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Knowledge-Based Leadership, Innovation and Knowledge Management in Organizational Performance of the Kenyan Higher Education System

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ABSTRACT

Purpose- The research is commenced to examine the effect of knowledge-based leadership, innovation, and knowledge management in organizational performance of the Kenyan higher education system.

Design/methodology/approach – - The research involved a primary quantitative research, specifically cross-sectional survey design. Study used a sample of 10 private universities and public universities situated in the five countries Nairobi, Kiambu, Kisumu, Nakuru, and Uasin Gishu in Kenya and recognized by the Commission for University Education of Kenya. To reduce ambiguity and get accurate responses, 50 questionnaires were sent out to faculty members of universities. From the 50, 45 respondents filled the questionnaires and others suggested and adjustment of the questions to be clarified. 20 questionnaires were randomly dispersed in all of 10 universities, the 10 universities from which the sample for the study was taken are the major institutions of higher education in Kenya comprising more than the 80% of the total population of the Kenyan higher education system.

Findings- The findings indicate that knowledge-based leadership has both direct positive effect on the performance of higher education institutions as well as an indirect positive effect through the mediating role of innovation and knowledge management processes.

Implications – The study will extend the existing literature on the impact of knowledge-based leadership on organizational performance and the mediating role of innovation and knowledge management processes in higher education institutions.

Value – This study is among the few scholarly works that have proposed an integrated research model which seeks to establish the correlation between knowledge-based leadership, knowledge management, innovation, and organizational performance in the Kenyan higher education system.

1. INTRODUCTION

There are several challenges faced by businesses in the current complex world of business. Some of the challenges include customer acquisition, rapid changes in technology, globalization and tough competition from other industry players (Ostrom et al., 2015). Studies from the knowledge-based approach indicate that high performance, increased sustainability, and competitive advantage are dependent on the proper use of the knowledge-based resources in an organization (Iazzolino & Laise, 2016). The higher education sector involves knowledge intensive business process that requires an elaborate management of the knowledge-based resources. Higher education institutions that manage their knowledge-based resources well are more innovative and prepared to deal with the challenges of research and innovation in the educational system. Institutions of higher education improve their efficiency, organizational development and performance through knowledge-based leadership and worthwhile knowledge management strategies (Noruzy et al., 2013). The Kenyan Higher education system has attracted the attention of many scholars in the past. However, other than the presence of remarkable scholarly work within the domain in subject, there are remarkable gap in the prevailing literature which should be linked.

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The knowledge-based resources in institutions of higher education need proper management strategies, but studies suggest that the existing strategies are not sufficient, and research is scarce in this realm (Fullwood & Rowley, 2017). In most developing countries such as Kenya, the higher education system is characterized by individualistic culture, rigid management structure and complex bureaucratic norms that serve as a hindrance to elaborate knowledge management activities. To ensure responsive business processes, facilitators must be incorporated into knowledge management. Knowledge-based leadership plays a critical role in ensuring that the pillars and infrastructure for knowledge management practices exists in any organization (Pandey & Dutta, 2013).

The higher education industry, like other knowledge-based industries, faces difficulties that call for attention to both process and product innovation for improved organizational performance and a competitive edge. At this point, the organizational leadership style can promote or hinder both product and process innovation. Transformational leadership has been established to have affirmative correlation through innovation (Escrig-Tena, et al., 2018). Knowledge-oriented leadership has a strong association with innovation in the context of knowledge-based industries like higher education (Donate & de Pablo, 2015).

Despite the notable linkage between knowledge management, innovation and organizational performance, there is limited scholarly work on how knowledge-based leadership directly affects performance, innovation, and knowledge management in the higher education sector. This study is therefore commenced to examine the effect of knowledge-based leadership, innovation, and knowledge management in organizational performance of the Kenyan higher education system. It seeks to answer the research question; What is the impact of knowledge-based leadership, innovation, and knowledge management in performances of higher education institutes in Kenya.

2. LITERATURE REVIEW

2.1. KNOWLEDGE-BASED LEADERSHIP

Leadership refers to the act of influencing others to accomplish some predetermined goals using various techniques like communication, encouragement, and motivation. However, Shariq et al. (2018) argue that when the desired outcome and objectives are knowledge-related, such techniques of influence are insufficient. One of the leadership contingency theories, the path-goal theory, asserts that a leader's success is greatly influenced by the conduct they display in a given circumstance (Shamim et al., 2019). It requires a variety of management styles for leaders in knowledge-intensive work environments, like the higher education sector, to ensure efficient and effective knowledge management inside their organizations. As leadership plays a crucial role in the management of information and knowledge, which is critical in contemporary organizations, scholars have been looking into the unique leadership characteristics required for efficient knowledge management (Shamim et al., 2019).

Leaders in knowledge-intensive business environments such as the higher education sector use a combination of various leadership techniques to be efficient and effective. Knowledge and information are important in contemporary organizations and leadership plays an important role in the organization. Specific types of leadership behaviors required for effective knowledge management (Shamim et al., 2019).

