

## Intellectual Capital and Institutional Learning Capability: Evidence from the University of Abuja

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### Abstract

*This study investigates the relationship between intellectual capital components and institutional learning capability in University of Abuja. The data used in this study were collected from both primary and secondary sources. The study adopted the use of descriptive statistics to analyze the demographic characteristics of the respondents while inferential statistics in the form of multiple linear regression analysis was used to test the hypotheses in line with the objectives of the study. The study found that there is a significant and positive relationship between Intellectual Capital (IC) components and Institutional Learning Capacity (ILC) in University of Abuja. It was recommended that the management of the institution should pay more attention to continued improvement of employees' expertise and capacities through constant training and development for effective performance. The study is also of the view that management should be supportive of both employees and students novel towards generating and developing their new ideas. The study concludes that IC components and ILC is a veritable tool which should be embraced by all institutions of higher learning in Nigeria as it will help towards improvement of their intellectual capital investments and practices for optimum performance.*

**Keywords:** Human Capital, Intellectual Capital, Organizational Learning Capacity

**JEL Code:** I23, O17

### Contribution/Originality

The study examined the relationship between intellectual capital and institutional learning capability in University of Abuja, it has made literary contribution. The work assists towards improvement of learning capability, intellectual capital investments and practices for optimum performance.

### 1.0 Introduction

Intellectual Capital (IC) is becoming a crucial factor for a firm's long-term profit and performance in the knowledge-based economy. These enable the firm's recognition of core competence from tangible to intangible assets (Farsani, Bidmeshgipour, Habibi & Rashidi, 2012). Organizational intellectual capital represents technologies and other mechanisms that assist employees in creating revenues for organizations such as communication systems, data bases, policies, procedures, technical systems, and other devices (Boisot, 2002; Pablos, 2003). Recently, Intellectual capital can include the skills and knowledge that a company has developed about how to make its goods or services compete favorably (Hernandez, & Noruzi, 2010).

Even though, the intellectual capital concept was first developed as a framework to analyze the contribution of intellectual resources in for-profit enterprises, it was soon taken over by public and non-profit organizations due to its importance (Kong & Prior, 2008; Ramirez, 2010; Corcoles & Vanderdonckt, 2013). Also, there is a growing interest in applying an intellectual capital approach in universities, since among the main goals of universities is the production and diffusion of knowledge and their most important investments are in teaching, research and general human resources management (Leitner & Warden, 2004; Sanchez et al., 2009; Bratianu, 2009; Veltri et al., 2012; Wu et al., 2012) and couple with the fact that all the public universities in Nigeria have been granted autonomy which change their previous posturing as part of our collective national public utilities.

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The universities are, therefore, an ideal framework for the application of the ideas related to intellectual capital theory. Furthermore, universities perform the basic functions of generation, sharing and transfer of knowledge. The prime assets of universities are human capital (faculty) and relational capital (students) besides structural capital. The wealth of a nation primarily resides in intangible capital, which includes human capital, the skills and know-how of the work force; includes relational capital, that is, the degree of confidence people have in society, as well as their ability to work together to a common purpose (Mihai, Socea & Ciubotariu, 2011).

Organizational learning capability is as an intrinsic capability of an organization to create, enriched, and utilizes knowledge to outperform its competitors. It is the capacity to generate and generalize ideas moving beyond multiple organizational boundaries, through specific management initiatives and practices. The importance of learning cannot be over-emphasized whether it is on individual or organizational level. Learning has become a veritable tool for growth, adaptation and capacity building in the complex and fast changing environment of the 21st century. It is believed that the operational viability of corporate institutions is correlated with the organization's level of compliance with organizational learning norms and procedures (Eromosele, 2018).

It is thus, imperative that to develop an effective organizational learning culture, an institution has to shift from defensive reasoning and action (a reactive strategy) to offensive and strategic reasoning (or a proactive strategy). If any organization is to become relevant in its industry, then it should model a clear line of organizational learning action and implementation. Organizational learning theory is about how learning takes place in organizations, the structures that are put in place to ensure that the learning is effective and sustained, the factors that can hinder organizational learning and what can be done to tackle those challenges. Organizations consist of individuals and it is these individuals who perform the actions that produce organizational learning. However, there are conditions precedents that the organization itself must create to enable the learning by the individuals within the organization to be successful, and to be transmittable to the organization.

