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Role of Knowledge Management on Organizational Performance, Case of Jimma University in Ethiopia

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Abstract

This study explored role of knowledge management practice on the performance in higher education institute at Jimma University College of agriculture and Veterinary medicine in Ethiopia, considering academic staff perception. The study mainly employed quantitative descriptive research design using cross sectional design also used qualitative approach. For data collection, pre-tested self-administered structured questionnaire used. Considering 143 academic staff a population studied using census approach out of total 214 excluding those currently engaged in further study. Response rate was 81.8%. Descriptive and inferential statistics analysis employed utilizing STATA 14. Major finding includes: willingness of knowledge sharing and discovery was at high level. Knowledge sharing, capture, utilization as well as organizational and IT infrastructure support was at medium level. Chi-square ($\chi 2$) test indicated there is association between knowledge capture, sharing, utilization, organization support, IT support and performance. However ordinal logistic regression analysis revealed that only component knowledge utilization has positive and significant impact on performance. The study identified challenges in the practice of knowledge management such as inadequate fund, unsatisfactory documentation, inadequate support and cooperation consecutively. Thus college should spend more in knowledge management practice can improve innovation utilized in funding research, enhance team work, improving technology, motivate academic staff to retain and share knowledge.

Keywords: Knowledge Management, Knowledge Share, Performance, Practice, Process

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Introduction

Knowledge management (KM) is the systematic management of an organization's knowledge assets for creating value and meeting tactical & strategic requirements which consists of the initiatives, processes, strategies, and systems that sustain and enhance the storage, assessment, sharing, refinement, and creation of knowledge (Lakudkar and Patil, no date). The retained knowledge is crucial resource that helps an organization's practices and enhances decision making capability. Nu Graha et al (2019) noted KM is an important asset of any organization and as intellectual capital it is corner stone for gaining sustainable competitive edge in competition. KM is positively related to organizational performance (Liao and Wu, 2009). This implies KM practice is crucial due to the fact that its implementation successfully enhances performance of organization and also successful KM

process leads to enhance performance of employees ultimately enable to achieve organizational goal. The process is effectively practiced through support of KM infrastructure that includes convenient organizational culture and IT support. It harnesses together valuable assets primarily people and infrastructure with processes to use and share knowledge effectively ultimately helps organization to enhance performance. Organizational factors affect KM process are enabler's includes organization culture and technology along with other factors (Lee, 2017).

The common most widely used model of KM process consist major elements knowledge creation, knowledge capture, knowledge organization, knowledge storage, knowledge dissemination, knowledge application (Mostert and Snyman, 2007). As a process it involves creation, store, disseminate, updating and usage of knowledge toward achieving performance but there is precondition of implementation of KM which is to understand and develop infrastructural elements required to support the creation and management of knowledge that facilitates process. Thus KM has two aspects the process and infrastructure which need to be managed and used to improve performance of an organization. knowledge considered as vital asset for organization and understanding of KM role in organizational performance is essential in which this paper tried to explore using empirical study that may contribute by highlighting insights of KM practices related to knowledge creation, sharing, and usage in order to enhance organizational performance also their individual influence can be understood on performance where sufficiently not investigated at university level particularly in Ethiopian context. This is somewhat consistent with the suggestion of Al-Kurdi et al (2018) noted that there are limited contributions in understanding knowledge sharing in higher education institutes when compared with other sectors. Thus this study aimed to explore role of knowledge management practice on the performance based on the perception of academic staffs at Jimma University College of Agriculture and veterinary medicine (JUCAVM) also provides insights related to the effects of KM on performance, recommendation to the practice of KM. The findings of this study could help organizations, policy makers that apply KM in administering their knowledge for enhancing performance in higher education institute. The study may offer theoretical background to knowledge management and related issues

Statement of the Problem

Ali Zwain et al (2012) noted organizations are becoming knowledge-driven in order to have competitive advantage. Higher education institute need to generate, accrue and utilize the appropriate knowledge to become more competent and to enhance innovation and growth through effective KM implementation. Most studies undertaken in KM process and infrastructure focus on profit organization. Few studies applied to higher education institutions in public sector, especially in universities (Wladmir et al, 2018). Ethiopian higher education institute are knowledge based institute and their success depend on human capital which implies KM practice needs attention to understand its status and contribution to the performance. Research focus on KM practice at university level in Ethiopian context, mixed findings was reported on successful implementation of KM considering various specialized colleges. This paper argues that at university level KM practice may not provide better insight at college level because the practice of KM from one college might be different from another one. This suggestion is partly concurrent with finding of Asefa (2018) indicated that significant difference on KM practices between academic staff of Unity and St. Mary's Universities in Ethiopia, particularly in knowledge sharing and utilization practices along with others. In Nigerian context study considering six universities, Ohiorenoya and Eboreime (2014) concluded that KM was effective in all universities except Benson Idahosa University. This enables to conclude that effectiveness of KM practice is different among universities or colleges.

At somewhat in contrary Nawaz et al (2020) concluded that there are no significant differences among the higher education institutions regarding KM process. There is an inconsistence finding in prior studies.. KM process is still in the evolution stage higher education (Valarmathi and Vasanth, 2020). Mostly KM considered in higher education is still in introductory, intermediate which is in progress (Zinzou and Doctor, 2020). This implies examining KM practice at college level is relevant that provides insight on major improvement in the functioning and operations required. Experience shows that is there is no adequate understanding on KM process and

infrastructure support on the performance at JUCAVM which affects efficiency and effectiveness that might be KM practice is not well developed and this inturn could be due to inadequate institutional support and mentorship program or other ineffective KM process. There is lack of a knowledge sharing culture in higher education (Ramjeawon and Rowley, 2017). Problem for KM effectiveness results from organizational environment that includes technologies and organizational practices (Mironova, 2012 p.137). Thus this study was focused to explore role of KM practice on the performance at JUCAVM which is based on the perception of academic staffs

Thus in order to meet the objective of the study the following research questions established

- What is the status of knowledge management practice at JUCAVM?
- What is the relationship among dimensions of Knowledge management practice with performance?
- What are the challenges in implementation of knowledge management practice at JUCAVM?

