Knowledge Transfer as a Determinant of High Performance Workplace in Lake Victoria North Water Services Board, Kenya

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Abstract

The purpose of the study was to investigate knowledge transfer as a determinant of high performance workplace in Lake Victoria north water services board in Kenya. High performance workplace is an environment designed to make workers as effective as possible in providing value and increasing their influence on business on an efficient and effective way. Currently this concept is a driving force for organizational survival especially towards attainment of a sustained competitive advantage. In contemporary world, performance is regarded as a vision based structure where employees are recognized as critical assets of an organization and for it to be realized knowledge transfer should be adopted and practiced. This study was guided by Parsons theory of action where the organization is interrelated to each other. The sample population of two hundred and seventy six consisting of employees and management of the Lake Victoria North Water Services Board was surveyed. The sample was proportionally stratified on the basis of departments within the five water companies under the Board, after which simple random sampling was used to identify the respective respondents. Two hundred and thirty five questionnaires were completed and found to be usable. The data was analyzed using the structural equation modeling (SEM) technique using the Statistical Package for Social Sciences (SPSS 18.0) in conjunction with the Analysis of Moment Structures (AMOS 18.0) software. Structural equation modeling was then utilized to test the hypothesis. Results revealed that knowledge transfer significantly predicted high performance workplace ($\beta = 0.40$, $p < 0.001$). The study contributed to discovery of direct effects of knowledge transfer which influence high performance workplace. The findings further indicated that organizations can improve performance by enhancing knowledge transfer and lastly future research could be conducted with a different set of goodness of fit indices. Inclusion of parsimonious fit index is highly recommended.

Key Words: Determinant, High Performance, Knowledge Transfer, Workplace, Lake Victoria North Water Services Board

INTRODUCTION

Knowledge has become one of the most important strategic resources for any organization. Effective knowledge transfer focuses on transferring skills, experience and personal knowledge with each other (Hansen, Dowling, Ireland & Hoskisson, 2005; Rhodes, Rechner & Sundaramurthy, 2008). Knowledge is recognized as an important tool for sustaining competitive advantage and many organizations are beginning to manage organizational knowledge. Various empirical and theoretical evidences have indicated that knowledge transfer is a key source of competitive advantage and consequently lead to organizational success (Cho, Yew & Lin, 2006). Knowledge transfer should be designed to utilize the intellectual power of all

organizational members in order to achieve competitive advantage. Major and Cordey-Hayes (2002) asserted that the process is a Conveyance of knowledge from one place, person and ownership to a pre-defined unit, it involves two or more parties and there has to be a source and a destination.

Knowledge transfer becomes a strategic component of a Learning Organization when it is effectively implemented to enhance organizational competitiveness (Inkpen & Tsang, 2005; Graham & Nafukho, 2007). Essentially, Goh (2002) observed that communicating past failures and successful practices are also part of knowledge transfer. Since everyone holds different interpretations of knowledge and their practices, sharing of preceding experiences will reduce the possibility of committing similar mistakes resulting in better decision-making (Goh, 2002). It was further cited by various scholars that knowledge transfer through sharing of personal success and failures can also be found in practices of mentorship, where senior personnel help the junior staff in doing their jobs by coaching them individually so that they achieve high performance workplace (Sosik & Lee, 2002; Smith, Howard & Harrington, 2005). Organizations are entities that create and use knowledge by way of the learning efforts of their employees in the construction of skills during their action and interaction with the environment in which they try to learn and develop competencies faster than their competitors do (Elaine, 2002). Learning makes it possible to increase the individuals‘ abilities through the discovery of new knowledge by carrying out tasks. Knowledge emerges from learning as a process of developing individual abilities, which confer the possibility of using a combination of skills and accumulated knowledge in the construction of a competitive advantage for the organization (Khan, 2010). In a competitive environment, on a global scale, knowledge is one of the most important assets of the multinational enterprise, since it supplies the skills for efficient action supported by a network of formal and informal relationships, thus permitting the organization‘s units situated in different countries to have access to knowledge (Polyani, 1996).

