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Knowledge exchange as a predictor of business innovation among SMEs in Ogun State, Nigeria.

Unegbu, V.E & Diyaolu, A.M
Department of Information Resources Management
Babcock University
Ilisan-Remo, Nigeria

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Abstract
Purpose: *Business innovation is the improvement made on the array of products and services of a firm. Thus, this study investigates the influence of knowledge exchange on business innovations among SMEs in Ogun State, Nigeria.*
Design / Methodology: *The study adopted survey research design. The population of the study comprised 415 staff employed by 55 SMEs in the state. A sample size of 204 was determined with the aid of Taro Yamane determinator. A proportionate sampling technique was used to select respondents through the structured and validated questionnaire that was designed for data collection. Cronbach's alpha reliability coefficients for the variables ranged from 0.70 to 0.88, while a return rate of 100% was achieved. Data were analysed with descriptive and inferential (simple linear and multiple regression) statistics.*
Findings: *Findings revealed that knowledge exchange had a positive significant influence on business innovation of SMEs in Ogun State. Nigeria The result further indicated that all the measures of knowledge exchange were significant. Based on the findings, this study recommends that SMEs should make more provision for collaboration, improved communication, training and encouragement of staff so as to improve their current achievements in business innovations.*
Originality / Value: *The study has been able to fill some gaps noticed in the literature and also provided empirical justification on the influence of knowledge exchange on business innovation. It has also help to generate new knowledge needed for policy and decision-making relating to accessing innovativeness in SMEs.*

Keywords: *SMEs, Knowledge exchange, business innovation, performance, product, services etc.*

Introduction

Business innovation is realized in correspondence to its introduction in the market (product or service innovation) or to its use in the productive process (Bigliardi, Colacino, & Dormio, 2011). Essentially, business innovation is concerned with activities involved in production processes, as well as services of a firm. Realizing this fact, Akosile (2017) opined that product innovation as a form of innovation is essentially an imitation of imported goods that is always driven by specific business need to meet local consumer needs. Product innovation can help SME to come up with new opportunities in a seemingly saturated market and by identifying the gaps and imposing oneself into a new space where one can find an audience and satisfy consumer needs in a way that is new and challenging.

Fast-moving consumer goods (FMCG) like daily necessities, toiletries, hand soap, disinfectants, perfume, home furnishings, plastics, agricultural by-products, foods, and confectioneries, industrial raw materials like palm kernel oil, kernel mesh, palm oil, groundnut oil, poultry feeds, home accessories, toys, jewelery, and health and pharmaceutical products like tissue paper,

cotton wool, methylation, etc. are typical end products of manufacturing SMEs.

In the alternative, a new or considerably improved service concept, product, or process in a new or existing market is referred to as a "service innovation." It may involve new methods of client interaction or distribution, a system that streamlines the delivery procedure, or improvements to customer interface design. Generally, service innovation raises client loyalty and satisfaction.

Innovation in services typically results in increased customer satisfaction and loyalty. Both are concerned with the direct attributes of the service offering, but at the same time, with the image of the supplier, and also with the unique relationship that the customer and the supplier may have. Ordinarily, a service is an activity or series of activities of a more or less tangible nature that normally, but not necessarily, takes place in interaction between a customer and service employees and or physical resources or goods and or systems of the service provider, which are provided as solutions to customer problems (Susman, Warren & Ding, 2006).

Products and services innovations are seen as business innovation, they however differ in some certain aspects due to their respective peculiarities, for example, the labour intensive nature of services innovations require much less capital investment compared to the product innovation. Again, service innovations usually require less research and development inputs, less fixed assets, as well as less investment on patents and licenses for the development of new services (Organisation for Economic Cooperation and Development, 2005). Business innovation as conceptualized by this study comprises of product or process and services innovation, while the non-technological comprises organisational and administrative innovations. New products and services cannot be developed effectively in isolation of customers. Appointed employees can listen to customers' problems, generate their own ideas and solutions and exchange them with others later for the purpose of advancing the innovation of product and services process of their respective companies. Management must consistently support the innovation process, encouraging employee involvement, as well as anchoring effective and free flow communication among the different classes of employee for success in product and services innovation.

Similar to this, customers' expectations of service experiences are rising as a result of fast-moving consumer goods and service cycles. Most of the time, providing superior customer service involves adding features and functions to those provided by simply owning or leasing a product. By doing this, the company can better meet its customers' needs and ultimately improve its financial situation through repeat business and potential referrals from satisfied customers.

The emergence of commercial innovation has some bearing on the current problem. Therefore, effective Knowledge exchange implementation by SMEs will enable these businesses to realize wider-ranging benefits that can positively affect the overall national economy. Thus, proper Knowledge exchange implementation by SMEs will enable these enterprises to reap a broader dimension of gains which can successfully impact the national economy as a whole.

