SOCIAL CAPITAL DEVELOPMENT AND ORGANIZATIONAL INNOVATION IN NIGERIAN BANKS

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ABSTRACT

The study investigated the relationship between social capital development and organizational innovation in Nigerian banks. The objective of the study was to ascertain the extent to which social capital development impacts on organizational innovation measures such as product, process and market innovation. A cross-sectional survey was conducted on 217 top and middle level management staff of 17 identified banks in Rivers, Bayelsa and Delta states, using purposive sampling. Descriptive data were generated from the questionnaire and the Spearman's Rank Order Correlation Coefficient was deployed to test the hypotheses, aided by the Statistical Package for Social Sciences version 22. Results indicated a positive and significant relationship between social capital development and organizational innovation. Based on the findings, it was concluded that social capital development contributes positively towards the innovation of Nigerian banks. This study therefore recommends that organizations should invest and maintain good relationships with their strategic business partners that are geared towards learning and acquiring knowledge which can be useful for enhancing organizational innovation.

Keywords: Social capital development, organizational innovation, product innovation, process innovation and market innovation.

INTRODUCTION

The innovation process within a typical organization has recently turned into a crucial topic needed for the sustenance of competitive advantage within establishments that have been in existence overtime. This is owing to the fact that they are likely to fail in the absence of innovative or novel activities or ideas (Golipour, Jandaghi, Mirzaei and Arbatan, 2011). In modern markets with aggressive and hyper competition and shorter product lifecycle, numerous firms encounter extreme difficulties in coming up with these novel ideals, products and activities and as such are at the mercy of the market (Sanderson and Uzumeri, 1997). Organizational innovation becomes an imperative tool for firms to operate and sustain their various performance and growth (Goksoy, Vayvay and Ergeneli, 2013). Organizational innovation is the creation and improvement of products, as well as the capability of organization to rapidly embrace newer technologies and product improvement strategies (Chaney and Devinney, 1992; Banbury and Mitchell, 1995). Organizational innovation is essential since it enables firms to broaden, adjust and even reevaluate to fit the changing state of innovation and the market (Golipour, *et al.*, 2011).

A few studies have explored various tools in an attempt to predict the level of organizational innovation. A quick example can be seen from the works of Lin (2007) who investigated the impact of knowledge sharing on organizational innovativeness. In view of a research of 172 representatives from 50 huge firms in Taiwan, results show that readiness to both give and gather learning empower the firm to enhance competitive advantage. In accordance with this, Ruppel and Harrington (2000) uncovers that less observational and defensive behavior by management of organizations and employees enthusiasm for innovation are accepted to be the innovative fundamental components. As such, an organization which focuses on the nature of relations among its staff can clear the ground through institutional trust. Shalley and Gilson (2004) uncover that autonomy (envelops individual control over how time is designated, and assurance of how the work is done) recognizes organizational innovation as it additionally adds to work fulfillment. Despite the ploys recommended by these researchers in upgrading organizational innovation, social capital development is been abandoned.

According to Kasha and Afsari (2014), social capital is the quality of interrelationships amongst people and firms for easy cooperation. Furthermore social capital enhances organisational sustainability (Vu Hoang Nam, 2014) and improves inventory management and resource utilization (Hansen, 1999). Most studies on the subject of social capital development and organizational innovation are theoretical with scarce empirical support (Annelies, et al., 2014), this appears to be the situation in a developing country like Nigeria as there is limited evidence of empirical studies on social capital development and organizational innovation. The study plans to bridge this gap by investigating the relationship between social capital development and organizational innovation in Nigerian banks.