Maintaining a competitive advantage over time depends on the ability to create, transfer, use and protect knowledge assets that are difficult to imitate (Liebeskind, 1996). For this to be true, the knowledge assets must allow the creation of new knowledge, distribute it throughout the entire organization and be incorporated into new technologies, products and services (Nonaka &Takeuchi, 1995). Under such conditions, the transfer of knowledge influences productivity, efficiency and creation of competitive advantage. Transfer of knowledge is also viewed as an important strategy for making improvements in organizational performance (Buhler, 2002; Dougherty, 2004; Velada & Caetano, 2007). Indeed transfer of knowledge enhances high performance workplace.

MATERIALS AND METHODS

The study utilized explanatory survey design because it minimizes bias and provides an opportunity for probability sampling which maximizes reliability of data collected. The target population of 977 included: employees and management of Lake Victoria North Water Services Board. The sample study comprised five water companies that are managed by the board and they include; Eldoret water and sanitation company,

Nzoia water services company, Kapsabet -Nandi water services company, Kakamega-Busia water water services Company and Amatsi water services company. The study covered all the five water companies, used stratified sampling technique to obtain employees on each department and simple random sampling technique to select employees on each department. The study utilized Questionnaires in a form of a Likert scale to collect data. The selection of this tool was guided by the nature of data collected, time available and objectives of the study.

Measurement of Variables

The items to measure knowledge transfer on high performance workplace were categorized into two different sub-dimensions: resource sharing and social cohesion. Also, for the purpose of this study, all knowledge transfer sub-dimensions were measured. Items that were used to measure each sub-dimension were summated, and summated scales were used to assess knowledge transfer impacts on high performance workplace. Four items were used to measure resource sharing sub-dimension while three items were used to measure the social cohesion sub-dimension.

Resource Sharing

B1. Our organization appreciates employees regularly who invest time in knowledge transfer
B2. I am fully aware that employees are encouraged to share experience with their co-workers
B3. I know my organization offers bonuses to employees who generate solutions with new knowledge
B4. Our organization educates employees about industrial policies

Social Cohesion

B5. I am fully aware that our offices are networked to enable us share experiences
B6. We use technologies (e.g. Intranet, Internet, email and e-learning) to facilitate sharing of new ideas/ knowledge with each other
B7. We hold regular departmental meetings to track performance against our expectations
B8.Iam aware my organization formulates knowledge by standardizing documents.

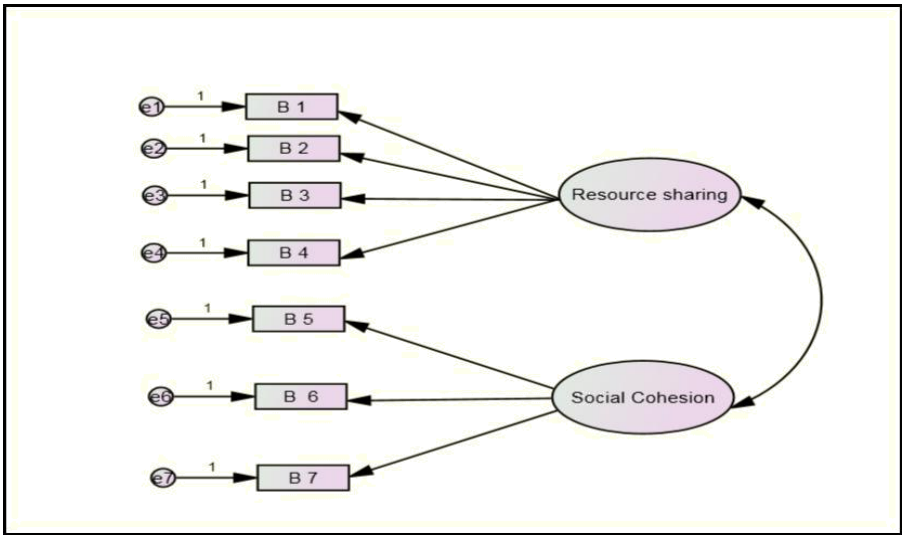

Figure 1.Hypothesized measurement model of knowledge transfer
Source: Authors (2014)