This explanation shares common ideology with the summation of Chong, Chong and Gan (2015). Muscio (2014) reasoned that firms must accumulate and process both the internal and external knowledge, establish learning processes based on diverse opinions and also seek to recombine different

knowledge inputs originated by different sources in order to carry out innovative activities which can either be done through internal knowledge sources or on reliable external transactions. According to The Economist Intelligence Unit (2015), small and medium-sized enterprises (SMEs) make up over 90% of all firms in Nigeria and are important to achieving the nation's objectives of sustainable growth, eradicating poverty, and creating jobs. In a similar vein, The Federal Government of Nigeria affirms that approximately 17,284,71 Micro, Small, and Medium Scale Enterprises (MSME) in Nigeria, with the vast majority of them classified as Micro Enterprises, have the potential to contribute about 75% of employment and about 40% of the nation's GDP (Federal Government of Nigeria, 2013). The aforementioned suggests that information exchange may have a big impact on business innovation in small and medium-sized businesses. As a result, the study aims to examine how knowledge exchange influences corporate innovation in Small and Medium Scale Enterprises in Ogun State.

Statement of the problem

These days, the activities of the manufacturing sector of the SMEs is not bringing in much of the anticipated results in terms of outputs expected from their (SMEs) activities. For instance, the mix of products released by most of these firms are either short of quality or durability and it cannot be established whether these products could yield enough profit to sustain the respective firms, let alone, adding the much needed value to economic development of the state and country at large, neither does it contribute to increase the employment opportunities for the teeming population as part of the core values of the SMEs (Onikoyi,2017) and this might be partly due to low application of business innovation by the SMEs in the state.

Again, there is no enough literature on issues that boarders on business innovation within the African context, in similar manner, there is dearth of literature on research that combine the variables of this research in one single study. Therefore, it then became necessary to develop an approach of knowledge to inform better theory that improves practical mechanisms for enabling SME growth through a knowledge–based process. These are issues of significance and concerns, and to this end**,** this study will investigate the influence of knowledge exchange on business innovations (products and services innovations) among the SMEs in Ogun State, Nigeria.

Objectives of the study

The main objective of this research is to investigate the influence of knowledge exchange on business innovations among SMEs in Ogun State, Nigeria. The specific objectives are to:

1. identify the business innovations among SMEs Ogun State, Nigeria;
2. find out the knowledge exchange activities of SMEs in Ogun State, Nigeria;
3. find out the influence of knowledge exchange on product innovations among SMEs in Ogun State, Nigeria;
4. investigate the influence of knowledge exchange on service innovations among SMEs in Ogun State, Nigeria;
5. investigate the influence of knowledge exchange on business innovations among SMEs in Ogun State, Nigeria;
6. examine the influence of the measures of knowledge exchange on SMEs' business Innovations in Ogun State, Nigeria;

7. identify the general constraints to business innovations among SMEs in Ogun State, Nigeria.

Research Questions

The study will attempt to provide answers to the following questions:

1. What are the business innovations among the SMEs in Ogun State, Nigeria?
2. How is knowledge exchanged among the SMEs in Ogun State, Nigeria?
3. What are the major constraints to business innovations among SMEs in Ogun State, Nigeria?

Hypotheses

The following null hypotheses will be tested at 0.05 level of significance:

$H_{01:}$ knowledge exchange has no significant influence on product innovations among SMEs in Ogun State, Nigeria;

$H_{02:}$ knowledge exchange has no significant influence on service innovations among SMEs in Ogun State, Nigeria;

$H_{03:}$ knowledge exchange has no significant influence on business innovations among SMEs in Ogun State, Nigeria;

H_{04} The measures of knowledge exchange, ICT use and organisational characteristics have no influence on business innovations among SMEs in Ogun State, Nigeria.

Literature review

Duberly and Everson (2011) informed that Nonaka put forward four types of knowledge conversion that are formed when tacit and explicit knowledge interact. These includes *Socialization* (tacit to tacit), the process of converting new tacit knowledge through shared experiences in day-to-day social interaction. *Externalization* (tacit to explicit), a process whereby "tacit knowledge is transformed into explicit knowledge, for it to be shared as the basis of new knowledge. Then, *Combination* (explicit to explicit), a process in which explicit knowledge is collected from inside or outside the organization and then combined, edited, or processed to form more complex and systematic explicit knowledge. This new explicit knowledge is then communicated among the members of the organization." The last of the four is *Internalization* (explicit to tacit), it is a process whereby explicit knowledge created and shared throughout an organization is then converted into tacit knowledge by individuals. This stage where knowledge is redistributed and applied in practical situations and becomes the base for new procedure. Knowledge is a critical source of an organization's competitive advantage in a challenging business environment for enhanced performances while the management of knowledge assets is now very essential in order to have competitive advantage and huge strategic opportunity by the firms (Hassan & Raziq, 2019).

Individuals must be aware of their methods for knowledge absorption and reuse in order for an organization to have an effective information exchange. Individuals learn to work together through sharing information in this ongoing process. They will be able to develop their abilities and increase their capacity as a result of these practices, which will also benefit the organization's culture of sharing. As a result, while an organization cannot produce knowledge on its own, it can assist and inspire those who do. As a result, the process of creating and disseminating knowledge in a knowledge-centered

organization is a never-ending cycle with no real beginning or finish, and individuals play a key role in it. Additionally, sharing knowledge among people is the only way to improve organizational success and performance (Argote and Ingram, 2000). The important issue at hand is knowledge, which may be in the form of skills stored in the individual staff members' repositories. For instance, a highly experienced staff member may have accumulated a great deal of experience over the course of his or her career, which may ultimately influence his or her decisions regarding the exchanging or sharing of such skills or knowledge. Meetings, discussions, memos, training, and other popular methods of exchanging knowledge are included below.

