

Influence of Knowledge Application Practices on Employee Performance in Public Technical Vocational Education and Training Institutions in Kenya

Kenneth Lwegado Endende¹, Dr. Josephat Kwasira², Dr. Felistus Makhamara³

¹PhD Candidate (Human Resource Management), Jomo Kenyatta University of Agriculture and Technology

²Lecturer, Jomo Kenyatta University of Agriculture and Technology, Kenya

³Lecturer, Kenyatta University, Kenya

Abstract:

It has been discovered that the performance of employees at institutions that provide technical vocational education and training is subpar. A high degree of ineptitude and a lack of innovativeness among graduates of Technical and vocational education and training institutions (TVETs) programs is an indication of the poor performance that may be expected from workers. This results in issues with graduate employability due to a lack of needed skills demanded by employers. This culminates in problems with graduate employability. This low performance may be attributed, at least in part, to a worsening in individual employee performance as a result of inadequate skills among workers, pointing to bad knowledge management techniques inside the institutions. This might be the case. Although there are many knowledge management practices in higher educational institutions in many countries, academics and researchers are in strong agreement that the knowledge that is imparted through higher institutions of learning falls short in providing youth with the appropriate and relevant skills that are needed to succeed in the labor market. This is true despite the fact that there are many knowledge management practices in higher educational institutions in many countries. In public technical vocational education and training institutes in Kenya, the purpose of this research was to explore the effect of knowledge application practices on employee performance in public TVETs. The Knowledge Spiral Theory served as the basis for the investigation. The positivist philosophical approach and the descriptive survey research methodology were used in the study. The target population is comprised of 11 national polytechnics in Kenya. The unit of inquiry comprised 265 administrators comprised of both academic and non-academic heads of department. Primary data was collected using structured self-administered questionnaires. The reliability of the research instrument was ascertained using Cronbach Alpha. Validity was established using content and construct validity. Quantitative data were analyzed using descriptive and inferential statistics with aid of SPSS 26. The results of the regression analysis showed that the application of employee knowledge has a substantial ($P=0.000$) influence on employee performance. According to the findings of the research, knowledge application practices have a substantial effect on the performance of employees in TVETs. According to the findings of this research, departmental leaders at TVETs should encourage staff members across all roles to utilize their expertise while making decisions, resolving problems, and developing new services. Technical and vocational education and training institutions (TVETs) should implement incentive programs that reward employees for making effective use of their knowledge in order to encourage employees to find new opportunities, promote innovation, and improve problem solving.

Keyword: Knowledge Management Practices, Knowledge Application, Employee performance, Technical Vocational Education and Training Institutions, National Polytechnics

Date of Submission: 14-10-2022

Date of Acceptance: 30-10-2022

I. Introduction

The management of human resources in the present day must place significant emphasis on the performance of staff members. The world's leading educational institutions are always striving to outperform their rivals by using a wide variety of competitive advantages and business tactics. The ever-changing external contexts have shown that many of the techniques that are utilized, such as the knowledge management (KM) practices that are implemented by many institutions, are unreliable. This has led to poor performance on the part of the employees. The contribution of knowledge management to institutional performance is a key part of development and sustainability (Armstrong, 2016). Knowledge management is the process that determines whether or not a business is capable of providing a competitive advantage to its customers (Ode & Ayavoo, 2020). Knowledge management that is both efficient and effective is one strategy that firms may follow in order

to improve the performance of their employees. Until Human Resources devises some ways for turning raw data and information into knowledge, those two things are not considered knowledge. Knowledge management provides an organization with a competitive advantage over rivals that do not use it (Najabat, 2015). The issue of how knowledge may be efficiently handled among employees in order to improve employee performance has been relegated to the background when seen from a global viewpoint (Dong et al., 2012). Although there is a significant value to be gained through excellent knowledge management (Najabat, 2015; Tseng & Lee, 2014; Seedee, 2012), there are currently no safeguards in place to reduce the likelihood that this value would be lost (Mungai, 2019).

Knowledge application can be differentiated as tacit and explicit knowledge (Cumari, 2018). People use their tacit and explicit knowledge in their own unique ways (Njagi & Gachunga, 2017). Tacit knowledge is internally constructed by individuals during their professional activities and experiences. It resides in their heads and does not normally exist in explicit form (Pawirosumarto, Sarjana & Muchtar, 2017). However, it has a multidimensional structure which has specific and significant role in individual effectiveness in organizational settings (Diamantidis & Chatzoglou, 2018). But it is difficult to access as it is often not codified and may not necessarily be easily expressed (Demir, Budur, & Heshmati, 2021) and if it remains in the heads of a few individuals in an organization then it can result in knowledge loss (Chugh, Wibowo, & Grandhi, 2015). So, the organizations need to develop strategies for the transformation of the tacit knowledge into explicit knowledge to derive maximum benefit from the organization's intellectual capital (Omotayo, 2015). Apart from tacit knowledge, organizations usually incorporate greater proportions of explicit knowledge (Zaim, Muhammed & Tarim, 2018) which comprised technical or academic data or information that is described in formal language (Ode & Ayavoo, 2020).

It is widely held around the globe that an organization's success will be proportional to the degree to which its leadership is able to instill innovation, cooperation, and collaboration among its workforce (Rasula, Vulksic & Stemberger, 2012). Existing research on knowledge management is restricted to looking at information and communication technology as a single barrier at the global level (Noor & Salim, 2011). Studies have shown, on a worldwide scale, that employee performance may be enhanced by the use of knowledge management strategies. In point of fact, the procedure by which new information is generated and made accessible is of the utmost importance in terms of enhancing the performance of individual workers as well as that of whole institutions (Wu, Cheng & Huang, 2010; Obeidat, Hashem & Al-Salti, 2016). According to the findings of certain research, there is a significant knowledge management gap, particularly in the public sector (The International Monetary Fund, 2016).

On the regional level, there are issues with gaps between the application of knowledge and the execution of the TVET agenda in a number of different African nations. For instance, the Presidential Task Team on Education in Nigeria (2011) noted that transitioning from materials housed in a knowledge repository to actual implementation on the ground always presented a number of difficult problems. In point of fact, it is not quite evident how the approaches or strategies of knowledge management might play a role in improving performance in Nigerian higher educational institutions. At addition, the knowledge application activities that take place in Nigerian institutions of higher education are not recorded in the relevant body of academic research. This shows that there is no structure for the application of knowledge in the educational institutions in Nigeria that are considered to be of higher learning. According to the findings of a research that was carried out by Iyoha and Igbinedion (2022), faculty members at Nigerian institutions are aware of knowledge management methods; however, there are no rules or strategies in place to encourage knowledge application, sharing, or application.

