

Influence of Communities of Practices on the Performance of Universities in Kenya

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Abstract: Communities of practice are characterized by social association where employees share acquired knowledge. Organizations are increasingly providing Communities of Practice with resources to improve the exchange and flow of knowledge and information. The objective of the study seeks to establish the influence of communities of practice on the performance of universities in Kenya. The study used descriptive research design and a simple random sampling to select a sample of heads of departments from the chartered universities in Kenya. The unit of analysis was the chartered universities in Kenya and the unit of observation 12 chartered universities and the respondents were the heads of department. The study collected data from a sample size of 179 by use of questionnaire. The analysis showed a correlation coefficient of a 0.307 and a coefficient of determination R square (R^2) of 0.1554 at a 0.05 significance level. The study concluded that there was a significant relationship between communities of practice and performance of universities. The study recommends that university management should support the communities of practice in order to improve performance of universities. The improved performance gives a university a competitive advantage over the other universities.

Keywords: Communities of practice, Virtua; communities of practice, face to face communities of practice, performance, universities, Organizations.

1. INTRODUCTION

The concept of Knowledge sharing (KS) has become a key area in management of organizations today. Tacit knowledge sharing has been embraced by organizations which desire to have a cutting edge in their operations (Allameh, Zare & Davoodi, 2011). Knowledge sharing is defined as the process of developing trans-specialist understanding through creation of overlapping knowledge fields (Berggren, Berggek, Bengtsson, Hobday & Söderlund, 2011). KS can also be defined as a process through which personal and organizational knowledge is exchanged (Allameh & Abbas, 2010). The scholars further suggest that knowledge sharing refers to the process by which knowledge is conveyed from one person to another, from persons to groups, or from one organization to other organizations. Universities, as institutions whose operations deal with knowledge are expected to be willing to effectively create, utilize and share knowledge for them to remain competitive in the market place.

There are two ways of sharing knowledge in organizations; closed-network sharing which involves person-to-person sharing and open-network sharing which involves sharing through a central open repository (Bhatt, 2009). In the closed sharing, an individual has the freedom to decide the mode of sharing and choose partners to share his or her knowledge. This type of interaction allows more personal touch and more directed sharing is expected. On the other hand, the open-network sharing refers to the sharing of knowledge among members of a group through a knowledge management system, typically a central database system. It involves multiple individuals sharing multiple knowledge assets in a system (Ciganek, Moa & Srite, 2010). Du and Ren (2007) explains that tacit Knowledge sharing leads to higher organizational performance especially when knowledge sharing capabilities are combined with organizational resources to improve on the competitive advantage of organizations.

Research has shown that universities around the world are embracing knowledge sharing. Chumjit (2012) explored the application of tacit knowledge sharing in universities of Thailand based on a qualitative research design.

The scholar studied 4 autonomous universities of Thailand and reported that the four universities had tried to create new knowledge (both tacit and explicit knowledge) and knowledge was being shared successfully through open access in various sections and departments. Dhamdher (2015) carried out a study of KS in universities in India and observes that many international universities are actively participating in tacit knowledge sharing and this has led to an improved performance in the universities. According to the scholar the field of knowledge management and knowledge sharing in universities is now becoming popular in the education field due to need to disclose the intellectual power available through tacit knowledge sharing.

1.1 Communities of Practice:

The term 'Communities of Practice' was first used by theorists Jeanne Lave and Etienne Wenger in 1991 who discussed the notion of legitimate peripheral participation (Easa (2011)). Effective knowledge sharing mostly takes place within a community of practice that consists of people who share a common interest and are willing to learn from each other. Organizations are increasingly providing Communities of Practice with resources to improve the exchange and flow of knowledge and information.

With the flourishing of online communities on the internet, as well as the increasing need for knowledge management, there has been much more interest in communities of practice (Golamreza, Seyyedi, & Damirchi, 2012). People see them as ways of promoting innovation, developing social capital, facilitating and spreading tacit knowledge within a group. Jeon, Kim and Koh (2011) explain that CoPs are informal and bottom-up and tend to come together without clear strategic support. The scholars further explains that benefits of CoPs include improvements in productivity, reduction in operational costs, improvements in both speed and quality of work, better decision making, greater collaboration and teamwork. The success of the CoPs depends mainly on the support of the organization.

Bishop (2008) explains that the creation of CoPs can be either formally or informally and its membership is voluntary. The goals and objectives of CoPs are fluid in nature and rarely determined by the management. The scholar further mentions that CoPs in organizations filter, organize unmanageable amounts of information and share the information which is important to the individuals and the organization. CoPs also amplify knowledge; in helping to take little known or little understood ideas to be widely understood by both the individuals and the organizations.

According to Bouchamma and Michaud (2011) academics have experienced success in developing their instructional methodology in many fields, they lack a powerful connection to CoPs opportunities and this could contribute to improving the quality of teaching and learning. CoPs provide opportunities for knowledge sharing and the development of metacognitive skills and creativity (Habtamu, 2011). However, there is no systematic approach to the sharing of knowledge in a CoPs environment. The informal nature of CoPs processes includes those activities that happen during the normal study life. CoPs can empower learners in shaping and in tacit knowledge sharing. Thus, CoPs endeavors to share content knowledge, practical skills and attitudes (Hareya, 2011)

A community of practice is characterized by mutual engagement and social practice. The result of this is the development of shared knowledge, understandings and actions as explained by Bishop (2008). In the creation of CoPs the following are essential; the domain, the practice and the community. In the domain characteristics the CoP is a group which is identified by the shared domain of interest, commitment and competence which differentiates members from other people (Wenger, 2006b). The community characteristic of CoPs the members build relationships which enable them to learn. Hakkarainen, Paavlova, and Lipponen, (2004) postints out that, this helps the members to help each other and share information. Practice as a characteristic of CoPs members practice as practitioners. Members develop a shared repertoire of resources.

1.2 Statement of the Problem:

Performance of Kenyan universities in the recent past has been low compared to other universities in the world and the universities have continued to rank lowly both globally and regionally (Thiga, 2012; Kaburu & Embeywa, 2014). According to Webometric (2016) of African university ranking only one Kenyan university featured on the top ten positions. University ranking has gained popularity in the recent past and has turn out to be a performance measure for universities (Docampo, 2012). The tacit knowledge gained by some academic staff is often lost when they leave universities and this has led to universities losing its gained tacit knowledge. In some cases when a staff retires there is

nobody to take over from them and the universities have to advertise for top cadre jobs (Geng, 2007). Previous studies done on tacit knowledge sharing in universities have concentrated on the factors influencing tacit knowledge sharing, role of tacit knowledge sharing and the challenges of tacit knowledge sharing.