According to Wamundila (2008), community of practice entails the sharing of information among formal and informal groups of an organization's personnel. They either take place freely or are formally constituted. Meetings, group discussions, and briefings are examples of collaboration, whereas a staff member's expertise will depend on how much experience they have with the idea that could spur innovation. Training will look into how much on-the-job effort is put into preparing staff to perform better on their various assignments and address future issues, but rewards will be measured in terms of incentives or praise given to staff who engage in acts of knowledge donation or distribution or actions that could result in such developments within the industry.

Wamundila (2008) stated that communities of practice involve transfer of knowledge within formal or non-formal segments of employees in the organization. They are either formally established or happens voluntarily. Collaboration is observed in terms of having meetings, group discussion and briefing while staff skill will be based on the amount of experience the member has gathered in relation to the idea that could promote innovation. Training will investigate the level of on-job attempts towards the capacity building of staff for performance and improvement on their various assignments and future concerns, but reward will be measured in terms of incentives or accolades given to such staff that engaged in the act of knowledge donation or distribution or efforts that could lead to such developments within the organization.

Easa (2012) conducted a study on knowledge management SECI model and innovation in the Egyptian banking sector. The study provided detailed investigation of the use of SECI model and was believed to be the first of such study done within the context of a developing country. The study combined a mixed method of research by adopting a survey and interview method. 450 questionnaires were administered to staff in all the twelve (12) selected banks in Egypt, a total number of two hundred and thirty- seven (237) corresponding to 52.7% rate of return was recorded. However, only two hundred and ten questionnaires were found to be valid. In addition, twenty-six Semi - structured face-to-face interview sessions were held to support the findings. Data analysis was done using both the descriptive and correlational tools of the Predictive Analytic Software (PASW). The study asserted that SECI model of knowledge conversion is a universal model while its four processes were confirmed through the factor analysis. Findings of the study of the study also confirmed that each of the SECI processes positively influenced the innovation process of the banks in Egypt, though in varying degrees by increasing the generation of ideas for banking services. However, Internalisation

was found to have made the highest influence on innovation, and is followed by Combination, Externalisation and the least, Socialisation.

Methodology

The survey research design guided the study. The population was drawn from the high concentration of SME businesses around Ogun State, Nigeria, using the publication of the National Association of the Small and Medium Scale Enterprises, NASME (2021) as a guide. The publication comprised one hundred and ninety-six (196) registered members and their respective addresses, phone numbers, e-mail, etc. and was used to contact the in order to ascertain their respective staff strength and very other details. The SMEs were drawn from pharmaceutical outlets, manufacturing, textile, telecommunication, agro-allied, tourism, printing, building and construction, shoe making, fashion designing, events and entertainment sectors, etc.

Multistage sampling procedure was used for this study. Multistage sampling is defined as a sampling method that divides the population into groups (or clusters) for conducting research in a complex form, then significant clusters of the selected people are split into sub-groups at various stages to make it simpler for primary data collection (Kalton, 1983).

Firstly, the entire state was divided to groups or clusters (i.e., senatorial districts) using the stratified sampling technique. The 3 senatorial districts are Ogun East, Ogun West and Ogun Central. Based of size and level of economic activities, Sagamu (Ogun East), Sango-Ota (Ogun West) and Abeokuta (Ogun Central) were purposively selected as the study's locations. The population of the study consisted 196 firms across the aforementioned senatorial districts in the state. Of this firms, 13 each were selected from Sagamu and Sango-Ota while 29 were selected from Abeokuta, making a total number of fifty-five (55 and 29%) SMEs. The number of employees engaged by the 55 firms were 415 out of which 204 were drawn as sample using the Taro Yamane formula.

The questionnaire that was used to collect data was divided into seven (7) main sections ranging from A to G. Section A was scheduled to obtain respondents' biographical information, section B elicit information on the concepts and means of business innovations in SMEs, section C contain questions that evaluate the process of knowledge exchange and business innovations in SMEs, section D collects information on the purpose of ICT use by the SME operators, section E obtains information on the frequency of ICT use in business innovations of the SMEs, section F focuses on organisational characteristics and section G deals with constraints to business innovations among SMEs in the state. The questionnaire was based on 5-point Likert scale of: Always = 5, Often = 4, sometimes = 3, Rarely = 2 and Never = 1.

The Cronbach's alpha reliability coefficient of all variables ranked above 0.71, it shows that the instruments were strong and very reliable. The AVE ranges from 0.50 to 0.70. This implies that the values are above the minimum of 0.50 and shows that each variable on an average can explain more than half of the variance of its indicators. Similarly, the Composite reliability (CR) for all constructs, measures (0.60 and above). Data Analyses were based on descriptive and inferential statistics. Whereas the descriptive statistical tools of frequency counts, simple percentages, mean and standard deviation were used to analyzed the

research questions, inferential statistical tools of simple and multiple regression were employed to test the hypotheses.

