of SMEs, indicating that an increase in a level of trust, will lead to decrease in the sales growth of SMEs. Also, the result reveals that an increase in trust leads to decrease in the profitability growth of the SMEs. Moreover, the result is similar to the findings of Andrej Hajdeja (2005). Considering the regression results of networking, this study reveals a strong and positive influence on the sales and profitability growth of SMEs, thus; a rise in the level of networking results in a corresponding rise in sales, and profitability growth of SMEs; this result accord with the finding of Stam *et al.* (2013).

Though, inverse (insignificant) impact exists between social ties and both sales and profitability growth. This means that there is no corresponding impact between social ties and sales and profitability growth. The results are insignificant in explaining the relationship. As such it does not support the expected result (+) that is positive**.** Furthermore, a significant positive influence exists between technological innovation and both sales and profitability of SMEs. This demonstrates that a rise in the level of technological innovation results to a rise in the sales growth, as well as an increase in the profitability growth. This is similar to Ebersberger *et al.* (2010). On one hand, number of employees portrays a significant positive influence on both sales and profitability growth of SMEs. This specifies that a rise in the number of employees leads to a corresponding rise in level of sales and profitability growth of SMEs with (750.887) and (194.466) respectively. Accordingly, this result tally with the findings of Crook *et al*., (2011); This result supported the expected result that is positive.

In checking for multicollinearity among the independent variables Variance Inflation Factor (VIF) test has been conducted and the results for both the two models shows that none of the VIF value is up to 10 and therefore, multicollinearity does not exist. Moreover, the model as a whole is fit for both the sales growth model and profitability growth model. The sales growth model is significant at the 0.01 level (F, 21.944; P = 0.000), alongside the Durbin Watson (DW) value of 1.54 (indicating no autocorrelation). The profitability growth model is also significant at the 0.01 level (F, 22.32; P = 0.000), alongside the Durbin Watson (DW) value of 1.67 (indicating no autocorrelation).

5. Conclusions

This study explored the relationship between some components of social capital as well as SMEs factors with SMEs performance which are measured in terms of sales and profitability growth. The theory developed by Penrose (1959) has a link between relevant resources both human (number of employees, social capital) and non-human resources (technological innovation) with the sales and profitability growth of a firm. The theory emphasized on the collection of productive resources through authoritative and coordination, network which develops goods and services for sale in the market in order to realize a profit. As such, the theory directly supported the variables employed in this research. The empirical findings of this study, in relation to the SMEs factors (technological innovation, number of employees) have a significant positive influence with sales and profitability growth of SMEs in Sokoto and Zamfara State of the North-Western Nigeria. However, out of the three components of social capital utilized in this study, networking is the only component that indicates a significant positive influence on SMEs performance in terms of sales and profitability growth. Nevertheless, trust has a significant negative influence on the SMEs performance. On the other hand, social ties have a reverse relationship with SMEs performance, which renders the result to be insignificant in explaining the relationship.

Therefore, this study recommended that proper application of effective strategy in executing social capital and other SMEs factors should be adopted by the sector for better outcomes in relation to the performance of SMEs in emerging economies. This study suggested that other social capital component and other SMEs factors can be considered for future research. Also, this study used only two States which represent the North-Western Nigeria. As such future studies can be considered in employing more States in the region or other States in other zones.

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