2.2. KNOWLEDGE MANAGEMENT

Knowledge management is a business process that uses a systematic approach to formalize expertise, experience, and knowledge to support organizations in generating new competences required to improve organizational performance. Knowledge management processes involve a company's ability for knowledge creation, sharing, and utilization (Gharakhani & Mousakhani, 2012). Another subcategory of knowledge management is knowledge management infrastructure, which includes the technology already in use in an organization as well as the organizational culture and structure required to facilitate information flow.

Although there is a direct correlation between knowledge management infrastructure and processes and an organization's competitive advantage, knowledge management processes are more important when it comes to the innovation required to ensure improved organizational performance (Ahmad et al., 2017). Few scholars have investigated the knowledge acquisition and utilization aspects of knowledge management processes (Adeinat & Abdulfatah, 2019). This article, however, focuses on these three components and how they affect

organizational performance and innovation in the higher education sector through knowledge-oriented leadership. Any institution's capability for knowledge management begins with knowledge acquisition using both internal and external resources (Yasir et al., 2017). Knowledge acquisition in an organization involves interaction of people, resources, and technology both outside and within an organization. The interaction between people, resources and technology helps an organization to generate new competencies and skills that are added to the existing knowledge stock. Knowledge sharing remains the most crucial aspect of the knowledge management because it fosters a competitive advantage and enhances organizational innovation. Knowledge sharing is regarded as the practice of sharing information, skills, ideas between employees in an organization. Knowledge utilization alternatively is also regarded as the application of knowledge in the processes, services, products, and organizational functions to ensure high performance necessary for commercial value.

2.3. INNOVATION

The nature and complexity of business practices in the higher education sector requires innovation to contend with the worldwide trends and to meet the expected societal needs in the higher education that are rapidly evolving. Scholars recommend a focus on product and process innovation in the higher education sector to help in improving the performance and the quality of education (Al- Hakim & Hassan, 2016). In the higher education sector, product innovation is regarded as the development and implementation of new teaching materials, methods, programs, courses and research and academic programs.

2.4. ORGANIZATIONAL PERFORMANCE

The main objective of knowledge management and innovation as well as other various motivating factors is to ensure higher organizational performances which involve development and progress in an organization's processes (Ahmad et al., 2017). According to Abualoush et al. (2018), organizational performance can be assessed from the level of work quality, the employee productivity, the nature of processes and product innovation, the relationship between the leadership and employees and the problem solving ability. The higher education sector performance, on the other hand, is based on several indicators which include the institution's responsiveness, the productivity of the graduates, nature of curriculum development, the quality of scholarly publications, the research ranking, and the level of student satisfaction.

3. THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

The resource-based view of an organization, which maintains that knowledge is an important and valuable component in ensuring that organizations have a competitive advantage in their respective industries, serves as the foundation for knowledge-based views. The knowledge-based view emphasizes the need to concentrate on knowledge activities, such as knowledge creation, its incorporation, and its applications (Costa & Monteiro, 2016). The basic tenet of the knowledge-based view holds that businesses with a framework for efficient organizational knowledge management exhibit higher levels of innovation, better performance, and improved intellectual capital. (Ramadan et al., 2017). As a result, embracing the framework and knowledge-based leadership in the higher education system will result in enhanced innovation and knowledge management processes that prompt high organizational performance.

3.1. KNOWLEDGE-BASED LEADERSHIP IN ORGANIZATIONAL PERFORMANCE

The knowledge-based leadership is considered as the type of leadership that comprises both transactional and transformational leadership aspects (Donate & de Pablo, 2015). Knowledge-based leadership is characterized by traits that pertain to knowledge, such as facilitating the acquisition of external knowledge, promoting learning from experience, knowledge application, sharing of rewards and creating a positive environment for teamwork. The relationship between knowledge-based leadership and organizational performance has received little scholarly attention, but the fact that this leadership style combines elements of both transactional and transformational leadership techniques leads us to hypothesize that knowledge-based leadership is important for the higher education system for a variety of reasons. Knowledge-based leadership fosters a collaborative environment that encourages faculty employees' trust in the higher education system. High research productivity and improved knowledge sharing are outcomes of the growing trust (Fullwood & Rowley, 2017). Knowledge-based leadership rewards the application and sharing of such knowledge, which encourages collaboration in research, responsiveness in developing the curriculum, and the quality of

education. It also encourages knowledge acquisition from a variety of sources (Tan & Noor, 2013). The knowledge-based leadership is credited for fostering a learning culture that enhances organizational performance (Choudhary et al., 2013). These claims have led us to the following conclusion:

H1. Knowledge-based leadership has affirmative impact towards organizational performance.

