

## Disposition to Organizational Learning: A Survey of Selected Construction Industry Organisations in Lagos State, Nigeria

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**Abstract:** *The construction industry and her projects are replete with potentials for learning at both the organisational and project levels. Yet the industry often wastes this opportunity. This research was embarked upon to investigate the disposition of construction industry participants to the use of organisational learning (OL) in the Nigerian construction industry. Data was collected using a structured questionnaire administered purposively on sixty construction industry organisations operating in Lagos, Nigeria. The collected data was subjected to both descriptive and inferential statistical analysis. The findings indicate that majority of respondents agreed that 'Managers ask probing questions and invite input from others in discussions' and also 'Managers listen attentively'. The study results further indicate that there is no significant difference in disposition to organizational learning between contracting, consulting, and client organizations within the Nigerian Construction Industry. This study recommends that a more detailed investigation be made of those items of measure where respondents indicate disagreements to understand better the underlying phenomena. Measures indicating strong indices of agreement can be further explored for improvement.*

**Keywords:** *construction industry; knowledge management; learning organization; Nigeria; organizational learning.*

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### 1. Introduction

The contribution of the construction industry of nations to provide or sustain or maintain infrastructure and support the quality of life of citizens is acknowledged (Ogunlana, 2010a & 2010b). The construction industry in Nigeria is of paramount importance in employment and economic growth (Ogunsemi & Jagboro, 2006). The construction industry contributes about 5% to Nigeria's annual gross domestic product and one-third of her total fixed capital investment. Faniran (2002) states that, in a developing country like Nigeria, which is still in the process of providing adequate social amenities such as educational and health care facilities as well as decent housing for its teeming populace, the construction industry has an important role to play. About 69% of Nigeria's fixed capital formation is created by the construction industry. This means the construction industry represents about 70% of the capital base of the nation's economy. Notwithstanding its position, the performance of the industry within the overall macro-economy has been, and continues to be, very poor and abysmal (Faniran, 2002).

Some characteristics of the construction industry pose further challenges to management and integration. It is an industry that is fragmented in nature, often with a highly mobile workforce. The arrangement of participants to execute the project often involves a coalition of disparate and different organisations, professional and commercial entities (Zhang and Hu, 2011) into what is termed temporary multi-organisations. The industry is also faced with the challenges of addressing both company and project level of management especially in construction contracting. The construction company for example has to evolve its

management philosophy of its company as an organisation. The management of the project is another issue for the construction organisation as each project oftentimes has its own uniqueness, structure and participating parties.

## 2. Aim and objectives

The aim of this research is to investigate the disposition of construction industry organisations – client, consultants and contractors- to organisational learning (OL). The following objectives are pursued:

1. To ascertain the assessment of the construction industry organisations of issues depicting disposition to organisational learning
2. To investigate if there are differences in dispositions of construction industry organisations to organisational learning

## 3. Some perspectives on organisational learning

According to Crossan, Lane and White (1999), organizational learning is as old as the 1960s. The concept of organizational learning is fluid with some researchers operating from different perspectives. While, commonality of understanding as to what constitutes (the concepts and practices of) organisational learning has not been achieved among practitioners and academics (Fiol & Lyles, 1985), the background to organizational learning includes an increasingly competitive business environment that is also contextually related to globalization. McShane (2001) sees learning as a process by an organisation to acquire, disseminate and apply knowledge for its survival and success. This implies that organizational learning is supposed to be goal oriented. Fiol and Lyles (1985) acknowledged that there has been confusion for decades over the meaning of organizational learning. They in turn, defined organizational learning as the growing insights and successful restructurings of organizational problems by individuals reflected in the structural elements and outcomes of the organization itself. In this definition, learning consists of the development of insights on the one hand and structural and other action outcomes on the other. One is a change in states of knowledge not clearly perceptible; the other often involves a change more easily visible in terms of an organizational outcome. And, most important, the two often do not occur simultaneously, which makes the problem of distinguishing between them all the more important. They cited what many theorists have referred learning to as (a) new insights or knowledge; or (b) new structures; or (c) new systems; or (d) mere actions; or (e) some combination of the above.

Crossan *et al* (1999) in their treatment of organisational learning focused on new learning or lessons and their use. They also focused on multilevel perspectives of organizational learning: individual, group and organization. The three levels are linked by social and psychological processes of intuiting, interpreting, integrating and institutionalizing learning. The last is how cognition affects action.