RESULTS AND DISCUSSION/FINDINGS

The scales used in this study included a mix of positively and negatively worded items. As a requisite for structural equation modeling analysis, the negatively worded items were reverse scored so that all item responses reflected positive work place dimensions. A total of 276 questionnaires were distributed to the five water companies under Lake Victoria North Water Services Board. Two hundred and thirty eight questionnaires were returned and three of them were incomplete and were left out. Normality was assessed by first checking for the presence of univariate and multivariate outliers, and then examining the skewness and kurtosis of the distributions. These are discussed in the following sections.

Perceived Knowledge Transfer Strategy

The normality of the data was confirmed by the skewness and kurtosis values being within the acceptable limits. The overall mean response score of 3.62 implies that employees of the Lake Victoria North Water Services Board approve existence of knowledge transfer dimensions in their organization. In particular, the employees seem to be satisfied with the fact that their organization appreciates employees investing time in knowledge transfer. In addition, the organization appears to be rewarding employees for generating solutions with new knowledge, as well as educating employees about industrial policies.

On the basis of the mean response scores, the respondents tended to agree that their organization appreciates employees who invest time in knowledge transfer (M = 3.86, SD = 0.976), that they were fully aware that employees are encouraged to share experiences (M=3.58, SD = 1.068), that their organization offers bonuses to employees who generate solutions with new knowledge (M = 3.89, SD = 0.959), that

their organization educates employees about industrial policies (M = 3.83, SD = 1.011), that their offices are networked to enable them to share experiences (M = 3.76, SD = 0.923), and that they hold regular departmental meetings to track performance against expectations (M = 3.60, SD=0.988). They were however not certain as to whether they use technologies to facilitate sharing of new ideas/knowledge (M = 3.37, SD = 1.107). They also tended to disagree that they are aware their organization formulates knowledge by standardizing documents (M=2.16, SD=1.249). Table 1 presents these results.

Table 1. Perceived knowledge transfer strategy

	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
B1.Our organization appreciates employees regularly who invest time in knowledge transfer	3.86	.976	-.900	.159	.451	.316
B2.I am fully aware that employees are encouraged to share experiences	3.58	1.068	-.695	.159	-.072	.316
B3.I know my organization offers bonuses to employees who generate solutions with new knowledge	3.89	.959	-.833	.159	.607	.316
B4.Our organization educates employess about industrial policies	3.83	1.011	-.829	.159	.322	.316
B5.I am fully aware that our offices are networked to enable us share experiences	3.76	.923	-.685	.159	.283	.316
B6.We use technologies (e.g intranet, internet, email and e-learning) to facilitate sharing of new ideas/ knowledge with each other	3.37	1.107	-.526	.159	-.308	.316
B7.We hold regular departmental meetings to track performance against our expectations	3.60	.988	-.671	.159	.203	.316
B8.I am aware my organization formulates knowledge by by standardizing documents	2.16	1.249	.832	.160	-.434	.318

Source: Survey Data, (2014)