The foregoing underpins the need to study the tacit knowledge sharing and its influence on performance. This is informed by the reason that the low performance of universities in Kenya will impact negatively on the country's ability to adopt to a knowledge based economy. This study therefore seeks to establish the influence communities of practice on the performance of universities in Kenya

1.3 Objective of study:

The purpose of this study was to establish influence of communities of practice on the performance of universities in Kenya.

1.4 Research Hypothesis:

In the light of the above objective, and in view of previous studies in this subject matter, the following research hypothesis was formulated:

H₁: Communities of practice has a significant influence on the performance of universities in Kenya.

2. THEORETICAL FOUNDATION

The study will be grounded on one theory the theory of planned behavior. A review of the theory will provide a clear link between mentoring and the performance of universities in Kenya.

2.1 Social Learning Theory:

Albert Bandura is considered the founder of Social Learning Theory (Bandura, 1977). The theory explains that most human behavior is learned observationally through modeling: from observing others one forms an idea of how new behaviors are performed. Bandura incorporated the general principles of Southard's 1974 concept of differential associations (i.e., learning that occurs through interacting with others) with the prior contributions of other theorists, including that of Tolman, Miller and Dollard, and Rotter, into one cohesive theory, to build social learning theory. Akers (1998) added to Bandura's social learning model by recognizing the role of social structure as mediator in the social learning process.

In SLT behavior is viewed as elicited by the physical and social environments in which the person is located at any given time and through time (Akers, 1998). SLT, as explained by the scholar, encompasses four main variables that explain how behavior, conforming or deviant, is learned and maintained: differential associations, definitions, differential reinforcement and imitation (Jeng & Dunk, 2013). Differential association refers to the direct and indirect association with others who engage in and support different types of behavior. In communities of practice (CoPs) the members build relationships that enable them to learn from each other; they care about their standing with each other. The more positive the definition of the behavior, the more likely the behavior is to occur be it conforming or deviant. The CoPs members share knowledge by conforming to the practice domain of communities of practice. Finally, imitation is the fourth learning variable. It is more likely to affect the acquisition of original behavior, but continues to have some effect in the maintenance of behavior. Learning in CoPs can take place through the imitation especially when learning from ones' experience in doing a particular task.

The social learning theory has many strengths but one of its key strengths is that it's testable. The theory uses both experimental and non-experimental data to make its advances. This gives the theory the ability to explain a large number of behaviors. The theory also gives an account and allows for cognitive processes. One of the major weaknesses of the theory is that people can be exposed to all types of behavior in the world today and no not necessarily copy the behavior.

The theory underpins communities of practice because in communities of practice learning can take place when, one imitates or models the behavior after observing another act out. These four variables are micro level variables, meaning they apply specifically to the individual or a small group of individuals as explained by Bandura (1997). Li (2012) explains that learning take place when interaction occurs and that interaction necessarily involves socializing which is a characteristic of CoPs. The scholar further asserts that learning occurs in the socialization between members of a community of practice, and concludes that communities of practice and the learnings that occur within them are one and the same.

2.2 Empirical Review:

Duncan-Howell (2007) carried out a study on online communities of practice and their role in the professional development of teachers. The results of the study show that online communities of practice are a valuable source of continuous professional development for teachers. The study revealed that CoPs have the ability to provide support as teachers accommodate the constant changes and the need to acquire new skills and knowledge. The strength of this method of professional development lies in its ability to be self-sustaining and generative. Through the communities of practice, the teachers have access to authentic, relevant and flexible learning that is not constrained by time and can be accessed according to member's needs.

Wyk (2014) studied the concept of communities of practice as applied by the Academic Information Service of the University of Pretoria. The results of the study showed that communities of practice have a definite and valuable role in the management of knowledge in the academic university system. The study also showed that CoPs be very vulnerable human institutions which should be well nurtured, as they are very much dependent on the support of top management, information technology infrastructure, enthusiasm of their members, trust between members, time, and rewards and incentives to participate. The results ascertained that CoPs might enable academic libraries staff to outrun others and retain their competitive edge.

Mushi (2014) posits that tacit knowledge sharing in Tanzania public a university is done but at a negligible scale. The scholar established that that organizational structure, culture and IT infrastructure were among the causal factors of the situation. The scholar further observes that Tanzania public university needs to promote informal knowledge sharing strategies. This would promote the knowledge sharing of tacit knowledge which plays a crucial role in innovation and value adding process. The scholar further suggests that events such as get-together parties and informal meetings should be used to facilitate trust and promote tacit knowledge sharing in order to improve performance of universities in Tanzania.

Tacit knowledge sharing in Kenyan higher education is not a well understood concept (Thiga, 2012). The scholar observes that limited understanding of tacit knowledge sharing was evident among some top management and researchers. Thiga established that the challenges facing tacit knowledge sharing was the absence of supportive policies, environments and the lack of clearly assigned knowledge management responsibilities. The researcher proposed establishment of environment for tacit knowledge sharing in order to have an improvement on the effectiveness of knowledge creation and dissemination processes in Kenyan Higher education.

3. RESEARCH METHODOLOGY

The study used descriptive research design and a simple random sampling to select a sample of heads of departments from the chartered universities in Kenya. The unit of analysis was the chartered universities in Kenya and the unit of observation 12 chartered universities and the respondents were the heads of department. The study generated both qualitative and quantitative data which was collected using Likert scales and later analyzed through descriptive statistics and multiple regression analysis. Analyzed data was presented using tables, charts and graphs. At the time of study, Kenya had a total of 40 chartered universities. The study selected 12 universities from the 40 chartered universities which was 30% of the total number of universities. The 12 selected universities had a total of 335 departments hence 335 heads of department. To select the appropriate sample size, the study used Godden (2004) formula. The Godden formula has two steps which are used to calculate the sample size. In step one, the sample size is calculated using the infinite population formula and in step two, the sample size derived from that calculation is used to calculate a sample size for the finite population. Only 179 selected were selected out of 335 by using the Godden formula.

4. RESEARCH FINDINGS

4.1 Descriptive Analysis for Communities of Practice:

The study sought to establish the presence of communities of practice in university departments. The study showed that 12.2 % strongly agreed that there were many communities of practice in their departments, while 40.0% agreed and 14.2 were neutral that there were many departments in the universities. However, 29.7 % disagreed and 3.9% strongly disagreed that communities of practice were many in their organization. According to the findings more than half of the universities (52.2%) universities had communities of practice.