Organisational learning imposes two requirements of knowledge and sharing, a degree of collective action of stakeholders. Granerud and Rocha (2011), citing some authors, submitted that organisational learning encompasses the development of new knowledge, skills and behaviour, the rectification of errors and improvement of current practices, and the development of new routines. Thus organisational improvement leads to or is expected to lead to continuous process improvement. Ideas, techniques and experiences from within or outside the organisation are shared to improve the organisation's performance. Organisational learning is thus related to continuous process improvement. Organisational learning is the foundation for continuous process improvement, while continuous process improvement is a way of organising and supporting organisational learning. Arshad and Scott-Ladd (2010) proposed some levels of organisational learning and their characteristics thus: 1) Reproductive learning: handling of routine problems; 2) Basic productive learning: evaluation of outcomes and minor corrections; 3) Advanced productive learning: experiments, inventions and test solutions; 4) Creative learning: questioning existing assumptions

A related term to organisational learning is unlearning which has been described as a process of clearing out, outdated beliefs that no more meet current challenges and realities (Wong, Cheung, Yiu & Hardie, 2012). In a study on the Malaysian Vision 2020, Arshad and Scott-Ladd (2010) categorised approaches to learning into action learning, active learning and experiential learning, co-operative learning, problem-based learning, coaching and mentoring, formal and informal learning. Arshad and Scott-Ladd (2010) compared the approaches used by Malaysian organisations to learning and concluded that while organisations preferred internal learning strategies they also used external learning strategies. Both formal and informal sources are popular.

A related term to organisational learning is the learning organisation. The concepts of organisational learning and learning organisation also carry along related terms of knowledge management and the knowledge creating company (Nonaka & Takeuchi, 1995). The knowledge-creating-company as implied by Nonaka and Takeuchi (1995) is an organization whose sole business is continuous innovation. The concept is hinged on the fact that in the world economies the only certainty is uncertainty, for this reason the one sure source of lasting competitive advantage is knowledge. Dodgson (1993) acknowledged the difficulty of agreement both within and between disciplines as to what learning is, and how it occurs. To this end various literatures are inclined to examine the outcomes of learning but not the processes of learning. Dodgson (1993) however described organizational learning in terms of learning processes and not outcomes: organisational learning can be described as the ways firms build, supplement and organize knowledge and routines around activities and within their cultures and adapt and develop organizational efficiency by improving the use of broad skills of their workforces. Hence, encouraging and coordinating the variety of interactions in learning is a key organizational task. In essence, while some authors do not see a distinction between organisational learning and the learning organisations, some see learning organisation as a type of organization, while organisational learning represents the transformational process that occurs in that type of organisation. One deals with anticipated structure, another with process.

Organisational learning is crucial for the construction industry since the industry is generally perceived to be one with low productivity and poor performance, in spite of its significance to the national economy (Tjandra & Tan, 2002; Wong et al, 2012). Tjandra and Tan (2002) also stated that the project based nature of the construction industry has made it very vital to record and transfer lessons from project to project. Research studies on the construction industry have indicated that there is a direct relationship between an organisations performance in their construction projects and its leaning competencies (Love & Josephson, 2004; Murray & Chapman, 2003)

This study seeks to investigate the disposition of Nigerian construction industry organisations to organisational learning or whether they exhibit characteristics of learning organisations. This exploratory research has not aligned with the rigid differentiation of organisational learning from the learning organisation. Rather the researchers have seen the learning organisation concept as a subset of organisational learning and thus sought to investigate the selected Nigerian construction organisations for their predisposition or gravitation towards being learning organisations. The research has aligned itself with the process perspective of approaching learning taking into consideration issues such as conducive environments enunciated by Senge (1991), De-Gues (1996) and Garvin, Edmondson and Gino (2008). The need to increase competitiveness in the industry and encourage continuous process and product improvement warrants this study. This study thus has the potential of opening up a wide field of research area in the field of organisational learning in the construction industry and to contribute to the body of knowledge in that area as far as Nigeria is concerned.

