Influence Of Communities Of Practice On Employee Performancein Public Universities In Kenya

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Abstract

Knowledge Management plays an important role in any organization by facilitating the capture, storage, transformation and dissemination of knowledge in order to achieve organizational goals. It is a collaborative and integrated approach adopted on an organization-wide basis to ensure that an organization's knowledge assets are best utilized to increase organizational performance. Universities as 'knowledge intensive' organizations thrive on the production and dissemination of knowledge which calls for its professional management. Effective management of this knowledge can only happen when well-established platforms exist, which have clear laid down strategies and policies on how employees can share their know-how. Communities of practice is a knowledge management practice that can be used to encourage knowledge sharing among employees in universities. Through descriptive research design the study examined the influence of communities of practice on employee performance in public universities in Kenya Simple regression analysis revealed positive and significant influence of communities of practice on employee performance in public universities in Kenya.

Key words: Knowledge management practices, Communities of practice, Employee Performance

Introduction

Communities of Practice (CoPs) are groups of people, who share a common interest in a particular area of knowledge, and learn by exchanging and sharing ideas as they interact regularly on how they can perform better as professionals, (Salalah, 2011). As Ramachandran, Choy & Ismail, (2009) suggest, it is possible to access external knowledge through such professional networks which can then be linked with current or new knowledge, (Garavan & Carbery 2007). Such linkages developed over time with peers in a profession helping an individual make meaning out of their unique experience to build on the knowledge they already possess and in the process enrich it as well, (Loyarte & Rivera, 2007).

CoPs not only provide a forum for individuals to learn from each other, it also focuses on the daily challenges at work, building creative and innovative ideas of improving ways and tools of working and developing issues in the particular field and identifying what has been obsolete and

what remains relevant. CoPs are preferred only if individuals see value in participating in them at individual and group levels, (Loyarte & Rivera 2007). This value can be deduced from several perspectives. According to Schenkel & Teigland (2008), CoPs have gained popularity in the recent past especially in academia as they are seen as key contributor of knowledge creation which is an initial step in managing knowledge in organizations as it serves as a source of competitive advantage for organizations, (Garavan & Carbery 2007).

Secondly, for organizations to remain invincible in the face of competition, organizations need to access all kinds of knowledge, (Lei, 2014). This can only occur if regular interactions and sharing of knowledge takes place between experts. Thirdly, CoPs have received recognition as important pathways for KM to promote the development of an organization's intellectual capital. This is done through supporting and encouraging knowledge sharing platforms and putting in place policies that encourage continuous learning and development among employees, (Rendenrick, 2008). Universities hire professionals with varied expertise whose primary role is to contribute to the generation and improvement of new and existing knowledge, (Cranfield, 2011).

Since they are known to be knowledge organizations, it is imperative for them to improve how they manage their knowledge to be able to react appropriately to emerging issues within their competitive environments. These environments both experience rapid developments and changes which require establishment of inbuilt capabilities to respond and manage the forces of change, (Kilika, et al., 2012). This implies that the management of the knowledge workers needs to be well organized and coordinated so that as professionals they are able to see value in participating in sharing platforms like CoPs and the universities also stand to gain by encouraging the practice.

It is important that the balance between implementation of KM practices and institutional objectives is handled tactfully.

There is a risk that if the KM practice is too broad then it may lack adequate ownership from relevant individuals since expectations may be unclear to many and may ultimately seem like a top management driven initiative. Similarly, if the initiative is too narrow, then it may stifle adequate levels of interactions between the experts to achieve desired outcomes, (Schenkel & Teigland, 2008). It is important to mention that the basis of developing CoPS is to not only enrich interactions internally and externally so that institutions get access to useful knowledge, but also enrich their capacity to build creativity and innovation ideas by sharing valuable knowledge for its current and future needs, (Small & Sage, 2009; Dobrai, 2011).

According to Mathew (2008), interactions between employees plays an important role especially in view of the tacit knowledge which is largely personal and is not easily shared or exchanged unless it is within a suitable context or environment that encourages that to happen, (Mathew, 2008 as cited in Salalah, 2011). Many studies aforementioned, (Loyarte & Rivera, 2007; Dobrai, 2011; Garavan & Carbery, 2007; Rendenrick, 2008), all agree that knowledge can be generated in different ways be it through training, education, experience, or sharing among others in the context of interacting as a group both within and outside the institution. This study proposes to measure the extent to which universities can foster collaborations/alliances both internally and externally as ways of improving their employee's knowledge base which include, partnerships with other institutions, attendance to conferences and seminars, benchmarking, among many others, (Ramachandran, et al., 2009).