Literature Review

Concept of Knowledge Management

Knowledge management (KM) is process of capturing, developing, sharing, and effectively using organizational knowledge. As process KM transforms individual knowledge into organizational knowledge (Rasula et al, 2012). Process of KM incorporates knowledge discovery and capture, sharing, and utilization. The KM components indicated in figure 1:

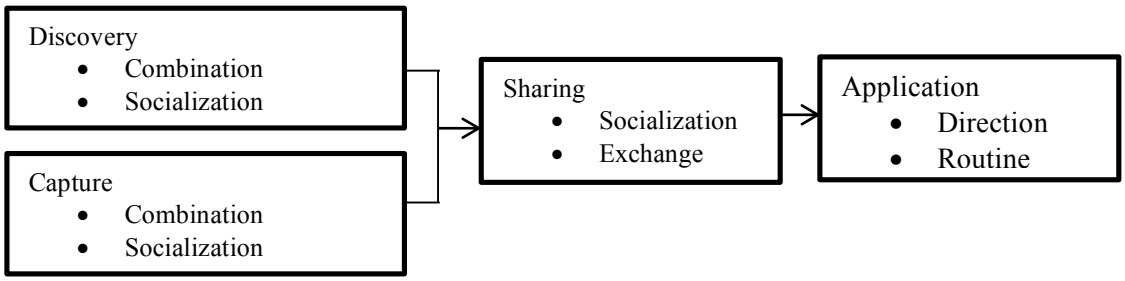

Fig 1 Knowledge management process
Source: Becerra-Fernandez and Sabherwal(2015)

KM helps organization to find, collect, select, organize, disseminate and transfer information and expertise (Kumar, no date). Intellectual component can be tacit and explicit knowledge (Servin, 2005; Becerra-Fernandez and Sabherwal, 2015). Tacit knowledge exists in human mind more likely to be personal. Explicit knowledge exists in the form of document or recorded and readily available for application. In the process, knowledge discovery is developing tacit/explicit knowledge from data and information or combining of prior knowledge. The main source of knowledge generation is human efforts developed through education and research activities (Baptista et al,2017). Explicit knowledge found in the form of reports, articles, manuals, patents, pictures, images, video, sound, software whereas tacit knowledge is experience and action usually shared through highly interactive conversation, shared experience includes best practice, management skills, technologies, customer, competitor intelligence and market (Hajamoohideen and Jeyanthi 2017)

Knowledge capture is process of retrieving accrued knowledge that resides within people, artifacts, or entities. It is creating and forming knowledge (Alrubaiee et al, 2015). Knowledge share is exchange of either tacit or explicit knowledge through socialization or exchange Knowledge application. Knowledge share helps organizations improve their performance, as employees generate ideas that can propel innovations (Al Kashari, and Al Taheri, 2019 p 36). In educational institute KM can transform organizational new levels of effectiveness, efficiency, and scope of operation, using IT support available to users for effective productivity. There is link between KM,

organizational effectiveness and competitive advantage (Finn, 2013). As cited by Sharma and Kaur (2016) as well as Becerra-Fernandez and Sabherwal (2010) , Nonaka and Takeuchi stated four ways of managing knowledge that includes socialization, externalization, internalization and combination which is termed as SECI Model. In socialization tacit knowledge is converted into tacit knowledge through discussions, meetings, observation, practice etc. In case of externalization tacit knowledge is converted into explicit knowledge and availing in documents, manuals. In combination, explicit knowledge are converted into another form of explicit knowledge whereas in internalization explicit knowledge is converted into tacit knowledge by individuals.

Knowledge Management in Higher Education

In higher education institute academic staffs are the most crucial pillars due to the fact that primarily involved in teaching, research tasks and community service. KM Process help to identify, select, organize, disseminate, transfer information and structuring enables problem-solving, dynamic learning, strategic planning, decision-making leverage value of intellectual capital through reuse (Shrivastav, 2016). KM is useful for building knowledge, for problem solving and decision making purpose including quality and service improvement (Dhamdhere, 2015). The author suggested that knowledge specialists (librarians and KM Committee) need to capture different skills act collaboratively and secure data as well as to have databases of tacit and explicit knowledge year wise to colleges then report it to university. KM shortens communication links, enhance capability and awareness work flow as a result this situation lead to decrease costs (Khoualdi & Saleh., 2015). KM improves educational process, services, e-learning etc. all contribute to construct knowledge (Al Ahmar et al, 2014.). As cited by Wing et al, (2011), Rodrigues & Pai (2005) noted that knowledge sharing, people, culture, storage with IT support regarded as important from teachers perspective. Success depends on trust, learning from partner, and effectively managing creation of knowledge relevant to both parties. In academic setting experienced professors are good source of knowledge but knowledge sharing depends on willingness of individual (Hajric, 2018). Thus in academic setting academics staffs intention investigated.

Linkage of KM Process and Performance

In general KM process includes Knowledge creation, knowledge share, knowledge retention, knowledge application. Mansour and Ahmad (2020) established significant relationship between KM and creativity as well as innovation. However the author did not revealed individual KM components relation with innovation. In the context of small business knowledge sharing and application impact on innovativeness are statistically significant positive effect (Samir, 2020). Effective KM is critical to the growth, performance, and survival of organizations (Cletus, 2019) Mazhar and Saeed (2018) revealed positive and significant relationship between KM and its dimensions include process, leadership, culture, technology and measurement with creativity. To some extent this conclusion is not consistent with notion of Al Ahmar et al (2014) noted that the stronger KM tends to improve education organization, but increase was not significant. Ohiorenoya and Eboreime (2014) established positive relationship of KM with overall performance, innovation, growth and competitive advantage. Ngoc-Tan and Gregar (2018) revealed that positive association between knowledge creation and innovation (technical and administrative) in academic setting. KM can transform organizational new levels of effectiveness, efficiency, and scope of operation, using advanced technology, data and information made available to users for effective productivity (Dhamdhere, 2015). Culture of collaboration contributes to creation of new knowledge by sharing experiences and knowledge among employees and by assisting others in performing tasks (Ali et al, 2015).

