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Knowledge Management Tools Applications and Organizational Performance of Manufacturing Firms in Rivers State, Nigeria

Evwierhurhoma, Daniel Ejiroghene and Prof. B. Chima Onouha

Department of Management, Faculty of Management Sciences, University of Port Harcourt,
Nigeria

Abstract: The purpose of this study is to determine the relationship between knowledge management tools applications and organizational performance of manufacturing firms in Rivers State, Nigeria. Social media and collaborative tools were used as the dimensions of knowledge management tools applications while profitability and customer satisfaction were used as the measures organizational performance. The study adopted the cross-sectional research survey design with accessible population of 144 managers as the respondents. The study adopted questionnaire as the research instrument and spearman's rank order correlation coefficient statistical was used to test stated hypotheses with the aid of SPSS. The findings show a positive and significant relationship between the dimensions of knowledge management tools applications and the measures of organizational performance. Thus, we recommended that for managers of manufacturing firms to enhance their organizational performance in terms of profitability and customers' satisfaction, they should manage their organization's knowledge effectively and efficiently through the applications of social media and collaborative tools.

Key words: Knowledge; Social Media Tools; Collaborative Tools; Profitability; Customer Satisfaction

1. INTRODUCTION

The manufacturing sector is a major driving force of any economy in the world. The sector is in charge of manufacturing of products vis-à-vis goods and services as well a major source of employment; thus an important means for accelerating both the development and growth of any economy. As important as the manufacturing sector to the development of any economy in the world, the case is different in Nigeria. The history of manufacturing and industrial development in Nigeria reflects how a country has overtime neglected this essential sector due to irregularities in policies and the discovery of oil in commercial quantity in the 1970s (Adeola, 2005). No nations in the world can attain remarkable development without high performing manufacturing sector and for the sector to contribute to the development of Nigeria as a nation; their performance has to be enhanced. This is because the manufacturing firms have

great capability to provide a lot of employment to the increasing population of Nigeria as well provides the necessary environment for other sectors' growth. However, most of these firms in Nigeria have suffered immense setbacks in terms of their performance.

Organizational performance lies at the heart of a firm's survival and it is the one of the most important goal of every enterprise whether small or large, profit or non-profit, public or private enterprises (Ismael, Yusof and Davoud, 2010). Lebans and Euske (2006) expressed that organizational performance has to do with financial and non-financial indicators showing how well an organization has achieve its set goals. These indicators include market share, profitability, the satisfaction of customers, quality of product among others indicators which offers information about the success of the organization. Furthermore, today's business environment the manufacturing firms found themselves is full of frequent changes, increase in globalization as well a knowledge oriented environment that affects their success. Therefore, the survival and performance of these manufacturing firms is dependent upon their capabilities in the development of knowledge oriented competencies that can meet up with today's business environmental changes. In this present information (knowledge) era, knowledge has become an important resource to improving the performance of the organization which needs to be appropriately managed with the application of the right tools.

Knowledge is power as they anonymously say, however it is the knowledge that is rightly applied through the right knowledge management tools that is actually power. This is because many organizations have knowledge but the problem lies in the right tools to apply the possessed knowledge that will bring about an enhanced organizational performance. The effective and efficient management of knowledge is extremely crucial to enhancing organizational success. Thus, Lee and Sukoco (2007) expressed that for any organizations to achieve enhanced performance is not only by successfully deploying of tangible assets and natural resources but also the proper knowledge management, through appropriate tools. This is because the always increasing competitive worldwide business environment has created a hyper-competitive environment for organizations that only through their knowledge assets base will they be able to survive and improve performance.

Knowledge management according to Wong, Tan, Lee and Wong (2015) means the process of managing knowledge through a systematically and organizationally specified process. Organizations will not be able to benefit from knowledge without the applications of some necessary tools. These knowledge management tools according to Uriarte (2008) are hitech infrastructure consisting of computers, database, network applications which helps the organization to facilitate effective knowledge management. The importance of knowledge management tools cannot be taken for granted because business firms needs knowledge to improving its performance in today's dynamic environment we are in which must be carried out through some appropriate tools.