Theoretical and Empirical Literature

2.1 Knowledge Based View

This theoretical concept is developing out of concern for knowledge management, and is an important extension to information economics. It essentially regards the 'product life cycle' of knowledge, applying this to either an internal market within an organization or to the external (consulting) marketplace, a commercial market for professional knowledge. From this perspective, managing the knowledge economy within an organization is important because professional knowledge is a valuable commodity, (Powell & Snellman, 2004). The knowledge-based view of the firm emerges as an extension of the resource based view of the firm and proposes that heterogeneous knowledge bases among firms and the ability to create and apply knowledge are the main determinants of performance difference (Decarolis & Deeds, 1999).The key components of a knowledge economy include a greater reliance on intellectual capabilities than on physical inputs or natural resources, combined with efforts to integrate improvements in every stage of the production process, (Drucker, 1993).

According to this view, there are several important management decisions that are directly informed by the knowledge economics rationale. One decision, for example, is determining how and when to develop professional knowledge internally and under what circumstances it is more attractive to use external experts (Drucker, 1993, Nonaka & Takeuchi 1995, Prusak 1997). Another decision regards how internal knowledge should be combined with external knowledge, that is, consultants. Finally, there is a decision regarding both how and when internal knowledge should be marketed externally, (Salina & Wan Fadzilah, 2010). This study looks at how the

internal knowledge can be improved the use of communities of practice, within a structure and culture that encourages knowledge sharing.

Knowledge economy theory describes the need for 'professional support' in organizations. A study by Aminga (2013), recommends implementation of KM practices policy to improve institutional performance in public universities. A study by (Gichuhi, 2014) also recommends the adoption of KM strategies to empower employees with techniques of creating and utilizing their knowledge. An organizational culture that encourages knowledge sharing, creation and contribution to organizational knowledge impacts on its overall performance both at team and individual levels, (Ajmal & Koskinen, 2008). The basic functions of professional support include communication with the environment, reduction of complexity and risk, coordination of the routine tasks issuing from reduced complexity, and standardization, adaptation, and improvement of such routines.

2.2 Communities of Practice and Employee Performance

Communities of Practice (CoPs) are informal groups of people who engage in social learning on a subject of common interest for a period of time which may be medium or long term and in the process share ideas on how they can improve specific aspects of doing things in the shared concern, (Laves, 2014). A study by Chong, Yen & Gan, (2014) on the Strategies and Barriers of knowledge sharing among faculty in universities in Malaysia concluded that performance evaluations that were deemed fairly done and rewards that were non-financial in nature were associated with knowledge sharing intentions in private universities while financial rewards and recognition, opportunities to research and publish influenced the same in public universities. This implies that employees do require some level of motivation to share and participate in CoPs. According Lopez-Saez, Real and Valle, (2010) who studied the utilization of the Socialization, Externalization, Combination and Integration (SECI Model), on KM processes concluded that the management of tacit knowledge requires a different approach from the management of explicit knowledge because of it its inherent nature, embedded in the human mind. This approach the study revealed must be appealing to such an extent that the individual develops a desire to share it. CoPs are viewed as one of the ways of promoting innovation by facilitating the sharing of the tacit knowledge within a group.

A study by Bagaja and Guyo, (2015) on the impact of sharing knowledge on the performance of public universities in Kenya showed that the sharing practice among employees in the institutions can only be effective if there is a major change in employee behavior and the organizational culture. This is echoed by a study of Israilidis, Siachou, Cooke & Lock (2015), which sought to identify the factors that affect knowledge sharing in a multinational

organization. The study found that employees' ignorance on the benefits of sharing knowledge is likely to hinder their willingness to share it which has a negative impact on the organization's performance.

The study concluded that lack of awareness limits the ability of an individual to appreciate the impact of changes in the environment due to their poor adaptability skills. Employees' performance relies to a large extent on what they know, and are able to do, which can then be enriched by engaging in knowledge sharing activities like CoPS, being trained or attending seminars and conferences, (Small & Sage, 2009). Understanding of individual variables that contribute to knowledge sharing behavior is important if the public universities are to manage their knowledge assets effectively for improved performance.

According to a study by Loyarte and Riveria (2007), on a Model of Communities of Practice, results showed that CoPs have a significant relationship with performance of individuals by providing them with a forum for knowledge sharing with professional colleagues. The study created a model which included the detection, analysis and evaluation of CoPs in organizations.