Knowledge share explicit or tacit knowledge is communicated to other individuals through writing research papers, delivering lecture, in dialogue and participating in community practice (Khoualdi & Saleh., 2015). The sharing and utilization of tacit knowledge requires high degrees of involvement of both knowledge holder and learner (Law and Chan, 2016). The goal of knowledge sharing in a firm is to facilitate knowledge transfer, retain knowledge, and to speed the knowledge adoption (R. Du. et al., 2007). The author evidenced that expenditure on collaborative R&D (research

performed by team) has better contributions to performance. Employees' intention to share and consequently sharing of tacit knowledge has direct positive impacts on productivity also employees' innovative contributions increased as a result of exposure to others' knowledge, expertise, and experiences (Torabi and El-Den, 2017). Increased job performance and satisfaction as well as proper compensation are crucial in improving knowledge sharing (Vincent, 2017). Knowledge sharing improve work performance through creativity is apparently one of the most important parts (Lee, 2018). Ngoc-Tan and Gregar (2018) established inverse relationship between knowledge dissemination and administrative innovation in academic setting

Knowledge retention concerned with important intellectual asset remain in organization through retention strategy reward structures, mentoring, interviews, and utilizing knowledge from retirees or avail in documents using portals, own website or in, training and other means. Thus in higher education institute there should be strategy to retain know how that helps them in achieving competitive advantage.

Knowledge utilization is to make knowledge active and more appropriate for the organization in creating value. Extensive review of Al-Kurdi et al (2018) indicated that decent knowledge flow in working groups and collaborative societies of faculty members within and across university department helps enhancing training, research skill, avoid scattered research. Ngoc-Tan and Gregar (2018) revealed that positive association between knowledge utilization and innovation both administrative and technical. M. Kinyua et al (2015) concluded that knowledge application is statistically significant and has positive influence on performance. KM application increases knowledge and information of employees consequently increases organization's productivity (Zargar and Rezaee, 2013). Knowledge sharing has significant effect on KM utilization in private university context (Zoubi, 2011).

Organization and IT Support

Km processes need to be supported by conducive organization culture and IT system. The process need to provide systems that support work process and speed, information and data (Hajric, 2018). Cheng et al (no date) suggested that importance of providing the "right" incentive system and understanding individual's expectation towards knowledge-sharing. Employees should be rewarded for their cooperation and sharing of experience (Awni, 2017). Rewarding effective institutional knowledge contributes to facilitate knowledge sharing. Strategies that include convenient culture and reward are crucial factors that influence knowledge sharing practice to improve employee performance (Vincent, 2017). The organizational culture impacts the way people interact, the context knowledge is created, resistance to certain changes, and ultimately the way they share or do not share knowledge (Kumar, no date). This implies understanding value of KM practices, management support for KM at all levels, incentives for knowledge sharing, and encouragement of interaction for creation and sharing of knowledge is crucial. An organizational factor affect KM process includes organization culture and technology along with other factors (Lee, 2017). As cited by Becerra-Fernandez and Sabherwal (2015), Armbrecht et al. (2001) stated that KM cannot survive by itself it involves people and communication, employee favoring policies, updated technologies and a change in the culture of an organization (Bordeianu, 2015).

IT system support in transfer of all knowledge types and providing access to data and information (Hajric, 2018). IT facilitates process of storage and distribution of knowledge (Dominguez and Fernando, 2014). Review of Baptista et al (2017) expressed different enabling factors facilitate KM practice includes culture along with others, IT system facilitates KM process. Email and portals as KM technology are web-based applications or websites provides information across an entire organization (Igbinovia and Ikenwe, 2017). Paez-Logreira (2016) expressed that ICT can be employed to organize and enhance KM such as university research groups. Application of KM requires combination of organizational culture supports exchange and disseminates knowledge, including IT infrastructure support KM processe (Al Ahmar et al, 2014). Mohamad and Ahmad (2012) established positive significant relationship between information technology and KM

practices. In academic setting the institutes need to make sure that suitable environment and IT implementation system exist to achieve KM practice investigated in Ethiopia at JUCAVM

Challenges in KM Practice

As cited by Igbinovia and Ikenwe (2017), Frost (2012) gave some KM casual failures include: lack of performance indicators and measurable benefit, inadequate management support , improper planning, design, coordination, and evaluation, inadequate skill, problems with organizational culture and organizational structure. Vincent (2017) reported challenges such as absence of support, negative attitude, limited time, and technology change; depend of external expertise, few training and seminar, lack employee trust in which leads to low morale and lack of creativity among employee. poor investment contributed to create difficulty in KM implementation (Haradhan, 2017). Lack of IT support, trust and transparency in communicating benefits and values of knowledge sharing practices, lack of transparent rewards and recognition systems that motivate employees to share are KM barriers (Hajamoohideen and Jeyanthi, 2017). Fear of plagiarism, lack of awareness of tacit knowledge suggested and solution is to organize training programme to boost their tacit knowledge however infrastructures support to harness tacit knowledge (Enakrire et al, 2012). Another challenge is knowledge knowledge hoarding among employees could impede competitiveness of an organization (Shorunke, et al .2014).