Knowledge has become a necessity and a means to gaining advantage competitively for every organization that will brings an enhanced organizational performance. In today's business environment full of frequent changes and uncertainty, Nonaka, Toyama, and Konno (2000) expressed that flourishing organizations are the ones that can continuously generate new knowledge, share and store it using appropriate tools. As such, successful application of

knowledge through the right tools can enable the organization gain competitive advantage and enhanced their performance (Heisig, Suraj, Kianto and Faith, 2016). However, there is disagreement on the influence of knowledge management vis-à-vis its tools on organizational performance (Sabherwal and Becerra-Fernandez, 2003; Barney, 1995; Vera and Crossan, 2003). These inconsistent observations indicate that knowledge management vis-à-vis tools application influence on organization's performance is still open for examination. More so, this study does not only focus on knowledge management and organizational performance but knowledge management tools applications and organizational performance of manufacturing firms which has not received much attention as most studies (Darroch, 2005; Leonard, 1992; Mills and Smith, 2011) has over the years focused on knowledge management and organizational performance.

Statement of the Problem

In Nigeria, the manufacturing firms have performed below expectation due to a combination of problems which ranges from factors such as poor infrastructure, low-sales, double taxation, infrastructural decay, erratic power supply and frequent government policy inconsistencies among others which has led to the failure of the manufacturing organizations to achieve stated goals and objectives.

Knowledge is an essential resource of any firms, manufacturing firms inclusive, however, only some organizations have been able to exploit this resource in a way that will enhance the performance of the firm. As today's economy becomes more knowledge oriented, so does the need to effectively and efficiently apply the right knowledge management tools in all organizations to improve performance. However, one of the major factors that have affected organizational performance of today is the inability to apply the right tool and behaviour that promotes knowledge acquisitions, sharing, as well as storing. Also, having knowledgeable employee does not guarantee for continuous success and performance, the reason been that the success and performance of the organization lies in the application of knowledge with the right tools.

Aim and Objectives of the Study

The aim of the study is to examine the relationship between knowledge management tool application and organizational performance of manufacturing firms in Rivers State, Nigeria. More so, the specific objectives of this study are to:

- Determine the relationship between social medial tools and profitability of manufacturing firms in Rivers State, Nigeria.
- ii. Determine the relationship between social medial tools and customer satisfaction of manufacturing firms in Rivers State, Nigeria.
- iii. Determine the relationship between collaborative tools and profitability of manufacturing firms in Rivers State, Nigeria.
- iv. Determine the relationship between collaborative tools and customer satisfaction of manufacturing firms in Rivers State, Nigeria.

Research Questions

Below are the research questions formulated to achieve the aim and objectives of this research:

- i. What is the relationship between social medial tools and profitability of manufacturing firms in Rivers State, Nigeria?
- ii. What is the relationship between social medial tools and customer satisfaction of manufacturing firms in Rivers State, Nigeria?
- iii. What is the relationship between collaborative tools and profitability of manufacturing firms in Rivers State, Nigeria?
- iv. What is the relationship between collaborative tools and customer satisfaction of manufacturing firms in Rivers State, Nigeria?

Research Hypotheses

The research hypotheses for this work are stated in the null form and they are as follows:

HO₁: There is no significant relationship between social medial tools and profitability of manufacturing firms in Rivers State, Nigeria.

HO₂: There is no significant relationship between social medial tools and customer satisfaction of manufacturing firms in Rivers State, Nigeria.

H0₃: There is no significant relationship between collaborative tools and profitability of manufacturing firms in Rivers State, Nigeria.

HO₄: There is no significant relationship between collaborative tools and customer satisfaction of manufacturing firms in Rivers State, Nigeria.

2. LITERATURE REVIEW

Theoretical Framework

The theory covering this work is resource based theory which holds that business enterprises must have required resources at their disposal so as to gain advantage competitively and enhance organizational performance (Wernerfelt, 1984). Resource based theory has to do with organization's resources used as input in the operation of the organization and sometimes these resources such as knowledge is scarce and inadequate. Overall, the resource-based theory holds that organizations should exploit and maximize the differences in their resource endowments, capabilities and competencies as bases to design strategies to gain competitive advantage in the market (Raduan, Jegak, Haslinda and Alimin, 2009). Thus, organizations should be able to manage any given knowledge effectively that will yield organizational success. Business enterprise can improve on their performance if they have the appropriate resources (that is knowledge) which are well managed with the right tools. In other words, organizations can attain performance through effective and efficient management of knowledge as organizational resource using appropriate tools.