A study by Schenkel & Teigland, (2008) on improved organizational performance through CoPs in a construction project in Sweden revealed that those CoPs that operated under stable conditions showed a marked improvement in their performance. However, the one CoPs that was exposed to a change in its communication channels never quite bounced back to its original status of coming up with innovative ideas. The relationship between channels of communication and performance was therefore found to be significant in a CoPs.

According to Mugalavai and Muleke, (2016) study on CoPs in selected public universities in Kenya, findings indicated that although a high volume of knowledge is generated within the institutions, there were insufficient sharing mechanisms in place to enable the knowledge creators contribute to existing body of knowledge. This was attributed to lack of recognition and incentives to do so and recommended the development of a knowledge sharing model to suit the needs of the institutions.

The benefits of CoPs on employee performance have been demonstrated as significant particularly in relation to sharing of knowledge. CoPs enrich personal skills; facilitates build-up of networks and collaborations; group members develop a standard language; and develop a professional code of ethics that members must follow, (Dobrai, 2011). As organizations that are primarily engaged in the knowledge business, public universities in Kenya need to constantly improve the management of its knowledge in order to respond effectively to the rapid changes that occur in their environments and remain relevant by investing in the development of CoPs as a KM practice.

Research Methodology

3.1 Research Design

Research design is the conceptual structure within which research is conducted; it constitutes the blueprint for the collection, measurement and analysis of data, (Kothari 2013). Further, Oso and Onen (2009) posits that through descriptive research design, questions pertinent to what is happening, how it has happened and why it has happened can be answered. Cooper and Schindler (2011), further indicates that a descriptive study is concerned with finding out the what, where and how of a phenomenon. The study used descriptive research design since it will enable the researcher generalize the findings to a larger population to obtain information concerning the current status of the phenomena and to describe "what exists".

3.2 Target Population

The complete enumeration of all the elements under consideration in a study is known as target population, (Polit & Beck, 2004). According to Commission for University Education (CUE) website (www.cue.or.ke), Kenya has 31 public chartered Universities. The target population was drawn from employees working in the 10 chartered public universities in Kenya which is estimated at 495 based on information obtained from the university websites. The unit of analysis was 10 selected public universities using the criteria of those which have been in existence for more than 10 years.

3.3 Sampling Frame and Techniques

A sampling frame is a complete list of all the members of the population that we wish to study. Sample is a subset of the total population which is selected to be the true representative of the target population. A sample is selected through sampling process (Oso & Onen, 2009). Sampling technique can be either probabilistic or non-probabilistic, in the former there are equal chances of being selected while in the latter the respondent is selected through subjective criteria (Kothari, 2013).

The study used stratified sampling method that uses a stratum which is a subset of the population that shares at least one common characteristic, (Kothari, 2013). This technique allows the researcher to perform a sound study on a small sample selected to provide information which is rich in qualitative context in order to answer research questions and meet objectives. Additionally, the method has a higher statistical precision compared to simple random sampling because the variability within the subgroups is lower compared to the variations when dealing with the entire population. This also means that it requires a small sample size which can save a

lot of time, money and effort of the researchers. The sample size for students was calculated based on Yamane's formula (Yamane, 1967).

n= N/ (1 + N*e^2); where, n= the sample size, N = the size of population, e = the error of 5 percentage points; n= 495/ (1+495*0.05^2)   n = 221. By using Yamane formula with sampling error of 5% and 95% confidence intervals yielded a sample of 221 from a target population of 495. Resultant sample from each stratum will be distributed as shown in Table 3.1.

Table 3.1 Sample Size Public Universities - 10 years old and above

University	Deans/Directors	Senior Management	Total
University of Nairobi	33	22	55
Moi University	27	16	42
Kenyatta University	20	11	31
Masinde Muliro	19	5	24
Egerton University	15	4	19
Maseno University	13	3	15
Kisii University	6	2	8
Technical University of Mombasa	4	2	6
Technical University of Kenya	11	2	13
Dedan Kimathi University	5	2	7
Total	153	68	221

3.4 Data Processing and Analysis

After the data collection the questionnaire were coded, entered and analyzed using Statistical Packages for Social Scientists (SPSS) version 22. The social demographic characteristics of the respondents were analyzed using descriptive statistics. According to Brace, Kamp & Snelgar (2003) descriptive statistics are statistical tools used to summarize large volumes of data with very few figures. Simple regression analysis was carried out to show the nature of the relationship between employee core competencies and employee performance, (Kothari, 2011). The level of significance was tested at 5% whereby if the p value was less than 0.05 then there was enough evidence to reject the null hypothesis and accept the alternative hypothesis. Regression model was of the form;

$Y = \beta_0 + \beta_1 X_1 + \acute{\varepsilon}$

Where; Y = Employee Performance, X_1 = Communities of Practice

Findings and Discussions

4.1 Descriptive Statistics of Knowledge Mapping

The study determined the influence of communities of practice on employee performance in Kenya public universities. Communities of Practice (CoPs) are informal groups of people who engage in social learning on a subject of common interest for a period of time which may be medium or long term and in the process share ideas on how they can improve specific aspects of doing things in the shared concern.