The nature of intellectual capital and organizational learning in Nigeria especially in public universities is characterized by some peculiar Nigerian factors. Some of these factors include inadequate training, employee's unwillingness to add value to self, lack of database supports or documentation of processes, monopoly of knowledge, poor customer service, continuous changing goals and objectives of the organization amongst others (Bratianu, 2009). All these factors with their seeming far-reaching consequences on the quality of education justified the need for the study.

The Nigerian university education landscape has undergone tremendous changes over the last two decades. This is largely due to some reforms in the country's educational sector which reshape the activities of most Universities (Rasheed, 2017). The liberalization of the sector by the federal government through the Nigerian University Commission has led to the emergence of privately owned universities thereby making the sector competitive. Also, the union activities of the likes of Academic Staff Union of Universities (ASUU), Senior Staff Association of Nigerian Universities (SSANU), Non-Academic Staff Union (NASU) and many others has led to the granting of autonomy to public universities in order to aid operational efficiency and their competitiveness in the sector. In order to achieve these, most of the public universities have embraced intellectual capital (human capital, structural capital and relational capital) in order to improve on their learning capacity (Rasheed, 2017). Employees are the main players in the organizational success in such an economy and human resource training and retention is the most important competitive strategy in information based economy. Also, Ibrahim (2018) found out that most of the public owned universities usually ignore the major vital components of human capital such as employing the best applicants,

employees' ability to propose beneficially new ideas continuously, and employees' competence at an ideal level among many others which usually have some bearing on organizational learning capacity.

This is usually based on the premise that by the growth of employee's performance, more knowledge is created to improve the organizational learning capability. It is for these reasons that Nigerian public universities and University of Abuja in particular need to refocused towards investing on the applicability of such assertion more particularly now that organizational structure capital factors in the institution such as innovation facilitating procedures and systems, easy access to information through information systems, efficient use of available resources, organizational structure so on, are in a poor state and hence, the need to investigate them. Even though, similar studies were conducted by other researchers such as, Bratianu (2009) & Eromosele (2018); that focused mainly on the effects of intellectual capital components on organizational learning capability without investigating the relationship between intellectual capital and institutional learning capability.

The main objective of the study is to investigate the relationship between intellectual capital components and Organizational learning Capability in University of Abuja. The specific objectives include to: evaluate the influence of Human Capital on Organizational Learning Capability; determine the extent to which Structural Capital influences Organizational Learning Capability; and Identify how Relational Capital has influenced Organizational Learning Capability.

The study focuses on 3 major essential components of intellectual capital namely; human capital, structural capital and relational capital sometimes been referred to as customer capital (Bontis, 1998) While on the institutional learning capability aspect, we focused on the two main elements namely; creating ideas and developing ideas as identified by Khorshidi (2003). These are the two essential factors which help in the evaluation of organizational learning capability as conducted by numerous scholars (Khorshidi, 2003 & Ulrich, 1993). The study focused on the 5 year period from 2013-2018; the period University of Abuja witnessed massive infusion of intellectual capital components into the university administrative system. The study focused on all cadre of employees both academic and non-academic staff of the University of Abuja including students in the 13 faculties/institutes and research centers. The study was limited to few population sample due to certain constraints. We however, caution users of the research study not generalize to assume that it is the same situation in other Nigerian Universities.

## **2.0 Literature Review**

### **2.1 Conceptual Literature**

#### **Intellectual Capital**

Different scholars have presented their perspectives on the meaning of intellectual capital composition. As with most emerging theories, there are many definitions of intellectual capital, but over the last few years, there seems to have formed a consensus of dividing a company's resources into three different groups. According to studies and definitions by Steward (1994), Edvinsson and Malone (1997); Johnson (1999) and Smith and Parr (2000), intellectual capital is comprised of three components: human capital, structural capital (organizational capital) and relational capital (customer capital). Intellectual capital comprises all knowledge- based resources that create value for an organization but does not enter financial statements (Pablos, 2003). In other words, intellectual capital is "possessing knowledge, making use of experiences, organizational technology, and relationship with customers and suppliers, and also possessing professional capabilities which bring a firm a competitive advantage in the market (Edvinsson & Malone, 1997). Also, intellectual capital is defined

as the sum of intangible assets related to knowledge of a company that have been formalized, captured, and leveraged to produce a higher-valued asset and to create competitive advantage (Berry, 2004; Stewart, 1997; Subramaniam & Youndt, 2005).