Analysis of the Measurement Models

This study employed a two-step structural equation modeling procedure as recommended by Joreskog (1993), Castaneda (1993), and Anderson and Gerbing (1998). First, a measurement model was used to specify the relationship between observed variables and latent variables. This was followed with a structural model which was used to specify the relationship among the latent variables. This was done in order to determine the direct and indirect effects among the latent variable. Analysis of Moment Structures (AMOS) was used to conduct confirmatory factor analysis (CFA) and focused on the hypothesized knowledge transfer and High

performance workplace). As noted by Joreskog and Sorbom (1989), CFA provides an assessment of reliability and validity of observed variables. Validity was assessed by comparing the Average Variance Extracted (AVE) value with Correlation Squared (Fornell & Larcker, 1981). The fit of the individual parameters was assessed by first determining the feasibility of the estimated values. In line with the findings of Byrne (2001), the assessment focused on whether the estimates were in the admissible range or not. These included negative variance, correlation exceeding one, and non-positive definite correlation matrix. When these problems were encountered, the indicator was removed from the model. The second step in assessing the fit of the measurement models was by using a number of fit indices. This study used among others the chi-square (χ^2) test, the normed chi-square (χ^2/df), Goodness-of-fit index (GFI), Adjusted Goodness-of-fit index (AGFI), Comparative Fit Index (CFI) and Root Mean Square Error of Approximation (RMSEA).

Confirmatory Factor Analysis for Knowledge Transfer

Knowledge transfer measurement model was hypothesized as a two-factor model comprised of seven observed variables extracted by the exploratory factor analysis. The confirmatory factor analysis was performed by specifying the posited relationships of the observed variables to the underlying two dimensions of knowledge transfer construct, with the dimensions allowed to inter-correlate freely. Fig.2 shows the proposed measurement model.

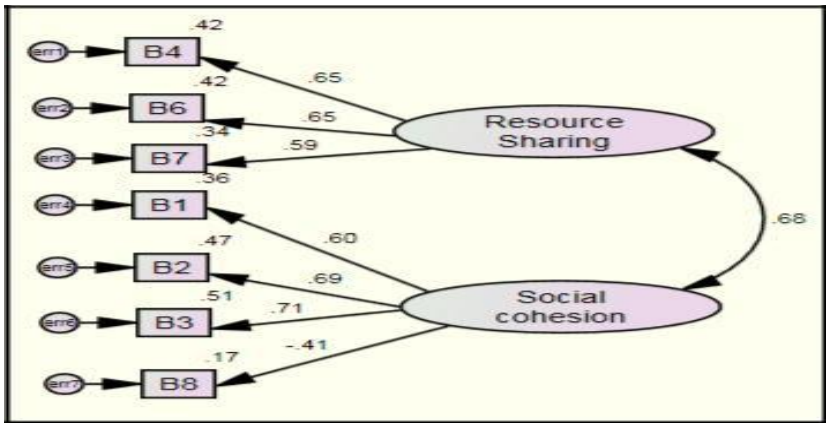

Figure 2. Proposed measurement model for knowledge transfer
Source: Survey Data, (2014)

The hypothesized measurement model indicated a chi-square goodness of fit value of 47.546 with 13 degrees of freedom. This value was significant at the 0.05 level indicating a poor fit. Other fit statistics also indicated that the model was not acceptable (χ^2/df = 3.657; GFI = 0.949; AGFI = 0.891; CFI = 0.899; RMSEA = 0.107). The hypothesized model was therefore not supported. Post-hoc modification indices suggested that the model could be improved further by correlating various error terms. The modified measurement model was therefore developed by allowing the error terms between items B4 and B7, B6 and B7, B6 and B1, and B1 and B3 to

be correlated. The results yielded a well fitting model (Fig. 3). The chi-square value of 0.588 with 4 degrees of freedom was not statistically significant (p =0.964). The other fit statistics indicated that the modified model was acceptable (χ^2/df = 0.147; GFI = 0.999; AGFI = 0.996; CFI = 1.000; RMSEA = 0.000).