Measurement of Performance

Successful KM process enhances business performance and employee satisfaction (Khanal and Raj, 2017). Evaluation of KM performance has become increasingly to enhance their performance and competitiveness (Nasser et al, 2012). Hajamoohideen and Jeyanthi (2017) suggested that KM practice support knowledge-sharing culture leads to increased productivity, improved cycle times for business processes, and innovation. Effective KM practice can improve creativity of employees' leads to innovation helps for growth success. Khoualdi & Saleh (2015) indicated that highly positive significant relation between job satisfaction and each process of the KM. Thus in this study subjective performance considered to determine the role of KM in the performance of organization, in academic setting practice may enable to achieve innovation, programs and academic activities such as research, publication and community service

Conceptual Framework

In this study as shown in figure 1 conceptual framework developed based on considering independent variable of KM process and KM infrastructure from the literature discussed that includes most common variables that guided the study. Thus in academic setting to investigate role of KM on performance to determine their association, the dependent variable is subjective performance includes enhanced innovation, achieve academic program and activity. Ordered logit regression model is developed to test each individual KM process, organizational and IT support contribution for achievement of organizational performance. The following model will be used to explain data: Logit (Perfo)Y = α + β1K cap/ret +β2 Kshar + +β3Kutiliz+ β4org suppo+ β5IT + ε Where perfo= is the performance , α is cutoff hold K cap/ret=is knowledge capture, Kshar =knowledge sharing, Kutiliz=knowledge utilization, β4org supp= organizational support, and β5IT= IT support βj= (j = 1, 2, 3, 4,5) are logit regression coefficients to be estimated and ε are random errors which are assumed to be independent which includes other factors which influence Y other than explanatory variables considered in this study that enable to determine role of KM practice on performance.

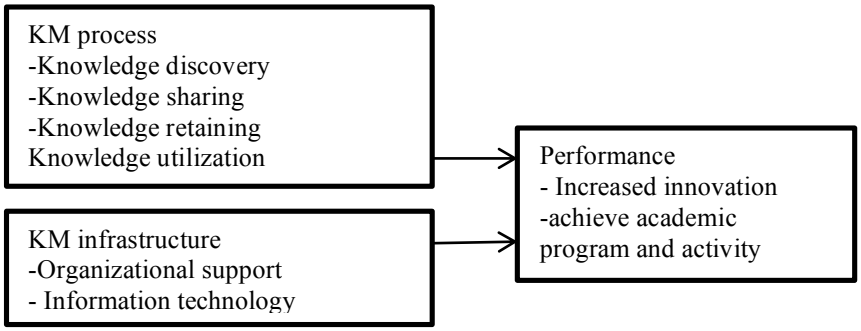

Fig2 Conceptual framework

Source: Adapted from (Khoualdi & Saleh., 2015; M. Kinyua et al, 2015; Baptista et al 2017; Khanal and Raj Poudel, 2017; Mazhar and Saeed , 2018; Mansour and Ahmad ,2020)

Research Methodology

Research Design

This study conducted to examine role of KM on performance at higher education considering JUCAVM in 2020. Mainly quantitative descriptive survey research was employed using cross-sectional design however qualitative approach also used. Qualitative and descriptive research methods have been very common procedures in social science and others (Nassaji, 2015 p.129; Islam, Hunt, Jantan, Hashim, & Chong, 2020). This design enables to describe various KM process and infrastructure dimensions in current situation. Researcher pursued to describe current situations and attempted to explain casual relationships. Unit of observation was academic staff from 7 departments' namely Veterinary medicine, Horticulture and Plant Science Agricultural Economics, Rural development, Animal science, Natural Resource Management, Post-Harvest Management.

Population and Sampling Technique

Target population for this study was individual academic staff from the college. Human resource management office record indicates that total academic staffs were 214 where 71 are engaged in further study not available in the college. Thus target population consists 143 academic staffs from departments and studied using census approach which provides valuable information on the entire population in which available target academic staffs

Data Collection, Type and Source of Data

Both primary and secondary sources of data used for the study. Primary data obtained using structured self-administered questionnaire comprises both open and closed end questions. The secondary data include information that are obtained from college's human resource office, eBook, journals, unpublished literature, websites and literatures in thesis, which are relevant to the KM practice supplement the analysis and theoretical background. In order to gather data, a 35 item questionnaire that has 7 parts prepared using Likert scale enable to measure KM practice including open ended question to gather qualitative data. Questionnaires distributed and collected by researcher in which communicating respondent on multiple various times help to increase response rate. The response rate was 117 (81.8%) which is considered valid for analysis

Method of Data Analysis

In this study, mainly quantitative data analysis methods employed which was performed using STATA version 14. For determining status of KM practice descriptive statistical techniques, such as, mean, standard deviation and percentage employed. In interpreting the results for the likert questions mean scores less than 2.45 represents respondents disagree; scores that range from 2.45-3.49 shows

neutral and greater than 3.49 reveals agreement among respondents on the KM practice considered (Courtney et al, 2013). The descriptive statistics is a tool in which it explains and gives a distinct understanding of the features of certain data set (Samir, 2020 p.8). Regarding exploring linkages between variables related to KM process, KM infrastructure and performance, inferential statistics such as Chi square test and ordinal logit regression analysis was employed

Validity and Reliability Test

For enhancing validity of instrument, questionnaire was pretested considering some academic staffs, items that were not appropriate for measuring variables altered or avoided based on suggestion forwarded. The test enables to ensure structure of questions was accurate and clear (Alolayyan et al, 2020 p 8). Reliability was evaluated using Cronbachs alpha that measures internal consistency and establishes if items constructed were within a scale measure. As cited by van Niekerk, M (2005), Nunnally (1970) suggests that a reliability coefficient of 0.70 or higher is acceptable. Table 1 provides a summary of the reliability analysis. Thus alpha value meets suggested the cutoff