On the domestic front, Kenya has put a significant focus on technical and vocational education and training (TVET) as one of the vehicles for socio-economic and technological development, particularly in the process of realizing her Vision 2030. Nevertheless, the Kenyan technical, vocational, and elementary education (TVET) sector continues to struggle with numerous obstacles, despite the progress that has been achieved over the last decade in improving quality, retention, access, favorable perception, and gender parity in education and training. One of the problems is that the Kenyan government has not developed any clear policies that are intended to promote and push for the agenda of the technical and vocational education and training (TVET), such as the buying and consumption of locally created products and services.

There is evidence that knowledge management application could be important in supporting Higher Education Institution (HEIs) in teaching and research activities; however, there is also evidence that the approaches adopted by HEIs are passive and inconsistent (Daland, 2016). Nair and Munusami (2019) suggested that HEIs need to develop a common understanding of knowledge application practices before they can begin to see the benefits on an institutional-wide level. However, research into that knowledge management application in universities is limited (Hasani & Sheikhesmaeili, 2016; Dhamdhare, 2015), and such research, as has been conducted, focuses either on specific aspects of the knowledge process, such as the individualistic nature of research and loyalty to discipline (Lee, 2018), or on the specific elements of that knowledge management

application, such as knowledge sharing amongst academics (Corcoran & Duane, 2018; Ibrahim & Ali, 2021). Some studies have examined obstacles to that knowledge management application in HEIs in the areas of knowledge creation (Fullwood et al., 2013; Adhikari & Shrestha, 2022). However, most of this research has been conducted in countries with mature higher education systems; furthermore, the development of HEIs is viewed as key to the economic, social and cultural development.

Existing research has investigated how much of a contribution knowledge management makes to performance, but the findings have been inconsistent. Some researchers have found significant and positive relationships between some knowledge management dimensions and desired organizational outcomes (Balasubramanian, Al-Ahbab, & Sreejith, 2020; Liu & Deng, 2015), while other researchers have found insignificant or indirect relationships between some knowledge management dimensions and desired organizational outcomes (Liu & Deng, 2015). (Mohamad, Ramayah & Lo, 2022; Ngah & Wong, 2020; Kmiecik & Michna, 2018). The knowledge management-performance argument is still open as a consequence of these contradictory outcomes, and academics have emphasized the need of doing further study to investigate these conflicting findings.

Statement of the Problem

According to the report on the performance of the public service in Kenya for 2019, the performance of both individuals and departments has not yet attained the benchmark that was established. For instance, if a member of the staff with a lot of years of expertise goes on vacation, all of their duties will be suspended until they return (Shahzad, et al., 2016). In addition, the older and more experienced members of the workforce are hesitant to share the information that they have because they are concerned that the younger team will take their employment. It has been observed that some members of the older workforce retire without imparting their skills to the younger workforce, which has resulted in the government being obliged to hire retired staff members on a contract basis (Reich, et al., 2014). According to the Technical and Vocational Education and Training Authority Strategic Plan (2018-2022), the sector is still experiencing limitations in the overall HR capacity and retention, training tools, Research and Development, and enhanced online management information systems, among other things, despite the fact that the government is investing in TVET in order to create 1.3 million skilled workforces. However, the issue of how knowledge may be successfully handled among employees in order to increase employee performance has been downplayed, despite the fact that it is envisioned in Kenya's vision 2030 that Kenya aims to establish a knowledge-based economy via knowledge-driven techniques (Musyimi, 2021). According to estimations provided by Keyes (2012), the inability of employees to develop new knowledge and effectively manage current information might result in a loss of performance costs of up to USD 6 million per year for an organization with 1,000 people. There are few empirical studies tying knowledge management to employee performance inside firms on a regional and local level (Naser, Al Shobaki & Amuna, 2016). The research conducted by Richards and Duxbury (2014) focused on the question of how the process of acquiring new information affects how well that information is put to use in public sector organizations in Canada. According to the findings of the research, a person who already has knowledge about a certain topic may be less inclined to seek out new information regarding that topic within the context of a social setting. In their study on the role of knowledge management in business operations in the United States, Nikolaos, Dimitrios, and Georgios (2014) identified several key success factors for knowledge management. These success factors include knowledge leadership, culture, a strong link of people to business imperative, and technology infrastructure. According to the conclusions of the research, the only two factors that are statistically supported are leadership and culture. The current study differs from those that were reviewed because it was conceived of and carried out with the intention of investigating the influence of knowledge application on employee performance in a selection of Kenya's public institutions that provide technical and vocational education and training. Therefore, the objective of the study was to examine the effect of knowledge application practices on employee performance in public technical vocational education and training institutions in Kenya

II. Literature Review

Theoretical Framework

The study was guided by Knowledge Spiral Theory. Nonaka and Takeuchi (1995) developed and advanced the knowledge spiral theory. The theory emphasizes on the spirals of knowledge that explain how tacit knowledge is transformed into explicit knowledge based on the organization's individuals, groups, and organizational learning and innovation. The transformation of spiral knowledge is based on the organizational horizontal and lateral levels, and it quickly transforms tacit knowledge into explicit knowledge that can be used in increasing the performance of an organization. Socialization, externalization, combination, and internalization are the four modes identified by the theory as being involved in this conversion (Nonaka & Toyama, 2015).

The theory defines the interface procedure in conversion of explicit to tacit knowledge. According to the theory, there are four modes of interface, which enhances knowledge management of the organization; these include socialization, internalization, externalization and combination. By changing one form of knowledge to the other, an organization is able to retain the system of the organization. For instance, tacit knowledge can be transformed in explicit one, where documents and database are used for storing knowledge (Singh & Gautam, 2016). The theory focuses on how tacit knowledge can be converted into explicit knowledge on the basis of employees in an organization. Externalization is the process of converting tacit to explicit knowledge (Astorga-Vargas, Flores-Rios & Licea-Sandoval 2017). Socialization is the conversion of tacit to tacit knowledge while conversion of explicit to explicit knowledge is through combination. On the other hand, internalization is the conversion of explicit to tacit knowledge (Daland, 2016).