Results

Table 1: Frequency Distribution of Respondents' by Business Location

Business Location	Frequency	Percentage (%)
Abeokuta	84	41.2
Sagamu	44	21.6
Sango Ota	76	37.2
Total	**204**	**100**

Source: Field Survey, 2021

Table 1 shows the distribution of respondents based on location. 84 (41.2%) were chosen in Abeokuta, 44 (21.6%) were selected in Sagamu while 76 (37.2) were chosen from Sango Ota. Its implies that the three (3) geo-political zones in Ogun State were covered in the study.

Table 2: Distribution of respondents showing ownership

Position or Rank	Frequency	Percentage (%)
Owner	76	37.3
Manager	46	22.5
Other Employee	82	40.2
Total	**204**	**100**

Source: Field Survey, 2021

Table 2 presented the responsibility status among the SMEs. The result showed that Business Owners constituted 76 (37.3%) of the respondents, Managers recorded 46 (22.5%) of the population while Normal Employees accounted for 82 (40.2%) of the respondents. The survey was majorly characterised of owners due to the nature and scope of the SMEs and this was evident by their (owners) large presence.

Table 3 Frequency Distribution of Respondents by Sector or Business Type

Sector or Business Type	Frequency	Percentage (%)
Manufacturing	18	8.8
Pharmaceutical	21	10.3
Textile	11	5.4
Telecoms	13	6.4
Agro Allied	24	11.8
Business Centre	17	8.3
Trading	25	12.3
Hotel and Event Centre	11	5.4
Music, Arts and Entertainment	5	2.5
Building and Construction	15	7.4
Aluminum and Metal	2	1.0
Consultancy	1	0.5
Educational Services	3	1.5
Health Care	5	2.5
Carpentry	2	1.0
Shoe Making	2	1.0
Motor Mechanic	8	3.9
Hairdressing and Barbing Salon	5	2.5
Environmental Services	2	1.0
Fashion Design	6	2.9
Catering Services	4	2.0
Banking and Financial Sector	4	2.0
Total	204	100

Source: Field Survey, 2021

Table 3 showed the domains of Small and Medium-Scaled businesses in Ogun State. It listed the common business types among the state's SMEs operators. The list is inclusive

of both individual and group businesses. However, trading appeared as the largest among the classes of SMEs 25 (12.3%) respondents and strictly followed by Agro-allied 24 (11.8%), pharmaceuticals 21 (10.3%) and manufacturing 18 (8.8%).

Descriptive Analysis of Research Questions

Table 4 Business innovations among the SMEs in O

Research Question One: What are the business innovations among the SMEs in Ogun State, Nigeria?

Business Innovation								
S/N	**Products Innovation**	**Strongly Disagree**	**Disagree**	**Moderately Agree**	**Agree**	**Strongly agree**	**Mean**	**SD**
1	Our company frequently tries out new ideas for products making	19(9.3%)	13(6.4%)	13(6.4%)	57(27.9%)	102(50.0%)	4.03	1.29
2	Our firm seeks new ways of modifying our products	17(8.3%)	14(6.9%)	14(6.9%)	75(36.8%)	84(41.2%)	3.96	1.28
3	Our company is creative in its approach and methods	12(5.9%)	13(8.3%)	23(11.3%)	76(37.3%)	76(37.3%)	3.92	1.16
4	Our company is frequently the first to market new products	14(6.9%)	29(14.2%)	33(16.2%)	62(30.4%)	66(32.4%)	3.67	1.25
5	Our business is ready to use new ideas for our products	19(9.3%)	11(5.4%)	16(7.8%)	68(33.3%)	90(44.1%)	3.98	1.26
6	Our organization is quick in problem solving as compared to key competitors.	11(5.4%)	17(8.3%)	21(10.3%)	89(43.6%)	65(31.9%)	3.90	1.12
7	In our business, there is continuous improvement in the production process.	14(6.9%)	15(7.4%)	20(9.8%)	75(36.8%)	80(39.2%)	3.94	1.19
8	Compared with our major competitors our new product development program is more successful.	14(6.9%)	18(8.8%)	32(15.7%)	67(32.8%)	73(35.8%)	3.82	1.21
9	Quality development of our products is better as compared to what was on ground before.	15(7.4%)	7(3.4%)	32(15.7%)	67(32.8%)	83(40.7%)	3.96	1.17
10	Our customers feel more satisfied with our products	16(7.8%)	9(4.4%)	18(8.8%)	80(39.2%)	81(39.7%)	3.99	1.17
	Grand Mean						**3.92**	1.30
	Service Innovation							
1	Our company is frequently the first to market new services	14(6.9%)	30(14.7%)	39(19.1%)	59(28.9%)	62(30.4%)	3.61	1.25
2	Compared to the services available in the market, we develop services that provide more benefits to consumers	10(4.9%)	18(8.8%)	25(12.3%)	69(33.8%)	82(40.2%)	3.96	1.15
3	Our business is ready to use new ideas for our services	18(8.8%)	11(5.4%)	9(4.4%)	66(32.4%)	100(49.0%)	4.07	1.24
4	Ways of delivery of existing services to consumers are often changed	10(4.9%)	19(9.3%)	39(19.1%)	58(28.4%)	78(38.2%)	3.86	1.17
5	We have business policy to guide innovation of our services	18(8.8%)	10(4.9%)	21(10.3%)	68(33.3%)	87(42.6%)	3.96	1.24
6	Our company accepts demands that go beyond existing services	15(7.4%)	24(11.8%)	34(16.7%)	66(32.4%)	63(31.9%)	3.70	1.24
7	We frequently refine the provision of existing services	15(7.4%)	17(8.3%)	28(13.7%)	77(37.7%)	67(32.8%)	3.80	1.20
8	We introduce the improved version of our existing services in our local market	12(5.9%)	15(7.4%)	32(15.7%)	79(38.7%)	66(32.4%)	3.84	1.13
9	We try to find new ways of building and improving relationships with consumers	18(8.8%)	11(5.4%)	10(4.9%)	54(26.5%)	111(54.4%)	4.12	1.26
10.	We receive advice from our customers to offer new services.	20(9.8%)	8(3.9%)	20(9.8%)	52(25.5%)	104(51.0%)	4.04	1.29
							3.90	1.22
	Overall Grand Mean					**3.91**	**1.26**	