Table 1 Summary of reliability analysis

Variable	Number of items	Cronobach's Alpha
KM practice in the college	7	0.7137
Knowledge capture and retention consistency	4	0.7508
Knowledge sharing practice	5	0.7541
Knowledge application or usage	3	0.8379
Organization and IT support	8	0.7820
Performance	2	0.9122

Result and Discussion

The frequency distribution related to demographic characteristics is shown in Table 2. 12.82 % were from department of post-harvest, while 11.79 % were from natural resource department, majority of respondents were from Horticulture and Plant science followed by Veterinary medicine accounts 20.51% and 17.95% respectively. Agricultural Economics accounts 15.38% and Rural Development 8.55% whereas Animal Science constitutes 12.82%. With respect to gender, males constitute 91.45%, females 8.55%. Regarding level of education, first degree constitutes 4.27%, Masters/DVM 73.50% and Doctorate 26.50%. With regard to work experience, 19.66 % of respondents have served 5 years of experience, 46.15 % and 23.8% represents 6-10 years and 11-15 years' experience respectively and 11.11% of respondents for 16 years or above served

Table 2 Profile of the Respondents

Respondents characteristics		frequency	percentage
Department	post-harvest	15	12.82
	Natural resource management	14	11.79
	Horticulture and Plant science	24	20.51
	Agricultural Economics	18	15.38
	Rural Development	10	8.55
	Animal Science	15	12.82
	Veterinary medicine	21	17.95
Gender	Male	110	91.45
	Female	7	8.55
Level of education	Degree	4.27	4.27
	Masters/DVM	69.23	73.50
	Doctorate	31	26.50
Work experience	1-5years	23	19.66
	6-10years	54	46.15
	11-15 years	27	23.8
	16years and above	13	11.11

Knowledge Management Practice

Table 3 illustrates the knowledge practice in the college. The mean score 4.11 ensures that academic staffs were willing to share their knowledge either it can be tacit or explicit knowledge. Academic staffs' are willing to share knowledge and KM practice enable them in identifying contextual and know- how for effectively using knowledge to improve the performance at high level that is through seminar / symposium / annual research forum, Jimma university journal links, conference/training experience. Moreover staffs publish their research on annual research document, have few linkages with domestic and international universities which facilitate knowledge sharing. The willingness of academic staff is important in success of knowledge utilization. Knowledge sharing depends on willingness of the individual (Hajric, 2018).

Table 3: View of Staffs on Knowledge Management Practice

Item	Mean	Std.
staffs willing to share knowledge	4.11	.756
identifying staffs' know how makes it easy-- discovery	3.67	.86
Library avail tacit and explicit knowledge (research, project works)	3.57	.94
Knowledge sharing practice in the college is rewarded (monetary)	3.11	.980
Recognition is available for knowledge sharing encouragement	3.20	.930
Vital skills and experience from those who leave the college	3.09	.737
good culture that enhance knowledge sharing	3.32	.763

In addition in two items measurement the mean score 3.67 and 3.57 revealed that the discovery of knowledge is simple at high level due to knowledge management practice and documentation of knowledge in library is satisfactory related to research and project work. Documentation enables the college to retain crucial skill, experience and knowledge. However open ended question result indicated unsatisfactory well organized documentation exist that is due to not storing at center and creating awareness so that each academic staff can access at the right time and place. This situation may affect knowledge sharing. Mean score below average 3.5 ensures that vital skill and experience from academic staff were obtained at medium level. It indicates there were some challenges to share knowledge which is evidenced that due to implementation of incentive program. The existence of creating good culture to transfer individual knowledge to collective knowledge at medium level which implies retaining implicit knowledge unsatisfactory that require improvement through more work shop, seminar discussion, dialogue, public lecture, meeting etc.

This implies the initiation and motivation of academic staff to transfer knowledge is unsatisfactory so that JUCAVM unable to retain potential tacit knowledge that require improvement in this regard. This finding is consistent with notion of KM barriers includes lack of transparent rewards and recognition systems (Shorunke et al .2014). As cited by Becerra-Fernandez and Sabherwal (2015), Armbrecht et al (2001) suggested that it is crucial to consider incentives that reward knowledge sharing, and encouragement of interaction for the creation and sharing also Cheng et al (no date) noted that right incentive facilitate knowledge sharing behavior. Employees should be rewarded for their cooperation and sharing of experience Awni (2017). College culture facilitates a learning environment at medium level due to management keep academic staff supported at all levels and interacted at medium level leads to some extent limit knowledge share initiatives /willingness among academic staffs. This suggestion agree with expression that organizational factors affect the KM process more specifically organization culture and technology along with other factors (Lee, 2017).

Knowledge Management Prosess

View of staffs on components of knowledge capture/retention, sharing and utilization at the college summarized in table 4. The college is performing well at moderate level in knowledge documentation before departure of retiredaffs staff and also in capturing explicit as well as implicit knowledge of best practices/ skill in which the mean score accounts 3.15 and 3.49 respectively. But retention of

knowledge is almost at high level due to well existence of the linkage of universities, peer and well knowledge utilization. This paper argues that even if improvement is required, due to external linkage the college is well performed in capacity building to gain knowledge enable to enhances knowledge utilization among st through research opportunities, obtain international experiences, education and teaching experience. This suggestion is consistent with notion of the development of faculty members contributes to the construction of knowledge (Al Ahmar et al, 2014).

