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Influence of Organizational Strategy on Multinational Construction Firms Acquisition of Knowledge

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Organizations strategy is becoming more aware that acquiring the supremacy of information or knowledge in business is perilous to accomplishing reasonable changes. Knowledge has not been properly acquired in the construction organizations during the construction process, thereby affecting the performace of the construction organizational outputs in terms of time, cost and quality. This research investigates the significant role of organizational strategy on acquisition of knowledge in the Nigeria construction organization. Thus, this research was focused on the multinational construction organization as a result of their technological advancement on knowledge management, knowledge transfer and development process. The study adopted quantitative research method with the design empirically validated measures' variables and established a hypothetical framework that links organizational strategy with acquisition of knowledge variables. A total of 209 survey questionnaires were distributed to knowledge workers and the research validated the framework using structural equation modeling (SEM). The factor's loadings for the variables measures were significant and Cronbash Alpha factors of 0.780 and 0.803 for organizational strategy and acquisition of knowledge were achieved respectively. The research finding displayed that a good organizational strategy demonstrated significant influence on acquisition of knowledge.

Keywords: Construction, Multinational Construction Firms, Acquisition of Knowledge and Organizational strategy

Introduction

In global economy, knowledge is predictable as an essential benefit to the construction organization. Acquisition of knowledge has become one process to the knowledge management process (Arif *et al.*, 2017). Acquisition encompasses finding and capturing existing knowledge and generating new knowledge (Campbell & Manicom, 2015). Acquisition of knowledge is identified as a procedure of extracting, configuring and establishing familiarity directed from a single area, and usually field expertise is needed to transform it into a usable and movable document(Chinowsky & Carrillo, 2008). . Many construction organisations have had problems in formulating an effective strategy to acquire, retain and reuse available knowledge in such a way that allows learning on consistence basis, whilst improving organisational performance (Walker & Wardleworth, 2016). In attempting to integrate construction workers and technological issues more successfully, the formulation of a well-defined knowledge management (KM) strategy is required to assimilate into the overall strategy of construction business, as a means of increasing organisational performance (Yongjie *et al.*, 2015). Generally, for successful knowledge management in any organisation, there should be a clear definition of strategy which should be integrated into business objectives. In this study, strategy is considered as critical success factors (CSF) influencing the knowledge management in construction organisations. KM strategy is crucial for effective capturing of important knowledge within an organisation, the provision of needed knowledge at the required time,

performance key indicators in place, improve the supply chain, budgetary allocation and to pave the way for people to share and transfer knowledge and promote individual innovation (Arif *et al.*, 2017; Campbell & Manicom, 2015). KM strategies are considered in the organisation as items that make knowledge available for the end-users in a form that is accessible at any time and from anywhere for the client's benefit and to keep the organisation's knowledge workers updated on the application of current software in the industry. Emphasis should be laid on how a strategy is managed, how it is formulated and how it is implemented in the organisation. If the business strategy is not linked to then knowledge management strategy, then anticipated business goals will not be achieved without knowledge management initiatives (Lee & Choi, 2003).

Knowledge management strategies offer a roadmap within which the organisation can manage new innovations and ideas meant to influence the unnoticeable assets of the organisation. They also highlight the procedures, methods and innovations required for knowledge to flow successfully (Singh *et al.*, 2006). Connell *et al.* (2003) identified personalisation and codification as knowledge management strategies. These two business strategies are grounded on the nature of knowledge, discourses and cultural issues. Personalisation focuses on the tacit knowledge, storage of knowledge, experiences, and ideas in human thoughts, transferred through people to people through boundaries such as personal conferences, meetings, and direct contacts with people and through storytelling. Codification, on the other hand, deals with explicit knowledge, which centers on information technology. The idea behind personalisation strategies is to tie knowledge precisely to the people who develop it, the professional involved and communication skills. Knowledge route maps, document collections, yellow pages and data sets are the core information technology in personalisation strategies. Codified knowledge is stored in the form of guides, checklists, specifications of materials and benchmarks (Chong & Besharati, 2014). Greiner *et al.* (2007) argue that personalisation strategies provide creative challenging way to strategic problems by incorporating people's expertise and experiences, while codification strategies give depraved application by re-using articulated knowledge. The author argues that many organisations will adopt both strategies to maximise their knowledge resources. Prior to developing KM strategy, the effectiveness of current approaches to managing knowledge within the organisation should be explored in terms of people, process and technology (Chong & Besharati, 2014).