Conceptual Framework

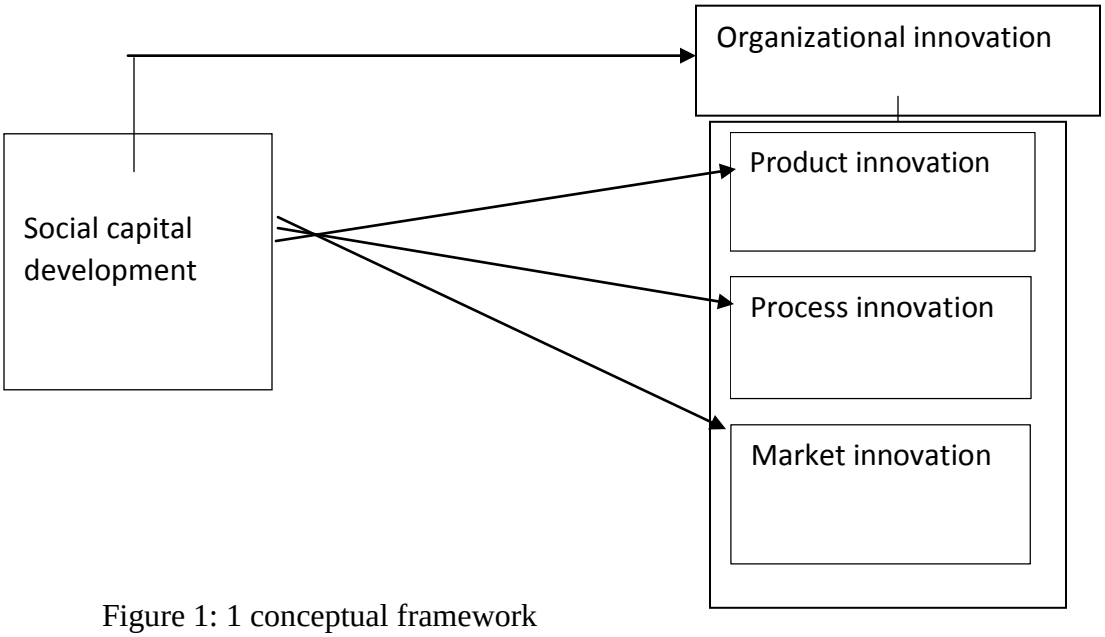

Figure 1: 1 conceptual framework
Source: Conceptualized by the researcher, 2019

Objectives of the study

The objectives of this study are as follows:

1. Identify the association between social capital development and product innovation.
2. Establish the relationship between social capital development and process innovation.
3. Ascertain the relationship between social capital development and market innovation.

Research questions

1. How does human capital development relate with product innovation?
2. What is the relationship between human capital development and process innovation?
3. What is the relationship between human capital development and market innovation?

Literature review

Concept of Social Capital Development

Welbourne (2008) view social capital development as a process of improving the desirable ties with other organizations to achieve favorable outcomes. Mayo (2016) deduces that social capital emanates from organizational and individual linkages which produce various initiatives and alternatives for the health of organisations. Similarly, Leana and Van- Buren (1999) succinctly put that social capital is the creation of harmonious social ties. It means that social capital is an asset that supplies benefits to the firm and its employees. Such benefits are free for organizational members, irrespective of whether they were part or not part of the creation of

social capital (Inkpen &Tsang, 2005). Cohen (2001) states that social capital forms trust and participation, it guarantees shared objectives, encourages learning through connections existing among firms and partners. Specialists complete their obligations by reason of shared knowledge.

Concept of Organisational Innovation

Wang and Ahmed (2004) characterize organizational innovation as "an organization's general inventive capacity of presenting new items in the market, or opening up new markets". Dougherty and Tough (1996) see organizational innovation as the instrument which lets firms adjust to changing states of technological progression and market expansion by developing new items, strategies and frameworks. Coombs and Bierly (2006) see organizational innovation as an essential wellspring of competitive advantage since it prompts product transformations that enable firms to survive (Liu, Chen, and Tsai, 2005). Organizational innovation gives organizations the chance to develop quicker, better, and more intelligent than their rivals (Davila, Epstein, and Shelton, 2006). Meeus and Edquist (2006) trust product innovations to be new or better items (or product assortments) being created and sold. Innovators grow faster and make more profit than non-innovators and are more efficient (Mansury & Love, 2008). Mone, McKinley and Barker (1998) posit that it causes firms to act in advance as they search for hidden opportunities. Conversely, the absence of innovation leads to boredom. Nevertheless, innovative organisations also face challenges (Miller, 1983). Gatignon and Xuereb (1997) aver that the innovative propensity is bounded by the firm's marketing environment. For instance, such firms can be affected by investment in research and development and culture (Song & Ding, 2012).

