



KNOWLEDGE CREATION AS PREDICTOR OF EMPLOYEE PERFORMANCE IN ABUBAKAR TAFAWA BALEWA UNIVERSITY, BAUCHI, BAUCHI STATE, NIGERIA

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ABSTRACT

Knowledge is increasingly being recognized by organizations as a vital asset and it is required if organizations are to perform effectively and efficiently in this era. This study examined Knowledge Creation (KC) as a predictor of employee performance in Abubakar Tafawa Balewa University, Bauchi. The study adopted a correlational survey design involving academic staff of the Abubakar Tafawa Balewa University, Bauchi. Primary data was obtained using self-administered structured questionnaire as the research instrument. The target population of the study is the 1200 academic staff of the Abubakar Tafawa Balewa University, Bauchi. The sample size was obtained using the Krejcie and Morgan (1970) table for determining minimum returned sample size for a given population. For our population, the table placed our sample size at two hundred and ninety one (291). The sample size therefore is 291 and will be used for the study. The sampling procedure to be used in this study is the purposive sampling technique. The internal reliability of the research instrument was tested using Cronbach Alpha Coefficient and only items that have an alpha reading of 0.70 and above were considered. After data cleaning, only data of 245 respondents were finally used for data analysis. The hypotheses were tested using Spearman's Rank Order Correlation. The study findings reveal that there is a positive significant relationship between Knowledge Creation and Performance of academic staff of the Abubakar Tafawa Balewa University, Bauchi. The recommendations included that the management of Abubakar Tafawa Balewa University, Bauchi should conduct more training and development sessions with a view to helping staff members imbibe new and better ways of carrying out their task more effectively and efficiently.

Key Words: *Knowledge creation, employee performance, Higher Educational Institutions, Innovativeness, timeliness.*

Introduction

Organizations, Higher Educational Institutions, (HEIs) inclusive are established with the aim of meeting certain needs and how these needs are met matters. There has been much talk on the performance of our HEIs leaving little to desire and as a result, a lot is been done to salvage the situation. These efforts are mostly with respect to structural interventions. There is a rising need to look at the gap that still exists with all these intervention thereby leveraging on the intellectual asset available to these organizations, how they can be acquired/created, sustained and handed down the line hence, the strategic importance of knowledge creation.

Knowledge creation (KC) as a dimension of Knowledge management (KM) is a relatively new and evolving discipline gaining more interest from both academicians and practitioners has become the subject of much argument over the past decades. In the view of the Malaysian Ministry of Human Resources (2011), almost all the institutions of higher learning today focus on how to increase the students' quality and skills through university and industry collaboration. Changing nature of work increases the need for 21st century skills preparation. For Yusof and Abubakar (2012), KC is considered to be an urgent and critical issue, to such an extent that organizations must efficiently create a knowledge bases and

repositories to earn long-term competitive advantage. For them, ineffectiveness in creating knowledge makes the knowledge irrelevant and not useful for organizations

HEIs like every other organization ought to know that without the deliberate effort to develop the ability to collect knowledge within and outside an organization, staying alive in the modern knowledge era is difficult, if not impossible. Success is hinged on the development of policies for running and leveraging the gain from their intellectual asset.

Employee performance can be judged in many different ways, each of this perceptive can be argued to be unique. Worthy of note is the concern that employee performance like other management concern does not enjoy universality of the definition. In general, employee performance is based upon the idea that organization is the combination of productive assets, human, physical and capital for the sole aim of achieving a shared purpose. How is performance measured is another key question. There are several indices to measure employee performance but the ones that stand out are growth, competitive advantage as well as innovation.

There is no gainsaying the fact that KC is a veritably instrument for the improvement of services and processes, thereby leading to growth and productivity. It is also of central importance to organization as it represents a major source of competitive advantage. Researches into the relationship between KC and performance in several fields has been investigated e.g. construction (Yusof & Abubakar, 2012), SMEs (Gholami, Asli, Shirkouhi, & Noruzy, 2013), high tech (Yang, Chen, & Wang, 2014), telecommunication and (Suraj & Ajiferuke, 2013), among a host of other but little or nothing has been done on the impact of KC on the performance of our institutions of learning.

Sustainable competitive advantage and innovation hinges on effective management of organizations' numerous and varied information assets. To this end, our institutions of higher learning need to leverage on knowledge creation to facilitate optimal performance in their activities. Therefore this current study intends to examine the how knowledge creation predicts performance of academic staff at Abubakar Tafawa Balewa University, Bauchi. More specifically, the specific objectives are to:

- i. Examine the relationship between knowledge creation and innovativeness of academic staff in the Abubakar Tafawa Balewa University, Bauchi.
- ii. Examine the relationship between knowledge creation and timeliness of academic staff in the Abubakar Tafawa Balewa University, Bauchi.