Conceptual Framework

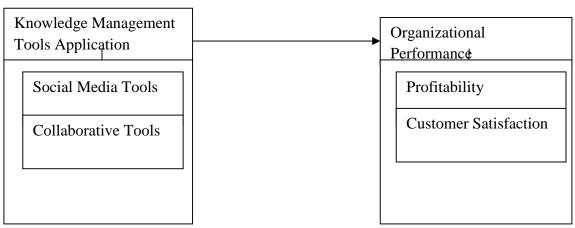


Figure 2.1: Conceptual framework of knowledge management tools application and organizational performance.

Source: Desk Research, 2019.

Knowledge Management Tools Application

Nowadays business enterprises are basically different when compare to older business enterprises that was in existence say fifty years ago due to frequent changes in the environment which has also resulted in changes in the way today's enterprise are been managed. Thus, according to Yu (2003) today's business enterprise put more focus on how to understand, adapt and manage changes in the environment as well compete on the basis of acquiring and using knowledge so as to effectively meet customer' needs. Knowledge according to Davernport, De Long and Beers (1998) is the information that is combined with experience, context, interpretation and reflection. Knowledge is crucial resource, whose efficient usage assists firms to offer innovative products that can affect their performance.

More so, Alan (2012) defined knowledge management as a process of managing firm's knowledge assets so as to create value and meet tactical and strategic requirements through the creation, sharing, and storage of knowledge. It has to do with the systematic process by which the firm gets value from its knowledge based assets. Thus, it can be seen as the management of behaviour which can raise the efficient use of knowledge and thereby the performance ability of the organization. Further, Uriarte (2008) expressed that knowledge management tools are hi-tech infrastructure consisting of computers, database, network applications which helps the organization to facilitate effective knowledge management. The tools for knowledge management are focused on assimilation, comprehension, and learning of the information by individuals who will then transform data and information into knowledge to enhance organizational performance (Stankosky, 2008). Knowledge management tools are used in the creation, organization and sharing knowledge in the organization from one employee to another. It therefore, facilitates knowledge capturing, development, storage, transfer and application in the organization.

Social Media Tools

Social media tools are tools that facilitate the communication between individuals whereby they create and exchange knowledge in a virtual community (Mueller, 2014). Kaplan and Haenlein (2010) expressed that social media tools consist of a collection of internet-based tools that assist users to create knowledge and share it with other users. There has been an increase use of social media tool in business enterprise at a global level among organizations and it has become more than just a tool for external communication to that of knowledge management. Social media tools are bringing swift changes to organization's communication process as well helping business organizations to becoming more socially engaged. Social media tools according to Boyd and Ellison (2007) allows organizations to create a stronger relationship with the community of reference, in order to exploit the network effect and harness collective intelligence and knowledge. It includes various methods such as social networking, blogs, forum, wiki etc. (Kietzmann and Hermkens, 2011).

Collaborative Tools

Collaboration tools are very significant tools used in managing knowledge in the organization especially if workers are dispersed. This is because it provides a kind of large forum in which employees work together over long distances and at different times of the day. Collaborative tools enables employees to work in a secure online workspace by using e-mail, internet web browser and computer or laptop applications so as to share or disseminate knowledge, build closer organizational relationships and streamline work processes (Chakravarthy, Vajre and Deshmukh, 2015). Such an environment also encourage employees in sharing information thereby providing access to knowledge and offer better user interface for internal and external users, thus providing the link between the organization and its partners as well as customers. Collaborative tools include audio conference, chat, and community of practice.

Organizational Performance

Organizational performance is the degree to which a particular business enterprise achieves its stated goals and objectives (Lee and Choi, 2003). Richard, Devinney, George and Johnson (2009) express that it has to do with the establishment of organization's objectives and monitoring improvement towards achieving the stated objectives as well make modification in attaining those goals in an effective and efficient way. In other words it is the outcome of the organization. Furthermore, Organizational performance is a way of measuring the efficiency and effectiveness of organization's action which has to do with the assessment of advancement made towards the attainment of the set objectives. In business it is recognized as a central outcome variable of interest, ranging from human resources and marketing to operations management. According to Pierre, Timothy, George and Gerry (2011) it covers three distinct areas which include performance financially (which include profitability, return on investment); market performance (which include customer satisfaction, market share); and shareholder return, however, this study focused on only profitability and customer satisfaction.