Table 4 View of staffs on Knowledge management process components at the college

Item	Mean	Std.
Knowledge capture and retention		
Knowledge is documented from staff before departure	3.15	.83
Capture explicit and implicit knowledge of best practices/ skill	3.49	.83
Practice encourages participation across department in team	3.71	.86
Encourages staff to participate in communities based practice	4.05	.85
Knowledge sharing		
Academic staffs consistently share knowledge to their colleagues	3.15	.677
Skillful staff share knowledge to every academic staff if they need	3.35	.91
Knowledge sharing among academic staff in the college is excellent	3.27	.80
Know-how and skills effectively transferred to junior staff	3.03	.76
knowledge share with other university staff due to practice of KM	3.18	.85
Knowledge utilization		
working environment is conducive for any usage of information	3.49	.85
Practice offer best know how/practice for efficient use of knowledge	3.48	.83
every academic staff can utilize knowledge when they need	3.44	.75

Above average mean score 3.5 in two items implies KM practice encourages staffs to participate in community service and also encourages participation across department level. Management creates good culture in which academic staffs' participation at annual research session, workshops, courses and conferences facilitate captures and retention of knowledge. in the KM practice the result is positive in terms of developing strategic plan for instance to open program, research and publications, international linkage enable to integrate knowledge and have capability to influence on performance. However open ended question concluded due to inadequate fund to research only limited proposals accepted which affect negatively team work. In this regard enhancing team approach is required which is way of performing task that provides exposure to new knowledge and opportunity to learn through shared discussions and dialogues. This suggestion is consistent with the notion of culture of collaboration contributes to the creation of new knowledge by sharing experiences and knowledge (Ali et al, 2015).

According to summary of analysis, mean scored reported for the Knowledge sharing practice showed that a moderate score ranging from 3.05 to 3.35. Sharing often occurs within and among diverse disciplines whose members may communicate and share their expertise and practices at moderate level. This situation affects academic staff contribution in novelty of academic and related activity. Thus knowledge sharing require improvement through more workshops, public lecture, dialogue, enhance team work which helps to improve performance. This suggestion is consistent with notion of knowledge share helps organizations improve their performance, as employees generate ideas that can propel innovations (Al Kashari, and Al Taheri, 2019 p 36). Knowledge sharing improves performance, among which creativity is most important parts (Lee, 2018). Sharing experiences to junior staffs in terms of consistent and at any time as per their need were at medium level in which inadequate support and high academic load of staff exist due to many programs opened lead to have less time for sharing. This finding is consistent with suggestion of Vincent (2017 reported that limited time is among some challenge in knowledge sharing. This implies Knowledge and skills moderately integrated within college in KM practices so that this situation at some time affects the level of performance due to academic staffs' less learning achievement and ultimately

limit enhancing producing new ideas, skills and practices. Effectiveness of knowledge transferring and sharing with other university staff was at medium level but is almost at high level. KM practice enable academic staffs to share their knowledge or training expertise with other university this leads to conclude in terms of new knowledge and learning is somewhat satisfactory which requires improvement

KM practice enable in offering knowledge for efficient usage of information and utilization of knowledge was at moderate level where mean score accounts 3.48 and 3.44 respectively. One reason is due to limited knowledge sharing This condition might affect the productivity and contribution to the new learning to enhance creativity. Knowledge utilization permits to generate new knowledge and the ability to benefit from knowledge base and to react effectively to environmental changes at moderate level. Creating convenient environment with system support can be solution that inspires academic staff to share tacit knowledge. This suggestion somewhat agree with notion of culture of collaboration contributes to creation of new knowledge by sharing experience and knowledge also by assisting others tasks (Ali et al, 2015) Moreover mean score 3.49 indicates that the working environment is conducive for usage of information at medium level but close to high level in the sense that location, office supplies, pleasant surrounding and internet access as well as participation supports KM practice at moderate level. college culture in creating conducive environment specifically for usage of information in providing simple physical facilities and appropriate leadership styles was at medium level that may affects to some extent knowledge utilization. This suggestion is partly consistent with conclusion one of the challenge in KM effectiveness is organizational environment includes organizational practices (Mironova, 2012 p.137).

Organization and IT Support

According to table 5 academic staff perceived that organizational support in the KM practice was at moderate level where mean score accounts below 3.5 more specifically on measures of support given to seniors, empowerment to make decision, encouraging team approach as well as coordination and allocation of fund for undertaking projects. This is proved through open end question where academic staffs perceived that insufficient support provided to senior experts in sharing knowledge using training, seminars, work shop, discussions and collaborative works. Staff involvement in learning, decision making, problem solving is at medium level. This situation needs improvement through increasing more interaction so that staffs learning arise from existing knowledge as a result improves their creativity. This conclusion agree with the expression of knowledge flow in working groups and collaborative societies of faculty members within and across university helps enhancing training and research also consistent with notion collaboration contributes to create new knowledge (Al-Kurdi et al, 2018; Ali Haghighi et al , 2015). Coordination and fund support in KM practice is at moderate level that influences learning through collaborative work. These challenges at some time may affect KM practice ultimately the competitiveness of college. This remark agree with the suggestion forwarded by Vincent (2017) absence of support create problems in knowledge sharing moreover as cited by Igbinovia and Ikenwe (2017), Frost (2012) mentioned that inadequate management support, coordination were challenges in the implementation of KM.

Table 5 View of staffs on organization and IT support

Item	Mean	Std.
professors/senior experts supported to transfer tacit and explicit knowledge	3.26	.73
Staffs often empowered to make decisions to their academic activities	3.48	.97
Team-oriented approach throughout the college	3.2	.76
Projects by multiple departments are well coordinated and funded	3.13	.94
Internet and other facilities effectively enable to obtain knowledge	3.92	.94
Information, reports, or documents available in center and accessible	3.45	.85
Data on databases or deposited in other means regularly updated	3.16	.71
Adequate training for the use of KM system and tools	3.0	.81