Source: Field Survey, 2022

Key; SA = Strongly Agree (5); A = Agree (4); MA = Moderately Agree (3); D = Disagree (2); SD = Strongly Disagree (1).*Decision Rule: 0.1 to 1.0 mean = Strongly Disagree; 1.1 to 2.0 mean = Disagree; 2.1 to 3.0 mean = Moderately Agree; 3.1 to 4.0 mean = Agree; 4.1 to 5.0 mean = Strongly Agree. F (%) = Frequency (Percentage)**

The result in Table 4 shows the business innovations among the SMEs in Ogun State. The grand mean 3.91, SD = 1.26 on a scale of 5 indicates strong agreement with practices of business innovation among the SMEs. This implies that, to some extent the SMEs engaged in some different activities that conformed with business innovation. However, there could still be improvement on these series of activities in order to have more developments. Considering the product services, the result reveals that SMEs frequently try out new ideas for products making being an approach of product innovation (mean = 4.03), seeking new ways of modifying products (mean = 3.96), being creative in approach and methods (mean = 3.92), readiness to use new ideas for products (mean = 3.98), continuous improvement in the production process (mean = 3.94), quality development of products over years (mean = 3.96), customers feel more satisfied with our products (mean = 3.99).

The findings revealed innovation activities that are common in service innovation. These include, compared to the services available in the market, development of services that provide more benefits to consumers (mean = 3.96), "Our business is ready to use new ideas for our services" (mean = 4.07), "we have business policy to guide innovation of our services" (mean = 4.07), "we have business policy to guide innovation of our services" (mean = 3.96), "we try to find new ways of building and improving relationships with consumers" (mean = 4.12), receiving advice from our customers to offer new services (mean = 4.04), and all were very high.

S/N	Knowledge Exchange	N %	R %	S %	O %	A %	Mean	SD
1	Socialisation Colleagues are open to share knowledge and skills working side-by-side or observing colleagues.	21 10.3%	11 5.4%	25 12.3%	30 14.7%	117 57.4%	4.03	1.36
2	More experienced colleagues communicates with the less experienced ones on useful feedback about their work.	15 7.4%	17 8.3%	32 15.7%	61 29.9%	79 38.7%	3.84	1.23
3	Each one's know-how is made available to colleagues to deal with the problems that may arise.	23 11.3%	7 3.4%	27 13.2%	57 27.9%	90 44.1%	3.90	1.31
	Grand Mean						**3.92**	**1.30**
4	Externalisation We gain useful knowledge learning certain behaviour and norms over time so as to improve our job results.	19 9.3%	10 4.9%	17 8.3%	71 34.8%	87 42.6%	3.97	1.25
5	At the end of each project, we examine the mistakes made in order to prevent their repetition in the future.	18 8.8%	11 5.4%	23 11.3%	50 24.5%	102 50.0%	4.01	1.28
6	Activities are monitored by collecting and processing relevant data.	21 10.3%	17 8.3%	18 8.8%	53 26.0%	95 46.6%	3.90	1.35
	Grand Mean						**3.96**	**1.29**
7	Combination Colleagues make their professional experiences available, if someone has difficulty in completing their work.	16 7.8%	14 6.9%	26 12.7%	64 31.4%	84 41.2%	3.91	1.23
8	We are kept informed about what happens within the organization through regular meetings, internal memos, bulletins etc.	15 7.4%	9 4.4%	30 14.7%	63 30.9%	87 42.6%	3.97	1.19
9	Technologies allow us to easily share knowledge and information between different units.	19 9.3%	10 4.9%	21 10.3%	61 29.9%	93 45.6%	3.98	1.27
	Grand Mean						**3.95**	**3.69**
10	Internalisation Training are often designed to help employees assimilate new knowledge and mold them, for decision-making and work processes.	20 9.8%	10 4.9%	24 11.8%	60 29.4%	90 44.1%	3.93	1.28
11	We encourage self-development through use of manuals, simulations and trial- and – error sessions.	15 7.4%	16 7.8%	35 17.2%	62 30.4%	76 37.3%	3.82	1.22
12	We have time/resources to reflect upon how to improve our work.	23 11.3%	15 7.4%	32 15.7%	51 25.0%	83 40.7%	3.76	1.35
13	There are moments dedicated to the sharing of opinions between colleagues.	15 7.4%	16 7.8%	47 23.0%	51 25.0%	75 36.0%	3.76	123
	Grand Mean						**3.82**	
	Overall Grand Mean	**3.91**						

Research Question two: How is knowledge exchanged among the SMEs in Ogun State, Nigeria?