Concerning CoPs in Kenya public universities, majority 44.1 percent agreed and 30.2 percent strongly agreed that they represent an area of common interest for a number of staff/customers/clients/partners. Secondly, majority 47 percent agreed and 34.7 percent strongly agreed that they currently have clear focus on their organization theme/mission. Thirdly, majority mean = 4.1 and standard deviation of 1.0 agreed that their CoPs accords them a sense of belonging. Further, majority 41.6 percent agreed and 22.8% strongly agreed that CoPs aides in relationship building. Moreover, majority 46.5 percent agreed and 24.8 percent strongly agreed that CoPs helps in networking.

Also, 42.1 percent agreed and 23.3 percent strongly agreed that they benefit in their daily work from relationships they have built. Majority agreed mean =3.7 and standard deviation 1.2 that CoPs has enhanced their willingness to participate in university activities. Majority agreed 41.6 percent and 22.8 percent strongly agreed that CoPs has motivated them to share work related knowledge. Further, majority agreed mean = 3.5 and standard deviation 1.2 that CoPs has broken down communication barriers amongst members. Finally, majority 39.1 percent agreed and 36.1 percent strongly agreed that CoPs has built an agreed set of communal resources over time.

These findings mirrored the study of Chong et al., (2014) who reported that there is need to develop measures that would enhance knowledge sharing amongst public and private universities citing both monetary and recognition factors being the main hindrances. If eliminated, the scholars added, employees would be willing to share knowledge in defined forums. Additionally, the study mirrored that of Lopez-Saez et al., (2010) that supported the need for building externally generated knowledge by developing institutional support for accessing the same. Indeed, such efforts will help in optimizing the use of resources to improve performance within organizations, (Bagaja & Guyo, 2015).

At the respective universities, 29.2 percent agreed and 29.7 percent strongly agreed that their respective employees are assisted to access important information through journals, research

reports etc. Secondly, majority either agreed mean = 4.1 that their institution purchased important information which was missing or employees were encouraged to share knowledge in line with their common areas of interest. Further, majority mean = 4.0 agreed that they are either supported internally for example being allocated rooms for meetings or employees were encouraged to join professional networking and associations. Also, majority agreed mean = 3.6 and standard deviation 1.2 that their employees were encouraged to be active in external professional networks and associations. On average majority agreed mean = 3.8 and standard deviation =1.1 that communities of practice had influence on employee performance in their respective universities.

These findings collaborated with Israilidis et al., (2015) who argued that inability of an organization to create knowledge sharing platforms depicts it inability to access and take advantage of internal and external opportunities thus exposing it to potential threats and competition which affects performance at individual, group and organizational levels. Also, the findings mimicked those of Lovarte & Riveria (2007), whose model evaluates organization information needs and aligns it to development of CoPs. Moreover, creation of external links aids the employees acquire to current knowledge in the industry and contributes significantly to an institution's ability to perform well by developing its knowledge spread. Schenkel & Teigland, (2008) further advocate for creation of appropriate communication channels to promote the growth of harmonious knowledge sharing platforms and alignment of information needs to its core competencies. In contrast, the study refuted findings by Mugalayai & Muleke (2016) who found insufficient knowledge generation within public universities in Kenya which was attributed to lack of employee recognition for those who shared their knowledge. This was supported by a study of Thiga, (2012) which showed that dissemination practices in public universities requires more improvement to by encouraging vibrant knowledge sharing practices among employees. This study showed that this situation has since changed since employees in public universities are encouraged to continuously generate and share their knowledge.