Although most of KM literature has adopted the method of classifying knowledge into tacit and explicit knowledge, a more useful method proposed by this research is by distinguishing among the five different types of knowledge that can be useful and available in an organisation. The reason for such classification is that it differentiates among five types of knowledge with different nature and formats that require different process, IT, tools to acquire, create, share, store and reuse (Fred *et al.*, 2015). Learning from external sources, attend seminars, conferences, hire knowledge worker by the organisation is also referred to as knowledge acquisition. Outside learning is crucial for construction organisational sustainability: thus, a rounded approach for the assessment sequence includes contractors, contenders, associates and outdoor businesses (Hsu, 2008). The author further argues that during knowledge acquisition, environmental learning that is well-defined and appropriate to the professionals appointed will improve the probability of a project's success in construction organisation.

Explicit knowledge is conserved for perpetual storage using tools in organisation, and for easy access, retrieval methods are used. Then the knowledge is reused by the workers for distribution, sharing and the creation of effective use. Knowledge acquisition in construction

organisation is the starting point of KM in project management for digital collections. This research views acquisition as a process of obtaining project managers' knowledge resources, including technology, skills, human experiences and services for community development in construction organisation. The task of acquisition includes: identification of project managers, knowledge resources (tacit and explicit), creating new knowledge, changing of knowledge to digital format, assembly resources from the web, etc.

Hypothesis Development

In the construction organization, a good and effective managerial strategy can lead to capture, keep in mind and recycle available knowledge in such a way that allows learning on consistence basis which can be shared automatically from the originator to the interpreter who accepts and communicates the ideas to end users (Jain *et al.*, 2015). Acquired knowledge in organization remains in the employee's know-how and skulls as it is advance much more impetus in research areas of various disciplines (Kim *et al.*, 2014). Kivrak *et al.* (2008) argue that acquired knowledge in organization can either be unstated or clear. Unstated acquired knowledge is accessible through practices, talent, experience and attitude while clear acquired knowledge is the ideas gotten through, schoolbooks, papers, bulletins, seminars, journals etc. According to communal constructive theory, well-defined organizational strategy is required; one which must be integrated into the overall strategy of construction business, as a means of increasing organisational acquisition of knowledge in communal situation. Thus, acquired knowledge is an unhinged paradigm that varies as it is shared, distributed, and re-claimed. Kim*, et al.* (2014) further argue that the relationships between organization strategy, acquisition of knowledge and human society are spherical or curved rather than unswerving. Hence, acquisition of knowledge by organization or individual is a merchandise of the operative group of communal solidity, good organizational strategy, and diverse method to acquiring knowledge within an organizational system in the construction industry and indivual customs that oversee encouragement to acquired anticipation knowledge (Love *et al.*, 2003; Oladinrin & Ho, 2014). Organizational conduct or action is a social influence to adop or not to adopt acquisition of knowledge Rao (2012), thus, methods towards organizational strategy and acquisition of knowledge reflect individual willingness to adopt an act. Organizational attitude or approach obviously influences individual readiness to acquire available knowledge (Reich *et al.*, 2012). Ajzen (1991) argues in their theories that organizational behavoiur and their management attitudes are determinant of individual purpose to implement an act. Therefore, the relationship between organization strategy and social solidity designates that there is an impact of organizational strategy on acquisition of knowledge in construction environment. Table 1 show the summary of measuring indicators adopted for the study and the proposed measurement, analysis model was developed as shown in Figure 1 with the following hypotheses.

Table 1: Summary of measuring indicators adopted for the study

Measuring indicators	References	Validity	Recommended
Organizational strategy			
1, Allocating required budget and Conferences, seminars to share eperiences	(Jain et al., 2015), (Kim et al., 2014). Kivrak et al. (2008)	Emperical validation	Recommended
2. Communal constructive theory and strategic plan	(Ajzen 1991), (Yongjie et al., 2015), (Arif et al., 2017; Campbell & Manicom, 2015).	Emperical validation	Recommended
Acquisition of knowledge			
1. Professional skill networks and acquisition (innovations)	(Chong & Besharati, 2014)., (Singh et al., 2006). Connell et al. (2003)	Emperical validation usig SEM	Recommended
2. Transfere of knowledge using explicit and tacit	Szulanski(2000), Xu and Ma, (2008) & Parent *et al* (2007)	Emperical validation usig SEM	Recommended