According to Hall (1992), intellectual capital may be categorized with assets (such as trade names or trademarks, contracts and data bases) or be known as skills (as knowledgeable employees know how to do the work). This capital is a key performance indicator that should be identified, preserved and nurtured by employees to make an organization able to preserve and improve its performance in the changing and turbulent market (UNI, 2001). The outcome of the research conducted by Yang and Lin (2009) also uncovered the relative importance of the three different types of capital to organizational performance. Intellectual capital provides organizations with much organizational value such as creation of profit, determination of strategies (market share, leadership, fame), innovation, customer loyalty, cost reduction, productivity improvement etc. (Harrison and Sullivan, 2000). Many believe that intellectual capital affects determination of organization's values and its economic performance (Petty and Guthrie, 2000). Intellectual capital management has been recognized as greatly important; organizations with intellectual capital management have shown better performance, compared to the performance of their competitors who have not been enjoying it (Brennan and Connell, 2000). Different writings and documents have considered some components for the concept of intellectual capital that are mentioned thus.

### **Constituent Elements of Intellectual Capital**

Most of literatures insure that components of intellectual capital consist of human capital, structural capital and external (customer) capital. In 1998, Bontis developed the constitutional elements of human capital as human capital, structural capital and relational capital. Following his categorization, Chen and his colleagues (2006) enhanced it by adding innovative capital to the previous elements. They also believe that this is a fragile framework, unless supported by continuous relations. In fact, they were concerned about the relation between the intellectual capital elements rather than the elements (Choi, 2003). Literature review shows that majority of intellectual capital frameworks tried to employ three dimensions of human, relation and construct in investigation of intellectual capital (Marr, 2005). This study examines these three dimensions: Human Capital, Relational capital and Structural Capital and is discussed thus.

#### **a. Human Capital**

Human capital is the most important asset for an organization and is a source of creativity and innovation. In an organization, employees' tacit knowledge asset is a most crucial component that influences organization's performance significantly. Nevertheless, solely tacit knowledge is not sufficient for good performance in an organization. The purpose is to turn employees' tacit knowledge into explicit knowledge at all levels to make possible of value creation in the organization. Intellectual capital arises from the sum of employees' professional knowledge, leadership capabilities, risk taking and problem solving capability (Bozbura, 2004). In other words, human capital is indicative of an organization's inventory of knowledge that is hidden in its employees. Human capital in an organization is a combination of individuals' knowledge, skills, capability of innovation and their ability to perform their tasks and consists of the organization's values, culture and philosophy (Bontis, 2001). Human capital forms the base for intellectual capital. In other words, it is a main and primary part for the completion of intellectual capital practices.

### **b. Customer Capital**

It refers to the current and future value of an organization's relation with its customers. The essence of customer capital lies in the knowledge hidden in channels of distribution and relation channels with customers, that is, the knowledge which develops and advances the organization through a change in its nature (Bontis et al., 2000). Some theorists have considered customer capital as relational capital. Relational capital is the knowledge existing in an organization's relations with its customers, raw material suppliers, stakeholders and partners with similar strategies. The number and structure of customers are critical to an organization's future value since customer relation constitutes an organization's principle of cash flows (Pablos, 2003).

Customer capital accounts as a major component of intellectual capital and has placed value in marketing and relation channels that an organization has with the leaders of that industry and business. Customer capital accounts a bridge or a catalyst in intellectual capital practices. This capital is a main and decisive requisite to turn intellectual capital to market value and consequently, to an organization's business performance. Without customer capital, market value and business performance are not achievable by an organization. Customer capital has direct relationship with organization's performance. Studies in Michigan University showed that customers' loyalty could safeguard relations and reduce the fluctuating price of the product and improve the organization's prestige (Chen et al., 2004).

### **c. Structural Capital**

Edvinsson and Malon (1997) define structural capital as the hard wares, soft wares, data bases, organizational structure, organization's exclusive rights, and all an organization's capabilities that support productivity. From another perspective, structural capital is what remains in the organization when employees go home at night (Roos & Roos, 1997). To put differently, structural capital includes all non-human knowledge stores in an organization (Engstrom et al., 2003). Structural capital is comprised of an organization's culture, organizational structure, organizational learning, organization's operating process and its information system. One of the intellectual capital theorists views structural capital as the main pillar in creation of learning organizations. In his view, if an organization enjoys highly capable employees but suffers from weak systems and procedures, this would impede gaining a favorable level of performance. On the contrary, a strong structure helps to reduce total costs and increase profit and productivity (Bontis, 2003).