Product innovation

Meeus and Edquist (2006) trust product innovations to be new or better items being created and sold. Akova et al. (1998) maintain that for product innovation to be effective, high contact between the firm, its clients and providers must be built up. Product innovation influences perceptions on brand quality (Holland, Schekleton & Na, 2011; Sylva, Ofoegbu & Akpan, 2016). It is also a key driver of customer satisfaction (Henard & Dacin, 2010), organizational growth (Saridan, Mohamed & Intan, 2008), survival (Buffington, 2016) and performance (Chimhundu, Hamlin & McNeill, 2010). Moreover, innovation in products or services creates strong positioning in competitive markets (Keller, 2003). For Angelmar (2014), product innovation is a tool to be on top of the competition, alongside other marketing strategies including price reduction, new customer care and distribution methods. In a competitive market, the short term evidence of product innovation is the speed and magnitude of market penetration, while the longer term evidence is increased market share and sustainability far above rivals. According to Kingsland (2007), companies that are innovative in products or services score more in brand awareness and profitability than those that are not. Ussahawanitchakit (2012) surveyed 121 managers in Thai firms and found that innovation (product and process) accelerates competitive advantage, profitability, and performance. Similarly, Jimenez and Vall (2011) found that product

innovation affects firm performance. Another aspect of product innovation reflects the uniqueness or distinctiveness of the product.

Process Innovation

Process innovation is the improvement of an old- or creation of a new manufacturing or service method, practice or technique, which fosters competitiveness. Sisaye and Birnberg (2010) relate process innovation to changing employee roles, rules, procedures, resourcing, tasks, authority, boosting organizational structure, or other functions of the organization. Process innovation is also known to facilitate service quality, new management practices, and changes the overall service process (Reichstein & Salter, 2006). The process of innovation adoption involves (i) planning on type of innovation and making decision on cost and benefit of implementation; and (ii) the process of convincing members to accept the imminent change. Frambach and Schillewaert (2002) categorised these stages as initiation and implementation. Liao, Fei, and Liu (2008) mention that process innovation influences an organization's chances of success, while Jimenez and Vall (2011) emphasize that organizations which can better innovate respond more flexibly to the environment and more easily develop the capabilities that support organizational performance.

Market Innovation

Robert (2011) characterize market innovation "as the change of marketing strategies which introduces significant changes in product design, packaging, placement or promotion". Han, Kim, and Srivastava (1998) affirm that market innovation facilitates an endless positive character headed for providing customer needs. Nagasimha (2015) posit that market innovation is a driver of change and it is a vital strategy used by firms to gain customers and markets, through the development of sustainable competitive advantage. Nagasimha (2015) also state that market innovation provokes the delivery of superior satisfaction and value to the customers while making the product or service relevant and unique, from the customer's perception. However, market innovation is spurred by valuable insight and imagination about the target market (Robert, 2011). Insights and imagination about the market are strong indicators that provoke marketing innovation.

Social Capital and Organizational Innovation

Florida et al. (2002) submit that employees are more prone to work closely and zealously when the social capital is high; stating that such scenario leads to more risk-taking and innovation among the employees. Thus, Goyal and Akhilesh, (2007) opine that social capital is the principal propeller of organizational learning, creativity and innovation. Furthermore, Chou (2006) claim that, social capital provokes positive outcomes as it makes other resources (physical and human assets) effective. Similarly, according to Goyal and Akhilesh (2007), social capital supports innovation by enhancing cooperation and synergy among different layers of the organisation.

