

Factors Influencing the Effectiveness of Knowledge Transfer Among Employees in building Construction Firms in Abuja, Nigeria

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Abstract:- The modern-day business environment in the construction industry is highly competitive, therefore organizations need to ensure effective project delivery in order to gain competitive advantage. This study assesses the factors influencing the effectiveness of knowledge transfer among employees of building construction firms located within Abuja Nigeria. A well-structured questionnaire was administered to registered building construction professionals on knowledge transfer in construction firms. Management staff comprising of Quantity Surveyors, Builders, Engineers, Architects and Estate Values were sampled. 380 questionnaires were administered in total, 136 were completed and retrieved. The study reveals the factors with great influence on knowledge transfer among employees in these firms are; attitude to leadership, organisational goals, training, organisational values, communication, reward system, availability and access to ICT too by employees. Hence the study recommends top management should understand the role of knowledge management in achieving organizational goals, convey appropriate leadership attitude towards knowledge sharing. Ensure clear and flexible lines of communication throughout organisation and encourage good interaction, knowledge sharing and improve knowledge creation capabilities among employees. Firms should provide adequate training and required ICT tools. Also ensure fair reward system for outstanding employee performance on relevant knowledge sharing. These will generally improve knowledge transfer and knowledge management process and the overall performance.

Keywords:- Knowledge Management, Knowledge Transfer, Employee Performance.

I. INTRODUCTION

Knowledge management is a crucial element in the construction industry as service deliveries are dependent upon human and material resources. Performance effectiveness in construction organisations is largely dependent upon

employee's performance. In recent times, employee's performance has generally been low despite the availability to modern techniques and knowledge. The industry is rich with information and knowledge as each project is full with so many information ranging from drawings, bill of quantities, specifications, material and labour schedule, program of works, claims, valuations reports, inventories, and more, [4]. Construction employees acquire knowledge throughout project life cycle, but often times this knowledge is lost due to poor knowledge management to captured and transfer [17]. Effective project delivery depends on the efficiency of project employees, these requires adequate formulation of organisational policies to aid operations. Knowledge transfer among construction employees ensures lessons are learned, mistakes are avoided in the future and overall project performance improved, [20]. Effective knowledge management improves performance efficiency and this can assist organisations to gain competitive advantage, [14]. The Nigerian construction industry has been criticized for ineffective knowledge management as most employees in the industry acquire the knowledge through informal means, [6]. Knowledge management and learning in construction organizations can help in achieving improve performance in the industry and thus eliminate waste, [22]. Construction organizations in Nigeria are faced with scarcity of experienced workers due to poor knowledge transfer as the experienced employees retire without passing the acquired knowledge to the younger once. This in turn has a negative impact on the overall performance of the construction industry in Nigeria.

Although, the process of knowledge transfer can difficult and challenging as some of the processes can be complex and not easily comprehended by the receiver, [20]. The performance of construction employee's performance has significantly declined in recent decades despite the rapid technological development, this has been mostly attributed to poor transfer of knowledge among employees in the industry. There is no a proper structure for the experienced employees to transfer knowledge acquire over a period time to the younger once. **Knowledge** management is a crucial element in the construction industry as service deliveries are dependent

upon human and material resources. The industry is rich with information and knowledge as each project is full with so many information ranging from drawings, bill of quantities, specifications, material and labour schedule, program of works, claims, valuations reports, inventories, and more, (Chidebere, 2012). Construction employees acquire knowledge throughout project life cycle, but often times this knowledge is lost due to poor knowledge management to captured and transfer (Tan, Lye, Ng and Lim, 2010). Effective project delivery depends on the efficiency of project employees, these requires adequate formulation of organisational policies to aid operations. Knowledge transfer among construction employees ensures lessons are learned, mistakes are avoided in the future and overall project performance improved, (Wei and Miraglia, 2017). Effective knowledge management improves performance efficiency and this can assist organisations to gain competitive advantage, (Santoro, Vrontis, Thrassou and Dezi, 2018).

The Nigerian construction industry has been criticized for ineffective knowledge management as most employees in the industry acquire the knowledge through informal means, (Ikediashi & Ogwueleka, 2016). Knowledge management and learning in construction organizations can help in achieving improve performance in the industry and thus eliminate waste, (Ariyo & Wodele, 2015). Construction organizations in Nigeria are faced with scarcity of experienced workers due to poor knowledge transfer as the experienced employees retire without passing the acquired knowledge to the younger once. This in turn has a negative impact on the overall performance of the construction industry in Nigeria.