Literature Review

Theoretical Framework

The relevant theory that helps significantly towards realizing the important role of knowledge management and that is used to underpin this study is the knowledge-based theory developed by Grant (1996). He argues that the source of competitive advantage in dynamic business environment is not the knowledge that is repository to the organization, because the value of such knowledge erodes quickly due to obsolesce and imitation. Rather, sustained competitive advantage is determined by non-proprietary knowledge in the form of tacit individual knowledge. Tacit knowledge can form the basis of competitive advantage because it is both unique and relatively immobile. Yet, because that knowledge is possessed by individuals and not the organization, a crucial element of competitive advantage is the ability to integrate the specialized and tacit knowledge of individuals. The main idea of the knowledge-based theory of

the firm is that organizations exist in the way that they do because of their ability to manage knowledge more efficiently than is possible under other types of organizational structures. In other words, organizations are social entities that use and store internal knowledge, competencies and capabilities that are vital for the firm's survival, growth and success. The theory assumes that organizations are all heterogeneous knowledge-bearing entities that apply knowledge to the production of their goods and services (Foss, 2003). Firms are able to organize the way they do because they are depositories of productive knowledge.

Knowledge Creation

The primary function of knowledge management is to codify and capture knowledge (Sorensen & Lundh-Snis, 2001). Moreover, the transfer of existing knowledge and creation of new knowledge have become two critical tasks for knowledge management (Krogh & Grand, 2000). In particular, knowledge creation is a continuous process whereby individuals and groups in online communities share tacit and explicit knowledge (Bloodgood & Salisbury, 2001).

Knowledge can be created through conversion between tacit and explicit knowledge by four different modes (Malhotra, 2000, Nonaka & Takeuchi, 1995). Tacit and Explicit knowledge interact and interchange into each other in the creative activities of human beings.

- a. **Socialization** involves social conversion to share experience from tacit knowledge to tacit knowledge. This process attempts to share experience and thereby to create and exchange tacit knowledge. Thus, socialization is used in sharing learners' experience and know-how with other learners. (Tacit to Tacit –Socialization).
- b. **Externalization** involves the conversion of tacit knowledge into explicit knowledge. This process attempts to rationalize tacit knowledge and articulate it into explicit

concepts and formal models (e.g., to write instruction manuals). (Tacit to Explicit – Externalization).

- c. **Combination** converts explicit knowledge into more complex and systematic sets of explicit knowledge. This process involves individuals combining and exchanging different explicit knowledge to explicit knowledge with others. Existing learning information in the databases might be integrated to create new knowledge. (Explicit to Explicit –Combination).
- d. **Internalization** is a process of embodying explicit knowledge into tacit knowledge and internalizing the individual experiences gained through the other models of knowledge creation in the form of shared mental models. Through internalization, explicit knowledge created is shared through an online learning community and converted into tacit knowledge by individuals. (Explicit to Tacit –Internalization).

Table 1: Knowledge Conversion Table

	Tacit	Explicit
Tacit	Socialization <ul style="list-style-type: none"> • Teamwork • Coaching 	Externalization <ul style="list-style-type: none"> • Capturing • Sharing
Explicit	Internalization <ul style="list-style-type: none"> • Understanding • Learning 	Combination <ul style="list-style-type: none"> • Systemizing • Classifying

Source: Nonaka and Takeuchi (1995)

Tacit Knowledge: not easy to visualize and express. Highly personal and hard to formalize. – Embedded in the human brain –Cannot be expressed easily –Requires extensive personal contact –Mentorship networks –Knowledge Maps, Video conferencing

Explicit Knowledge: Can be expressed in words and numbers and can easily be communicated and shared in the form of hard data. –Can be easily codified, –Embedded in procedures, –Represented in documents, –Transferred with reasonable accuracy.

Jones, (1989) opined that new knowledge can equally be created through the process of Knowledge acquisition , which implies the process of extracting, structuring and organizing knowledge from one source, usually human experts, so it can be used in software such as an embedded system. A general-purpose definition of *embedded systems (ES)* is that they are devices used to control, monitor or assist operation.