#### 4. Research methods

The data collection and analysis was preceded by review of literature. Data for the study was collected using a structured questionnaire. The questionnaires were distributed to a purposive sample of contractor,

consultant and client companies operating in Lagos State, Nigeria. The instrument for the research requested the respondent to provide some biographical details. The questionnaire used for the study was divided into four sections. Section one examined the characteristics of respondents in terms of their professions, academic qualification, professional qualification, years of experience, type of organization, size of organization, and number of projects involved in the last five (5) years (2005 to 2010). The second section measured/evaluated the disposition of project participants to learning. The third section measured the learning processes and practices of employees of organization or team-mates within their team or unit, while the fourth section measured management support for organizational learning within their companies. The second to the fourth section required respondents to respond to statements using an ordinal rating scale of 1 to 5 in each section in the order: 5 = Strongly Agree, 4 = Agree, 3 = Slightly Agree, 2 = Disagree, 1 = Strongly Disagree. These sections of the questionnaire measure supportive learning environment, concrete learning processes and leadership that reinforce learning. The questions used for this section were drawn or adopted from Garvin *et al* (2008). Based on this, the data generated were analysed by Statistical Package for Social Science (Version 13.0) and those with the highest mean score were ranked 1, while those with lower mean score were ranked according to their value/magnitude. Further inferential statistical analysis was done on the data while the statistical level of significance was set at 5%.

## 5. Analysis, Results and Discussion

Sixty questionnaires were administered on the selected construction industry organisations with the questionnaires being completed by their representatives. Follow-up efforts were made. In the process thirty completed questionnaires were received. The response rate to the questionnaire was 50%. This is judged to be a high rate of response which can be attributed to the follow-up efforts.

### 5.1 Descriptive Statistical Analysis

#### 5.1.1 Characteristics of representatives of respondent organisations

Table 1 shows the profession of the respondents who completed the questionnaire on behalf of the construction industry organisations.

**Table 1:** Respondent Profession

Professional standing	Frequency	Percent
Civil Engineer	12	40.0
Quantity Surveyor	5	16.7
Mechanical Engineer	4	13.3
Builder	5	16.7
Estate surveyor & valuer	2	6.7
Others	2	6.7
Total	30	100.0

It is observed from the findings that majority of the respondents were Civil Engineers who possess Bachelors degree while some have Master of Science/Master of Project Management/Master in Business Administration degrees.

Table 2 shows the frequency of projects that the respondents have been involved in the last five (5) years.

**Table 2:** Number of projects involved in the last five years (2005 - 2010)

Number of projects	Frequency	Percent
1 – 5	9	30.0
6 – 10	4	13.3
11 – 15	6	20.0
16 – 20	4	13.3
26 – 30	3	10.0
above 30	4	13.3
Total	30	100

### 5.1.2 Characteristics of Respondent Organisations

Table 3 shows the characteristics of the respondent organisations.

**Table 3:** Type of organization

	Frequency	Percent
Consulting firms	5	16.7
Contracting firms	19	63.3
Client	6	20.0
Total	30	100

Table 3 shows that 19 (63.3%) of respondent organisations were contractors, while 5 (16.7%) were consulting firms and 6 (20%) were client organisations.

Table 4 shows the number of employees of the organisations.

**Table 4:** Number of employees in respondent organisations

Number of employees	Frequency	Percent
1 – 5	1	3.3
5 – 50	9	30.0
50 – 100	7	23.3
100 – 1000	12	40.0
Not indicated	1	3.3
Total	30	100

The table indicates that 12 (40%) of the organisations had between 100 to 1000 employees. The table also shows the others: 7 (23.3%) have 50 to 99 employees; 9(30%) have 5 to 50 employees, while 1(3.3) have 1-5 employees. By employment pattern, it is the contracting firms that are more likely to have more employees.

### 5.1.3 Disposition to Organizational Learning Processes and Practices

This section of the analysis reports the output of the examination of the disposition of project participants to organizational learning within the Nigerian construction industry. Table 5 shows the descriptive analysis of items used to investigate the disposition of project participants to organisational learning within the Nigerian construction industry. The mean item scores of all the respondent organisations are shown for each issue

within a sub-section. The second column on 'Mean' indicates the mean item score of all the respondents on the issue. The third column shows the ranking of that issue in that sub-section or subgroup. The fourth column shows the means of the means of the respective issues in that sub-section. The last column shows the ranking of each subsection (based on sub-section mean) with respect to the four subsections indicated in the table.