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II. LITERATURE REVIEW

A. Knowledge Management in Construction Firms

Knowledge management is the coordination of knowledge resources by an organization [1]. It is the processing of structures and tools to capture, upgrade and share knowledge resources obtainable in any organisational elements; human, structural or social [15]. The process of knowledge management entails the coordination of human capabilities in an organisation to achieve objectives which may not only be technologically based, [5]. It can also be described as the techniques used by organisations to aid the creation of an environment that enhances and encourages the process of transferring and acquiring knowledge among employees. Knowledge management and information management may appear to be similar, but information management deals with coordination, and control of records, planning of activities to be conducted in an organisation [10].

Therefore, relying only on information management cannot enable an organisation to manage effectively its intellectual capital, [11]. Knowledge management on the other hand consolidates information and point of views, that brings about decision making, it can also be a person's information, experience and skills which can be shared with others via a medium to improve performance of individuals, [8]. Knowledge management can be formulated formally by the organisation or developed informally within people in the organization, [2].

B. Factors Influencing Effective Transfer of Knowledge

Effective knowledge transfer in an organisation can be influenced by any of these factors, organisational culture, organisational trust, technological factors, knowledge management strategies, and personnel management.

Organisational structure

Organisational structure formally signifies and enhances communication and connections among people in an organisation, although connection may sometimes arise informally between people. Centralized organisational structure most times negatively influence the flow of knowledge amongst people [3]. Centralized structures entail tighter control from leadership and hence, insinuates reluctant attitude to employees to share knowledge, [7]. Also, it reduces the interaction between employees in different departments and thus does not encourage sharing of ideas if the higher authorities do not require the employees to do so.

Top management leadership

The leadership of top management has a great impact on knowledge management, the top management formulate and implement policies for the achievement of organisational goals and objectives. The leadership attitude to knowledge management process has an effect on everyone in the organization, if the top management is interested in supporting the process, automatically everyone will be carried along. Hence, it is the responsibility of the top management motivate employees and provide opportunities for development [6].

Organisational culture

Organisational culture are a set of assumptions, values, beliefs and rules which control people's behaviour in an organisation, it is a driving factor which guides decision making in an organisation. Organisational culture is a very crucial element in successful implementation of knowledge management process, it has been said to be one of the failure reasons of knowledge management initiative,[18]. Furthermore, it impacts on employee's capability on knowledge creation, proper interaction and sharing of knowledge, and as well the general values of employee's within and organisation, [21].

Organisational Trust

Knowledge is imbedded in people and can only be shared via collaboration with other people [13]. It is vital to successful knowledge management and organisational operations to ensure valid knowledge is transferred among employees, lack of trust among employees may hinders the process of sharing vital information. Information is a very

important element in making business decisions, level of trust among employees may determine how comfortable and critical they share information [12].

Technological factors

Information and communication technology is the technology that deals with information involving activities; collecting, processing, storing and data presenting, all these activities require effective collaboration among people. Information technology can be described as the use of computer software and hardware to manipulate data and the communication technology is the way of disseminating the information [23]. The availability of this technology and ability to use it efficiently has a great impact on effective knowledge transfer, [19]. However, unavailability of technology in organisations is one of the elements that hinders knowledge transfer and entire knowledge management process.

III. METHODOLOGY

The study adopted a survey design using quantitative approach, a well-structured questionnaire was administered to registered building construction professionals on knowledge transfer in construction firms. The study sampled management staff comprising of Quantity Surveyors, Builders, Engineers, Architects and Estate Values in building construction firm within Abuja using stratified random sampling method. 380 questionnaires were administered in total, 136 were completed and retrieved. The questionnaire was divided in to two sections; background of respondents and factors influencing the effectiveness of knowledge transfer in construction firms located within Abuja. Descriptive statistical method was use to analyse the data collected; frequency, percentages, relative importance index (RII) and mean item score (MIS). A reliability check was conducted using the Cronbach's alpha reliability test to determine the consistency of the data of a research instrument. And the Cronbach's alpha value of the variables tested was 0.842.