### **Organizational Learning Process**

Learning ability is an important attribute of the human factor that individuals learn before entering the organization but the discussion here is over the knowledge and the skills that employees learn after entering the organization and is described as organizational learning. In views of many authors, among them Huber (1991) and Slater and Narver (1995), organizational learning process is a process consisting of three different stages; 1) information acquisition (production); it points to the gathering and assessing the information related to customers' needs and preferences and the forces in effect reinforcing their needs and wants, 2) information dissemination and distribution; a process in which the information related to market is exchanged within a specific organization, and 3) shared interpretation; a process in which the information becomes meaningful, of course with regard to the existing limitations in information exchange and the development of common understanding and common conceptual models among individuals (Hult et al., 2002). It should be noticed that organizational learning is not a fixed position or a limited goal, but a continuous process of adaptation to environmental conditions and evolution in which the groups within the organization are encouraged



to develop skills, knowledge and consensus on the organization's goal (Bayraktaroglu & Kutanziz, 2003).

Based on the given definition, organizational learning in organizations is a process comprised of several stages by implementing which an organization moves toward learning. Based on the researchers and theorists' views, four main stages can be mentioned for organizational learning process; 1) information acquisition/creation: search of internal and external environment and gathering useful information for the organization and reviewing the performance outcomes and past experiences and creating new information, 2) information interpretation/exchange: distribution and exchange of information amongst individuals, groups and different divisions of the organization and interpretation of the information by them, 3) information application/knowledge creation: application of information proportionate to the organization's conditions and needs; practical use of the information and examination of its behavioural results, production of new knowledge and adding that to the organization's existing knowledge systems, and 4) knowledge internalization: generalization of the new knowledge throughout the organization and utilization of the new knowledge in daily practices and conversion of the theoretic knowledge to the practical one.

### **Core Elements of Organizational Learning Capability**

Organizational learning capability is defined as the organizational and managerial characteristics or factors that facilitate the organizational learning process or allow an organization to learn (Chiva, Alegre & Lapiedra, 2007). Organizational learning capability is as an intrinsic capability of an organization to create, enriched, and utilizes knowledge to outperform its competitors. It is the capacity to generate and generalize ideas moving beyond multiple organizational boundaries, through specific management initiatives and practices. However, these disciplines are still vague in both theory and practice (Jamali et al., 2006). Ulrich (1993), defines organizational learning capability as the capacity of managers within an organization to generate and generalizes ideas with impact. According to the definition of organizational learning capability, the capabilities are categorized into two main elements (Khorshidi, 2003): (1) Elements to create ideas (2) Elements to develop ideas. These are two essential factors to evaluate organizational learning in this study.

### **Intellectual Capital and Organizational Learning Capability**

The study of Lin, Chen and Han (2007), assert in their studies that intellectual capital includes all the created assets through mental activities such as acquisition, innovation and creating knowledge. Intellectual capital affects knowledge management in positive way and improves the organizational learning capability. Knowledge innovation is the main component in creating product value and economic growth in the k-based economy. Employees are main players in the organizational success in such an economy (Rothberg, 2009). He concludes that human resource training and retention is the most important competitive strategy in information based economy.

Systems and problem solving process and creating values in organization are devoted to the organizational structure capital. These systems include overall organizational process, organizational structure design and the capability to use information technology and the information system structures (Lopez, 2008). Organizational culture, as a structural capital element might be useful in developing the organizational learning capability. For instance, an organization may create an appropriate environment to persuade informal learning. This culture grows employee's willingness to share knowledge. The organization's efforts in stabilization of its intellectual capital management system will equip it to find operational approach in using patents that will result in the enhancement of the organizational learning capabilities. Structural capital will help the idea development across the

organization and will decrease the unfairness in judgment and decision making processes. Employees with higher level of relational skills with external environment, find more chances to access different resources. The relationship of the organization with research institutes, consultant and knowledge centers, creates relational capital. In this process, organizations gain more information from their customers to improve organizational learning capabilities (Rothberg, 2009).

### **2.3 Theoretical Literature**

This represents the logical association between independent and dependent variables. In this theoretical framework, the study investigated the direct effect of intellectual capital on learning capacity. Attempts to explain variance of rates in organizational learning across different organizations including universities have been explored in theoretical models. The recent theoretical models discussed are conceived by Bernardo Huberman, and Christina Fang.