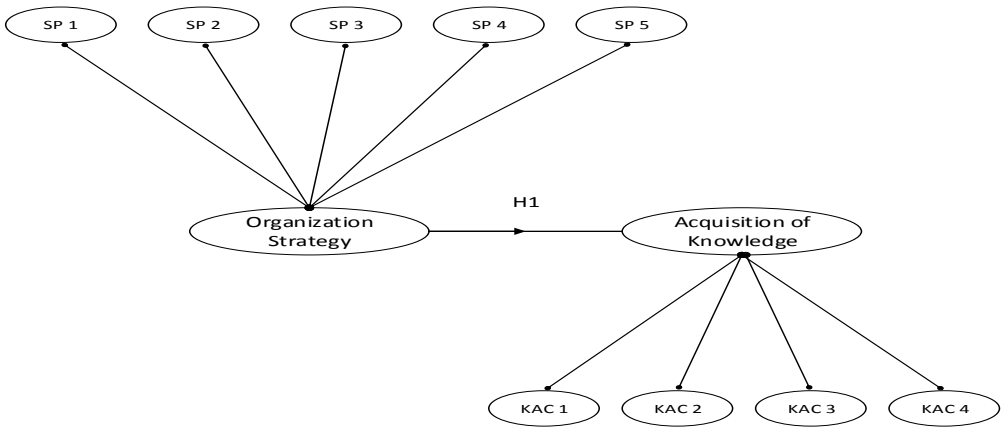

Figure 1. Proposed confirmatory analysis model of organization strategy and acquisition of knowledge.

Hypothesis 1 (H1):- Organizational strategy positively affects acquisition of knowledge in construction organization

Method of Data Collection

The method of data collection used in the study was achieved with the means of personal contact survey questionnaire. A stratified random sampling procedure was engaged to obtain the required sample size of the population of PM in the construction organization. The study was carried out at Abuja. A total of 209 questionnaires was administered, out of which 180 were return representing 86.1%, which is above the recommendation by various researchers. Although, out of the total questionnaires return only 88% of it was used for analysis this is because the rest 12% was removed for wrong filling and incomplete respondents' information. From a descriptive statistics of the respondents 21.5% are professional members of Nigerian Institute of Architectures (NIA), 30.5% are professional members council of registered engineers (COREN), 22% were professional members of Quantity surveyors (NIQS), 12.6%, 10.5% and 2.8% are in a National institution of estate surveyors and Valuers (NIEVS), National institute of building (NIOB) and other professional bodies respectively.

Methodology

Method of Structural equation model was adopted to test the manifestation of the knowledge management process from the hypothesized model. Multivariate analysis method for exploring causality in the models and the causal relations among the variables was used. Exploratory factor analysis, regression analysis, path analysis and confirmatory factor analysis were used. Exploratory factor analysis was carried out using principal component method to examine the factor structure of the organizational strategy and acquisition of knowledge. The principal component factor analysis method (PCFA) is an effective tool for representing discriminant and convergent validity and for reducing the number of variables to be considered in succeeding analyses (Byrne, 2012). Additionally, Cronbach's alpha was employ for the verification of the reliability of the factorized component undertaken. The range of alpha value is from 0 to 1; the higher the alpha value is, the more reliable the groupings of organizational structure and acquisition of knowledge. A Cronbach's alpha value that is higher than 0.7 is considered "acceptable" in reliability testing (Byrne, 2013; Cohen *et al.*, 2013). A confirmatory factor analysis (CFA) or measurement model was employed to identify the relationship of the observed variables to their position in the underlying construct, with the idea that constructs are permitted to relate liberally.

Measurement models make available a confirmatory valuation of the reliability, convergent validity and uni-dimensionality of the model (Kline, 2011). One of the major aims of confirmatory factor analysis is to evaluate whether the factor structure within a measurement model fits the data and determine how the measurement model fits the data. Structural equation model (SEM) was adopted because it has the ability to analyse the casual relationship among latent constructs in a structural model, estimating their variance and covariance, and test the hypotheses for mediators and moderators in a model. Hair Jr *et al.* (2013) argue that variables and relationships are the central idea in quantitative research. In this study, the relationships between the variables (hypotheses) were empirically tested using SEM.