Profits are pointers of organization's good performance from the organization's activities. Profit refers to the ability of the organization to generate income (Griffith and Carroll,

2001). Lipsey, Kenneth, Carlaw and Richard (2003) define profitability as the ability of an organization to maximize revenues and minimize cost. It thus means how well the organization is performing measured in terms of net profit margin. Profitability is very significant to ensuring the continuity of the organization and organization that is not making profit won't be able to survive.

Furthermore, Homburg (2005) defined customer satisfaction as an assessment of previously held expectations with perceived product or service performance. The success of the organization is dependent on the customers' satisfaction; this is because the ability to produce a given product depends on the customers who will consume the produced products; hence without customers no organization will exist. Nowadays organizations have come to realized that the satisfactions of customers play major roles in expanding the market share as well improving the performance of the organization. This is as a result that satisfied customers habitually return to buy more and work as a network to luring other prospective customers in purchasing the organization's product by sharing their experiences. If organizations are able to satisfy their customers, then it is certain that customers will be loyal to the organization (Hague and Hague, 2016).

3. METHODOLOGY

This study adopted quasi-experimental design in the form of a cross sectional survey that studies the relationship between knowledge management tools application and organizational performance. The above research design was adopted because the variables were not under our control. The analysis unit was on the organizational level that is manufacturing firms operating in Rivers State. The target population of the study consists of 48 manufacturing firms operating within Rivers State gotten from Manufacturers' Association of Nigeria, Rivers State Chapter. However, since the study is at the organizational level with 48 firms as the population, we used all the 48 firms as our sample size. Moreover, for the sake of data analysis the questionnaire which was used as the research instrument was distributed to 3 managers in human resources, marketing and production department in each of the firms bringing the number of respondents to 144 respondents.

The research instrument consist of three respond choices with point scales ranging from 1 to 5 indicating strongly disagree, disagree, indifference, agree and strongly disagree respectively. The predictor variable is knowledge management tools application with dimensions of social media tools and video tools and the criterion variable is organizational performance measured with profitability and customer satisfaction. We used face and content validity to make sure the instrument measured what it intended to measure while the reliability of the instrument was done through Cronbach Alpha and the result reveals 0.826, 0.843, 0.849 and 0.817 for social media tools, collaborative tools, profitability and customer satisfaction respectively.

Furthermore, out of the 144 questionnaires that were distributed to respondents, 124 of the retrieved questionnaire were useful and it was therefore used for our analysis. The collected data was analyzed using the spearman's rank order correlation coefficient statistical

in analyzing the stated hypotheses with the aid of SPSS, Windows version 25 within a significance level of 0.05.

4. DATA ANALYSIS AND RESULT

The 0.05 significance level was used as criterion for either accepting the alternate hypotheses at PV less than 0.05 or rejecting the null hypotheses at PV greater than 0.05 as well using multiple regression analysis.

The Strength of the Relationship between Knowledge Management Tools Application and Organizational Performance

Table 1: Strength of Association between Knowledge Management Tools Application and Organizational Performance

		Correlations		
			Knowledge Management Tools Application	Organizational Performance
	Knowledge	Correlation Coefficient	1.000	.951**
	Management Tools	Sig. (2-tailed)		.000
	Application	N	124	124
Spearman's rho	Organizational	Correlation Coefficient	.951**	1.000
	Performance	ance Sig. (2-tailed) .000		
		N	124	124

^{**.} Correlation is significant at the 0.05 level (2-tailed).

Source: SPSS Result, version 25.0

Table 1 shows that a very strong and positive significant relationship exist between knowledge management tools application and organizational performance with a (rho = 0.951) and a P-value at 0.000 which is less than 0.05. This means that knowledge management tools application influences organizational performance significantly.