**Table 5:** Means and rankings on issues of supportive learning environment

	Sub-section and items	Mean	Rank	Sub-section Mean	Sub-section Rank
A	Psychological safety:				
	People in this unit/organization are eager to share information about what does and doesn't work	3.87	1		
	In your organization/unit it is easy to speak up about what is on your mind	3.70	2		
	People in this unit/organization are usually comfortable talking about problems and disagreements	3.27	3		
	If you make a mistake in this unit, it is often held against you	3.07	4		
	Keeping your cards close to your vest is the best way to get ahead this unit/organization	2.60	5		
				3.30	1
B	Appreciation of Differences:				
	In this unit/organization, people are open to alternative ways of getting work done	3.70	1		
	Differences in opinion are welcome in this unit/organization	3.57	2		
	Unless an opinion is consistent with what most people in this unit/organization believe, it won't be valued	2.97	3		
	This unit/organization tends to handle differences of opinion privately or off-line, rather than addressing them directly in the group/open	2.83	4		
				3.27	2
C	Openness to new ideas:				
	In this unit/organization, people value new ideas	4.03	1		
	In this unit/organization, people are interested in better ways of doing things	3.93	2		
	In this unit/organization, people often resist untried approaches	2.61	3		
	Unless an idea has been around for a long time, no one in this unit/organization wants to hear it	2.43	4		

				3.25	3
D	Time for Reflection:				
	In this unit/organization, schedule pressures gets in the way of doing a good job.	3.5	1		
	Despite the workload, people in this unit/organization find time to review how the work is going	3.43	2		
	People in this unit /organization are overly stressed	3.13	3		
	In this unit/organization, people are too busy to invest time in improvement	2.83	4		
	There is simply no time for reflection in this unit/organization	2.27	5		
				3.03	4

The overall mean item score of the responses was taken to examine if a supportive learning environment exists and thus by extension examine the disposition of the construction industry organisations to organizational learning.

Within the Psychological Safety sub-section, "People in this unit/organization are eager to share information about what does and doesn't work" had the highest mean score of 3.87 and thus ranked 1, showing that respondents mostly agree with the statement than any other. This implies that people are eager to share information the construction industry. Followed in descending order by "In your organization/unit it is easy to speak up about what is on your mind" with mean score of 3.7 and ranked 2, respondents also agree with the statement. Next by "People in this unit/organization are usually comfortable talking about problems and disagreements" with mean score of 3.27 and ranked 3, and "If you make a mistake in this unit it is often held against you" with mean score of 3.07 and ranked 4, both these statements are slightly agreed with. While "Keeping your cards close to your vest is the best way to get ahead in this unit/organization" had the lowest mean score of 2.6 and ranked 5 showing that respondents did not agree with the above statement.

Within the Appreciation of Differences sub-section, "In this unit/organization, people are open to alternative ways of getting work done" had the highest mean score of 3.70 and thus ranked 1. This implies that respondents agree with the statement most. "Differences in opinion are welcome in this unit/organization" follows next in descending order with a mean score of 3.57 and a rank of 2, respondents also agrees with the statement. Next in line are "Unless an opinion is consistent with what most people in this unit/organization believe, it won't be valued" with a mean score of 2.97 and ranking of 3, and "This unit/organization tends to handle differences of opinion privately or off-line, rather than addressing them directly in the group/open" with a mean score of 2.83 and ranked 4. Respondents slightly agree with both statements.

Within the Openness to New Ideas sub-section "In this unit/organization, people value new ideas" had the highest mean score of 4.03 and was ranked 1. Respondent were really disposed to this statement, showing project participants value new ideas a lot. Subsequently, in descending order were "In this unit/organization, people are interested in better ways of doing things" with a mean of 3.93 and ranked 2, respondents agree to the statement likewise. "In this unit/organization, people often resist untried approaches" with a mean score of 2.61 and ranked 3, and "Unless an idea has been around for a long time, no one in this unit/organization wants to hear it" with a mean score of 2.43 and a rank of 4. Respondents disagreed with both statements meaning they agreed with the contrary.

Within the Time for reflection sub-section "In this unit/organization, schedule pressures gets in the way of doing a good job" had the highest mean score of 3.5 and was ranked 1. Most respondents agreed with the statement connoting that schedule pressures affect the quality of their jobs. Following this in descending order, are "Despite the workload, people in this unit/organization find time to review how the work is going" with a mean score of 3.43 and ranked 2, and "People in this unit /organization are overly stressed" with a mean score of 3.13 and a rank of 3, respondents slightly agree with both statements. Next is "In this unit/organization, people are too busy to invest time in improvement" with a mean score of 2.83 and ranked 4, showing that people partially agree with statement. While "There is simply no time for reflection in this unit/organization" with a mean score of 2.27 and a rank of 5, respondents do not agree with the statement.