Table 5 Knowledge exchange activities of SMEs in Ogun State, Nigeria.

Source: Field Survey Result, 2022
Key; N=Never, R= Rarely, S= Sometimes, O= Often, A= Always. Decision rule: 0.1 to 1.0 mean =Never, 1.1-2.0 mean =Rarely, 2.1 to 3.0 mean = Sometimes, 3.1 to 4.0 mean =Often, 4.1 to 5.0 mean = Always.

SD 1.30 on a scale of 5) as a yardstick, the findings showed that colleagues are opened to share knowledge and skills working side-by-side or observing colleagues (mean 4.03). This is the most common way of knowledge exchange. Again, considering externalisation (mean = 3.96, SD = 1.29**)** as another way of knowledge exchange, SMEs do gain useful knowledge learning certain behaviour and norms over time so as to improve job results (mean = 3.97) and correction of past mistakes made in order to prevent their repetition in the future (mean = 4.01) were the most prominent of exchange under externalisation. This also shows that knowledge exchange takes place at the externalisation stage.

Table 5 provided response to the question of how SMEs exchanged knowledge. The respondents agreed that knowledge were exchanged in the following ways; for instance, using socialisation (mean = 3.92, Meanwhile, combination (mean = 3.95) is another way in which knowledge is exchanged among the respondents, for example, they agreed that they were kept informed about what happens within the

organization through regular meetings, internal memos, bulletins etc. (mean = 3.97). They (respondents) also consented that use of technologies allow them to share knowledge and information between different units (mean = 3.98). The last method of knowledge exchange as suggested by this study is internalisation (mean = 3.82); participants agreed that training was often designed to help employees assimilate new knowledge and mold them, for decision-making and work processes (mean = 3.93) and also attested to the fact that they imbibed self-development through use of manuals, simulations and trial- and – error sessions (mean = 3.82). Therefore, all the four stages of information exchange were established by the findings of this study.

Research Question 3: What are the major constraints to business innovations among SMEs in Ogun State, Nigeria?

Table 6 Constraints to business innovations among SMEs in Ogun State, Nigeria?

Source: Field Survey Result, 2021

S/N	Products Innovation Constraints	Yes (%)	No (%)
i.	Lack of technical equipment and technological solutions to support developing and implementing new ideas	174 (85.3%)	30 (14.7%)
ii.	Lack of determination of the employees to develop and implement new ideas	176 (86.3%)	28 (13.7%)
iii.	Lack of financial resources for developing and implementing new ideas	166 (81.4%)	38 (18.6%)
iv.	High cost of new tools.	167 (81.9%)	37 (18.1%)
v.	The process is informal, without clues to have a clear start so that there is an unclear stop	165 (80.8%)	39 (19.1%)
vi.	Unfavorable government policy and regulation.	154 (75.5%)	50 (24.5%)
vii.	Lack of communications and coordination between decision-makers and performers	168 (82.3%)	36 (17.7%)

Source: Field Survey Result, 2021

Table 6 itemize the major constraints that hinders business innovation among SMEs. The result shows that respondents pointed to lack of technical equipment and technological solutions to support developing and implementing new ideas as 174 (85.3%) as obstacle to product innovation. In the same vein, lack of determination on the part of employees to develop and implement new ideas 176 (86.3%) as well as lack of communications and coordination between decision-makers and performers

168 (82.3%) as product – based constraints respectfully.

Similarly, in service – oriented SMEs, Innovation was seen to require long development cycle long payback periods 174 (85.3%), lack of incentives and compensation for employees 180 (88.3%) while inadequacy of basic and ICT infrastructure 172 (84.3%) constitutes major constraints.

Hypotheses

H_{01}: Knowledge exchange has no significant influence on product innovations among SMEs in Ogun State, Nigeria.

Table 7 Regression on influence of knowledge exchange on product innovation among SMEs

Table 7 (a) Model Summary

					Change Statistics				
Model	R	R Square	Adjusted R. Square	Std.error of.estimate	R.square change	F. change	df1	df2	Sig.of change
1	.831	.690	.688	.56368	.690	449.091	1	202	.000

a Predictors: (Constant), knowledge exchange
B Dependent Variable: product innovation

Source: Field Survey Result, 2022

Results shown in Table 7 (a), 2.0 (b) and 2.0 (c) indicate that knowledge exchange

influence product innovation (R^2=.690, β=.831, t= 21.192, p<0.05). It implies that an improvement activity in knowledge exchange process will definitely influence a positive improvement in product innovation activity.

In addition to this, the result also indicates that knowledge exchange contributes about 69.0 % to the product innovation process while the remaining 31.0% might have resulted from other factors not captured by this model. It can now be concluded that knowledge exchange has significant influence on product innovation among SMEs in Ogun State, Nigeria and the null hypothesis is rejected.

H_{02}: knowledge exchange has no significant influence on service innovations among SMEs in Ogun State, Nigeria;

among SMEs in Ogun State, Nigeria;

Table 8 Regression on influence of knowledge exchange on service innovation among SMEs.