Relationship between Social Capital Development and Product Innovation

According to Perez-Luno and Cabello (2014), organisations are interested in building social capital in order to get technology from external sources and lower social cost and risks during production process. In such a case, knowledge can be easily combined within the firm to develop new services or products that a single worker would not be able to accomplish. Also, Duysters and De Man (2003) suggest that social networks are platforms of innovation as they aid organisations to scan the environment to discover low cost technologies. This view is supported by Perez-Luno and Cabello (2014) who proposed that trust that is engendered in social ties among units and partners give rise to transfer of knowledge which causes product and process innovation.

Relationship between Social Capital Development and Process Innovation

Tsai and Huang (2008) aver that social capital is both a builder of confidence and trust and it facilitates the intermingling of ideas among members which spur innovation in organisations. Kogut and Zander (1992) postulate that communication, through social capital, supports the acquisition of new technological knowledge, thereby leading to process, customer and service measures of innovation. Furthermore, Peters and Brush (1996) aver that when firms are unable to internally access information to make decision, social capital empowers them to tap information from external contacts such as distributors, suppliers, competitors and customers, to get needed information about the market.

Relationship between Social Capital Development and Market Innovation

Social capital makes information to diffuse faster, provides quick access to new markets and decreases employee turnover and cost of doing business (Mačerinskienė & Aleknavičiūtė, 2011). Owen-Smith and Powell (2004) point that, organizational members who constantly get information and access external knowledge through social linkages (business partners, customers, suppliers, and competitors) tend to succeed in market innovation. In same breath, Shu, Page, Gao, and Jiang, (2012) echoed that knowledge has become so relevant that companies and individuals need to forge and nourish relationships to optimize market innovation outcomes. Also, Tura and Harmaakorpi (2005) explained that social capital enhances innovation since it signifies interpersonal bonds, the creation of networks and transmission of useful knowledge.

These studies above indicate a relationship between social capital and innovation at individual level (Harmaakorpi, 2005 & Shu et al., 2012). However, there is a limited number of studies that indicate the link between social capital and innovation at organizational level. It is thus on this view that we hypothesize that:

HO_1: There is no significant relationship between human capital development and product innovation.

HO_2: There is no significant relationship between human capital development and process innovation.

HO_3: There is no significant relationship between human capital development and market innovation.

METHODOLOGY

This study adopted a quasi-experimental design because the study elements were not controlled by the researcher. Also, the cross sectional survey method was adopted because it allows data collection through the use of standardized questionnaire at a single point in time (Baridam, 2001).

This study has its target population of top and middle level managers in 17 selected banks in Rivers, Bayelsa and Delta States that have been in operation for over 15 years. Respondents are 217 managers (regional and branch) and middle level staff from the head offices of the banks in these states. The data was collected from the human resource/administrative units in each bank, after several personal visitations and phone calls. Sampling was done purposively as the banks were not chosen based on probabilities. However, respondents to the questionnaire were randomly selected. Sample size was computed by utilizing the Taro Yamen's formula (Baridam, 2001) at 95% confidence interval. The Taro Yemen's formula is:

$$n = \frac{N}{1+N(e)^2}$$

Where
n = sample size
e = level of significance
N = population size

$$n = \frac{475}{1+475(0.05)^2}$$

$$n = \frac{475}{1+475(0.0025)}$$

$$n = \frac{475}{1+1.1875}$$

$$n = \frac{475}{2.1875}$$

$$n = 217$$

Based on the calculation above, the sample size for this study is 217 top and middle level management staff of the target banks.