Knowledge acquisition is expected to have a significant influence on employee performance. It involves the process of acquiring knowledge from either inside or outside of the organizations (Cho & Korte, 2014). Appropriate acquisition of knowledge increases the stocks of knowledge available to the organization, thereby providing organizations better capability to make timely decisions that are essential to superior employee performance (Chen, 2004). Knowledge that is acquired has to be organized, integrated and presented in a more effective way in order to be useful (Reisi, Hoseini, Talebpour, & Nazari, 2013). Knowledge conversion enables organizations to improve their expertise and efficiency by converting acquired knowledge into applicable organizational knowledge, and distributing the knowledge to where it is needed (Bhatt, 2001; Gold, Malhotra, & Segars, 2001; Daud & Yusoff, 2010; Mills & Smith, 2011).

In large organizations, abundant resources are available for Research and Development (R&D) personnel to self-generate new knowledge, external knowledge acquisition may serve a lesser function in innovation. For example, knowledge released from related industries may be more readily absorbed and applied to innovation by SMEs, whereas spillover from the basic science

studies may be more difficult to be absorbed and applied to innovation. We predicted therefore that higher amount of new knowledge in use in an SME would lead to higher organisational innovativeness.

Employee performance

Employee performance has been the most important issue for every organization, be it a profit or non-profit one (Ismael, Yusof & Davoud, 2010). However, defining, conceptualizing and measuring performance have not been an easy task (Ismael et al, 2010). Lebas & Euske (2006) define performance as a set of financial and non-financial indicators which offers information on the degree of achievement of objectives and results. Employee performance encompasses three specific areas of firm outcomes: (1) financial performance (profits, return on assets, return on investment); (2) market performance (sales, market share); and (3) shareholder return

Employee performance involves the recurring activities to establish organizational goals, monitor progress towards the goals, and make adjustments to achieve those goals more effectively and efficiently (Richard, Devinney, George & Johnson, 2009). The assumption that knowledge management is needed for knowledge accumulation to result in improved employee performance possibly arises from the fact that researchers have opposing views about the impact of knowledge on employee performance (Vera & crossan, 2003). It is expected that a particular category of knowledge, which is valuable, rare, inimitable and non-substitutable would lead to increased performance (Barney, 1995). On the other side of the discussion are authors who do not see a direct relationship between knowledge and performance. Organizations can always attain knowledge that may not lead to intelligent behaviour (singh et al, 2006). Leonard (1992) states that core rigidities due to deeply embedded knowledge sets hinder innovation. In

conclusion, Vera and Crossan (2003) suggests that the knowledge that is relevant may have a positive effect on employee performance.

Measures of Employee performance

Innovativeness as a Measure of Employee Performance.

Innovativeness of entrepreneurs is measured by the propensity by which they innovate their business (Miller & Friesen, 1982); their willingness to try new ways which are different from the existing; the enthusiasm to adopt new ideas or new methods to their business operation; and the eagerness to implement the innovation strategy in their business (Khandwalla, 1987). Innovativeness reflects a firm's tendency to engage in and support new ideas, novelty, experimentation and creative processes (Lumpkin and Dess, 1996) that may result in new products, services, or technological processes and which may take the organization to a new paradigm of success (Swieczek and Ha, 2003). It also implies seeking creative, extraordinary or strange solutions to problems and needs. Innovativeness represents a basic willingness to depart from existing technologies or practices and venture beyond the current state-of-the-art (Covin *et al.*, 2006). An innovative strategic posture can be linked to firm performance as it increases the chances that a firm will realize first mover advantage, stay ahead of their competitors, gain a competitive advantage and capitalize on emerging market opportunities that lead to improved financial results (Kreiser *et al.*, 2002; Hult *et al.*, 2004; and Kreiser and Davis, 2010).

Timeliness as a Measure of Employee Performance.

Timeliness is recognized as an important component of work performance (Downs, 2008) Timeliness is a way of developing and using processes and tools for maximum efficiency, effectiveness, and productivity (Downs, 2008) It involves mastery of a set of skills like setting goals, planning and making decisions better. At the end we have better performance (Brogan,

2010). According to Thompson et al (2010), accurate and timely information about daily operations is essential if managers are to gauge how well the strategy execution process is proceeding.

Time is an essential resource since it is irrecoverable, limited and dynamic (Downs, 2008) Irrecoverable because every minute spent is gone forever, limited because only 24hours exist in a day and dynamic because it's never static (Claessens, Roe and Rutte 2009) According to North (2004) time management is the organization of tasks or events by first estimating how much time a task will take to be completed, when it must be completed, and then adjusting events that would interfere with its completion is reached in the appropriate amount of time. Effective time management is the key to high performance levels. Effective time management not only affects the performance of employees, but also helps to cope with stress, conflicts and pressure more efficiently North (2004).