One observation is that all the sub-section means are approximately '3' which suggests that preponderance of responses suggest 'slightly agree' to the issues being used for the assessment. Using the subsections means suggests that respondents slightly agree that there exists supportive learning environment in construction organisations. This may imply a disposition to organisational learning. The work of Kululanga and Kuotcha (2008) on Malawi indicates some use of the concept of organisational learning through project reviews.

## 5.2 Inferential statistical analysis

### 5.2.1 Hypothesis testing

The next aspect of the analysis is to investigate whether there are significant differences in disposition to organizational learning between contracting, consulting, and client organizations within the Nigerian Construction Industry. To achieve this, the following null and alternative hypotheses were postulated thus:

Null Hypothesis (Ho): There is no significant difference in disposition to organizational learning between contracting, consulting, and client organizations within the Nigerian Construction Industry.

Alternative Hypothesis (Hi): There is significant difference in disposition to organizational learning between contracting, consulting, and client organizations within the Nigerian Construction Industry.

An analysis of variance was performed on the relevant data. Tables 6 and 7 show some of the edited outputs of the analysis. The statistical level of significance is 5%.

Table 6 specifically shows the means and standard deviations and other measures of central tendency of the responses.

**Table 6:** Standard Deviation of Organizations' Disposition to Organizational Learning

Group/Firm	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
					Lower	Upper		
Consulting	5	3.1222	.33656	.15051	2.7043	3.5401	2.72	3.61
Contracting	19	3.2107	.38939	.08933	3.0230	3.3984	2.53	4.00
Client	6	3.2685	.39662	.16192	2.8523	3.6847	2.56	3.67
Total	30	3.2075	.37268	.06804	3.0684	3.3467	2.53	4.00

N= number of respondent organisations; Min = minimum; Max = maximum

The table (Table 6) indicates that for all the groups, the mean revolves around 3, the 'slightly agree' value.



Table 7 presents the analysis of variance for the three groups with respect to the mean item scores.

**Table 7:** ANOVA Results of Disposition to Organizational Learning

Source of Variation	Sum of Squares	d.f	Mean Square	F-cal	P-Value	F-tab
Between Groups	.059	2	.029	.200	.820	3.35
Within Groups	3.969	27	.147			
Total	4.028	29				

d.f = degrees of freedom

From an examination of Table 7 the probability value is greater than 0.05, the set value for statistical significance. The implication and decision is that the null hypothesis should be accepted as there is no significant difference in disposition to organizational learning between contracting, consulting, and client organizations within the Nigerian Construction Industry. The implications of this finding include the fact that there is implied homogeneity regarding disposition to organisational learning by the respective construction industry organisations. This homogeneity thus has the potential of making stakeholder management of intervention or policy efforts on the issue of organisational learning in the construction industry less problematic. Construction industry organisations that are used in this study are critical to the success of the construction project. The homogeneity of assessment may be partly due to the fact that ordinarily every organisation whatever its commercial inclination wants to improve. The assessment indicated through the descriptive analysis reflected in Table 5 also seems to suggest the current state of disposition to organisational learning in the country.

## 6. Conclusions and recommendations

Some conclusions emanate from this research. Project participants are most eager to share information, they are also willing to speak out their minds and they distance themselves from hoarding or hiding information as it is not the best way to get ahead in any unit/organization. Psychological safety was rated highest by respondents but its mean score fell in the 'slightly agree' margin. In addition, construction industry organisations slightly agree with issues under appreciation of differences, openness to new ideas, and time for reflection. There were no significant differences in disposition to organisational learning by Nigerian construction industry organisations. This study recommends that a more detailed investigation be made of those items of measure where respondents indicate disagreements to understand better the underlying phenomena. Measures where there are strong indices of agreement can be further explored for improvement. The finding that there is no significant difference in disposition to organizational learning between contracting, consulting, and client organizations within the Nigerian Construction Industry can be leveraged upon to inculcate and entrench organisational learning in the Nigerian construction industry and any other related improvement. It could also be expected that because of the implied homogeneity of disposition to organisational learning, intervention efforts in the right direction should meet with least resistance in the industry in Nigeria. This research acknowledges some limitations: the sample size and the study area. The study area is Lagos; conclusions from this work may not be validly applicable to all parts of Nigeria. The conclusions can however be indicative.

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