IT system was another important parameter that facilities KM practice. Colleges are knowledge based organization in which academic activities require the availability of vast information center database and ease accessibility of knowledge. Regarding on availability of information at center including accessibility, consistence update and obtaining training on KM system and tools was at moderate level where mean score was below average 3.5. This situation limits staffs to obtain relevant information at the right time and place which affects particularly knowledge utilization and sharing. Effective reaching in the service was at medium level which affects learning from existing knowledge that may specifically limit knowledge sharing and appraisal. The college ability to create learning and knowledge transfer is at moderate level which affects performance. Thus investing is required in enhancing advanced IT facility. IT facilitate process of storage and distribution of knowledge (Dominguez and Fernando, 2017). However academic staffs perceived that at high level internet and other facilities effectively enable to obtain knowledge in which mean score is 3.92. This situation enable to have system required for guaranteeing the success of practice in terms of speed and effective communication, availing rules and regulation, policy, guidelines and the likes

Performance

As shown in table 6, academic staffs perceived that existing KM practice enable to achieve performance. The study found that mean score above 3.5 that is there is an agreement on determinants for performance exist at the college due to the practice of KM and this situation contributed to enhance innovation, enables to accomplish programs and activities related to research, publication, teaching learning process successfully

Table 6 View on organization performance

Item	Mean	Std.
KM practice enhanced innovativeness and growth to the college	3.60	.85
Overall KM practice enabled to achieve programs and academic activities successfully (research, publication and others)	3.74	.83

Challenges in the Practice of KM

According to table 7, only eighty three (83) academic staffs suggested various challenges using open ended question so that the researcher summarized it into four themes. Major challenge was inadequate fund for undertaking research and incurring materials followed by unsatisfactory documentation which accounts 37% and 26.51% respectively. allocation of inadequate funds limit acceptance of proposed research which affects team work of senior experts and juniors ultimately limits knowledge sharing and learning. This finding agrees with notion of poor investment contributed to create difficulty in KM implementation (Haradhan, 2017). Medium interaction exist among colleagues implies inadequate tacit knowledge shared that limit knowledge usage that require improvement which is crucial to attain better learning helps to enhance innovation. knowledge sharing is related to performance and evidenced that expenditure on collaborative R&D (research performed by team) has better contributions to performance (R. Du et al, 2007). This suggestion is somewhat concurrent with the notion of knowledge sharing and utilization of tacit knowledge requires high degrees of involvement of both knowledge holder and learner (Law and Chan, 2016; Islam, Jantan, Khan, Rahman, & Monshi, 2018). Moreover the suggestion agree with notion of knowledge creation is base for innovative activity (Dhamdhere, 2015).

Thus the college needs to arrange mechanism to enhance the interaction through increasing seminar, workshop, external linkage, problem solving approach in team. 19.28% of staffs' suggested insufficient support to seniors to transfer knowledge and 16.87% of them noted that inadequate cooperation among staffs'. This implies encouragement and arrangement for KM sharing in terms of recognition and incentive is inadequate as well as team approach in works is deteriorating which affects performance.This requires enhancement of leaders commitment at all level. Culture of support to senior experts is inadequate that means effective implicit knowledge sharing was not achieved due to very limited opportunity created such as annual research forum, public lecture, discussion, training

and other means. The other reason is inadequate time due to high work load and inadequate incentive so that existing sharing knowledge practice did not add reward. The fourth challenge was insufficient cooperation among staffs/departments which indicates team approach is deteriorating to undertake activities which also affects KM practice.

Table 7 Perceived challenges in the implementation of KM

Suggested challenges	Freq.	Per.
Inadequate cooperation among members of staff	14	16.87
Unsatisfactory in well-organized documentation practice	22	26.51
Insufficient support to seniors to share knowledge/ those leave /system	16	19.28
Insufficient fund limited for undertaking research	31	37.35

Role of KM Practice on Performance

The study examined association between dependent variables and each independent variable considered using chi2 test static. As shown in table 8 because of chi-squared value is significant ($p<0.05$), there is a relationship between the variables considered: explicit and implicit knowledge capture, knowledge share, utilization of knowledge, organization support as well as IT support with performance (innovation)

Table 8 Chi square test shows association of each independent variables and performance

Category	Result	p value
captures EK and IK of best practices/ skill	Pearson chi2(12) = 25.7697	Pr = 0.012
knowledge sharing	Pearson chi2 (16)= 28.2170	Pr = 0.005
staff knowledge utilization	Pearson chi2(12) = 32.0267	Pr = 0.001
Organization support	Pearson chi2(12) = 25.3948	Pr = 0.003
IT support	Pearson chi2(16) = 37.4001	Pr = 0.000

Ordered logit model was utilized to determine the relationship between ordinal dependent and independent variable. This research explores effect of knowledge capture and retention, knowledge sharing, knowledge application, organizational support, internet and facility on performance. In this study for the purpose of interpretation odd ratio in logistic regression employed obtained by exponentiating ordered logit coefficients Odds ratio (OR) represent the odds of dependent variable when explanatory variable increases by 1 unit and when the OR > 1 then the odds of dependent variable increases and when OR < 1 then odds of dependent variable decreases the logit coefficients.

Table 9 the odds ratio

						Number of obs. = 117	
						LR chi2(5) = 26.26	
						Prob > chi2 = 0.0001	
Log likelihood = -130.64949						Pseudo R2 =0.0913	
Enhancing perf.sig	Coef	Odds Ratio	Std. Err.	z	P>|z|	[95% Conf. Interval]	
Capture EK and IK	|.1111374	1.117548	.292625	0.42	0.671	.6689336	1.867023
Knowledge sharing	|-.3049774	.73714	.2177263	-1.03	0.302	.4131747	1.315123
Knowledge utilizat	|.8928616	2.442108	.7614417	2.86	0.004	1.325449	.499527
Organizatio support	|.364534	1.439843	.4583958	1.15	0.252	.7714756	2.68725
IT support	|.3857929	1.47078	.3217839	1.76	0.078	.9578952	2.258278

In Table 9 the likelihood ratio chi-square of 26.26 with a p-value of 0.0001 ($P < 0.05$) indicates that the model is fit, this lead to conclude that at least one of the coefficients in the model is not equal to zero. Except knowledge sharing in all predictors odds ratio was greater than 1. OR KM practice in enhanced innovation at the college after retaining tacit and explicit knowledge =1.11 (p=0.671), organization support=1.44 (p=0.252), improvement IT support= 1.47 (p=0.07), however statistically insignificant; the odds of performance in innovation increased by a factor of 1.11 for every positive

improvement of capturing tacit and explicit knowledge scale controlling other explanatory variable in the model.