The Strength of the Relationship between Social Medial Tools and Organizational Performance (Profitability and Customer Satisfaction)

Table 2 Correlation Matrix on the Strength of Association between Social Medial Tools and Organizational Performance (Profitability and Customer Satisfaction)

		Correlations			
			Social Media Tools	Profitability	Customer Satisfaction
	Social Media Tools	Correlation Coefficient	1.000	.923**	.926**
		Sig. (2-tailed)		.000	.000
		N	124	124	124
	Profitability	Correlation Coefficient	.923**	1.000	.939**
Spearman's rho		Sig. (2-tailed)	.000		.000
		N	124	124	124
	Customer Satisfaction	Correlation Coefficient	.926**	.939**	1.000

	Sig. (2-tailed)	.000	.000	
	N	124	124	124

^{**.} Correlation is significant at the 0.05 level (2-tailed).

Source: SPSS Result, version 25.0

Table 2 above shows a very strong and positive significant relationship between social medial tools and profitability with a (rho = 0.923) and a P-value at 0.000 less than 0.05; similarly from the same Table 2 above a very strong and positive relationship exist between social medial tools and customer satisfaction with a (rho = 0.926) and a P-value at 0.000 less than 0.05. This means that social medial tools influences profitability and customer satisfaction respectively.

The Strength of the Relationship between Collaboration Tools and Organizational Performance (Profitability and Customer Satisfaction)

Table 3: Correlation Matrix on the Strength of Association between Collaboration Tools and Organizational Performance (Profitability and Customer Satisfaction)

Correlations								
			Collaborative Tools	Profitability	Customer Satisfaction			
	Collaborative	Correlation Coefficient	1.000	.919**	.936 ^{**}			
	Tools	Sig. (2-tailed)		.000	.000			
		N	124	124	124			
	Profitability	Correlation Coefficient	.919**	1.000	.939**			
		Sig. (2-tailed)	.000		.000			
Spearman's rho		N	124	124	124			
	Customer	Correlation Coefficient	.936**	.939**	1.000			
	Satisfaction	Sig. (2-tailed)	.000	.000				
		N	124	124	124			

^{**.} Correlation is significant at the 0.05 level (2-tailed).

Source: SPSS Result, version 25.0

Table 3 above shows a very strong and positive significant relationship between collaborative tools and profitability with a (rho = 0.919) and a PV of 0.000 less than 0.05; similarly from the same Table 3 above a very strong and positive relationship also exist between collaborative tools and customer satisfaction with a (rho = 0.939) and a PV of 0.000 less than 0.05. This means that collaborative tools influences profitability and customer satisfaction respectively.

Table 4: Effect of Knowledge Management Tools Application (Social Media Tools and Collaborative Tools) on Profitability

Model Summary					
Adjusted R Std. Error of the					
Model	ĸ	R Square	Square	Estimate	
1	.922ª	.850	.847	.84279	

a. Predictors: (Constant), Collaborative Tools, Social Media Tools

Source: SPSS Result, version 25.0

Table 4 above showed an R² of 0.850 which means that social media tools and collaborative tools accounts for 85.0% of the outcome of profitability while the other 15% is unaccounted for. More so, R of 0.922 showed a very strong and positive significant influence of social media tools and collaborative tools on profitability.

Table 5: Multiple Regression Result on Knowledge Management Tools Application (Social Media Tools and Collaboration Tools) and Profitability

Coefficients ^a								
		Standardized Coefficients						
Model		В	Std. Error	Beta	t	Sig.		
1	(Constant)	4.408	.718		6.140	.000		
	Social Media Tools	.512	.217	.339	2.359	.002		
	Collaborative Tools	.797	.195	.589	4.093	.000		

a. Dependent Variable: Profitability

Source: SPSS Result, version 25.0

Model 6: Effect of Knowledge Management Tools Application (Social Media Tools and Collaborative Tools) on Customer Satisfaction

Model Summary					
Adjusted R Std. Error of the					
Model	R	R Square	Square	Estimate	
1	.926ª	.858	.856	.57461	

a. Predictors: (Constant), Collaborative Tools, Social Media Tools

Source: SPSS Result, version 25.0

Table 6 above showed an R² of 0.858 which means that social media tools and collaborative tools accounts for 85.8% of the outcome of customer satisfaction while the other 14.2% is unaccounted for. More so, R of 0.926 showed a very strong and positive significant influence of social media tools and collaborative tools on market share.