The findings are tandem with a study by Bouchamma and Michaud (2011) Communities of practice with teaching Supervisors: a discussion of community members' experience, who observed that at least 50% of academic staff had experienced success in developing their instructional methodology in many fields through creation of communities of practice. Jeon, Kim and Koh (2011) in their study on an integrative model for knowledge sharing in Communities-of-practice also agree that many organizations are increasingly providing communities of Practice with resources to improve the exchange and flow of knowledge and information hence an increased number of academic staff participating in CoPs.

Academic staffs need to belong to communities of practice in order to share acquired knowledge. The study also sought to establish whether the academic staff belonged to communities of practice. The response was to the question whether all the academic staff belonged to CoPs the response was that 28.4% strongly agreed that the academic staff in all the disciplines had communities of practice. While 32.5% agreed that and 13.5% were neutral that the academic staff had communities of practice. However, 20.6% disagreed and 5.2% strongly disagreed that all the academic staff in all the disciplines had communities of practice.

Majority of the respondents (60.9%) agreed and strongly agreed that academic staff in universities have communities of practice in their various disciplines. Holzmann (2013) observes that communities of practice provide opportunities for knowledge sharing and the development of metacognitive skills and creativity. This was a clear evidence of knowledge sharing in the Kenyan universities. Hung, Durcikova, Lai and Lin (2011) agree that the presence of communities of practice in organization is a sign of knowledge sharing. Communities of practice endeavors to share content knowledge, practical skills and attitudes.

The creation of communities of practice can be either formally or informally and its membership is voluntary. The meetings of members of CoP are determined by the members and the more they meet the more they share knowledge. The analysis showed that 21.3 % strongly agreed that CoP were the norm in their departments, 34.8% agreed and 5.8 % were neutral that regular CoP meetings were the norm in their institutions. Those who disagreed with the statement were 17.4% while 20.7% strongly disagreed that meetings of communities of practice were the norm in their department.

Academic staffs join communities of practice because of the desire to create knowledge as explained by Bishop (2008). The scholar further explains that the activeness of the group is based on the passion to share knowledge among its members. Majority 56.1% of the academic staff was actively involved in communities of practice. A study by Thiga (2012) in his study observed that some academic staff belonged to CoPs in institutions of higher learning in Kenya. The scholar further explains that the involvement of academic staff in communities of practice is important because the CoPs promote knowledge sharing in organizations.

The study also sought to determine whether the management encourages the academic staff to form CoP. The study revealed that 24.6% strongly agreed that the management encouraged its academic staff to join CoPs, 25.9 % agreed and 5.5% were neutral that the management encouraged the academic staff to form CoPs. However, 20.5% disagreed and 23.5% strongly disagreed that the management encouraged the formation of CoPs. Since communities of practice are tools for organizational growth and creating competitive advantage, it's the responsibility of the management to engineer and cultivate CoP in order to cultivate the workers knowledge as explained by Jimenez-Jimenez and Sanz-Valle (2013). Similarly Jonsson and Tell (2013) agree that the organizations benefit from knowledge shared in communities of practice, it is the responsibility of the organization to encourage its members to participate in knowledge sharing.

The analysis of whether of whether the university has set aside rooms for communities of practice showed that 5.8% strongly agreed that there were rooms that were set aside for the academic staff use during CoP meetings. Those who agreed were 21.9 % and 18.7% were neutral that there were rooms set aside for communities of practice. However 25.8 % disagreed and 27.8% strongly disagreed that there were rooms set aside by the universities for CoPs. The findings of this study were in agreement with the findings by Joia and Lemos (2010) on the relevant factors for tacit knowledge transfer within organizations. The study established that academic staff preferred virtual CoPs more than face to face interaction although the scholars assert that Face to face interaction during CoPs meetings improves relationships in organizations. According to Lee, Gillespie, Mann and Wearing (2010) are two types of communities of practice, the virtual communities of practice and face to face communities of practice. During the face to face communities of practice facilities like meeting rooms are necessary. One way an organization can show support of knowledge sharing is by provision of the required facilities like rooms for knowledge sharing.

Many organizations have calendar of events to guide programmes in the organization and also for proper time management. In order to establish whether there were set times for participation in CoP activities the analysis showed that 1.9% strongly agreed and 22.6 % while 9.7% were neutral agreed that there CoPs activities in their calendar of events. Further the analysis showed that 37.4 % disagreed and 28.4% strongly disagreed that CoPs were in the calendar of events.

Mushi (2014) observed that many of the knowledge sharing practices were not scheduled in Tanzanian Universities. The scholar posits that scheduling CoP activities by university management is important in order to create time for knowledge sharing. Scheduled events such as get-together parties and informal meetings should be used to facilitate trust and promote tacit knowledge sharing. Similarly Thiga (2012) observed that many Kenyan universities did not schedule most of the knowledge sharing and explains that all university activities of knowledge sharing should be scheduled and monitored for effectiveness.

Knowledge sharing in communities of practice should be an ongoing process. To establish whether the same was in the universities the study asked the question whether most of the academic staff met regularly in CoP to share newly acquired knowledge. The responses were that 36.1 % strongly agreed, 32.3 % agreed and 3.2 % were neutral to the question on the academic staff meeting regularly to share newly acquired knowledge. However, 20.0% disagreed and 8.4% strongly disagreed that academic staff met regularly to share newly acquired knowledge. The findings showed that 68.4% of the academic staff shared newly acquired knowledge. Wyk (2014) agrees with the findings that many academic staff form CoP to share newly acquired knowledge. The scholar in his study established that CoP are very vulnerable human institutions which should be well nurtured. The scholar further asserts that CoPs are very much dependent on the enthusiasm of their members, trust between members, time, and rewards and incentives to participate.

Duncan-Howell (2007) similarly states acquired new knowledge is shared mainly in learning institutions due to the many research undertaking in universities. Knowledge sharing in organizations has increased in the recent past and universities have not been left behind. The frequency of CoP activities has also increased in the past years. To establish this analysis on the question whether the frequency of CoP activities have increased in the past three years showed that 31.0% strongly agreed that there was increase in CoP activities. The analysis further shows that 35.5% agreed. However, 21.9 % disagreed and 11.6% strongly disagreed that there was increase in CoPs activities.