Results and Discussion

Acquisition of knowledge consists of four indicators after rejected all variables less than 0.5. Tables 2 show the results of EFA. The Kaiser–Meyer-Olkin Measure of sampling adequacy is 0.780, which exceeded the critical value of 0.5 recommended by numerous authors. The eigenvalues for those four factors are 2,565, 0.759, 0.354 and 0.342, and their corresponding percentages of variance explained were 64.12%, 18.97%, 8.86% and 8.05% respectively. Factors analysis extracted one factor with an eigenvalue > 1. This factor explained 54.38% of the variance. Thus, organizational strategy on the orther hand shows the results of the EFA in Table 3. The Kaiser–Meyer-Olkin measure of sampling adequacy was 0.803, exceeding the score of 0.5 recommended if exploratory factor analysis is to be meaningful (Coolican, 2014). Eigenvalues for those five factors were 2,834, 0.594, 0.340, 0.432 and 0.233 and their corresponding percentages of the variances explained was of 70.84%, 14.84%, 8.49%, 6.72% and 5.82% respectively. Factor analysis extracted one factor with an Eigenvalue > 1. These factors explain 62.24% of the variance.

Table 2: KMO and Bartlett's Test of Acquisition of Knowledge

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.780
Bartlett's Test of Sphericity	Approx. Chi-Square	424.154
	df	6
	Sig.	.000

Table 3: KMO and Bartlett's Test for organization strategy

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.803
Bartlett's Test of Sphericity	Approx. Chi-Square	568.320
	df	6
	Sig.	.000

Confirmatory factor analysis (CFA) was accomplished to ascertain the level of indicators suggested by exploratory factor analysis (EFA). AMOS version 22 was used to conduct this analysis, taking into consideration the iterative step by the developers and researchers from different fields of study. A modified measurement model, which complied and fitted the data well, was considered the appropriate answer for the specific research CFA. Original latent constructs for strategy contain five indicators designed to measure the construct. The results of CFA show that all indicators satisfy the requirements for the second-order measurement recommendations by various researchers (Cohen, *et al.*, 2013; Comrey & Lee, 2013).

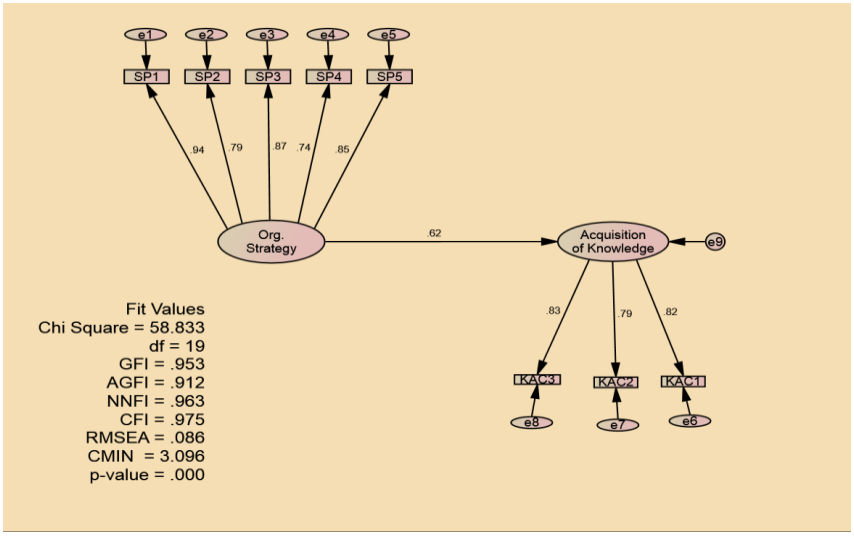

Figure 2: Modelling the Casual Effect of Organizational strategy and acquisition of Knowledge

Source: Analysis of survey data

Using path analysis with a maximum likelihood estimate, the results show that acceptable goodness of fit was achieved, with Chi-square = 58.833, *df* = 19, GFI = .953, AGFI = .912, CFI = .975, NNFI = .963 and p = .005. RMSEA =.086 and CMIN= 3.096: these values are all within the range recommended by various researchers (Hancock & Mueller, 2013; Hatcher & O'Rourke, 2014). The structural model in Figure 2 reveals the latent relationship to the hypothesis using the standardised method. All measurement variables of the latent construct to the construct had path loading 0.62 (supported) and all the variables leading to the latent construct ranged from 0.74 to 0.94 as shown in Figure 2. Researchers (such as Hirschberg & Humphreys, 2014) recommended that criteria factor loadings above approximately 0.2. Table 4 authenticates the organizational strategy and acquisition of knowledge, as uni-dimensionality, reliability and validity of the model were all achieved using SPSS version 22 and AMOS output. Cronbach's Alpha, average variance and composite reliability were all above the minimum cut-off point recommended by different researchers of ≥ 0.70, ≥ 0.5, ≥ 0.6 respectively (Gelman & Hill, 2006; Hair Jr, *et al.*, 2013).