Table 7: Multiple Regression Result on Knowledge Management Tools Application (Social Media Tools and Collaboration Tools) and Customer Satisfaction

Coefficients ^a								
Standardized Unstandardized Coefficients Coefficients								
Model		B Std. Error		Beta	t	Sig.		
1	(Constant)	.359	.490		8.733	.465		
	Social Media Tools	.640	.148	.982	7.026	.000		
	Collaborative Tools	.305	.133	.357	2.411	.008		

a. Dependent Variable: Customer Satisfaction

Source: SPSS Result, version 25.0

Testing of Hypotheses

Hypothesis 1

Table 2 shows a PV = 0.000 less than 0.05 and Table 5 shows β = 0.512; t-cal. = 2.359 > t-crit. =1.96 at 0.05% which means that the relationship between social media tools and profitability is statistically significant. We therefore accept the alternate hypothesis, thus there is significant relationship between social media tools and profitability of Manufacturing Firms in Rivers State, Nigeria.

Hypothesis 2

Table 3 shows a PV = 0.000 less than 0.05 and Table 5 shows β = 0.797; t-cal. = 4.093 > t-crit. =1.96 at 0.05% which means that the relationship between collaborative tools and profitability is statistically significant. We therefore accept the alternate hypothesis, thus there is significant relationship between collaborative tools and profitability of Manufacturing Firms in Rivers State, Nigeria.

Hypothesis 3

Table 2 shows a PV = 0.000 less than 0.05 and Table 7 shows β = 0.640; t-cal. = 7.026 > t-crit. =1.96 at 0.05% which means that the relationship between social media tools and customer satisfaction is statistically significant. We therefore accept the alternate hypothesis, thus there is significant relationship between social media tools and customer satisfaction of Manufacturing Firms in Rivers State, Nigeria.

Hypothesis 4

Table 3 shows a PV = 0.000 less than 0.05 and Table 7 shows β = 0.305; t-cal. = 2.411 > t-crit. =1.96 at 0.05% which means that the relationship between collaborative tools and customer satisfaction is statistically significant. We therefore accept the alternate hypothesis, thus there is significant relationship between collaborative tools and customer satisfaction of Manufacturing Firms in Rivers State, Nigeria.

Discussion of Findings

The result of the analysis revealed that knowledge management tools application significantly and positively affect organizational performance. Hence, applying the right knowledge management tools is one fundamental factor, which influences performance of organizations. This is because a worker who can access the required as well relevant information will be able to carry out his or her given task in a better way that will improves their performance (Han and Anantatmula, 2007), thus organizational knowledge must be managed with the appropriate tools that facilitates sharing and storing of information. The adoption and application of knowledge management tools brings about quicker access to significant information needed for better decisions making processes that brings about improved processes and performance in the organization. The process brings substantial savings both financially and time wise leading to better performance of the organization.

Furthermore, Uriarte (2008) expressly observed that through knowledge management tools, the organization can turn knowledge into a strategic asset and create an ever learning

organization and by making them readily available throughout the organization, the entire organization can learn and respond quickly to needs of customers whereby their performance can be enhanced. Knowledge management is very important because knowledge (experience and expertise) been an important assets in the organization which play a major roles in organizational success most of the times lies in the heads of the employees and managers; thus, in order to get optimum gain from this asset, method must be adopted to capture, share and store for easy access by employees through tools such as collaborative and social media tools and by sharing and storing such knowledge where the right person will have access to it for on time decision making increases the performance of the organization.

More so, the relationship between social medial tool and profitability showed a positive and significant relationship which is consistent with the findings of Rodriguez, Peterson and Ajjan (2015); Paniagua and Sapena (2014). They found that the application of social media significantly influences customers' purchase decisions and purchasing activities and therefore increase sales and organizational profitability. By applying social media tool in organizational marketing, organizations will be able to obtain additional information and manage the acquired information more effectively about customers, competitors as well the general market needs which will improve the information accessibility of the organizations to take better decisions that will result in higher profitability for the organization.

Also, the analysis of collected data revealed that social media tools significantly affect customer satisfaction. Thus, Cherotich (2016) observed that the adoption and application of social media tools to communicate organizational brands boost customer awareness and satisfaction. Hoyer and MacInnis (2010) expressed that social media tools has radically improves the relationship between the organization and the customers through a two way communication pattern and providing mediums of interaction with both present and prospect customers which boost relationship between customers and the organization. Using social media tools help the organization to access or gain knowledge on what the needs of customers are so as to produce products to meets those needs which improved customer relations, thereby enhancing their satisfaction.