Nature and Sources of Data

Primary Data

Data were collected from primary sources through questionnaire. The questions were structured in an ordinal scale using the 4-point Likert's-type scale of 1 (strongly disagree) to 4 (strongly agree). The researcher also interviewed at least one participant from each bank to harvest the benefits of methodological triangulation.

Operational Measures of Variables

The variables of this study were decomposed and measured based on previously validated scales (Chahal & Bakshi, 2016; Kalay & Lynn, 2016; Wang & Ahmed 2016).

Independent Variable

The independent variable is social capital development. Social capital development was measured by six items e.g., *in my organization, data about customers are continuously updated", in my organization, employees continuously meet with customers", in my organization, employees place a great focus on customers' feedback"* (Chahal and Bakshi, 2016).

Dependent Variable

The dependent variable in this study is organizational innovation, decomposed into product innovation, process innovation, and market innovation (Wang and Ahmed, 2004). Product innovation was measured using 3 items, *e.g., my organization is often firsthand to market new products and services".* Process innovation was measured using 3 items *e.g., "my organization has developed many new management approaches during the past five years".* Market innovation was measured using 3 indicators *e.g., "my organization is always at the cutting edge of technology in new product and service introduction".* All indicators for the measures of organizational innovation were adapted from Wang and Ahmed (2004).

Test of Validity

This study adopts the content validity approach. Each item was extracted from extant works to reflect all the domains of the variables. Moreover, the instrument was given to experts in the field and managers of the organisations under study for possible correction and modification. This process ensured face validity, which is an aspect of content validity.

Reliability:

In this study, the Cronbach's alpha criterion was used as reliability index. The study abided by Nunally's (1978) recommendation that a coefficient of 0.7 is reliable, while any value less is unreliable. Thus, reliability values below 0.7 were rejected. The Cronbach's alpha test was conducted on the statistical package for social sciences (SPSS) version 22 platform.

Table 1.1: **Reliability table**

Variables		Alpha coefficient	No. of items
Social capital development		0.951	6
Organizational innovation	Product innovation	0.877	3
	Process innovation	0.914	3
	Market innovation	0.935	3

Data Analysis Technique

This study adopts descriptive statistics such as frequencies, mean scores, and standard deviation for primary data analysis. The hypotheses were tested using Spearman's Rank Order Correlation Coefficient.

RESULTS AND DISCUSSION

Survey involves the collection of data from the field, cleaning, coding, verification, analysis and presentation of results for decision making (Schoenbach, 2000).Fieldwork lasted for about 6 months. The researcher contacted the managers of the banks in Rivers, Bayelsa and Delta states, who later convinced other target respondents to participate in the study. Two Hundred and Seventeen (217) copies of the questionnaire were distributed to the respondents.

Table 2.1: Result for questionnaire administration

Banks	**Sample**	**No. Retrieved**	**No. Discarded**	**No. Utilized**
Stanbic IBTC	14	14	0	14
First Bank	16	14	1	13
Wema Bank	12	12	0	12
Unity Bank	13	13	0	13
Zenith Bank	20	17	2	15
FCMB	13	13	0	13
Union Bank	8	8	0	8
Keystone bank	8	8	0	8
Enterprise Bank	7	7	0	7
Skye Bank	13	12	0	12
Fin Bank	11	11	0	11
Eco Bank	9	9	0	9
UBA	13	13	1	12
Sterling Bank	13	13	1	12
Diamond Bank	16	14	0	14
Fidelity Bank	15	15	0	15
GTB Bank	16	16	1	15
Total	**217**	**209**	**6**	**203**

Source: Survey results, 2018

The results presented in table 2.1 describe the distribution and retrieval patterns of the questionnaire. Out of 217 questionnaire copies distributed, 209 (96%) copies were successfully retrieved from the target participants. The loss of 4% was as a result of the unplanned or unforeseen cases of transfer, ill-health and the tight schedule of some of the target participants and as such their inability to complete their questionnaire copies within the specified time window. Data from the retrieved copies of the instrument were cleaned of errors. Six (6) of the copies had errors such as blank or missing sections and were discarded. Thus, 203 (94%) were used for the analysis. Hence, this study has a 94% response rate, which is acceptable.