A. Respondents' characteristics

Table 1, gives the general characteristics of respondents, as follows; years of experience, 0-5 years 22.6%, 5-10 years 22.06%, 10-15 years 22.79%, and 15 years and above 33.09%. The average years of experience of the respondents are 7.54. with regards to organisations, 59.56% from private sector and 40.44% from the public sector. In terms of qualification, 11.05% have MSc/M Tech, 55.88% have BSc/ B Tech, and 33.09% have HND. Base on profession, 33.09% Quantity Surveyors, 11.03% Architects, 22.79% Builders, 22.06% Engineers, and 11.03% Estate Valuers. This analysis shows that respondents are academically and professionally qualified to reliable information with regards to the subject of this study.

Table 1: Respondent's characteristics

Category	Classification	frequency	Percentage
Years of experience	0-5	30	22.06%
	6-10	30	22.06%
	11-15	31	22.79%
	Above 15	45	33.09%
	Sum	136	100.00%
Organisation category	Private	81	59.56%
	Public	55	40.44%
	Sum	136	100.00%
Qualification	SSCE	0	0.00%
	NCE/OND	0	0.00%
	HND	45	33.09%
	BSc/B. Tech	76	55.88%
	MSc/M. Tech	15	11.03%
	PhD	0	0.00%
	SUM	136	100.00%
Profession	Architects	15	11.03%
	Builders	31	22.79%
	Engineers	30	22.06%
	Quantity Surveyors	45	33.09%

B. Factors influencing the effectiveness of knowledge transfer among employees

Table 2, shows the result of the analysis on factors influencing the effectiveness of knowledge transfer among employees of building construction firms in Abuja is shown, in the first category, top management and leadership factors; leadership attitude and organisational goals with MIS of 4.75 and 4.13 respectively are the top factors. In the second category, organizational culture; organisational values and training with MIS of 4.00 and 4.50 respectively are the key factors. The third category have communication and reward system with MIS of 4.75 and 4.00 respectively as the top factors. The fourth category, technological factors have access and availability of ICT tools with MIS of 4.13 and 4.00 respectively to be the key influencing factors.

Table 2: factors influencing the effectiveness of knowledge transfer among employees

S/n	Knowledge management influencing factors	MIS	SD	Ranking	Overall ranking
Leadership and management					
1	Attitude to leadership	4.75	0.435	1	1
2	Organisational goals	4.13	0.602	2	4
3	Objectives	3.63	0.860	3	9
4	Organisational structures	3.00	1.122	4	15
Organisational culture					
5	Training	4.50	1.004	1	3
6	Organisational values	4.00	0.710	2	6
7	Power out play and distance	3.50	1.004	3	12
8	Risk management	3.38	1.223	4	13
Organisational trust					
9	Communication	4.75	0.435	1	1
10	Reward system	4.00	0.869	2	6
11	Access to saved knowledge	3.63	1.414	3	9
12	Disciplinary actions	3.00	1.122	4	15
Technological factors					
13	Access to ICT tools	4.13	1.057	1	4
14	Availability of ICT tools	4.00	0.502	2	6
15	Ability to use ICT tools	3.63	0.860	3	9

IV. CONCLUSION AND RECOMMENDATIONS

This study conducted an assessment into the factors influencing the effectiveness of knowledge transfer among employees of building construction firms. This study brought to light the most influential factors to effective transfer of knowledge to be attitude to leadership and organisational goals as the most influential factors from top management and leadership, training and organisational values from organisational culture, communication and reward system from organisational trust, availability and access to ICT tools by employees with regards to technological factors in these firms. All these have contributed to poor knowledge transfer among employee and entire knowledge management process, subsequently resulting to poor project performance.

From our findings, we make the following recommendations to the building construction firms to enhance the process of knowledge transfer among employees and knowledge management by the firms. Top management should understand the role of knowledge management in achieving organizational goals, also convey appropriate leadership attitude towards knowledge sharing and entire knowledge management process. Improve organisational culture to encourage good interaction, knowledge sharing and improve knowledge creation capabilities among employees. Also provide adequate training to enhance the process of knowledge acquisition and exchange. Ensure clear and flexible lines of communication throughout organisation and

fair reward system for outstanding employee performance on relevant knowledge sharing. Firms should provide necessary ICT facility to enhance the knowledge sharing and management process and also employees are to be given required training to use the ICT tools.

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