Understanding the interactions between the forms of knowledge requires a clear view of the different forms involved in knowledge conversion. This also enables managers in an organization to reflect on the adoption of the practices of KM to help in improving performance. As a result of this theory, it is clear that KM is a critical component of an organization's success and performance (Donate & de Pablo, 2015). In order to implement effective practices of KM, it is necessary to identify the various kinds of knowledge and their interactions. The theory is applicable to the research because it helps managers in determining how different kinds of knowledge interact in an organization. This interaction will shape the practices of KM in place, and thus the organization's performance. This theory supports the objective related to application of knowledge. This is because it is only during knowledge application that transformation of tacit knowledge into explicit knowledge occurs. The transformation happens so that the knowledge may be of help in transforming organizational operations.

Conceptual Review

Conceptual framework is a hypothesized model identifying the model under study and the relationship between the dependent and independent variables (Mugenda & Mugenda, 2003). In this study, the independent variable was knowledge application and the dependent variable was employee performance of TVET as indicated in figure 1.0.

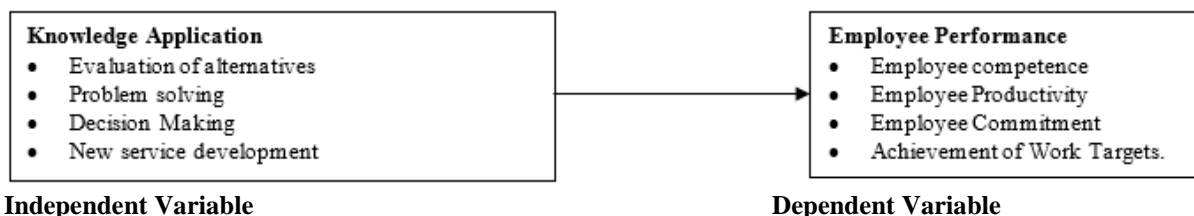


Figure1.0: Conceptual Framework

Knowledge application is the process where knowledge is used to solve problems and perform duties (Ajmal & Koskinen, 2008). According to Zaim et al (2018), knowledge application is the process of using knowledge that has been stored in the organization. Gasik (2011) noted that organizations benefit not from the existence of knowledge but from its proper application. Knowledge application is the application of knowledge to reduce costs, improves productivity, generate new products and services (Jantarajaturapath, Imsuwan & Wongsim, 2016). Knowledge application is used to promote organization innovativeness, increase employee's skills, products and processes (Lee & Leong, 2013). Delen, Zaim, Kuzey, and Zaim (2017) noted that the successful use of information had helped firms to enhance their proficiency and diminish costs. Learning application likewise encourages an organization to upgrade its business execution by having up and coming data and information. For information to impact hierarchical execution, it must be utilized to help the company's procedures. Henceforth, it is through information usage that procured learning can be changed from being a potential capacity into an acknowledged and dynamic ability that impacts authoritative execution (Demir, Omer, & Heshmati, 2021). It is worried about how to use learning to deliver business esteem since information must be acknowledged when it is connected to tackle issues. Learning forms related with the utilization of information incorporate capacity. The down to earth usage of learning has helped firms to enhance their effectiveness and decrease costs. Accordingly, learning application has a noteworthy association with organizational performance (Lin, 2014).

According to Diamantidis and Chatzoglou (2018) performance entails employees accomplishing their tasks to standards already set in the appraisal system. An organization sets goals to be met by employees which ultimately translate to organizational goals that propel the firm towards achievement of a competitive advantage. According to Pawirosumarto, Sarjana and Muchtar (2017) performance entails achievement of pre-agreed

targets allocated to employees to be realized within a particular timeframe. Organizational success therefore depends on the employee performance.

Empirical Review

Njagi (2017) investigated the impact of knowledge management on the Kenya Tourism Board's (KTB) performance results, finding that experienced workers wanted to engage themselves in applying available knowledge more efficiently and applying the right skills and knowledge to the right challenge for the organization to achieve its set goals. It can be calculated by looking at the speed with which information is transmitted, the efficiency with which information is picked up and used, the speed with which information is processed, and the speed with which information is applied. This leads to knowledge utilization. Mungai (2019) did a study on the practices of managing knowledge and SMEs' performance in the County of Nairobi. It was revealed that knowledge application, knowledge learning, knowledge sharing, and knowledge implementation are all positively related to SMEs' performance in Nairobi County. The findings of the study revealed that knowledge implementation are positively related with performance of SMEs in Nairobi County. Adoption of KM practices was also credited with good results in 52 % of the SMEs.

Cumari (2018) linked the practices of knowledge management and Kenya Bureau of Standards' (KEBS) performance and shared that the company supported knowledge development, sharing, storage and retrieval efforts, and dissemination, resulting in high performance in terms of delivering services. In terms of application of the created knowledge, the study shared that using the collected information is the only way that KEBS can offer high quality services to its stakeholders. Knowledge application is simply the level of usage of the learning assets which includes capacity, recovery, execution and sharing across the different organization's operational areas. Inculcation of knowledge management culture and the adoption of technology as an enabler within the KEBS operations will lead to high performance in the firm. Ode and Ayavoo (2020) considered the role that knowledge application has on in enhancing how the practices of knowledge management and innovation of the service firms within the developing countries relate to each other. Using the structural equation modeling (SEM) and the general findings show that knowledge management practices had both a direct and indirect contribution to the innovation of the firms. It also reveals that indicators of generating, applying and storing knowledge significantly affected the firm innovation and the process of applying knowledge had the biggest impact on firm innovation.

Abdela (2016) examined the impact of knowledge management on organization performance in insurance organizations, a case of Ethiopian Insurance Corporation (EIC). The study used questionnaires to collect data and a sample size of 186. The study concluded that knowledge use has a positive impact on the performance of insurance companies in Ethiopia. Additionally, the results indicated that knowledge use strongly influenced the knowledge process capability compared to the other processes. Waki (2017) conducted a study to examine the effect of knowledge management strategy on organizational performance among ICT firms within Nairobi. Waki concluded that knowledge use affects performance of ICT firms. According to the companies, their success depended on employees' skills and expertise, thus experienced employees are required to apply available knowledge more effectively. The study also identified that using the right skills and knowledge in the right tasks helped managers identify staff competence thus improving employee productivity and enhancing the firms' performance.