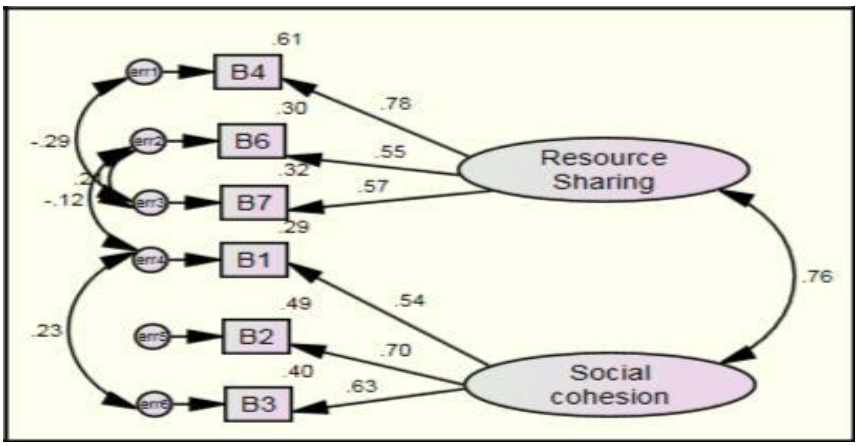

Figure 3. Modified measurement model for knowledge transfer
Source: Survey Data, (2014)

An examination of the standardized residual covariances for the modified model, revealed that no value exceeded the cut-point of 2.58. The highest value was 0.217. This confirmed that the modified model was a good fit of the data.

DISCUSSION OF FINDINGS

The study postulated that knowledge transfer had no significant effect on high performance workplace. The results indicated that knowledge transfer is a significant and positive predictor of high performance workplace (β=0.40, CR=5.882, p<0.001). This finding supports many others. For example, Hansen *et al.,* (2005), and Rhodes *et al*., (2008), noted that effective knowledge transfer focuses on transferring experience and personal knowledge with each other. The results of the SEM indicated that knowledge transfer had a positive influence on high performance workplace whereby enhanced knowledge transfer levels would most likely lead to increased levels of high performance workplace. Besides, when asked to indicate their perceptions regarding knowledge transfer in their organization, the respondents seemed to appreciate the fact that they were usually rewarded for investing time in knowledge transfer as well as for generating solutions with new knowledge. These findings concur with other findings of Inkpen and Tsang (2005), and Graham and Nafukho (2007), who noted that knowledge transfer becomes a strategic component of a learning organization when it is effectively implemented to enhance organizational competitiveness.

Knowledge transfer is significant in the sense that it contributes to the sharing of experiences. Goh (2002), asserts that 'as everyone holds different interpretation of their knowledge and practices, sharing of proceeding experiences with each other will reduce the possibility of committing similar mistakes, and this result in better decision

making'. These views seem to echo the views of Lieberskind (1996), that maintaining a competitive advantage over time depends on the ability to create, transfer, use and protect knowledge assets that are difficult to imitate. Nonaka and Takeuchi (1999) further concur that for competitive advantage to be maintained, knowledge assets must allow the creation of new knowledge; distribute it throughout the entire organization and to be incorporated into new technologies, products and services. Buhler (2002) and Dougherty (2004) sum up these views by noting that the transfer of knowledge will influence productivity, efficiency and the creation of competitive advantage thereby resulting in a high performance workplace. In showing that knowledge transfer is a significant predictor of high performance workplace, this study therefore contributes to the existing literature in showing that by investing in sharing of experiences; water boards are likely to improve workplace performance.

CONCLUSION AND RECOMMENDATIONS

The most important finding of the study is the empirical evidence about existence of statistically significant, positive relationship between knowledge transfer and high performance workplace. Findings of the study also showed that knowledge transfer does have a positive relationship with high performance workplace. This in essence implies that knowledge transfer is likely to result in high performance workplaces through sharing information, knowledge, and motivation with employees at all levels. If the employees in the water service boards always have access to informative materials and facilities needed to do the work effectively, they are likely to have increased performance. Indeed, employees that have more access to information about high performance workplace experience more productivity. This study recommends that high performance workplace facilitates cognitive growth and awareness through the transfer of knowledge among individuals.

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