Table 8(a) Model Summary

					Change Statistics				
Model	R	R Square	Adjusted R.Square	Std.error of. estimate	R.square change	F. change	df1	df2	Sig.of change
1	.813	.661	.659	.57257	.661	393.826	1	202	.000

a. Predictor: knowledge exchange
b. Dependent variable is service innovation

Source: Field Survey Result, 2022

The result of the regression analysis shown on Table 8 presents that knowledge exchange (R^2=.661, β=.813, t= 19.845, p<.05) had significant influence on service innovation, among SMEs in Ogun State, Nigeria. The value of the model shows that knowledge exchange has about 66.1% (R Square = .661) effect on service innovation of SMEs in the state while other variables could be responsible for the other 33.9% not explained by the model.

innovation. The implication of this is that knowledge exchange constructs actually predicts service innovation and also help to sustain exchange of innovative ideas among operators of the SMEs. Therefore, the null hypothesis which states that knowledge exchange has no significant influence on service innovation among SMEs in Ogun State, Nigeria is hereby rejected.

H_{03}: knowledge exchange has no significant influence on business innovations among SMEs in Ogun State, Nigeria.

The contribution of the variable was found to make significant influence on service

Table 9 Regression on influence of knowledge exchange on business innovation among SMEs.

Table 9 (a) Model Summary

					Change Statistics				
Model	R	R Square	Adjusted R.Square	Std.error of. estimate	R.square change	F. change	df1	df2	Sig.of change
1	.852	.726	.725	.63753	.726	535.101	1	202	.000

a. Predictor: knowledge exchange
b. Dependent variable is business innovation

Source: Field Survey Result, 2021

Based on the results shown in Table 9 indicates that a positive relationship exists between knowledge exchange and business innovation (R^2=.726, β=.852, t= 23.132, p<0.05). It implies that an improvement activity in knowledge exchange process will definitely instigate a positive improvement in business innovation activity. In addition to this, the result also provide that knowledge exchange contributes about 72.6 % to the business innovation process while the remaining 28.40% might have resulted from the other factor not captured by this model. It can now be inferred that knowledge exchange has significant influence on business innovation among SMEs in Ogun State, Nigeria and the null hypothesis is rejected

H_{04}: The measures of knowledge exchange have no influence on business innovations among SMEs in Ogun State, Nigeria.

Hypothesis four was tested using multiple regression analysis using the standardized regression coefficients. Data on knowledge exchange were created by adding responses of all the items them, while items that measures both product and service innovation were grouped together to form a composite score of business innovation. The result of this analysis are given in Table 10.

Table 10 Regression on influence of measures of knowledge exchange on business innovation among SMEs.

Table 10 Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta	B	Std. Error
1	(Constant)	.335	.158		2.113	.036
	SOCIALISATION	.302	.059	.319	5.156	.000
	EXTERNALISATION	.244	.066	.252	3.706	.000
	COMBINATION	.233	.063	.222	3.707	.000
	INTERNALISATION	.189	.068	.171	2.771	.006

a Dependent Variable: BUSINESS INNOVATION

The result presented in Table 10 is the result of the multiple regression analysis that test the relative influence of the constructs of knowledge exchange on business

innovations among the SMEs in Ogun State Nigeria. The result reveals that all the four constructs, that is, socialisation, externalisation, combination and internalisation were significant and also positively contribute to the rate at which knowledge exchange positively influenced business innovation in which the values are (F= 165.760, R^2=.769, p<.0.05). For instance, the result as presented on table 10 reveals that socialisation (β=.319, t= 5.156, p<0.05) had a significant relative influence of about 32% on business innovation. Similarly, externalisation (β=.252, t= 3.706, p<0.05) contribute about 25.2% significant to the relative influence. Again, combination (β=.222, t= 3.707, p<0.05) is also make a positive contribution of about 22.2% on the influence of knowledge exchange on business innovation. However, internalisation make the lowest contribution relative influence among these four (4) measures of knowledge exchange with (β=.171, t=2.771, p<0.05) and this implies that it only makes about 17.1%, while socialisation contributes the highest (32%) of the relative influence of knowledge exchange on business innovation among SMEs in Ogun State, Nigeria. Therefore, the null hypothesis is partly rejected and restated otherwise: the measures of knowledge exchange has significant relative influence on business innovation among SMEs in Ogun State, Nigeria.

Discussion of findings

The purpose of research question one was to determine how SMEs innovate their businesses. In terms of product services, the findings showed that SMEs frequently experiment with novel approaches and methods, are open to using novel ideas for products, are prepared to do so, continuously improve their production processes, continuously develop their products' quality over time, and work to satisfy their customers. These results are in line with those of Akosile (2017), who discovered that product innovation is motivated by a particular business need to satisfy regional consumer wants and reflect the region in which it is created. Once more, this perspective supports Onikoyi's (2017) assertion that the quality or inventiveness of the innovation process has a favorable impact on both product and organizational development. Likewise, Ibidunni, Iyiola and Ibidunni (2014) established that changes in tastes and consumer's preference influence product innovation positively while it also linked increased sales of SMEs with product innovation. The findings also revealed innovation activities that are common in service innovation. These include developing services that provide more benefits to consumers, business readiness to use new ideas their and reception of advice from customers to offer new services. Salim and Sulaimon (2011) established that an organisation that is committed to learning tends to deeply understand its environment which includes customers, competitors, and emerging technology. It equally aligned with the findings that positive relationship exists between firm's innovation and performance. Scuotto et.al, (2017) observed that enterprises attract consumers to cooperate with them in order to generate new ideas.