Boateng and Agyemang (2015) investigated the effects of knowledge sharing and knowledge use on service recovery performance in Accra, Ghana. The study utilized survey-based research and the population targeted front line employees of hotels in Accra. The study findings concluded that knowledge use significantly and positively influenced service recovery performance. Furthermore, the study also revealed that knowledge sharing capabilities can only be realized through knowledge use. Additionally, knowledge application enabled employees to learn from their mistakes, solve new problems, make decisions and respond to issues faster. Knowledge use is therefore critical in managing customers' complaints and in decision making.

Kinyua et al. (2015) examined the effect of knowledge conversion and knowledge use on performance of commercial banks in Kenya. The findings of the study revealed that both knowledge conversion and knowledge use positively influenced organizational performance. In a study to examine the effect of knowledge management on firm's performance in commercial banks in Nakuru, Eldoret and Kisumu, Kimaiyo et al. (2015) revealed that knowledge use had a positive and significant effect on the performance of a firm. They concluded that knowledge use enables a firm to enhance its business performance through possessing up-to-date information and processes for applying knowledge obtained from experience. The study also noted that knowledge use was crucial in problem solving, product development, competitive needs and in adjusting strategic decisions to enhance operational efficiency. A study by Nkararo and Gitari (2018) sought to determine the extent of application of knowledge management as a competitive strategy among aviation training institutions in Nairobi. Knowledge management not only created the value of intellectual assets but also enhance an employee 's productivity and competitiveness of the employees. Knowledge management practices enabled employees and customers to get the information they need on time.

III. Research Methodology

A descriptive survey research design was adopted for this study. According to the list obtained from the Technical and Vocational Education and Training Authority (2019), there are a total of 617 registered public technical vocational educational training institutions in Kenya. From the 617 registered TVETs, the study purposively sampled the entire 11 registered public national polytechnics. Therefore, the target population was 11 registered public national polytechnics. The unit of observation was 11 national polytechnics while the unit of inquiry was 70 management staff, 112 heads of academic departments and 117 heads of non-academic staff.

The study adopted a structured questionnaire to collect primary data from principals and heads of departments. Out of these 265 questionnaires, 191 questionnaires were successfully filled and handed back to the researcher which gave a 72.1% response rate. The pilot was done on 10% equivalent of the study sample (The Sigalagala National Polytechnic). Content validity was achieved by subjecting the data collection instruments to an evaluation by a group of 3HR officers ‘who are experts so they provided their comments on the relevance of each item on the instruments. The construct validity was maintained by restricting the items to the conceptualization of the variables and ensuring that the indicator of a particular variable is within the same construct. This was achieved by factor analysis with help of SPSS version 26. Knowledge application practices had an overall factor loading of 0.730 while employee performance had an overall factor loading of 0.842. To measure the reliability, the Cronbach Alpha technique was employed. Cronbach alpha coefficient was estimated from the response using Statistical Package for Social Scientist (SPSS). Knowledge application practices yielded a Cronbach Alpha Coefficient of 0.934 while employee performance yielded an alpha of 0.930 therefore, the research instrument was reliable.

Data collected were analyzed through quantitative data analysis techniques in order to determine the extent to which the main study variables are related. The researcher used descriptive statistics that include a measure of central tendency; mean and measure of variability; standard deviation. The study used inferential statistics such as correlation analysis and regression analysis to test null hypotheses. These statistical tests were at a 5% significance level (Greenland, Senn, Poole & Altman, 2016).

IV. Result and Discussion

Descriptive Analysis

The objective of this study was to establish the influence of knowledge application on employee performance of TVETs. To achieve this, the researcher asked the respondents about knowledge application in public TVETs in Kenya. The study findings were as detailed in the subsequent sub-sections. The descriptive analysis of the Knowledge application findings was as shown in Table 1.

Table 1: Descriptive statistics: Knowledge Application

Knowledge Application	5	4	3	2	1	Mean	Std Dev
1. Knowledge gathered by the institution has been effectively applied to improve overall efficiency and to adjust strategic direction	29 (15.2)	62 (32.5)	30 (15.7)	35 (18.3)	35 (18.3)	3.1	1.4
2. Knowledge is applied in evaluation of alternative courses of action in the institution	13 (6.8)	69 (36.1)	35 (18.3)	49 (25.7)	25 (13.1)	3.0	1.2
3. TVET uses knowledge collected to improve its internal processes	14 (7.3)	32 (16.8)	40 (20.9)	75 (39.3)	30 (15.7)	2.6	1.2
4. The acquired knowledge is used to solve complex problems in the institution	29 (15.2)	53 (27.7)	34 (17.8)	70 (36.6)	5 (2.6)	3.2	1.2
5. Application of documented knowledge aids faster and superior decision making	14 (7.3)	87 (45.5)	35 (18.3)	40 (20.9)	15 (7.9)	3.2	1.1
6. Application of documented knowledge enhances creativity and innovation thereby coming up with new and competitive services	8 (4.2)	93 (48.7)	35 (18.3)	40 (20.9)	15 (7.9)	3.2	1.1
7. Application of documented knowledge enhances replication of past successes and avoidance of failures	29 (15.2)	93 (48.7)	30 (15.7)	34 (17.8)	5 (2.6)	3.6	1.034

N=191; 5- strongly agree, 4-Agree, 3-Fairly agree, 2-Disagree and 1-strongly disagree, f-frequency, (N)-percentage

From Table 1 above, 18.3 percent (35) of the respondents strongly disagreed and further 18.3 percent (35) disagreed that knowledge gathered by the institution has been effectively applied to improve overall efficiency and to adjust strategic direction. On the other hand, 15.7 percent (30) fairly disagreed, 32.5 percent (62) agreed while 15.2 percent (29) strongly agreed on the same assertion. With a mean of 3.1 and standard deviation of 1.4 implying that Knowledge gathered by the institution has been effectively applied to improve overall efficiency and to adjust strategic direction. Further, 13.1 percent (25) of the respondents strongly disagreed and further 25.7 percent (49) disagreed that knowledge is applied in evaluation of alternative courses of action in the institution. On the other hand, 18.3 percent (35) fairly disagreed, 36.1 percent (69) agreed while 6.8 percent (13) strongly agreed on the same assertion.