It was also found that collaborative tools significantly affect the profitability of the manufacturing firms in Rivers State, Nigeria. The application of collaborative tools in managing knowledge according to Kim and Ko (2012) allows organizations to carry out included marketing activities with a reduced amount of effort, better efficiencies and less cost which invariably leads to enhanced profitability for the organization. This is because the applications of collaborative tools to communicate with customers have a significant influence in their purchasing decisions and thereby increasing the profit of the organization. Collaborative tools such as audio conferences helps to reduce cost associated with travelling in the organization as well allowing employees to be more industrious by not having to leave the office for meetings, especially when they are working in a far sites or location resulting in higher profit for the organization in terms cost of logistics.

Furthermore, collaborative tools also affect customer satisfaction of manufacturing firms in Rivers State, Nigeria significantly according to our data analysis. Gordhamer (2009) expressed that consumers nowadays are very knowledgeable and are becoming more difficult

to manage; therefore, organizations must be accessible and available at any time by applying collaborative tools like community of practice. This will help the organization get rich information about customers' needs and the way to serve them better and build up good relationship environment with them. Also, such environment will promote the sharing of information by employees in so doing provides access to knowledge and offer better user interface for internal and external users, thus promoting relationship between the organization and its stakeholders in such a way to satisfying them better. In improving the relationship with customers, knowledge management tools like that of collaborative tools helps in knowing customers better such as records of customers' demographics as well as address which help in serving the customers better.

5. CONCLUSION

This study provides a positive and significant relationship between knowledge management tools application and organizational performance of manufacturing firms in Rivers State, Nigeria. From the findings of our study it is obvious to conclude that knowledge management is an important aspect of the organization and applying it using the right tools such as social medial and collaborative tools organization will be able to increase their performance especially that of profitability and customer satisfaction. Knowledge management is a significant facet of organizational management as it enables better decisions process and help in the provisions of solutions to organizational problem effectively and efficiently; thus, using the right tools to manage the knowledge of the organization result in enhanced organizational performance.

6. RECOMMENDATIONS

The following are the recommendation from our findings

- 1. We recommend that for managers of manufacturing firms to enhance their organizational performance in terms of profitability and customers' satisfaction, they should manage their organization's knowledge effectively and efficiently through the applications of social media and collaborative tools.
- 2. Manufacturing firms' managers should encourage the sharing of knowledge between employees and other stakeholders especially customers with application of social media tools.
- 3. Employees should be trained on how to use effectively social media and collaborative tools that will bring about enhanced performance to the organization.

REFERENCES

Adeola, F.A. (2005). Productivity performance in developing countries: case study of Nigeria. United Nations Industrial Development Organization (UNIDO) Report.

Bamikole, O. (2014). The impact of capacity utilization on manufacturing productivity growth in Nigeria using co-integration analysis. *Electronic Journal*, 1(3), 57-72.

- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 6(17), 99-120. Darroch, J. (2005). Knowledge management, innovation, and firm performance. *Journal of Knowledge Management*, 9(3), 101-115.
- Boyd, D. & Ellison, N. (2007). Social Network sites: definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13 (1), 210-230.
- Chakravarthy, A.S., Vajre, A.H. & Deshmukh, A.M. (2015). Utilization and evaluation of knowledge management tools in information technology industry. *Journal of Business and Management*, 17(2), 41-52.
- Cherotich, V. (2016). Effect of social media marketing strategy on the performance of women owned micro and small enterprises in Kasarani Division, Nairobi County, Kenya (doctoral dissertation, school of business, University of Nairobi).
- Despres, C. & Chauvel, D. (2001). *Knowledge horizons: the present and the promise of knowledge management.* Boston: Butterworth-Heinemann.
- Gordhamer, S. (2009). Four ways social media is challenging business. Retrieved from http://Mashable.com/2009/09/22/spcial-Media-Business/.
- Griffith, J.M. & Carroll, C. (2001). Free cash flow, leverage and investment opportunities. *Journal of Business and Economics*, 1(2), 1-15.
- Hague, P. & Hague, N. (2016). *Customer satisfaction survey: the customer experience through the customer's eyes.* London: Cogent Publication
- Han, B.M., & Anantatmula, V. S. (2007). Knowledge sharing in large IT organizations: a case study. *VINE*, 37(4), 421–439.
- Heisig, P., Heisig, P., Suraj, O. A., Suraj, O. A., Kianto, A., Kianto, A. & FathiEasa, N. (2016). Knowledge management and business performance: global experts' views on future research needs. *Journal of Knowledge Management*, 20(6), 1169-1198.
- Homburg, E. (2005). Do satisfied customers really pay more? a study of the relationship between customer satisfaction and willingness to pay. *Journal of Marketing*, 69(2), 84-96.
- Hoyer, W.D., MacInnis, D.J., & Pieters, R. (2010). *Consumer behaviour*. Mexico: Cengage Learning.
- Ismael, Y., Yusuf, A. & Davond, M. (2010). A review paper on organizational culture and performance. Retrieved from www.ijbssnet. Com/Journals/vol.-1-no.3
- Kietzmann, J. & Kristopher, H. (2011). Social media? Get serious! Understanding the functional building blocks of social media. *Business Horizons*, 54, 241–251.