Majority of the respondents 66.5% agreed and strongly agreed that there was an increase in knowledge sharing in their departments. Knowledge sharing has become a key area in management of organizations today. Tacit knowledge sharing has been embraced by organizations which desire to have a cutting edge in their operations Minbaeva (2013). Similarly Aswath and Gupta (2009) agree that in the recent past there has been an increase in knowledge sharing in institutions. From the findings, it can be noted that the mean of the statements used to measure communities of practice ranged between 3.1 and 3.5, except for three items, which had a mean of 2.7. This showed that majority of the respondents were not in agreement with the statements used to measure communities of practice. Similarly, the standard deviation of the items ranged between, 1.0 to 1.3. It was deduced that the responses to the items did not deviate much, from the expected responses.

Table 4.1 Communities of Practice

Item	SA %	A %	N %	D %	SD %	M	SD
There are many CoP in this department	12.2	40.0	14.2	29.7	3.9	2.7	1.1
Academic staff in every discipline have CoP	28.4	32.5	13.5	20.6	5.2	2.7	1.1
Regular CoP meetings are the norm in this institution	21.3	34.8	5.8	17.4	20.7	3.1	1.3
The management encourages the academic staff to form CoP	24.6	25.9	5.5	20.5	23.5	3.4	1.2
The university have set aside rooms and facilities for CoP meetings	5.8	21.9	18.7	25.8	27.8	3.5	1.3
There is set time on the calendar of events for CoP	1.9	22.6	9.7	37.4	28.4	3.3	1.0
Most of the academic staff meet regularly in CoP to share newly acquired knowledge	36.1	32.3	3.2	20.0	8.4	2.7	1.0
The frequency of CoP meetings has increased in the past 3 years	31.0	35.5	0.0	21.9	11.6	3.4	1.0

4.2 Communities of Practice in Public Universities versus Private Universities:

A comparison on public and private universities on whether there were many CoPs in their department was done. The study established that in public universities 14.2% strongly agreed, 37.8% agreed while 17.3% were neutral to the statement that there were many CoPs in their department. However, 26% disagreed and 4.70% strongly disagreed that

there were many CoPs in their department. In the private universities study established that in private universities 3.5% strongly agreed, 50.0% agreed while 0.0% were neutral to the statement that there were many CoPs in their department. However, 46.4% disagreed and 3.6% strongly disagreed that there were many CoPs in their department.

Further analysis showed that 52.0% of the respondents in the public universities agreed and strongly agreed that there were many CoPs in their department. In private universities 53.5% agreed and strongly agreed that there were many CoPs in their department. The analysis showed that the presence of CoPs was almost the same in both the public and the private universities. Since universities are learning institutions the presence of communities of practice cannot be ignored as pointed out by Mushi (2014). According to the scholar both the private and public universities in Tanzania practice CoPs in equal measure.

In the means and the standard deviation analysis the mean of the item of comparison was 2.6 and 2.9 this showed that the respondents in both the public and the private universities had similar observation to make on CoPs in universities. The standard deviation was 1.1. It was deduced that the responses to the items did not deviate much from the expected responses.

Table 4.2 There are many CoPs in the department

Statement	University	SA	A	N	D	SD	M	SD
		%	%	%	%	%		
There are many CoPs in the department	Public	14.2	37.8	17.3	26	4.7	2.6	1.1
	Private	3.5	50.0	0	46.4	0	2.9	1.1

A comparison on public and private universities on whether academic staff in every discipline had CoPs was done. The study established that in public universities 15.7% strongly agreed, 30.0% agreed while 32.3% were neutral to the statement that academic staff in every discipline had CoPs. However, 17.3% disagreed and 4.7% strongly disagreed that academic staff in every discipline had CoPs. In the private universities study established that in private universities 3.6% strongly agreed, 2.9% agreed while 10.7% were neutral to the statement that academic staff in every discipline had CoPs. However, 35.7% disagreed and 7.1% strongly disagreed that academic staff in every discipline had CoPs.

Further analysis showed that 22.0% of the respondents in the public universities disagreed and strongly disagreed that academic staff in every discipline had CoPs. In private universities 42.8% disagreed and strongly disagreed that academic staff in every discipline had CoPs. The analysis revealed that there were more CoPs in private universities the in public universities compared to public universities. Paulin and Suneson (2012) disagrees with the findings when he points out that both the private and public universities in Tanzania practice CoPs in equal measure.

Table 4.3 Academic staff in every discipline have CoPs

Statement	University	SA	A	N	D	SD	M	SD
		%	%	%	%	%		
Academic staff in every discipline have CoPs	Public	15.7	30	32.3	17.3	4.7	2.7	1.1
	Private	3.6	2.9	10.7	35.7	7.1	3.0	1.1

A comparison on public and private universities on whether regular meetings of CoPs are the norm in the institution was done. The study established that in public universities 5.5% strongly agreed, 30.7% agreed while 22.3 were neutral to the statement that regular meetings of CoPs are the norm in the institution. However, 18.1% disagreed and 22.8% strongly disagreed that regular meetings of CoPs are the norm in the institution. In the private universities study established that in private universities 5.5 % strongly agreed, 53.6% agreed with the statement that regular meetings of CoPs are the norm in the institution. However, 14.3% disagreed and 7.1% strongly disagreed that regular meetings of CoPs are the norm in the institution.

Further analysis showed that 36.2% of the respondents in the public universities agreed and strongly agreed that regular meetings of CoPs were the norm in the institution. In private universities 48.1% agreed and strongly agreed that regular meetings of CoPs are the norm in the institution. The analysis revealed that CoPs were more in the private universities than public universities. Bouchamma and Michaud (2011) assert that how regular the CoPs are is determined by the need to share knowledge in an organization but not factors like nature of organization. In the means and the standard deviation analysis the mean of the item of comparison was 3.2 and 2.6 this showed that the respondents in both the public and the

private universities had different observations on the item of regular meetings of CoPs. In public universities the respondents disagreed with the statement more compared to the private universities respondents. The standard deviation was 1.3 and 1.1. It was deduced that the responses to the items did not deviate much from the expected responses.

Table 4.4 Regular Meetings of CoPs are the norm in this institution

Statement	University	SA	A	N	D	SD	M	SD
		%	%	%	%	%		
Regular Meetings of CoPs are the norm in this institution	Public	5.5	30.7	22.3	18.1	22.8	3.2	1.3
	Private	5.5	53.6	0.0	14.3	7.1	2.6	1.1

A comparison on public and private universities on whether management encouraged the academic staff to form CoPs was done. The study established that in public universities 0.8% strongly agreed, 36.2% agreed while 15.7% were neutral to management encouraged the academic staff to form CoPs. However, 19.7% disagreed and 27.6% strongly disagreed that management encouraged the academic staff to form CoPs. In the private universities study established that in private universities 0.0% strongly agreed, 32.1% agreed while 14.3% were neutral to the statement that management encouraged the academic staff to form CoPs. However, 46.4% disagreed and 7.1% strongly disagreed that management encouraged the academic staff to form CoPs.