Besides, 15.7 percent (30) of the respondents strongly disagreed and further 39.3 percent (75) disagreed that TVET uses knowledge collected to improve its internal processes. On the other hand, 20.9 percent (40) fairly disagreed, 16.8 percent (32) agreed while 7.3 percent (14) strongly agreed on the same assertion. With a mean of 2.6 and standard deviation of 1.2 implying that TVET uses knowledge collected to improve its internal processes. Additionally, 2.6 percent (5) of the respondents strongly disagreed and further 36.6 percent (70) disagreed that the acquired knowledge is used to solve complex problems in the institution. On the other hand, 17.8 percent (34) fairly disagreed, 27.7 percent (53) agreed while 15.2 percent (29) strongly agreed on the same assertion.

From Table 1 above, 7.9 percent (15) of the respondents strongly disagreed and further 20.9 percent (40) disagreed that the application of documented knowledge aids faster and superior decision making. On the other hand, 18.3 percent (35) fairly disagreed, 45.5 percent (87) agreed while 7.3 percent (14) strongly agreed on the same assertion. With a mean of 3.2 and standard deviation of 1.1 implying that application of documented knowledge aids faster and superior decision making.

Moreover, 7.9 percent (15) of the respondents strongly disagreed and further 20.9 percent (40) disagreed that application of documented knowledge enhances creativity and innovation thereby coming up with new and competitive services. On the other hand, 18.3 percent (35) fairly disagreed, 48.7 percent (93) agreed while 4.2 percent (8) strongly agreed on the same assertion. With a mean of 3.2 and standard deviation of 1.1 implying that application of documented knowledge enhances creativity and innovation thereby coming up with new and competitive services. Finally, 2.6 percent (5) of the respondents strongly disagreed and further 17.8 percent (34) disagreed that application of documented knowledge enhances replication of past successes and avoidance of failures. On the other hand, 15.7 percent (30) fairly disagreed, 48.7 percent (93) agreed while 15.2 percent (29) strongly agreed on the same assertion. With a mean of 3.56 and standard deviation of 1.034 implying that application of documented knowledge enhances replication of past successes and avoidance of failures.

Evidently, the average level of knowledge application according to the sampled respondents of TEVTs in Kenya was at 62.4% mean response (mean=3.1182, std. dev. =.81086) rated high as shown in Table 1. This implies that the level of knowledge application of majority of the public TVETs in Kenya seems not to be insignificantly small which is further supported by insignificant standard deviation.

This agrees with Kinoti (2012) who stated that teamwork with organizational communication with participatory decision making have a positive relationship with organizational performance. Similarly, Kombo (2015) established that organizational characteristics mediated the relationship between knowledge strategy and performance. The stakeholders used public services to create knowledge to increase service delivery to the citizens and collected knowledge that helped in solving everyday work problems. The study further established that the ministries incorporated updates to work manuals, procedures with new information as it come and improved communication channels to all staffs. This is supported by Maseki (2012) who found that knowledge greatly affected performance of employees on their duties in the bank and increased the employee competence.

Table 2: Descriptive Analysis for Employee Performance

Employee Performance	5	4	3	2	1	Mean	Std. Dev
1. Knowledge application helps employee to learn within the institution and this helps in enhancing their competence	39 (20.4)	53 (27.7)	40 (20.9)	44 (23)	15 (7.9)	3.3	1.2
2. Use of Knowledge application practices help employees to share best practices thereby reducing the learning curve and enhancing employee commitment.	71 (37.2)	71 (37.2)	34 (17.8)	2 (1)	13 (6.8)	4.0	1.1
3. New employees use knowledge bank and portal to learn quickly thereby improving productivity.	55 (28.8)	67 (35.1)	36 (18.8)	19 (9.9)	14 (7.3)	3.7	1.2
4. Performance has improved after increased learning due to knowledge application	43 (22.5)	46 (24.1)	35 (18.3)	48 (25.1)	19 (9.9)	3.2	1.3
5. Knowledge application helps to increase efficiency thereby achieving work targets.	44 (23)	36 (18.8)	40 (20.9)	59 (30.9)	12 (6.3)	3.2	1.3
6. There are well defined Knowledge application practices that help to improve employee performance by providing adequate competence.	40 (20.9)	73 (38.2)	39 (20.4)	32 (16.8)	7 (3.7)	3.6	1.1

From Table 2, 7.9% (15) of the respondents strongly disagreed and a further 23% (44) disagreed that knowledge applications helps employees to learn within the organization and this helps in improving performance. On the other hand, 20.9% (40) fairly disagreed, 27.7% (53) agreed while 20.4% (39) strongly agreed with the same assertion. A mean of 3.3 and a standard deviation of 1.2 implies that knowledge

applications helps employees to learn within the organization and this helps in boosting performance. Further, 6.8% (13) of the respondents strongly disagreed and further 1% (2) disagreed that the use of knowledge applications practices helps employees to share best practices thereby reducing the learning curve.

Further, 17.8% (34) fairly disagreed, 37.2% (71) agreed while 37.2% (71) strongly agreed with the same assertion. A mean of 4.0 and a standard deviation of 1.1 implies that the use of knowledge applications practices helps employees to share best practices thereby reducing the learning curve. Moreover, 7.3% (14) of the respondents strongly disagreed and further 9.9% (19) disagreed that new employees use knowledge banks and portals to learn quickly thereby improving productivity. On the other hand, 18.8% (36) fairly disagreed, 35.1% (67) agreed while 28.8% (55) strongly agreed with the same assertion. A mean of 3.7 and a standard deviation of 1.2 implies that new employees use knowledge banks and portals to learn quickly thereby improving productivity.

Moreover, 9.9% (19) of the respondents strongly disagreed and a further 25.1% (48) disagreed that performance has improved after increased learning due to knowledge applications practices. On the other hand, 18.3% (35) fairly disagreed, 24.1% (46) agreed while 22.5% (43) strongly agreed with the same assertion. A mean of 3.2 and a standard deviation of 1.3 implies that performance has improved after increased learning due to knowledge applications practices. Furthermore, 6.3% (12) of the respondents strongly disagreed and further 30.9% (59) disagreed that knowledge applications helps to increase efficiency thereby improving performance. On the other hand, 20.9% (40) fairly disagreed, 18.8% (36) agreed while 23% (44) strongly agreed with the same assertion. A mean of 3.2 and a standard deviation of 1.3 implies that Knowledge applications helps to increase efficiency thereby improving performance.