The Huberman model (2001) filled that void and aimed at explaining the variation missing from Muth's model (1988) and focuses on finding increasingly shorter and more efficient paths from end to end of an assembly process. This model is visualized best in a connected graph with nodes that represent stages in a process and links that represent the connecting routines. By way of this model, learning can occur through two mechanisms that shorten the route from the initial stage to the final stage. The first is by some shortcut that can be identified by looking at the nodes and mapping and discovering new routines, the ideal goal being able to eliminate certain touch points and find shorter paths from the initial to final node. The second mechanism involves improving the routines: the organization can work to select the most efficacious link between two nodes such that, if an issue ever arises, members of an organization know exactly who to approach, saving them a considerable amount of time

The Fang model (2012) shares a major goal with the Huberman model: to gradually decrease the steps towards the final stage. However, this model takes more of a "credit assignment" approach in which credit is assigned to successive states as an organization gains more experience, and then learning occurs by way of credit propagation. This implies that as an organization gains more experience with the task, it is better able to develop increasingly accurate mental models that initially identify the values of states closer to the goal and then those of states farther from the goal. This then leads to a reduced number of steps to reach the organization's final goal and can thus improve overall performance

### **3.0 Methodology**

The area of this study is University of Abuja in the Federal Capital Territory. The population of the study is 1,777 comprising of 514 academic staff (Professors, Assoc. Prof., Senior Lecturers, Lecturer I and others) targeted in 13 faculties/Institutes and centers, as well as 1,263 non-academic staff (management, middle and low level employees) from establishment unit, academic planning and other strategic units of the University with direct bearing on intellectual capital components and learning capability. The sample size is 327 which were reached using Taro Yamane statistical formulae. Furthermore, the sample was arrived at using Taro Yamani sample size formula as shown below and stratified random sampling was used in selecting the elements in each category.

$$n = \frac{N}{1 + Ne^2} = \frac{1777}{1 + (1777)(0.05)^2} = 327$$

Furthermore, this study adopted a survey approach in its design; and it employs the use of questionnaire which was developed in line with the objectives of the study. The questionnaire consists of two sections (A&B); Section A comprises of the main demographic characteristics of the respondents while Section B deals with responses in line with the objectives and hypotheses of the study dealing mainly with major components of intellectual capital (IC) and their influence on institutional learning capacity (ILC) in the University of Abuja. The structured questions were designed using 5-point Likert Scale ranging from Strongly Agreed(5), Agreed(4), Undecided(3), Disagree(2) and Strongly Disagree (1). Finally, the methods of data analysis employed are descriptive statistics and the Ordinary Least Square (OLS) regression analysis computed using Social Packaging Statistical System (SPSS). The OLS model can be specified as shown below using Learning Capacity as the dependent variable and the component of intellectual capital (Human Capital, HC, Structural Capital, SC, and Relational Capital, RC) as its proxies that constitute the independent variables.

$$LC_i = \alpha + \beta_1 HC_i + \beta_2 SC_i + \beta_3 RC_i + \varepsilon_i \text{-----}(1)$$

Where;

LC=Learning Capacity

HC = Human Capital

SC = Structural Capital

RC = Relational Capital

$\alpha$  = Intercept,  $\beta$  = coefficients of independent variable,  $\varepsilon$  = Error term

Lastly, content validity and construct validity were used to validate the structured questionnaire instrument by administering (pilot study) 28 percent of the questionnaires to experts in the field of intellectual capital and learning capability. All the items measured, indicated acceptable reliability of 7.2 which is above the minimum cut-off mark as regards to Cronbach's alpha coefficient.

### **3.1 Hypotheses**

The hypothesis of this research considers the three components of intellectual capital components (including human capital, structural capital and relational capital) influence learning capabilities. The hypothesis consists of three sub-hypothesis as follows:

H<sub>0</sub>1: Human capital has no significant influence on Organizational learning Capability in University of Abuja.

H<sub>0</sub>2: Structural capital has no significant effect on Organizational learning Capability in University of Abuja.

H<sub>0</sub>3: Relational capital has no significant effect on Organizational learning Capability in University of Abuja.



## 4.0 Results and Discussion

The result of the study is presented in this section under the following subsections, response rate, demographic characteristics, descriptive statistics and test of hypotheses.

### 4.1 Response Rate

Table 4.1 revealed that close to 17% of the respondents were academic staff who filled and returned their questionnaire while about 52% constitute that of the non-academics and students inclusive. The remaining did not return their questionnaire.

Table 4.1: Response Rate

Category of Respondents	Distributed	Returned	Not Returned	Valid Percentage (%)
Academic Staff	95	56	39	16.62
Non-academic Staff/Students	242	175	67	51.93
<b>Total</b>	<b>337</b>	<b>231.0</b>	<b>106.0</b>	<b>68.55</b>

Source: Field Survey, 2018.