Further analysis showed that 47.3% of the respondents in the public universities disagreed and strongly disagreed that management encouraged the academic staff to form CoPs. In private universities 53.5% disagreed and strongly disagreed that management encouraged the academic staff to form CoPs. The analysis revealed university management in public universities encouraged academic staff to form CoPs compared to university management in private universities. Waring, Currie, Crompton and Bishop (2013) when addressing the challenges of CoPs explains that management of organizations have the responsibility to provide an environment which will enable the formation and participation of CoPs.

Table 4.5 Management encourages the academic staff form CoPs

Statement	University	SA	A	N	D	SD	M	SD
		%	%	%	%	%		
Management encourages the academic staff form CoPs	Public	0.8	36.2	15.7	19.7	27.6	3.4	1.6
	Private	0.0	32.1	14.3	46.4	7.1	3.3	1.0

A comparison on public and private universities on whether there were set aside rooms and facilities for CoPs meetings was done. The study established that in public universities 4.7% strongly agreed, 15.0% agreed while 22.0% were neutral to the statement that there were set aside rooms and facilities for CoPs meetings. However, 27.6% disagreed and 30.7% strongly disagreed that there were set aside rooms and facilities for CoPs meetings. In the private universities study established that in private universities 10.7% strongly agreed, 32.1% agreed while 14.3% were neutral to the statement that there were set aside rooms and facilities for CoPs meetings. However, 46.4% disagreed and 7.1% strongly disagreed that there were set aside rooms and facilities for CoPs meetings. Further analysis showed that 58.3% of the respondents in the public universities disagreed and strongly disagreed that there were set aside rooms and facilities for CoPs meetings.

In private universities 53.5% disagreed and strongly disagreed that there were set aside rooms and facilities for CoPs meetings. The analysis revealed availability of rooms set aside for CoPs was a change to both the private and the public universities. Availability of facilities like rooms for knowledge sharing through communities of practice depends on how established an organization is and its level of growth. Sriwichai, et al (2014) explains only few learning institutions tend to have many free rooms for activities other than classroom learning. Extra rooms and offices are a challenge to many institutions due to the high cost of building.

In the means and the standard deviation analysis the mean of the item of comparison was 3.6 and 2.6 this showed that the respondents in both the public and the private universities had different observations on the item of rooms and facilities were set aside for CoPs meetings. In public universities the respondents disagreed with the statement more compared to the private universities respondents. The standard deviation was 1.2. It was deduced that the responses to the items did not deviate much from the expected responses.

Table 4.6 There are set aside rooms and facilities for CoPs meetings

Statement	University	SA %	A %	N %	D %	SD %	M	SD
There are set aside rooms and facilities for CoPs meetings	Public	4.7	15	22.0	27.6	30.7	3.6	1.2
	Private	10.7	32.1	14.3	46.4	7.1	2.6	1.2

A comparison on public and private universities on whether most of the academic staff met regularly to share newly acquired knowledge was done. The study established that in public universities 18.8% strongly agreed, 37.8% agreed while 8.7% were neutral to the statement that most of the academic staff met regularly to share newly acquired knowledge. However, 27.6% disagreed and 7.1% strongly disagreed that most of the academic staff met regularly to share newly acquired knowledge.

In the private universities study established that in private universities 17.9% strongly agreed, 39.3% agreed while 7.1% were neutral to the statement that most of the academic staff met regularly to share newly acquired knowledge. However, 28.6% disagreed and 7.1% strongly disagreed that most of the academic staff met regularly to share newly acquired knowledge. Further analysis showed that 56.6% of the respondents in the public universities agreed and strongly agreed that most of the academic staff met regularly to share newly acquired knowledge. In private universities 57.2% agreed and strongly agreed that most of the academic staff met regularly to share newly acquired knowledge. This analysis shows that both the private and the public universities the academic staff meet almost equally regularly to share knowledge. Wylie, Sturdy and Wright (2014) agree with the findings that both the private and public universities practice CoPs in equal measure.

In the means and the standard deviation analysis the mean of the item of comparison was 3.4 and 2.7 this showed that the respondents in both the public and the private universities had different observations on the item of regular meetings to share newly acquired knowledge. In public universities the respondents disagreed with the statement more compared to the private universities respondents. The standard deviation was 0.9 and 1.3. It was deduced that the responses to the items did not deviate much from the expected responses although the private universities had a higher standard deviation than public universities.

Table 4.7 Most academic staff meet regularly to share newly acquired knowledge

Statement	University	SA %	A %	N %	D %	SD %	M	SD
Most of the academic staff meet regularly to share newly acquired knowledge	Public	18.8	37.8	8.7	27.6	7.1	3.4	0.9
	Private	17.9	39.3	7.1	28.6	7.1	2.7	1.3

A comparison on public and private universities on whether there was a set time on the calendar of events for CoPs was done. The study established that in public universities 1.6% strongly agreed, 19.7% agreed while 37.8% were neutral to the statement that there was a set time on the calendar of events for CoPs. However, 27.6% disagreed and 10.2% strongly disagreed that there was a set time on the calendar of events for CoPs. In the private universities study established that in private universities 3.6% strongly agreed, 35.7% agreed while 17.9% were neutral to the statement that there was a set time on the calendar of events for CoPs. However, 35.7% disagreed and 7.1% strongly disagreed that there was a set time on the calendar of events for CoPs. Further analysis showed that 37.8% of the respondents in the public universities disagreed and strongly disagreed there was a set time on the calendar of events for CoPs. In private universities 42.8% strongly disagreed and disagreed that there was a set time on the calendar of events for CoPs.

This analysis shows that both the private and the public universities the time was available for CoPs was limited with the academic staff from the private universities hard hit compared to the public universities. Availability of time for knowledge sharing in many organizations is a challenge due to high workloads because of limited academic staff in many learning institutions a challenge which was observed by Zanini and Musante (2013)

In the means and the standard deviation analysis the mean of the item of comparison was 3.6 and 3.1 this showed that the respondents in both the public and the private universities had similar observation on the item of that time was set on the calendar of events for CoPs. In public universities the respondents disagreed with the statement more compared to the private universities respondents. The standard deviation was 1.2 and 1.1. It was deduced that the responses to the items did not deviate much from the expected responses.