More so, 3.7% (7) of the respondents strongly disagreed and further 16.8% (32) disagreed that there are well-defined knowledge applications practices that help to improve performance by providing faster knowledge. On the other hand, 20.4% (39) fairly disagreed, 38.2% (73) agreed while 20.9% (40) strongly agreed with the same assertion. A mean of 3.6 and a standard deviation of 1.1 implies that there are well-defined knowledge applications practices that help to improve performance by providing faster knowledge. Apparently, the average level of employee performance according to the sampled respondents of TEVTs in Kenya was at 69.9% mean response (mean = 3.49, std. dev. = .93042) rated high as shown in Table 2. This implies that the level of employee performance of the majority of the public TVETs in Kenya seems not to be insignificantly small though not all of them seem to perform well.

This expansion has created competition for the available manpower thus leading to increased talent turnover (Wachira et al., 2019). According to Deloitte (2019), 68% of public tertiary colleges in Kenya are experiencing low talent engagement as indicated by a high rate of talent turnover which hinders their competitive advantage. Similarly, records obtained from TVETA Central and personnel registries (2021) indicate that there is a high fluctuation of employee turnover between 2015 and 2019 with 106 employees leaving one institution for a period of a year. Only one public TVET recorded an employee turnover of 15. Steadman (2017) asserts in his baseline survey of local Kenyan TVET that staff satisfaction stood at 63.6% for teaching staff and 64% for non-teaching staff. The high rate of employee turnover and decreased levels of engagement lead to poor performance of the organizations, hampered continuity and succession, and reduced innovativeness as well as standards.

Inferential Analysis

Inferential analysis entailed correlation and regression analysis. The purpose of inferential statistics was to test the null hypothesis using Beta coefficients and their significance level. The study sought to test the following research hypothesis:

H₀: Knowledge application practices have no significant influence employee performance in public technical vocational education and training institutions in Kenya

Correlation Analysis

The correlation coefficient (r) results are presented as shown in Table 3 using Pearson correlation analysis, which computes the direction (Positive/negative) and the strength (Ranges from -1 to +1) of the relationship between two continues or ratio/scale variables.

Table 3: Correlation Matrix

		Knowledge Application	Employee Performance
Knowledge Application	Pearson Correlation	1	
	Sig. (2-tailed)		
Employee Performance	Pearson Correlation	.635**	1
	Sig. (2-tailed)	.000	
	N	191	191

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

From the table 3 above showed that knowledge application was positively correlated to Employee performance (r=0.635, p <0.01) and it was significant at 99% confidence level thus increase in knowledge

application makes employee performance to increase. The findings are supported by Mungai (2019) who revealed that knowledge application are positively related with performance of SMEs in Nairobi County. Adoption of KM practices was also credited with good results in 52 % of the SMEs. They are further supported by Abdela (2016) examined the impact of knowledge management on organization performance in insurance organizations, a case of Ethiopian Insurance Corporation (EIC). However, results are not supported by other studies. For instance, Pudjowati, Wahyuni and Ladi (2020) found insignificant effect of the application of tacit knowledge and explicit knowledge on improving employee performance at Regional Office II of Surabaya State Civil Service Agency. Other studies have also recorded insignificant or indirect relationship between some knowledge management dimensions and desired organizational outcomes (Mohamad, Ramayah & Lo, 2022; Ngah & Wong, 2020; Kmiecik & Michna, 2018).

Linear Regression

Regression analysis was done to analyze the influence of knowledge application practice on employee performance in Selected Public Technical and Vocational Education and Training institutions in Kenya. Regression coefficient (B), analysis of variance (ANOVA) and t-test were used to test the hypothesis I at 0.05 % significance level, with 95% confidence interval. The first study tested the following null hypothesis:

H₀1: Knowledge application practice has no significant influence on employee performance in Selected Public Technical and Vocational Education and Training institutions in Kenya.

The results are as shown in Table 4.

Table 4: Regression Results of Knowledge Application on Employee Performance

Model Summary ^b							
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate			
1	.635 ^a	.403	.400	.76863			
a. Predictors: (Constant), Knowledge application							
b. Dependent Variable: Employee performance							
ANOVA ^a							
Model		Sum of Squares	Df	Mean Square	F	Sig.	
1	Regression	75.279	1	75.279	127.420	.000 ^b	
	Residual	111.660	189	.591			
	Total	186.939	190				
a. Dependent Variable: Employee performance							
b. Predictors: (Constant), Knowledge application							
Coefficients ^a							
Model		Unstandardized Coefficients		Standardized Coefficients		t	Sig.
		B	Std. Error	Beta			
1	(Constant)	1.074	.222			4.849	.000
	Knowledge application	.776	.069	.635		11.288	.000
a. Dependent Variable: Employee performance							

The model (Knowledge application) was able to explain 40.3% of the variation in the employee performance in Public Technical and Vocational Education and Training institutions in Kenya as indicated by the R Square = 0.403 as shown in the model summary of Table 4. The ANOVA test results as indicated in Table 4 were F (1,190) =127.420, P = 0.000 < 0.05; an indication that the Simple Linear Regression model was a good fit to our dataset. The results indicate that the significance of the F is 0.00 which is less than 0.05, this, therefore, implies that the regression model statistically significantly predicts the outcome variable and is, therefore, a good fit for the data. This is an indication that there exists a significant relationship between knowledge application and employee performance.

The regression Coefficient results showed that β= 0.776, t =11.288, p=0.000 < 0.05; hence knowledge application had a statistically significant influence on the employee performance in Public Technical and Vocational Education and Training institutions in Kenya. Knowledge application had a positive standardized beta coefficient = 0.776 as shown in the coefficients results of Table 4; this indicates that a unit improvement in the Knowledge application was likely to result to an improvement in the employee performance in Public Technical and Vocational Education and Training institutions in Kenya by 0.776 units. To predict the employee performance in Public Technical and Vocational Education and Training institutions in Kenya when given the level of knowledge application, the study suggests the use of the following model;

$$\text{Employee Performance} = 1.074 + 0.776 \text{Knowledge Application}$$

The findings of this study are also corroborated with the results of the study by Abdela (2016) that examines the impact of knowledge management on organization performance in insurance organizations, a case of Ethiopian Insurance Corporation (EIC). The study concluded that knowledge use has a positive impact on the performance of insurance companies in Ethiopia. The results further indicated that knowledge use strongly influenced the knowledge process capability compared to the other processes. The findings also confirm a study

by Kinyua et al. (2015) to examine the effect of knowledge conversion and knowledge use on performance of commercial banks in Kenya. The findings of the study revealed that knowledge use positively influenced organizational performance. Knowledge use was measured in terms of problem solving, elaboration, efficiency, infusion and information technology support. The findings were also in agreement with a study by Kimaiyo et al. (2015) to examine the effect of knowledge management on firm's performance in commercial banks in Nakuru, Eldoret and Kisumu. The study revealed that knowledge use has a positive and significant effect on organizational performance. The study also noted that knowledge use was crucial in problem solving, product development, competitive needs and in adjusting strategic decisions to enhance operational efficiency.