### 4.2 Demographic Characteristics of Respondents

Since the characteristics of the respondents influence results, we therefore present the demographic data of the respondents in Table 4.2. As can be seen on the table, information on seven (7) different characteristics of respondents that are relevant to the study were collected and interpreted. Information on respondents' age, gender, educational qualification, respondents working experience, faculty/institutes/centers/unit and nature of appointment and designation were collected for use in the analysis.

From the table, the age groups of respondents indicates that fairly larger percentage of the respondents (35.06%) are between the ages of 18 to 45 years while majority of the respondents who gave their responses fell within the economically active group and experience between the ages of 46 and 60 constituting 45.02% of the total respondents. The remaining 19.91% are made up of respondents above 60 years.

The Table also shows the gender of the respondents where the largest percentage are males (70.13%) while the females constitute the lesser percentage with 29.87%. This implies that there are more males involved in the analysis of intellectual capacity and learning capability issues than do the females.

Table 4.2: Respondents Characteristics

S/N	Characteristics	Respondents' Category	Frequency	Percent
1.	Age	18 - 45 years	81	35.06
		Between 46 to 60 years	104	45.02
		Above 60 years	46	19.91
		<b>Total</b>	<b>231</b>	<b>100.0</b>
2.	Gender	Male	162	70.13
		Female	69	29.87
		<b>Total</b>	<b>231</b>	<b>100.0</b>
3.	Educational Qualification	Post-graduate	113	48.92
		B.Sc./HND	64	27.71
		Diploma/NCE	18	7.79
		Secondary Certificate	23	9.96
		Others	13	5.62
		<b>Total</b>	<b>231</b>	<b>100.0</b>
4.	Respondents Working Experience	Below 5 years	72	31.17
		Between 5 to 10 years	90	38.96
		Above 10 years	69	29.87
		<b>Total</b>	<b>231</b>	<b>100.0</b>
5.	Faculty/Institutes/ Centers/Units	13 Faculties/Inst.& Centers	121	52.38
		Establishment	15	6.49
		Academic Planning	05	2.16
		Students Affairs	04	1.73
		Others	86	37.23
6.	Nature of Appointment	<b>Total</b>	<b>231</b>	<b>100.0</b>
		Tenure	205	88.74
		Part-Time	18	7.79
		Contract	05	2.16
		Visiting/Sabbatical	03	1.30

Source: Field Survey, 2018.

The Table shows that virtually all the respondents have one form of education or the other with majority (113 or 48.92%) having Postgraduate Degrees followed by those with Bachelor's degrees and Higher National Diploma (64 or 27.71%), then by those with Secondary School certificate and Ordinary National Diploma/NCE representing 23/9.96% and 18/7.79, respectively. Others without certificates constitute only 13 or 5.62 percent. These statistics further shows that most of the respondents had higher education to be engaged competently in the discourse for meaningful contributions.

On the respondents working experience, the table shows that those with below 5 years' experience in the university setting constitute 31.17%, those between 5 to 10 years are in majority with 38.96% of the total and those above 10 years constitute 29.87%. This further justify the earlier conclusion that most of the responses were presumed to be emanating from those category of employees with the adequate experience in dealings with intellectual capacity and learning capability issues in the university of Abuja.

Furthermore, majority of the respondents (121 or 52.38%) are from the 13 Faculties, institutes and centers in the university while others are from the establishment unit (15 or 6.49%); Academic planning unit (05 or 2.16%) and the Students affairs Unit (04 or 1.73%). Other strategic units of the university such as quality assurance, consultancy, SERVICOM etc. accounted for 86 or 37.23% of the

responses implying that all the critical organs where intellectual capital and institutional learning capacity play a significant role were investigated to help in coming up with a definite finding.

The Table also shows that different categories of employees responded; this include tenure staff (205/88.74%) who constituted the majority and then part-time staff (18), contract staff (05) and those on visiting/sabbatical appointments (03) who constituted 7.79%, 2.16% and 1.30%, respectively. This implies that there is no bias in the targeting of respondents as there is even-spread of questionnaires cutting across all categories of staff.

Finally, the designation of respondents cuts across various ranks and positions as occupied by both academic and non-academic staff in the university. Those who responded includes Professors and Associate Professors (52 or 22.51%), Senior Lecturers who constituted the majority (78 or 33.77%), Lecturer I and others (45 or 19.48%) and Management staff such as provosts, Deans and Directors (12 or 5.19%) including middle level staff (Deputy registrars, Deans, Directors and other principal officers) and low level staff (Clarks, messengers, office assistants, drivers, etc.) who constituted 44 or 19.05% of the total responses. This implies that there is balanced investigation of the subject matter cutting across all types of employees in the institution.