In addition innovation increased by a factor of 1.44 for every positive improvement of culture scale controlling other explanatory variable in the model moreover innovation increased by a factor of 1.47 for every positive improvement of internet and related facility scale controlling other explanatory variable in the model. Statistically insignificant contribution of knowledge sharing on innovation and since Odds ratio is <1 the odds of performance in innovation decreased by a factor of .76 for every positive improvement of knowledge sharing scale controlling other independent variables in the model. OR innovation significantly increased after knowledge utilization=2.44 (p=0.004) statistically significant effect; the odds of innovation increased by a factor of 2.44 for every positive enhancement of knowledge utilization controlling for other explanatory variable in the model. Currently JUCAVM is performing well only in knowledge utilization. In addition even if it is insignificant knowledge sharing is not well performed at the college due to the fact that it is evidenced that its practice on contribution of enhancing the performance is negative in which at some time implies affects innovation

Based on existing knowledge utilization JUCAVM well performed in enhancing level of innovation as well as in achieving programs, research and related academic activity. Knowledge utilization related to access and usage of information significantly contributed for enhancing performance. Effective KM is critical to the growth, performance, and survival of organizations (Cletus, 2019). Applying knowledge obtained by academic staff towards the achievement of required innovation was significant. This result is in line with the finding of knowledge application impact on innovativeness are statistically significant positive effect (Samir, 2020). Ngoc-Tan and Gregar (2018) also revealed that positive association between knowledge utilization and innovation in academic setting and also somewhat concurrent with the notion of KM application increases the knowledge and information of employees consequently increase organization's productivity (Zargar and Rezaee, 2013). Knowledge capture and retention of explicit and implicit knowledge, culture support, internet and related facilities have positive association but insignificant effect on innovation.

This finding is concurrent with the result of Al Ahmar et al (2014) noted that the stronger KM in terms of culture and IT support tend to improve education organization, however; the increase was not significant. However somewhat disagree with the finding of Mohamad and Ahmad (2012) found that positive significant relationship between information technology and KM practices in industrial company context and also Mazhar and Saeed (2018) found that positive and significant relationship between leadership commitment and organizational culture, and creativity. Further study evidenced that knowledge sharing has a non-linear insignificant relationship with performance which contradicts the conclusion of knowledge sharing impact on innovativeness are statistically significant positive effect (Islam, et al., 2018; Samir, 2020). This implies provision of knowledge sharing to the academic staffs couldn‘t assure positive contribution while performing KM practice in attainment of required performance. This finding is concurrent with conclusion of Ngoc-Tan and Gregar (2018) established inverse relationship between knowledge dissemination and administrative innovation in academic setting but in contrary direct association with technical innovation, finding of Torabi and El-Den (2017) also revealed that employees' intention to share and consequently sharing of tacit knowledge has direct positive impacts on productivity also employees' innovative contributions increased. Moreover partly disagree with conclusion of positive relationship of KM with overall performance, innovation, growth and competitive advantage in university context (Ohiorenoya and Eboreime, 2014)

Conclusion and Recommendation

This research evidenced that KM practice is familiar to the academic staff of the college. The positive result is willingness of academic staff and this condition may contribute to successfully practice Knowledge management within the college particularly for knowledge sharing and retention. However the college practice of KM is at medium level that represented mainly in creating good culture, capture of explicit and implicit knowledge, documentation, and IT support

Various difficulties existed in the KM practices at the college that includes inadequate fund, unsatisfactory organized documentation, inadequate cooperation among academic staff, and decline of team sprit consecutively

Finally study revealed that due to existing KM practice, knowledge utilization has positive and significant effect on performance of the college enable to achieve innovation , opening programs and related academic activity whereas other components of KM process knowledge capture and retention including organizational and IT support have positive but insignificant influence on performance. Knowledge sharing has negative but insignificant influence on the performance as a result at some time may affect the creation and utilization of knowledge. The college needs to work more directly on knowledge capture and share culture change. The college should spend more in knowledge management practice since it improves innovation of organization specifically in funding research enhance team work, improving technology for knowledge capture and utilization, motivate academic staff to retain and share knowledge. Investment including KM technology such as videoconferencing, electronic discussion groups, IT support store and access data.

Implications

The study has practical implication for practitioners, the higher education institutes and scholars in the discipline of KM and performance. It adds knowledge to the literature of University performance, knowledge utilization, culture of KM practice and supports required in which for the institutions, it is suggested that it is vital in enhancing performance through practice of KM. This research contributes to the current body of literature by examining the impact of knowledge capture, application, share, as well as organizational and IT support that affects the innovation, achieving programs in higher education context in Ethiopia. It offers proof that all the components including the organization and IT support are clustered together when exploring the influence of these factors on innovation and performance.

Research Limitation and Future Study Direction

Since study is limited to one college, it is difficult to generalize. Thus further investigation may consider increasing the sample size to various organizations so that cause effect can be better explored. Qualitative approach interview need to include obtaining more valuable information on KM practice such as what are other motivational barriers, why team sprit decline. Possible to include participants such as librerians, administrative and ICT staffs may suggest other challenges and improvements in KM practice. Since the study employed cross sectional design it is possible to undertake longitudinal studies that is using data in a different time frame. Comparative research can be performed by including other industry organization at various contexts to the issue.

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