Table 4.1 Descriptive Statistics of Communities of Practice

	n=202						Std.
My CoPs	SD	D	NS	A	SA	Mean	Dev
Represent an area of common interest for a number of staff/customers/clients/partners	3	8.4	14.4	44.1	30.2	3.9	1.0

	SD	D	NS	A	SA	Mean	SD
Currently has a clear focus in its theme	2.5	6.9	8.9	47	34.7	4.0	1.0
Gives me a sense of belonging	2.5	7.4	9.9	36.6	43.6	4.1	1.0
Helps me build relationships with others	3.5	7.9	24.3	41.6	22.8	3.7	1.0
Helps me network with others	4.5	6.4	17.8	46.5	24.8	3.8	1.0
Benefit my daily work from the relationships established	5.4	12.4	16.8	42.1	23.3	3.7	1.1
Is mainly driven by the willingness to participate	5.4	15.3	12.9	37.6	28.7	3.7	1.2
Motivate me to share work-related knowledge	10.4	8.9	16.3	41.6	22.8	3.6	1.2
Breaks down communication barriers among members	5.9	16.3	20.3	33.7	23.8	3.5	1.2
Builds up an agreed set of communal resources over time	6.4	9.4	8.9	39.1	36.1	3.9	1.2
At my university							
Employees are assisted to access important information through journals, research reports etc.	15.8	13.9	11.4	29.2	29.7	3.4	1.4
If important information is unavailable within, the institution buys it	2.5	5	14.9	38.6	39.1	4.1	1.0
Employees are encouraged to share knowledge among common interest groups e.g. research groups	0	9.4	10.4	38.6	41.6	4.1	0.9
Supports activities of common interest groups e.g. room for meetings	5.4	3	11.9	47	32.7	4.0	1.0
Employees are encouraged to join external professional networks and associations	5	6.4	13.9	37.6	37.1	4.0	1.1
Employees are encouraged to be active in external professional networks and associations	5.4	12.9	23.8	30.7	27.2	3.6	1.2
Overall average						3.8	1.1

SD- Strongly disagree. D- Disagree, NS-Not sure, A-Agree, SA- Strongly agree

4.2 Communities of Practice has no Significant Influence on Employee Performance in Public Universities in Kenya

The hypothesis of the study stated that there was no significant influence of communities of practice on employee performance in public universities in Kenya. As shown in Table 4.2 regression model summary shows an R squared on 0.68, which depicts that 68 percent of changes in employee performance is significantly influenced by communities of practice in public universities in Kenya.

Table 4.2 Model Summary on Test for Significant Influence of Communities of Practice on Employees Performance in Public Universities in Kenya

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.826a	0.683	0.681	0.52

a Predictors: (Constant), COP

As shown in Table 4.3 analysis of variance on test for significant influence of Communities of Practice on employee performance in public universities in Kenya revealed that it was significantly influenced (F = 430.591, p value <0.05).

Table 4.3 Analysis of Variance on Test for Significant Influence of Communities of Practice on Employees Performance in Public Universities in Kenya

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	118.178	1	108.173	430.591	.000b
	Residual	54.891	200	0.274		
	Total	173.069	201			

a Dependent Variable: EMP

As shown in Table 4.4, there was positive and significant influence of communities of practice on employee performance in public universities in Kenya (β=0.81, p value <0.05). This shows that an increase in communities of practice increases employee performance by 0.81 units. These findings agreed with Chong et al., (2014) who found positive and significant influence between knowledge sharing and employee performance. Similar sentiments were echoed by Bagaja and Guyo (2015) who found significant influence of knowledge management practices and optimal resources utilization. Consequently, there is need to support institutional needs as argued by Lopez-Saez et al., (2010) who found significant positive contribution of institutional support on employee performance.

EMP = 0.004 + 0.81 COP …………………………………………………..………….4.2

Table 4.4 Regression Coefficient on Test for Significant Influence of Knowledge Mapping on Employees Performance in Public Universities in Kenya

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.04	0.04		0.097	0.92
	COP	0.82	0.04	0.83	20.75	0.00

a Dependent Variable: EMP

Conclusion and Recommendations

Communities of practice which are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly was found to have positive and significant influence on employee performance in Kenyan public universities. This implies that improved communities of practice enhanced employee performance in Kenyan public universities.

Thus, there is need for more clarity on organization themes, mission and vision statements, development of inter and intra relationships among employees and employees being encouraged to share their knowledge freely by creating environments that promote kind of culture. Additionally, measures ought to be adopted to harmonize communication structures among departments in public universities to enhance accessibility to shared knowledge. Employees should also be accorded time and support to meet with peers both internally and externally.

Further, universities should improve employee information access in relevant journals and missing information ought to be acquired in the shortest lead time. Employee participation in professional networks and bodies ought to be facilitated to enhance knowledge sharing and employee performance. Communities of practice were therefore seen as important in so far as they support the creation of knowledge and development of skills, provide access to new thinking and innovation, support the change management process, and promote effective sharing of knowledge.

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