Table 4: Measurement of Variance Analysis, Validity and Composite Reliability of Measurement Model.

Construct	Indicators	Loadings of factors	Cronbach's Alpha	average variance	Composite reliability	T- value
	SP1	0.94				
Organization	SP2	0.79	0.780	0.694	0.720	18.444
Strategy	SP3	0.87				22.894
	SP4	0.74				16.493
	SP5	0.84				21.403
	KAC1	0.83				
Acquisition of	KAC2	0.79	0.803	0.614	0.675	12.078
Knowledge	KAC3	0.82				12.101
	KAC4	Rejected				

Source: Author's field survey 2016

Table 5 shows the summary of coefficient loading for the factors, which is also used in assessing the reliability of the model. Practically, multivariate normality depends on the univariate normality of individual variables, while bivariate normality depends on pairs of variables. Many researchers believe that if most univariate skewness and kurtosis are less than ±1 in absolute value, indicating that univariate normal distribution was achieved. The figure shown in Table 4 is less than one.

Table 6 below shows the Total variable structure of all the constructs in the study. Rejected items were indicators found to be weak in factor loadings (less than 0.50) and subsequently dropped.

Table 5: Summary of Hypothesised Path Results for Structural Equation Model

Hypothesis	Hypothesised path	Path coefficient	Result
H1	Organizational strategy can positively influence acquisition of knowledge in the construction industry	0.62	Supported

Table 6: Total Variable Structure of Acquisition of Knowledge and Organizational Strategy

Original Items	**Item Label**	**Rejected Item**
Strategy		
KM initiatives are allocating required budget	SP1	
Encourage to attend Conferences, seminars to share eperiences	SP2	
Improve supply chain management by PM in the organization	SP3	
A strategic plan of what KM should do in couples of years	SP4	
Key performances of KM indicators are in place	SP5	
KM initiatives Improves reputation of the organization	SP6	Rejected
KM improves customer relationship management	SP7	Rejected
KM Increases quality of services for effectiveness of PMs	SP8	Rejected
Acquisition of Knowledge		
PM in the organization is active in external professional skill networks and environmental learning	KAC1	
The organization collects information about the needs and wishes of the client	KAC2	
The organization purchases all available knowledge (explicit and tacit)	KAC3	
PMs in organization hire knowledge workers to acquire missing knowledge	KAC4	Rejected
Seminars and conferences are organized for the organization staff to acquire knowledge	KAC5	Rejected
PM are sent by your organizations to attend Seminars and conferences	KAC6	Rejected

Conclusion

The research produces a research model for empirical research that highlighted the effect of organizational strategy on acquisition of knowledge. It is imperative to adjudge the utilization of organizational strategy on acquisition of knowledge in the construction organization. The outcome of the research can help professionals' canvassers as well as managers to advance and enhanced thoughtfulness of the starring role of organizational strategy inside the acquisition of knowledge. The current study can also be adopted by managers when conniving and evolving approaches, policies and teaching guides. The stakeholders should upkeep the construction organization by engendering promising good strategies for the business people and employee to hold experts to train other knowledge employees within the organization in order to advance the awareness of acquisition of knowledge in the construction products in terms of quality services, time saving and cost effectiveness.

Organizations should be aware of knowledge holders in order to adhere to the proper structural design and management of acquisition of knowledge in construction organizations. The findings contribute to understanding organizational strategy and its impacts and can therefore help practitioners and knowledge workers in the construction industry by providing guidance regarding how to identify key factors that affect acquisition of knowledge and thereby safeguarding the appropriate allocation of available fund in encouraging acquisition of knowledge. However, the research adopted 5 valid variables for organization strategy and 3 valid variables for acquisition of knowledge that can be used as a reference to further studies. The research were validated using Exploratory factor analysis in various model approaches such as factors loading for each respective variable, Bartlett's Test of Sphericity and Kaiser-Meyer-Olkin Measure of Sampling Adequacy. Structural equation model was used to confirm the research model and the standardized regression coefficient to show the significant level of each element in the model. It is glaring that organizational strategy influence acquisition of knowledge in the construction organization.

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