Univariate Results

The data distributions shown in this section are geared towards assessing the extent to which the variables are manifested in the framework of the banks being investigated. Interpretations for distributions are therefore based on the assessment of central tendencies and the extent of dispersion for the distributions. Based on the scale adopted, the cut-off mean (x) = 3. Thus, $x > 3$ indicates prevalence of the item, whereas $x < 3$ means participants disagree and on the prevalence of the item.

Social capital development: The predictor variable for this study is human capital. The assessment of the items of the human capital as presented in table 2.2 below:

Table 2.2: Distribution for social capital

	N	Mean	Std. Deviation
In my organization, data about customers are continuously updated.	203	4.1281	.91918
In my organization, employees continuously meet with customers.	203	4.1034	.95136
In my organization, employees place a great focus on customers' feedback.	203	3.0887	1.47990
In my organization, customers' feedback is shared across departments in bank.	203	3.1232	1.45207
In my organization, employees enhance their capabilities through interactions.	203	3.1429	1.38030
In my organization, employees solve problems through mutual cooperation.	203	3.1133	1.36504
Valid N (listwise)	203		

Source: Survey results, 2018

Table 2.2 is the descriptive output for social capital development. There is evidence that social capital development is well practiced and observed (where x > 3) within the framework of the banks examined in this study. Thus, subjects agree to practices that improve customer or client relations; also being of the view that their organizations emphasize cordial relationship with customers as well as the mutual cooperation and interaction between workers.

Organizational innovation: The next variable examined is the criterion variable, which is organizational innovation. The variable is measured through product, process and service innovation.

Table 2.3: Distribution for indicators of product innovation

	N	Mean	Std. Deviation
My organization has introduced more innovative products and services during the past five years.	203	4.0887	.87993
My organization is often first-to market new product and services	203	4.1281	.94048
My organization's new products and services are often perceived as original by customers.	203	4.1084	.88333
Valid N (listwise)	203		

Source: Survey results, 2018

Table 2.3 suggests that the banks embark on practices which support the introduction of new products and services, initiate new ways to improve products and services and carry out creative ventures. This can be deduced from the mean value that is above the adopted threshold of 3, indicating moderate preponderance of the variable within the banks.

Table 2.4: Distribution for indicators of process innovation

	N	Mean	Std. Deviation
My organization constantly improves business processes.	203	4.1478	.94807
My organization has developed many new management approaches during the past five years.	203	4.0443	1.00149
my organization improvise on new methods when we cannot solve a problem using conventional methods,	203	4.0985	.99511
Valid N (listwise)	203		

Source: Survey results, 2018

The table 2.4 shows output on process innovation. Analysis indicates that most of the respondents agree to their experiences of creativity and improvising in their organizations systems and processes. The mean values (x > 3) attest to the claim that respondents affirm the prevalence of these indicators.

Table 2.5: Distribution for indicators of market innovation

	N	Mean	Std. Deviation
My organization most recent marketing program is new in the market as compared with that of competitors.	203	4.0591	.94735
My organization is often at the cutting edge of technology. In new product and service introductions.	203	4.1084	.94820
My organization's new products and services often take us up against new competitors.	203	4.0936	.90439
Valid N (listwise)	203		

Source: Survey results, 2018

Table 2.5 has the output on market innovation, the third measure of organisational innovation. Descriptive statistics on the indicators shows that market innovation is a prevalent feature of the organisations. Given the high central tendencies and moderate dispersion for the indicators (x > 3), it could be deduced that market innovation is a significant aspect and characteristic of the target banks of the study.