Timeliness is a method managers used by managers to increase work performance (Claessens, Roe, Rutte 2009) Performance can be seen as the consistent ability to produce results over prolonged period of time and in a variety of assignments (Galbraith,2007) High performance in organizations is when an organization is so excellent in so many areas that it consistently outperforms most of its competitors for extended periods of time (North, 2004) Performance can be seen as the consistent ability to produce results over prolonged period of time and in a variety of assignments (Phillips, Jory and Mogford, 2007) Performance also determines the success and survival of every organization (Eruteyan, 2008).

From the foregoing arguments, we hereby hypothesized thus:

H₀₁: There is no significant relationship between knowledge creation and innovativeness

academic staff of the Abubakar Tafawa Balewa University, Bauchi.

H₀₁: There is no significant relationship between knowledge creation and timeliness of academic staff of the Abubakar Tafawa Balewa University, Bauchi.



Fig.1 Operational Framework for the hypothesized relationship between knowledge creation and employee performance.

Source: Author's Desk Research, 2017

Methodology

Primary data was obtained using self-administered structured questionnaire as the research instrument. The target population of the study is the 1200 academic staff of the Abubakar Tafawa Balewa University, Bauchi. The sample size was obtained using the Krejcie and Morgan (1970) table for determining minimum returned sample size for a given population. For our population, the table placed our sample size at two hundred and ninety one (291). The sample size therefore is 291 and will be used for the study. The sampling procedure to be used in this study is the purposive sampling technique. The internal reliability of the research instrument was tested using Cronbach Alpha Coefficient and only items that have an alpha reading of 0.70 and above were considered. After data cleaning, only data of 245 respondents were finally used for data analysis. The hypotheses were tested using Spearman's Rank Order Correlation

Spearman's Rank Correlation was used for data hypothesis testing with the aid of the SPSS Package version 21.

Table 1. Reliability statistics for the instruments

S/No	Dimensions/Measures of the study variable	Number of items	Number of cases	Cronbach's Alpha
1.	Knowledge Creation	5	245	0.932
2.	Innovativeness	5	245	0.839
3.	Timeliness	5	245	0.786

Source: Research data, 2018

Results and Discussions

Bivariate Analysis

The secondary data analysis was carried out using the Spearman rank order correlation tool at a 95% confidence interval. Specifically, the tests cover one hypothesis H_{01} which was bivariate and stated in the null form. We have relied on the Spearman Rank (ρ) statistic to undertake the analysis. The 0.05 significance level is adopted as criterion for the probability of either accepting the null hypotheses at ($p > 0.05$) or rejecting the null hypotheses at ($p < 0.05$).

We shall commence by first presenting a proof of existing relationships.

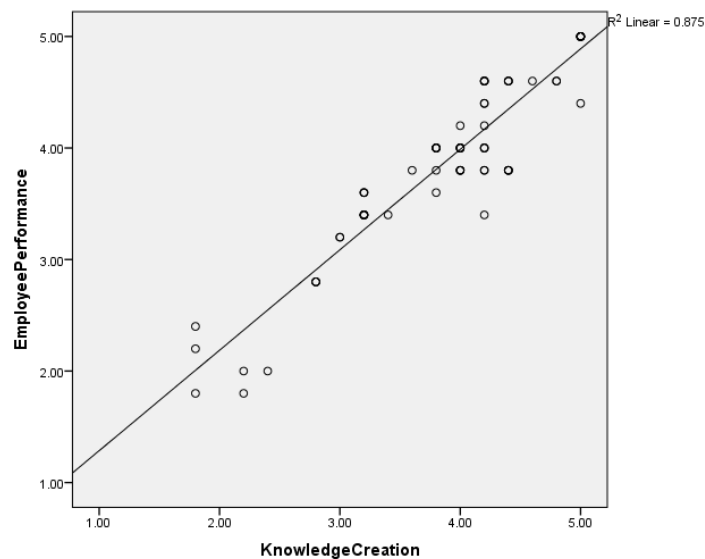


Figure 1 scatter plot for the relationship between knowledge creation and employee performance

The scatter plot graph shows at R^2 linear value of (0.875) depicting a relationship between the two constructs. The implication is that an increase in knowledge creation simultaneously brings about an increase in the level of employee performance. The scatter diagram has provided vivid evaluation of the closeness of the relationship among the pairs of variables through the nature of their concentration.