However, results are not supported by other studies. For instance, Pudjowati, Wahyuni and Ladi (2020) found insignificant effect of the application of tacit knowledge and explicit knowledge on improving employee performance at Regional Office II of Surabaya State Civil Service Agency. Other studies have also recorded insignificant or indirect relationship between some knowledge management dimensions and desired organizational outcomes (Mohamad, Ramayah & Lo, 2022; Ngah & Wong, 2020; Kmiecik & Michna, 2018).

V. Conclusion and Recommendation

The study found that knowledge application enables use of documented knowledge that enhances replication of past successes and avoidance of failures, employees regard knowledge as learning tools, use of documented knowledge enhances creativity and innovation, employees regard knowledge as institution property and freely share and adopt it and use of documented knowledge aids faster and superior decision making. Moreover, knowledge application results in continuous improvement processes, employee motivation and enables sharing of specialist know-how thereby enabling goal achievement and improved performance. The researcher therefore concludes that knowledge application influence employee performance of TVETs positively.

The management and decision makers in TVET should encourage the application of knowledge assets to improve employee performance. The management should adopt policies that encourage employees to be innovative by using knowledge assets to improve their performance in regards to decision making and solving emerging as well as complex problems. The leadership should be transformational and motivation and rewards should be given to more innovative and competitive employees so encourage and reinforce innovative work behavior among employees. This study recommends that departmental heads at TVETs should encourage staff across all functions to apply knowledge in decision making, problem solving and development of services. The study recommends that more TVETs should introduce incentive programs that reward knowledge use to encourage employees to identify new opportunities, promote innovation and improve problem solving. The incentives will also encourage individuals to actively share and apply knowledge. The TVETs should also set up systems and structures that help to capture expert knowledge and make it easily accessible to employees. The study recommends that TVETs should adopt more ways of utilizing knowledge to enhance employee performance.

References

- [1]. Abdela, J. (2016). Effect of knowledge management on organizational performance in Addis Ababa, Ethiopia: A case study in Ethiopian agricultural transformation agency (ata). *International Journal of Commerce and Finance*, 5(2), 97-105
- [2]. Adhikari, D. R., & Shrestha, P. (2022). Knowledge management initiatives for achieving sustainable development goal 4.7: higher education institutions' stakeholder perspectives. *Journal of Knowledge Management*, (ahead-of-print).
- [3]. Ajmal, M. M., & Koskinen, K. U. (2008). Knowledge transfer in project-based organizations: an organizational culture perspective. *Project management journal*, 39(1), 7-15.
- [4]. Armstrong, M. (2012). *A Handbook of Human Resource Management Practice*. (12th Ed). UK: Ashford Colour Press.
- [5]. Armstrong, M. (2016). *A handbook of Human Resource Management*, (10thEd.). London: Kogan Page.
- [6]. Astorga-Vargas, M. A., Flores-Rios, B. L., Licea-Sandoval, G., & Gonzalez-Navarro, F. F. (2017). Explicit and tacit knowledge conversion effects, in software engineering undergraduate students. *Knowledge Management Research & Practice*, 15(3), 336-345.
- [7]. Boateng, H., & Agyemang, F. G. (2015). The role of culture in knowledge sharing in a public-sector organization in Ghana: Revisiting Hofstede's model. *International Journal of Public Administration*, 38(7), 486-495.
- [8]. Chugh, R., Wibowo, S., & Grandhi, S. (2015). Mandating the transfer of tacit knowledge in Australian Universities. *Journal of Organizational Knowledge Management*, 2015, 1-10.
- [9]. Corcoran, N., & Duane, A. (2018). Using social media to enable staff knowledge sharing in higher education institutions. *Australasian Journal of Information Systems*, 22.
- [10]. Cumari, G. M. (2018). *Knowledge Management Practices and Performance of Kenya Bureau of Standards* (Doctoral dissertation, University of Nairobi).
- [11]. Daland, H. (2016). Managing knowledge in academic libraries are we? Should we?. *Liber Quarterly: The Journal of European Research Libraries*, 26(1).
- [12]. Delen, M. F., Tarim, M., Zaim, H., Zaim, S., & Delen, D. (2017). Knowledge management and ERP: Complementary or contradictory?. *International Journal of Information Management*, 37(6), 703-712.
- [13]. Demir, A., Budur, T., Omer, H. M., & Heshmati, A. (2021). Links between knowledge management and organisational sustainability: does the ISO 9001 certification have an effect?. *Knowledge Management Research & Practice*, 1-14.
- [14]. Dhamdhare, S. N. (2015). Importance of knowledge management in the higher educational institutes. *Turkish Online Journal of Distance Education*, 16(1), 162-183.