### **4.3 Descriptive Statistics on the Components Intellectual Capital and Their Influence on Institutional Learning Capacity**

Table 4.3 shows a descriptive statistics on the various research questions concerning the components intellectual capital (IC) and their influence on institutional learning capacity (LC) of university of Abuja. Each of these was reduced to specific questions as it relates to the research variables.

Table 4.3: Descriptive Statistics on the components intellectual capital (IC) and their influence on institutional learning capacity (LC) of university of Abuja

	<b>Variables</b>	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>Std. Dev</b>	<b>Remarks</b>
	<i>Human capital components</i>						
Q1	Proposing new ideas continuously	231	1.00	5.00	3.8528	1.26318	Agreed
Q2	Employees' satisfaction from the organization	231	2.00	5.00	4.3983	.88799	Agreed
Q3	Employees' competence at an ideal level	231	1.00	5.00	4.0693	1.06504	Agreed
Q4	Sharing excellent ideas amongst employees	231	1.00	5.00	4.0433	1.09459	Agreed
Q5	Employees' learning from each other	231	1.00	5.00	3.8312	1.27589	Agreed
Q6	Employing the best applicants	231	1.00	5.00	4.2121	1.17696	Agreed
	<i>Structural capital components</i>						
Q7	Innovation facilitating procedures and systems	231	1.00	5.00	4.3203	.97867	Agreed
Q8	Easy access to information through information systems	231	2.00	5.00	3.9697	1.07296	Agreed
Q9	Efficient use of available resources	231	1.00	5.00	4.3896	.91589	Agreed
Q10	Organizational structure facilitator of coordination and cooperation	231	2.00	5.00	3.9957	.97132	Agreed
	<i>Relational capital components</i>						
Q11	Assurance of continuous relationship with customers	231	1.00	5.00	3.9870	1.20679	Agreed
Q12	Investing on customers' needs	231	2.00	5.00	4.3420	.87968	Agreed
Q13	Customers' general satisfaction from the organization	231	1.00	5.00	4.2251	.87052	Agreed
Q14	Encouraging long term relationship with customers	231	2.00	5.00	4.2814	.87156	Agreed
Q15	Disseminating customers' feedbacks throughout the organization	231	1.00	5.00	4.0130	1.12860	Agreed
	Valid N (listwise)	231					

**Source:** Generated using SPSS output Version 20.0.

From the Table 4.3, the minimum and maximum value for the level of agreement on each of the question is 1 to 5 respectively and also the Mean and Standard Deviation for each of the questions are on average 3.60 and 1.36, respectively. These results show that on the overall basis, there was agreement on all the research questions and as such, there is a significant relationship between components Intellectual Capital (IC) and institutional Learning Capacity (LC) of university of Abuja.

#### 4.4 Test of Hypotheses

The twin inferential statistics of multiple ordinary least square (OLS) regression and correlation was deployed on the data collected for the purposes of the above. The variables used in the analysis include the three (3) predictors (independent variables) of the components intellectual capital (IC), namely: Human Capital (HC), Structural Capital (SC), and Relational Capital (RC). All these predictors were regress on Learning Capacity (LC), the dependent variable.

##### 4.4.1 Multiple Regression Analysis

From Table 4.4 which is on model summary, the overall coefficient of multiple correlation, coefficient of multiple determination and it adjusted form are 0.865, 0.748, and 0.745 respectively. These clearly indicate that there is a strong relationship between components intellectual capital (IC) and institutional learning capacity (LC) of university of Abuja. In fact the adjusted R<sup>2</sup> implies that influence of intellectual capital (IC) is responsible for 74.5% variation and institutional learning capacity (LC) of university of Abuja.