Findings from research question two looked at how knowledge is exchanged among the SMEs in Ogun State which revealed processes like socialisation, externalisation, combination and internalisation. The responses illustrated that knowledge were exchanged in the following ways; for instance, considering socialisation, feedback informed that colleagues are opened to share knowledge and skills working side-by-side or observing colleagues was the most common way of knowledge exchange.

Adesina and Ocholla (2020) reported that SECI model is widely accepted and used based on its adaptive features, it also identified socialisation as the highest in terms of impacts among three other factors.

Taking externalisation as another way of knowledge exchange, SMEs do gain useful knowledge learning certain behaviour and norms over time so as to improve job results, and correction of past mistakes made in order to prevent their repetition in the future were the most prominent of exchange under externalisation. This also shows that knowledge exchange takes place at the externalisation stage. This view constitutes one of the findings of Duarte and Alexander (2017) which revealed major alignments SECI processes.

Meanwhile, combination is another way in which knowledge is exchanged among the respondents, for example, they agreed that they were kept informed about what happens within the organization through regular meetings, internal memos, bulletins etc. They (respondents) also agreed that use of technologies allow them to share knowledge and information between different units. Lopez-Nicolas and Soto-Acosta (2010) and Obeidat (2019) had earlier submitted that ICT has a significant positive influence on the four processes of knowledge exchange.

The last method of knowledge exchange as suggested by this study was internalisation, participants concurred that training were often designed to help employees assimilate new knowledge and mold them, for decision-making and work processes and also attested to the fact that they engaged on self-development through use of manuals, simulations and trial- and – error sessions. These were supported by the view of Abbas etal…., (2020) which established that learning in a firm can be established through improving skills, knowledge and aptitudes of employees. Beynon and Pickernell (2020) also reiterated that staff training, research and development are needed for positive development in firms. Kijkasiwat and Phuensane (2020) hinted that staff training, research and development activities are needed to fully imbibe innovations in firms.

This study found that knowledge exchange has significant influence on both product and service innovation among SMEs in Ogun State, Nigeria. Knowledge exchange constructs were also found to have influenced service innovation and also help to sustain exchange of innovative ideas among operators of the SMEs. Duarte and Alexander (2017) agreed with this finding in their research which revealed that through socialisation including (direct, face to-face feedback, or indirect, and social media-based communication), all the SECI model was shown to have a significant impact on the final product of the researched craft breweries. Easa (2012) confirmed that each of the SECI processes positively influenced the innovation process of the banks in Egypt by increasing the generation of ideas for banking services.

Findings of this work also indicates that a very strong positive relationship exists between knowledge exchange and business innovation. This as well implies that an improvement activity in knowledge exchange process will definitely instigate a positive improvement in business innovation activities. This finding was similar to the view expressed by Hassan and Raziq (2019) which established that knowledge management activities affect innovation. Therefore, SME Manager and employee) must imbibe innovation in order to advance in product innovation, market and services.

Furthermore, the study also found that there is relative influence of the constructs of knowledge exchange on business innovations among the SMEs in Ogun State Nigeria. The result reveals that all the four

constructs, that is, socialisation, externalisation, combination and internalisation were significant and also positively contribute to the rate at which knowledge exchange positively influenced business innovation. However, internalisation make the lowest contribution to the relative influence among these four (4) measures of knowledge exchange while socialisation contributes the highest of the relative influence of knowledge exchange on business innovation. Adesina and Ocholla (2020) corroborated this by adding that of all the four (4) SECI - factors, Socialisation recorded the highest impact, the implication of this is that the management teams of organisations will need to pay more attention to it for effective organisational KM.

Conclusion

The provision of high-quality, consumer-oriented goods and services depends on business innovation. In order to alter their products and services in a creative and customer-centered manner, SMEs provide goods and services with a dash of fresh ideas that are supported by knowledge. As a result, practical and competitive goods and services have been produced. The findings of this study indicate that information exchange has an impact on business innovation by SMEs in Ogun State, Nigeria, and that knowledge exchange can even predict business innovation among SMEs. According to the study's findings, knowledge exchange is essential and has a significant impact on business innovation among SMEs in Ogun State, Nigeria. Additionally, it promotes knowledge sharing and template for better understanding of products and services which in turn have influence on business innovation.

Recommendations

On the basis of the study's findings, the following suggestions are made: Knowledge exchange has been found to be a powerful influence on business innovation among SMEs in Ogun State; business owners should therefore make more allowances for teamwork, enhanced communication, training, and employee encouragement to enhance their present business innovation successes. In addition;

1. SMEs owners need to be more dedicated in order to inspire their staff to be more determined and take on new initiatives that will help them carry out new ideas and assignments.
2. SMEs managers must also improve on their communication and coordination activities among their employees so as improve their skill and abilities.
3. Government agencies such as SMEDAN, BOI, CAC, FIRS and CBN must ensure they assist SMEs in order to improve on getting more technical equipment and technological solutions to support developing and implementing new ideas.

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