- [15]. Diamantidis, A. D., & Chatzoglou, P. (2018). Factors affecting employee performance: an empirical approach. *International Journal of Productivity and Performance Management*.
- [16]. Donate, M. J., & de Pablo, J. D. S. (2015). The role of knowledge-oriented leadership in knowledge management practices and innovation. *Journal of business research*, 68(2), 360-370.
- [17]. Durst, S., & Edvardsson, I. R. (2012). Knowledge Management in SMEs: A Literature Review. *Journal of Knowledge Management*, 16(9), 879-903.
- [18]. Durst, S., & Wilhelm, S. (2012). Knowledge Management and Succession Planning in SMEs. *Journal of Knowledge Management*, 16(12), 637-649
- [19]. Gasik, S. (2011). A model of project knowledge management. *Project Management Journal*, 42(3), 23-44.
- [20]. Hasani, K., & Sheikhesmaeili, S. (2016). Knowledge management and employee empowerment: A study of higher education institutions. *Kybernetes*.
- [21]. Ibrahim, F., & Ali, D. N. (2021). Evaluating knowledge management practices in higher education institutions (HEIs): Towards KMPro framework guidelines. In *Enhancing Academic Research and Higher Education With Knowledge Management Principles* (pp. 221-245). IGI Global.
- [22]. Iqbal, S., Rasheed, M., Khan, H., & Siddiqi, A. (2020). Human resource practices and organizational innovation capability: role of knowledge management. *VINE Journal of Information and Knowledge Management Systems*.
- [23]. Iyoha, D. O., & Igbinedion, V. I. (2022). Knowledge management: A strategy for mentoring business educators in Nigerian universities. *West African Journal of Educational Sciences and Practice*, 1(2), 62-69.
- [24]. Jantarajaturapath, P., Insuwan, T., & Wongsim, M. (2016). Knowledge management, organizational innovativeness, business competitiveness and potential operations of electric and electronics businesses in Thailand. *Journal of Business and Retail Management Research*, 11(1).
- [25]. Kimaiyo, I. K., Kapkiyai, C., & Sang, J. C. (2015). Effect of knowledge management on firm performance in commercial banks in Nakuru, Eldoret and Kisumu. *European Journal of Business and Management*, 7(3), 207-216.
- [26]. Kinyua, G. M., Muathe, S. M. A., & Kilika, J. M. (2015). Effect of knowledge conversion and knowledge application on performance of commercial banks in Kenya. *International Journal of Education and Research*, 3(10), 431-445.
- [27]. Lee, J. (2018). The effects of knowledge sharing on individual creativity in higher education institutions: socio-technical view. *Administrative Sciences*, 8(2), 21.
- [28]. Lee, V. H., Leong, L. Y., Hew, T. S., & Ooi, K. B. (2013). Knowledge management: a key determinant in advancing technological innovation?. *Journal of knowledge management*.
- [29]. Liu, Y., Deng, P., Wei, J., Ying, Y., & Tian, M. (2019). International R&D alliances and innovation for emerging market multinationals: Roles of environmental turbulence and knowledge transfer. *Journal of Business & Industrial Marketing* 25(8-9), 723-749.
- [30]. Mungai, J. W. (2019). Knowledge management practices and performance of small and medium enterprises in Nairobi City County, Kenya (Doctoral dissertation, Doctoral dissertation, Kenyatta University).
- [31]. Nair, B. V., & Munusami, C. (2019). Knowledge management practices: An exploratory study at the Malaysian higher education institutions. *Journal of Research in Innovative Teaching & Learning*.
- [32]. Najabat, A. (2015). Declining Employee Performance in Public Sector Organizations: An Etiological Study of Public Sector Organizations in Pakistani. *Journal for Studies in Management and Planning*, 1(05), 18-23.
- [33]. Nambiar, E. S., Harwood, C. E., & Kien, N. D. (2015). Acacia plantations in Vietnam: research and knowledge application to secure a sustainable future. *Southern Forests: A Journal of Forest Science*
- [34]. Njagi, J. E. M., & Gachunga, D. H. (2017). Effect of Knowledge Management on Performance of Tourism Sector in Kenya: A Case of Kenya Tourism Board (KTB). *Strategic Journal of Business & Change Management*, 4(2).
- [35]. Nkararo, N., & Gitari, J. (2018). Influence of strategic knowledge management practices on organizational innovation in large-scale manufacturing firms in Nakuru County, Kenya. *Journal of Strategic Management*, 3(9), 142.
- [36]. Nonaka, I., & Takeuchi, H. (1995). *The Knowledge Creating*. New York, 304.
- [37]. Nonaka, I., & Toyama, R. (2015). The knowledge-creating theory revisited: knowledge creation as a synthesizing process. In *The essentials of knowledge management* (pp. 95-110). Palgrave Macmillan, London.
- [38]. Nonaka, I., Kodama, M., Hirose, A., & Kohlbacher, F. (2014). Dynamic Fractal Organizations for Promoting Knowledge-Based Transformation—A New Paradigm for Organizational Theory. *European Management Journal*, 32 (7), 137-146.
- [39]. Noor, N. M., & Salim, J. (2012). The Influence of Theories on Factors Affecting Knowledge Sharing and Its Relationship with Innovation and Organizational Performance. *Journal of Education for Business*, 85(6), 330-335.
- [40]. Obeidat, B. Y., Hashem, L., Alansari, I., Tarhini, A., & Al-Salti, Z. (2016). The effect of knowledge management uses on total quality management practices: A theoretical perspective. *Journal of Management and Strategy*, 7(4), 18-29.
- [41]. Ode, E., & Ayavoo, R. (2020). The mediating role of knowledge application in the relationship between knowledge management practices and firm innovation. *Journal of Innovation & Knowledge*, 5(3), 210-218.
- [42]. Omotayo, F. O. (2015). Knowledge Management as an important tool in Organisational Management: A Review of Literature. *Library Philosophy and Practice*, 1(2015), 1-23.
- [43]. Pawirosumarto, S., Sarjana, P. K., & Muchtar, M. (2017). Factors affecting employee performance of PT. Kiyokuni Indonesia. *International journal of law and management*.
- [44]. Rasula, J., Vulkscic, V. & Stemberger, M. (2012). The Impact of Knowledge Management on Organizational Performance. *Economic and Business Review*, 14(2), 147-168.
- [45]. Seedee, R. (2012). Moderating Role of Business Strategies on the Relationship between Best Business Practices and Firm Performance. *International Journal of Business and Social Science*, 3(24), 137-150.
- [46]. Shafloot, F. M. (2012). The relationship among training policy, knowledge transfer, and performance improvement: a study of private sector organizations in the Kingdom of Saudi Arabia. Western Michigan University.
- [47]. Signh, B., & Gautam, S. (2016). Hybrid spiral model to improve software quality using knowledge management. *International Journal of Performability Engineering*, 12(4), 341.
- [48]. Waki, N. (2017). Knowledge management strategies on performance of information, communication and technology companies in Nairobi County (Doctoral dissertation, United States International University-Africa).
- [49]. Wu, G.C., Cheng, Y.H., & Huang, S.Y. (2010). The study of Knowledge Transfer and Green Management Performance in Green Supply Chain Management. *African Journal of Business Management*, 4(1), 44-48.
- [50]. Zaim, H., Muhammed, S., & Tarim, M. (2018). Relationship between knowledge management processes and performance: critical role of knowledge utilization in organizations. *Knowledge Management Research & Practice*, 1-15.

Kenneth Lwegado Endende, et. al. "Influence of Knowledge Application Practices on Employee Performance in Public Technical Vocational Education and Training Institutions in Kenya ." *IOSR Journal of Business and Management (IOSR-JBM)*, 24(10), 2022, pp. 68-79.