Bivariate Results

This section contains test results on the null hypotheses which are two-tailed. The Spearman's Rank Order Correlation Coefficient was adopted in the test for correlation between variables. Given type one error allowance of 5%, significance for relationships is therefore based on a probability (P) criterion of $P < 0.05$, while weak or insignificant relationships are affirmed based on the evidence of a $P > 0.05$ level.

Correlations

Table 2.6: Hypotheses for social capital development and measures of organizational innovation

			SCD	PI	PRI	MKI
Spearman's rho	SCD	Correlation Coefficient	1.000	.103	.199**	.094
		Sig. (2-tailed)	.	.145	.004	.182
		N	203	203	203	203
	PI	Correlation Coefficient	.103	1.000	.576**	.721**
		Sig. (2-tailed)	.145	.	.000	.000
		N	203	203	203	203
	PRI	Correlation Coefficient	.199**	.576**	1.000	.643**
		Sig. (2-tailed)	.004	.000	.	.000
		N	203	203	203	203
	MKI	Correlation Coefficient	.094	.721**	.643**	1.000
		Sig. (2-tailed)	.182	.000	.000	.
		N	203	203	203	203

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

The result indicates that social capital development significantly associates with product innovation in the target banks of the study (rho = .103; P = .000). Similarly, social capital development also has a significant relationship with process innovation (rho = .576; P = .000) likewise social capital development significantly influences market innovation (rho = .0634; P = 0.000).

So, the tests reveal that social capital has a significant relationship with all three measures of organizational innovation (product, process and market). Whereas product and market innovation associate weakly with social capital development, process innovation scores a very strong association with social capital development. However, the relationship between social capital development and the three facets of organisational innovation remains statistically significant, thus suggesting that actions associated with building relationships with the internal and external organizational contributes enhance organisational innovation. Based on the evidence from the analysis, all null hypothetical statements on the relationship between social capital development and the measures of organizational innovation are not supported. Thus:

i. Social capital development has a significant relationship with product innovation
ii. Social capital development has a significant relationship with process innovation
iii. Social capital development has a significant relationship with market innovation

DISCUSSION OF THE FINDINGS

The findings of the study indicate that social capital development significantly contributes to product innovation such that features of social capital directly impacts on the ability of individuals to combine knowledge in the creation of innovative services and systems within an organization. Nahapiet & Ghoshal (1998) assents that social capital drives organizational productivity. Ultimately, Coleman (1988) concurs that social capital exists in relations among actors and these relationships are created and sustained through exchange of ideas and trust. Meaning, workers trust each other, they are prepared to partake in corporative activities that can generate more trust (Putnam, 1993).

The link between social capital development and process innovation in this study reveals that employees who are well informed can access external knowledge faster through social networks. Meaning, social ties stir up innovation by expanding the knowledge of employees. This is in line with the findings of Kogut and Zander (1992) who mentioned that external bonds engender organizational learning which impacts on the innovative potentials of firms. They also postulate that communication, through social capital, supports the acquisition of new technological knowledge, thereby leading to process, customer and service measures of innovation.

The relationship between social capital development and market innovation in this study discloses that market innovation can be created through social network that enables firms to introduce new products and services connoting the value of networks. This view is shared by Shum and Lin (2007) who advocate that the capacity to have information on customers' preferences and meeting their needs is paramount, and this can be achieved through the development of social capital.

Conclusion

The outcomes of this study form the empirical base for its conclusions about the relationship between social capital development and organizational innovation. Hence, the construction and existence of networks and relations promote communication of information and knowledge. This co-operational relation brings out efficiency in workers performance, drives creativity and collaboration thereby impacting on organization. Thus, it was accepted that the banks within the South-south of Nigeria engage in social capital development and are innovative in their products/services, processes and marketing activities.

Recommendation

It was recommended that organizations should invest and maintain good relationships with their vendors, distributors and strategic business partners, geared towards learning and acquiring knowledge which can be useful for enhancing existing features of the organization. Linkages with clients should be created so as to help firms to internalize market information and succeed in various forms of innovation.

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