Table 4.8 There is set time on the calendar of events for CoPs

Statement	University	SA %	A %	N %	D %	SD %	M	SD
There is set time on the calendar of events for CoPs	Public	1.6	19.7	37.8	27.6	10.2	3.6	1.0
	Private	3.6	35.7	17.9	35.7	7.1	3.1	1.1

A comparison on public and private universities on whether there was a set time on the calendar of events for CoPs was done. The study established that in public universities 0.0% strongly agreed, 15.7% agreed while 37.8% were neutral to the statement that there was a set time on the calendar of events for CoPs. However, 33.9% disagreed and 12.6% strongly disagreed that there was a set time on the calendar of events for CoPs. In the private universities study established that in private universities 0.0% strongly agreed, 50.0% agreed while 0.0% were neutral to the statement that there was a set time on the calendar of events for CoPs. However, 42.9% disagreed and 7.1% strongly disagreed that there was a set time on the calendar of events for CoPs.

Further analysis showed that 15.7% of the respondents in the public universities agreed and strongly agreed there was a set time on the calendar of events for CoPs. In private universities 50.0% agreed and strongly agreed that there was a set time on the calendar of events for CoPs. This analysis showed that there was a high increase of CoPs meetings in private universities compared to the public universities. Zhao, Qi and Pablos (2014) expound on planning of activities in organizations and explain that the planning of events in organization is dependent on the availability of funds and availability of time.

In the means and the standard deviation analysis the mean of the item of comparison was 3.4 and 3.1 this showed that the respondents in both the public and the private universities had similar observation on the item of the frequency of CoPs having increased in the past years. The standard deviation was 0.9 and 1.1. It was deduced that the responses to the items did not deviate much from the expected responses.

Table 4.9 The frequency of CoPs meetings has increased in the past 3 years

Statement	University	SA %	A %	N %	D %	SD %	M	SD
The frequency of CoPs meetings has increased in the past 3years	Public	0.0	15.7	37.8	33.9	12.6	3.4	0.9
	Private	0.	50.0	0.0	42.9	7.1	3.1	1.1

4.3 Challenges of Communities of Practice in Universities:

The study also sought to establish the challenges experienced by the academic staff in carrying out the activities of CoP. Some of the challenges were; limited time to have CoP 65.8 %, Limited funds to carry out CoP activities 43.9%, Non team players 33.5%, total absence of CoP 32.9%, limited number of academic leaders 21.3% and limited facilities to carry out face to face communities of practice. Many challenges have been identified in different studies. A study by Wyk (2014) identified the following challenges; lack of a core group, low level of one-to-one interaction between members, rigidity of competences and lack of identification with the COP and practice intangibility. Bouchamma and Michaud (2011) identified the following challenges; lack of time, leader neglect, focus on event, focus on documents, de-energizing tasks and red, Logistics or IT and command or control by the management.

Table 4.10 Challenges encountered during CoP

Challenges	Frequency	Percent
Limited time for CoP	102	65.8
Limited funds to carry out CoP	68	43.9
Non Team players	52	33.5
Total Absence of CoP	51	32.9
Limited number of academic leaders	33	21.3
Limited facilities to carry out CoP	08	05.2

The respondents suggested solutions to the encountered challenges included:- encouraging more team work among the academic staff 56.8%, introduction of policies on CoPs 34.2 %, allocation of funds in departmental budgets 32.3%, employing more academic staff 27.1% and formation of CoP where they were nonexistent 21.3%. Wyk (2014) suggests

the following solutions to the challenges identified in his study; passion for domain, energized core group ,focus on practice, trust, community rhythm learning trumps power, personal touch, high value for time, high expectations, engaged sponsorship, skilled support. Similarly Bouchamma and Michaud (2011) highlights the following solutions encountered during CoP activities; the need to stick to strategic objectives of the CoP, dividing objectives into sub-topics, forming governance committees with sponsors and COP leaders, regularly feeding the COP with external expertise, promote access to other intra- and inter-organizational networks, overcoming hierarchy-related pressures and providing the sponsor or CoP leaders with measurable performance.

Table 4.11 Solutions to the Encountered Challenges During CoP

Solutions	Frequency	Percent
Encourage more team work from the academic staff	88	56.8
Introduction of policies on CoP	53	34.2
Allocation of funds in departmental budgets	50	32.3
Employ more academicians	42	27.1
Formation of CoP	3.3	21.3

4.4 Results of Correlation Analysis:

4.5 Correlation between Communities of Practice and Performance of Universities:

The correlation results shown in table 4.12 indicate that there is a strong positive relationship between communities of practice and performance of university. This is indicated by a correlation coefficient of a 0.554. This implies that a positive change in communities of practice causes performance of universities to change positively. The associated significance level of 0.000 which is less than the threshold of 0.05 indicates that the implied relationship is statistically significant.

Table 4.12 Communities of Practice Correlation Results

		Performance	Communities of Practice
Performance of Universities	Pearson Correlation	1	.554**
	Sig. (2-Tailed)		.000
	N	155	155
Communities of Practice	Pearson Correlation	.554**	1
	Sig. (2-Tailed)	.000	
	N	155	155
** . Correlation is significant at the 0.01 level (2-tailed).			

The forgoing findings are in line with Rai (2011) study on the study of barrier factors in knowledge sharing reveals a positive relationship between communities of practice and in institutional performance. The scholars posted that an increase of communities of practice participation in knowledge transfer lead to 0.523 increases in institutional performance increase. Similarly Schenkel and Teigland (2008) on their study on improved organizational performance through communities of practice established that communities of practice led to improved organizational performance. The scholars attributed this to the shared community memory face to face. Nguyen and Mohamed (2011) makes a similar observation that organizations which had CoPs had a competitive advantage over the others.

4.6 Regression Analysis Results:

4.7 Communities of Practice versus Performance of Universities:

Table 4.13 presents the regression model on communities of practice versus performance of universities in Kenya. As presented in the table 4.67 the coefficient of determination R square is 0.307 and R is 0.554 at a 0.05 significance level. These results indicate that 30.7% of the variation on performance of universities can be explained by communities of practice.

Table 4.13 Regression Model Summary for Communities of Practice

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.554	.307	.302	3.41341
Predictors: (Constant), Communities of Practice				

Table 4.14 presents the results of Analysis of Variance (ANOVA) on communities of Practice and performance of universities in Kenya. As presented in the table 4.14 the ANOVA results for regression coefficients indicates an F statistic of 67.643 with a significance level of .000 which is less than 0.05 hence implying that there is a significant relationship between communities of practice and performance of universities.