Table 3 Correlation Matrix knowledge creation and innovativeness

			Knowledge creation	innovativen ess
Spearman's rho	Knowledge creation	Correlation	1.000	.750**
		Coefficient		
		Sig. (2-tailed)	.	.000
		N	245	245
	Innovativeness	Correlation	.750**	1.000
		Coefficient		
		Sig. (2-tailed)	.000	.
		N	245	245

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Research Data January, 2018 (SPSS output, version 21.0)

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The table above illustrates the test for the three previously postulated bivariate hypothetical statements.

H₀₁: *There is no significant relationship between knowledge creation and innovativeness of the Abubakar Tafawa Balewa University, Bauchi.*

The correlation coefficient (r) shows that there is a positive relationship between knowledge creation and innovativeness. The *rho* value 0.750 indicates a relationship and it is positive at $p < 0.000 < 0.05$. The correlation coefficient represents a high correlation indicating also a strong relationship among the variables. Therefore, based on empirical findings the null hypothesis earlier stated is hereby rejected and the alternate upheld. Thus, there is a significant relationship between knowledge creation and innovativeness of academic staff of the Abubakar Tafawa Balewa University, Bauchi.

Table 3 Correlation Matrix knowledge creation and timeliness				
			Knowledge creation	Timeliness
Spearman's rho	Knowledge creation	Correlation Coefficient	1.000	.890**
		Sig. (2-tailed)	.	.000
		N	245	245
	Timeliness	Correlation Coefficient	.890**	1.000
		Sig. (2-tailed)	.000	.
		N	245	245

** . Correlation is significant at the 0.01 level (2-tailed).

Source: *Research Data January, 2018 (SPSS output, version 21.0)*

The table above illustrates the test for the three previously postulated bivariate hypothetical statements.

***H₀₁:** There is no significant relationship between knowledge creation and timeliness of the Abubakar Tafawa Balewa University, Bauchi.*

The correlation coefficient (r) shows that there is a positive relationship between knowledge creation and innovativeness. The ρ value 0.890 indicates a relationship and it is positive at p $0.000 < 0.05$. The correlation coefficient represents a very high correlation indicating also a very strong relationship among the variables. Therefore, based on empirical findings the null hypothesis earlier stated is hereby rejected and the alternate upheld. Thus, there is a significant relationship between knowledge creation and innovativeness of academic staff of the Abubakar Tafawa Balewa University, Bauchi.

Discussion of Findings

This study using descriptive and inferential statistical methods investigated the relationship between knowledge creation and employee performance of the Abubakar Tafawa Balewa University, Bauchi. The findings revealed that a significant relationship between exists between knowledge creation and employee performance of the Abubakar Tafawa Balewa University, Bauchi using the Spearman's rank order correlation tool. It implies that it is in the interest of Abubakar Tafawa Balewa University, HEIs and the nation to optimize its knowledge resources by creating adequate data as it would aid them in growth, competitive advantage as well as sustainability.

Our finding agrees with the findings of Ahmad, Mohamad and Ibrahim (2013) that employed a survey method in finding out the relationship between Individual's absorptive capacity and

knowledge creation behaviour among engineers in the electrical and electronic sector in Malaysia. There were 305 responses for the survey. Partial least square (PLS) properties of structural equation modeling (SEM) were used to measure the relationships between variables. The study found that individual absorptive capacity has partial influence on employees' knowledge creation. Moreover, our finding agrees with the study of Martin (2012) which examined the knowledge acquisition strategies and company performance in Young High Technology Company in Germany, making use of quantitative and qualitative data. The study reveals four distinct knowledge acquisition strategies (low-key, mid-range, focus and explorer) and shows that strategies differ in their relation to company performance as a result of their configuration of knowledge acquisition activities and the type of knowledge acquired.



Conclusion and Recommendations

Based on our findings, this study concludes that there exists a relationship between knowledge creation and employee performance of academic staff in Abubakar Tafawa Balewa University, Bauchi. Society has now become knowledge-based where clearly human capital is considered a key resource and indispensable to the survival of the organization. In the new paradigm, organizations recognize that an important element in business management practices is the need to successfully motivate and retain high talent employees who survive organizational restructuring, downsizing, consolidation, reorganizing or re-engineering initiatives. This suggests that academic staff should be armed with the need for knowledge as an asset available to them as well as the need to invest in its creation.

The following recommendation was proffered:

- i. The management of Abubakar Tafawa Balewa University, Bauchi should conduct training and development sessions with a view to helping staff members imbibe new and better ways of carrying out their task more effectively and efficiently.

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