Table 4.4 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.865 <sup>a</sup>	.748	.745	.711

a. Predictors: (Constant), HC, SC, RC

**Source:** Generated using SPSS output Version 20.0

Table 4.5: Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error			
1	(Constant)	.325	.191		1.702	.090
	HC	.309	.046	.315	6.643	.000
	SC	-.225	.054	-.185	-4.144	.000
	RC	.814	.059	.730	13.838	.000

a. Dependent Variable: LC

**Source:** Generated using SPSS output Version 20.0.

Drawing from Table 4.5; hypotheses one to three would be scientifically interpreted via values of the predictors in line with the objectives of the study; we therefore, present the test of hypotheses as follows:

*H<sub>01</sub>: Human Capital has no significant influence on Organizational learning Capability in University of Abuja.*

The Beta co-efficient of the access to credit facilities (0.315) shows positive relationship between Human capital (HC) and institutional learning capacity (LC) of university of Abuja and was statistically significant at 5% with p- value of (0.000). Furthermore, it imply that a unit change in Human capital (HC) would bring about 31.5% average change (increase) on institutional learning capacity (LC) of university of Abuja, holding other factors constant. Based on this, we therefore reject

the null hypothesis and accept the alternative hypothesis that says human capital has a significant influence on Organizational learning Capability in University of Abuja. This is consistent with the research findings of Farsani, Bidmeshgipour, Habibi and Rashidi (2012) who found a positive and meaningful relationship between all three elements of intellectual capital and organizational learning capabilities

*H<sub>02</sub>: Structural Capital has no significant effect on Organizational learning Capability in University of Abuja.*

The Beta co-efficient of the Level of technical facilities (-.185) shows positive relationship between Structural Capital (SC) and institutional Learning Capacity (LC) of university of Abuja and was statistically significant at 5% with p- value of (0.000). Furthermore, it imply that a unit change in Structural Capital (SC) would bring about 18.5% average change (increase) in the institutional Learning Capacity (LC) of university of Abuja, holding other factors constant. Based on this, we therefore reject the null hypothesis and accept the alternative hypothesis which says structural capital has a significant effect on Organizational learning Capability in University of Abuja. This is in tandem with the findings of Lopez (2008) and Rothberg (2009) who found out that structural capital has significant effect on Organizational learning Capability in an Organisation.

*H<sub>03</sub>: Relational Capital has no significant effect on institutional learning Capability in University of Abuja*

The Beta co-efficient of the loan interest rates and repayment period (0.730) shows positive relationship between Relational Capital (RC) and institutional learning Capability in University of Abuja and was statistically significant at 5% with p- value of (0.000). Furthermore, it imply that A unit change in loan interest rates and repayment period (LIRP) would bring about 73.0% average change (increase) in Organizational learning Capability in University of Abuja, holding other factors constant. Based on this, we therefore reject the null hypothesis and accept the alternative hypothesis which says relational capital has a significant effect on institutional learning Capability in University of Abuja. This is consistent with finding of Pablos (2003) who found out that the number and structure of customers are critical to an organization's future value since customer relation constitutes an organization's principle of cash flows.

#### **4.5 Major Findings**

Since the main objective of the study is to investigate the relationship between intellectual capital components and Organizational learning Capability in University of Abuja. The study found out a significant and positive relationship between components intellectual capital (IC) and institutional learning capacity (LC). Evaluating the degree of the influence, the study found out that there is a positive and meaningful relationship between all the three elements of intellectual capital and organizational learning capability. In the study, we have found the relationship between human capital and organizational learning capabilities to exhibit the most significant impact while structural capital exhibit the least impact. On the extent to which structural capital influences organizational learning capability in University of Abuja, the study further revealed that structural capital has significant effect on Organizational learning Capability in University of Abuja but the relationship is negative one. Finally, on how relational capital influenced organizational learning capability in University of Abuja, the analysis revealed that relational capital has a significant effect on institutional learning Capability in University as more than 80% of those investigated agree with the assertion.

## **5.0 Conclusion and Recommendations**

The study concludes that intellectual capital components are veritable tools which should be embraced by all institutions of higher learning in Nigeria as it will help towards improvement of their learning capability, intellectual capital investments and practices for optimum performance.

Based on the above findings and conclusion, we make the following recommendations:

- i. University of Abuja management should pay more attention to continued improvement of employees' expertise and capacities through constant training and development for effective performance. Management should constantly train its staff on customer relations skills so as to improve the quality of service delivery among its staff.
- ii. University should increase its funding on institutional structure capital factors such as innovation facilitating procedures and systems, having easy access to information through information systems and efficient use of available resources, organizational structure etc. This will not only help in improving the institutional learning capability but will also help in accelerating the pace of development activities in meeting the national and global competitiveness objectives for the overall growth of the University.
- iii. Management should be enjoined to be supportive of both employees and students novel towards generating and developing new ideas in the University.
- iv. There is need for more knowledge to be created through proper integration of intellectual capital into the overall strategy of the University of Abuja so as to have direct bearing on institutional learning capacity and subsequently, performance.



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