Table 4.14 ANOVA Regression Results for Communities of Practice

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	788.135	1	788.135	67.643	.000
	Residual	1782.654	153	11.651		
	Total	2570.790	154			
Dependent Variable: Performance of Universities						
Predictors: (Constant), Communities of Practice						

The study further determined the beta coefficients of communities of practice on performance of universities. Table 4.15 shows that communities of practice influences performance of universities positively since the coefficient CoP is 1.06 which implies that a single unit change in CoP causes performance of universities to increase by 1.06 units. The associated significance level is .000 which is less than the threshold of .05 indicating that communities of practice is statistically significant in explaining the variations in university performance. Through the findings the study was able to generate the model $Y = 7.148 + 1.106X_2$ for the communities of practice (X_2) versus university performance (Y). This model implied that every unit increase in communities of practice led to a corresponding increase in the performance of universities in Kenya.

Testing Hypothesis 2:

H₀: Communities of practice have no significant influence on the performance of universities in Kenya.

Where;

H₀: $\beta_j = 0$

H₁: $\beta_j \neq 0$

The standardized regression coefficient was significant and its value not equal to zero (see table 4.15). Based on the same table the absolute value of the test statistic was 8.225. Creswell (2013) asserts that when the absolute value is greater than or equal to the critical value of 1.96 the null hypothesis is rejected. Using those results the null hypothesis was rejected and the alternative hypothesis; Communities of practice has a significant influence on the performance of universities in Kenya was adopted. Therefore the study concluded that communities of practice had a significant influence on the performance of universities in Kenya.

Mushi (2009) research on knowledge sharing in Tanzanian university library established that communities of practice had positive relationship with the performance of libraries in Tanzania. The forgoing studies and the reviewed literature concurred with the findings of the study that communities of practice is a major determinant of university performance. Also the findings of Wyk (2014) in a study of communities of practice in an academic library who pointed out that communities of practice ensures that knowledge is shared among all the employees and reduces time of induction and this enhances organizational performance.

Table 4.15 Coefficients of Communities of Practice

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.148	1.111		6.436	.000
	Communities of Practice	1.106	.135	.554	8.225	.000
Dependent Variable: Performance of Universities						

5. DISCUSSION, CONCLUSIONS, RECOMMENDATIONS

5.1 Influence of Communities of Practice on Performance of Universities:

The descriptive statistics established that majority of the universities had communities of practice with most of the disciplines in the universities having communities of Practice. The study also found out that most of the universities management supported the formation of Communities of Practice and the academic staff had regular meetings of CoPs. The qualitative analysis showed that the academic staff encountered a number of challenges while carrying out CoPs activities. Some of the challenges the study found out were; limited time to have CoP, Limited funds to carry out CoP activities, Non team players, total absence of CoP, limited number of academic leaders and limited facilities to carry out face to face activities of communities of practice.

The study established some of the solutions to the challenges as: encouraging more team work among the academic staff, introduction of policies on CoPs, allocation of funds in departmental budgets, employing more academic staff and formation of CoP where they were nonexistent. The results for correlation analysis posted a positive linear relationship between communities of practice and performance of universities in Kenya. Regression analysis results indicated that the overall model was highly significant and the communities of Practice explained the performance of universities well.

5.2 Conclusions:

Conclusion on Influence of Communities of Practice on the Performance of Universities in Kenya:

The findings of the study concluded that communities of practice influenced the performance of universities in Kenya. This was confirmed by the correlation analysis which established a positive relationship between communities and performance of universities. This relationship suggested that increasing positively communities of practice could lead to increased performance in universities. Similar conclusions were drawn from regression analysis which confirmed the interaction by establishing that there existed a positive and significant relationship between communities of practice and performance of universities. The findings enabled the study to conclude that communities of practice influence significantly the performance of universities in Kenya.

5.3 Recommendations:

Recommendations on Communities of Practice:

The study established that due to limited facilities of ICT in some universities this hindered the formation of virtual communities of practice. The study recommends that universities should provide all the necessary resources to enable more participation of academic staff in Communities of practice. The study also recommends that universities should facilitate the formation of both virtual and face to face communities of practice. Universities also lacked policies on communities of practice. The study recommends that employee friendly policies should be put in place in order to create an environment which supports CoPs. When setting aside rooms for lecturers and offices, the universities should also have rooms for CoPs per departments.

5.4 Areas for further research:

It would be of further research interest to consider explicit knowledge sharing against organizational performance or to consider innovation as a mediating factor between tacit knowledge sharing (CoPs) and performance. Other research designs could be used other than descriptive research design to overcome the limitations of descriptive research design by providing the influence of knowledge sharing on organizational performance over time and to establish causal relationships.

REFERENCES

- [1] Allameh, S. M., and Abbas, S. K. (2010). The Relationship between Knowledge Management Practices And Innovation Level In Organizations: Case Study Of Sub-Companies of Selected Corporations In The City Of Esfahan, journal case studies,1(6, 123-134.
- [2] Allameh, S. M., Zare, S. M. and Davoodi, S. M .R. (2011). Examining the Impact of knowledge management Enablers on Knowledge Management Processes, Procedia Computer Science, 3, 1211-1223.
- [3] Akers, R.L. (1998). Social Learning and Social Structure: A General Theory of Crime and Deviance. Boston: Northeastern University Press.