- Kim, A.J., & Ko, E. (2012). Do social media marketing activities enhance customer equity? An empirical study of luxury fashion brand. *Journal of Business Research*, 65(10), 1480-1486.
- Lebans, M. & Euske, K. (2006). A conceptual and operational delineation of performance.

 Business performance measurement. Cambridge: Cambridge University Press.
- Lee, H. & Choi, B. (2003). Knowledge management enablers, processes, and organizational performance. *Journal of Management Information Systems*, 20, 179-228.
- Lee, L.T. & Sukoco, B.M. (2007). The effects of entrepreneurial orientation and knowledge management capability on organizational effectiveness in Taiwan: the moderating role of social capital, *International Journal of Management*, 24(3), 549-573.
- Leonard, D. (1992). Core capabilities and core rigidities: a paradox in managing new product development. *Strategic management Journal*, *4* (13), 111-125
- Lipsey, J., Kenneth I., Carlaw, K. & Richard G (2003). Productivity, technology and economic growth: what is the relationship? *Journal of Economics Review*, 17 (3), 457–495.
- Mueller, K. (2014). Redefining social media. New York: Lars Muller Publishers
- Nonaka, I., Toyama, R. & Konno, N. (2000). SECI, Ba and leadership: a unified model of dynamic knowledge creation. *Long Range Planning*, 33, 5-34.
- orientation process and organizational sales performance. Presented in *Ideas in Marketing:* Finding the New and Polishing the Old, 636-638. Springer, Cham.
- Paniagua, J.& Sapena, J. (2014). Business performance and social media: Love or hate?. *Business Horizons*, 57(6), 719-728.
- Pierre, J. Timothy, D. George, S. & Gerry, J. (2011). Measuring organizational performance as a dependent variable: towards methodological best practices. *Journal of Management*, 4(1), 57-71
- Raduan, C.R., Jegak, U., Haslinda, A., & Alimin, L. (2009). Management, strategic management theories and the linkage with organizational competitive advantage from resource-based view. *European Journal of Social Sciences*, 11(3), 402-417.
- Richard, P., Davinney, S. & Johnson, G. (2009). Measuring organizational performance: towards methodological best practices. *Journal of Management*, 35(3), 718-804.
- Rodriguez, M., Peterson, R.M., & Ajjan, H. (2015). CRM/social media technology: impact on customer

- Sabherwal, R. &Becerra-Fernandez, I. (2003). An empirical study of the effect of knowledge management processes at individual, group, and organizational levels. *Decision Sciences* 4(1), 73-89.
- Stankosky, M. (2008). Keynote address to ICICKM (International Conference on Intellectual Capital, Knowledge Management and Organizational Learning), 9-10.
- Uriarte, F.A. Jr. (2008). Introduction to knowledge management. Jakarta: ASEAN Foundation.
- Vera, D. & Crossan, M. (2003). *Organizational learning and knowledge management: towards an integrative framework*. Oxford: Blackwell Publishing.
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(2), 171-180.
- Wong, K. Y., Tan, L. P., Lee, C. S., & Wong, W. P. (2015). Knowledge Management performance measurement: measures, approaches, trends and future directions. *Information Development*, *31*(3), 239-257.
- Yu, T.S. (2003). Can East Asia rise again? *Journal of Asian Economics*, 13, 125–146.