- [4] Aswath, L. & Gupta, S. (2009). "Knowledge management tools and academic library Services". Retrieved September 18, 2015, from [Http://crl.du.ac.in/ical_09/papers/index_files/Icarv.pdf](http://crl.du.ac.in/ical_09/papers/index_files/Icarv.pdf) Bandura A. (1977). Self-efficacy, Toward a Unifying Theory of Behavioural Change. *Psychology Review Journal*, 84 (1),71-91.
- [5] Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W.H. Freeman & Company.
- [6] Berggren, C., Bergek, A., Bengtsson, L., Hobday, M. & Söderlund, J., (2011). *Knowledge Integration & innovation: Critical Challenges Facing International Technology-Based-Firms*. London: Oxford University Press.
- [7] Bhatt, G. D. (2009). Knowledge Management in organizations: examining the interaction Between technologies, techniques and people. *Journal of Knowledge Management*, 5(1), 68-75.
- [8] Bishop, J., Bouchlaghem, D., Glass, J., & Matsumoto, I. (2008): Identifying and scan [Electronic Version], Retrieved September 18, 2015, from: www.earthscan.co.uk
- [9] Bouchamma, Y. & Michard, C. (2011). Communities of practice with teaching Supervisors: a discussion of community members' experience: *Journal of Educational change* 12(1), 403-420.
- [10] Chumjit, S. (2012). Knowledge management in higher education in Thailand. ProQuest, UMI Dissertations Publishing.
- [11] Creswell, J.W. (2011). *Designing and Conducting Mixed Methods Research*. Los Angeles: SAGE Publications Inc.
- [12] Creswell, J. (2012). *Educational research: Planning, conducting, and evaluating Quantitative and qualitative research*. (3rd Ed.). Upper Saddle River, NJ: Pearson Education.
- [13] Creswell, W. J. (2013). *Research Designs: Qualitative, Quantitative and Mixed Methods R Approaches*. London: SAGE publishers.
- [14] Cooper, R. D., & Schindler, P. S. (2011). *Business Research Methods* (11th Ed.). New York, United States: McGraw-Hill Publishers.
- [15] Ciganek, A. P., Moa, E. and Srite, M. (2010). Organizational culture for knowledge management systems: a study of corporate users, *International Journal of Knowledge Management*, 4 (1), 1-16.
- [16] Dhamdher. N, S. (2015). Importance of Knowledge Management: In the Higher Educational Institutes. *Turkish Online Journal of Distance Education*, 16 (1), 162-183.
- [17] Docampo, D. (2011). On using the Shanghai ranking to assess the research performance of University systems. *Scientometrics*, 86(1), 77-92.
- [18] Duncan-Howell, J. (2007). *Online Communities of Practice and their Role in the Professional Development of Teachers*. Unpublished Master's Thesis University of Technology, Brisbane.
- [19] Du, R., Ai, S., & Ren, Y. (2007). Relationship between knowledge sharing and Performance: A survey in Xi'an China. *Expert systems with Applications*, 32(1), 38-46.
- [20] Easa, N. (2011). Knowledge creation process and innovation in Egyptian banking sector. University of Stirling-Business & Marketing Division, 1, 1-12.
- [21] Falk, I. (2002). Essence of Engagement: Social capital in workplace learning. In Castleton, G., Gerber, R., & Pillay, H., (Eds.), *Improving Workplace Learning: Emerging International Perspectives*.(pp 21-34). Thousand Oaks, CA: Sage
- [22] Golamreza, R., Seyyedi, H., and Damirchi, Q. V.(2012). The role of tacit knowledge in innovation of public management, *International journal of education and management innovation*,30, 123-156.
- [23] Godden,B.W.G.(2004). Sample Size Formulas, Retrieved on August 27, 2015 from <http://williamgodden.com>.
- [24] Habtamu M. (2011). Evaluation of knowledge sharing practice in commercial bank of Ethiopia. Master's thesis, Addis Ababa University, Addis Ababa, Ethiopia.
- [25] Hareya G. S. (2011). Knowledge sharing among employees of Mesfin Industrial Engineering. Master's Thesis, Addis Ababa University, Addis Ababa,

- [26] Hung, S.-Y., Durcikova, A., Lai, H.-M., & Lin, W.-M. (2011). The influence of intrinsic and extrinsic motivation on individuals' knowledge sharing behaviour. *International Journal of Human-Computer Studies*, 69(6), 415-427.
- [27] Holzmann, V. (2013). A meta-analysis of brokering knowledge in project management. *International Journal of Project Management*, 31(1), 2-13.
- [28] Jeng, D. L., and Dunk, N. (2013). Knowledge management enablers and knowledge creation in ERP system success, *International Journal of Electronic Business Management*, 1(11): 49-59.
- [29] Jeon, S., Kim, Y. & Koh, J. (2011). An integrative model for knowledge sharing in Communities-of-practice. *Journal of Knowledge Management*, 15(2), 251-269.
- [30] Joia, L.A., Lemos, B. (2010). Relevant factors for tacit knowledge transfer within organizations. *Journal of Knowledge Management*, 14(3), 410-427.
- [31] Jonsson, A., & Tell, F. (2013). Knowledge management, in Strannegard, L., & Styhre, A. (Eds.): *Management: An advanced introduction*. Lund: Student literature
- [32] Kaburu, J. K. & Embeywa E. H (2014).; An evaluation of quality of universities in Kenya during this Massification Era. *Mediterranean Journal of social Science*. 5(5), 345-349.
- [33] Lee, P., Gillespie, N., Mann, L., & Wearing, A. (2010). Leadership and trust: Their effect on knowledge sharing and team performance. *Management Learning*, 41(4), 473-491.
- [34] Li, R. M.(2012). Knowledge management, sharing and creation in developing countries' banking industries, *Advanced in Network and Communications*, 1 (1). 4-22
- [35] Minbaeva, D. (2013). Strategic HRM in building micro-foundations of organisational knowledge-based performance. *Human Resource Management Review*, 23(4), 378-390.
- [36] Mushi R. J. (2014) Intellectual Capital and Public University Libraries: a Knowledge Sharing Perspective. Unpublished thesis Victoria University of Wellington.
- [37] Paulin, D., and Suneson, K. (2012). Knowledge transfer, knowledge sharing and knowledge barriers – three blurry terms in knowledge management: *The Electronic Journal of Knowledge Management*, 10, (1): 81-91.
- [38] Thiga, M. M. (2012). Knowledge Management in Kenyan Higher Education: The Challenges of Dissemination. Unpublished Master's thesis Kabarak University, Nairobi. Kenya.
- [39] Schenkel, A. and Teigland, R. (2008) Improved organizational performance through communities of practice, *Journal of Knowledge Management*, 1(12), 106-118.
- [40] Sriwichai, P. Meksamoot, K. Chakpitak, N. Dahal K. & Jengjalean A. (2014). The Effectiveness of “Knowledge Management System” in Research Mentoring Using knowledge Engineering. *Journal of International Education Studies*, 7 (5) 25-38.
- [41] Waring, J., Currie, G., Crompton, A., & Bishop, S. (2013). An exploratory study of knowledge brokering in hospital settings: Facilitating knowledge sharing and learning for patient safety? *Social Science & Medicine*, 98, 79-86.
- [42] Wylie, N., Sturdy, A., & Wright, C. (2014). Change agency in occupational context: lessons for HRM. *Human Resource Management Journal*, 24(1), 95-110.
- [43] Wyk, J. (2014) Communities of practice in an academic library: a run on the wild side? Unpublished Msc Thesis University of Pretoria. South Africa.
- [44] Zanini, M. T., & Musante, M. (2013). Trust in the knowledge economy. *Journal of Business & Industrial Marketing*, 28(6), 487-493.
- [45] Zhao, J., Qi, Z., & Pablos, P.O. (2014). Enhancing enterprise training performance: Perspectives from knowledge transfer and integration. *Computers in Human Behaviour*, 30, 567–573.