3.2. KNOWLEDGE-BASED LEADERSHIP, KNOWLEDGE MANAGEMENT AND ORGANIZATIONAL PERFORMANCE.

Higher education institutions must consistently improve the curriculum while also producing qualified graduates who are prepared for the competitive job market. The challenges are more complex in developing countries such as Kenya (Iqbal et al., 2019). The majority of higher education institutions recognize the significance of effective knowledge management as a means of ensuring improved performance and industry sustainability. According to the knowledge-based perspective, if knowledge management procedures are successfully implemented in a company, that company will have high performance and a competitive edge (Tseng & Lee, 2014). When knowledge-based resources within an organization are managed well, it enhances the organization's ability to innovate and respond to the dynamic market conditions resulting in superior performance. The foregoing account points to a positive correlation between organizational performance and knowledge management processes. As a result, we argue that knowledge based leadership is critical in implementing knowledge management processes such as acquisition, utilization and sharing of knowledge in institutions of higher education which result in high academic quality, productivity in research and satisfaction among the students. As a result, we propose the following hypotheses:

H2: Knowledge-based leadership positively impacts knowledge management processes.

H3: Knowledge management processes positively impact organizational performance.

H4: Knowledge management processes mediate the effect of knowledge-based leadership in the organizations performance.

3.3. KNOWLEDGE BASED LEADERSHIP, INNOVATION AND ORGANIZATIONAL PERFORMANCE

Transactional and transformational leadership styles, for instance, are exceptional traditional leadership styles that are equally associated with innovative results. Transformational leaders use inspiration, intellectual stimulation in enhancing the self-efficacy of their employees. Transformational leaders encourage their employees to challenge the norms and experiment with unique ideas (Zuraik & Kelly, 2019). Knowledge-based leadership enables followers to implement original ideas by defining their roles, providing intellectual stimulation, and communicating an institution's innovation goals and strategies (Williams & Sullivan, 2011). Process and product innovation have become critical in the higher education to better adapt to the changing demand for higher education (Al-Hakim et al., 2016) because institutions that focus on improving the process and creating innovative products have better quality, low cost and flexibility. Product and process innovation in higher education systems improves service quality, high student satisfaction, improved curriculum, and research productivity which helps in achieving higher performance. We therefore propose the following hypotheses;

H5: Knowledge-based leadership positively impacts innovation.

H6: Innovation positively impacts organizations performance.

H7: Innovation intermediate the impact of knowledge-based leadership in the organizational performance.

3.4. KNOWLEDGE-BASED LEADERSHIP, KNOWLEDGE MANAGEMENT, INNOVATION AND PERFORMANCE IN ORGANIZATIONS

According to the knowledge-based view, there is a universal association between innovation, knowledge management processes and performance in an organization. As a result, knowledge management innovation and processes should sequentially arbitrate to the link between organizational performance and knowledge-based leadership. The following hypotheses are proposed.

H8: Knowledge management processes positively impact innovation.

H9: Knowledge Management innovation and processes sequentially arbitrate the impact of knowledge-based leadership on the organization's performance.

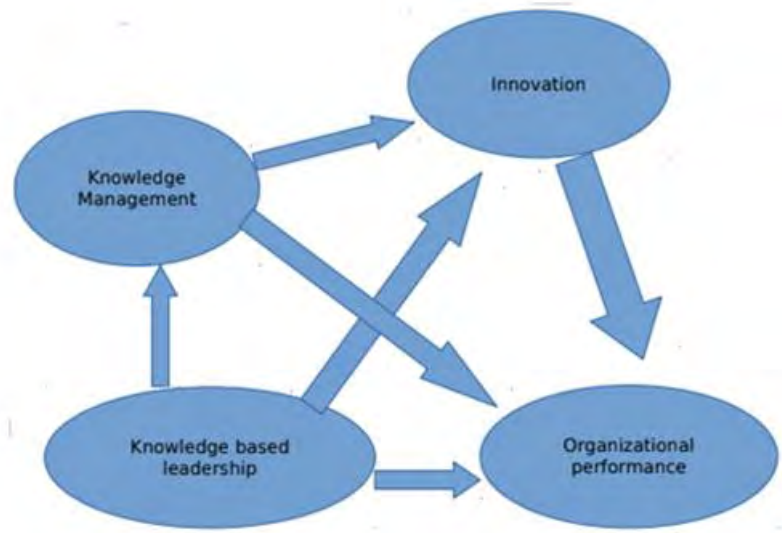

Figure 1: Research Model

4. METHODOLOGY

4.1. METHOD AND STUDY CONTEXT

According to the Commission for University Education in Kenya, there are 10 recognized university education institutions that operate in private as well as public institutions and are involved in progressing higher education in different disciplines which include medicine, technology, agriculture, education, business, humanities and social sciences, law, and business. Regardless of the significant effort contributed by the Commission for University. Education in Kenya to endorse research and innovation, higher education institutions in Kenya appear to not do well in the global rankings. To address the problem, attain a sustainable competitive edge and have improved organizational performance through innovation and research, it is critical for the institutions of higher education to embrace an approach that fosters effective management of organizational knowledge. Accordingly, this research attempts to examine knowledge-based leadership, innovation, and knowledge management in organizational performance of the Kenyan higher education system. The method utilized in this study is cross-sectional survey design.

4.2. SAMPLE AND POPULATION

This study used a sample of 10 private universities and public universities situated in the five counties Nairobi, Kiambu, Kisumu, Nakuru, and Uasin Gishu in Kenya and recognized by the Commission for University Education of Kenya. Faculty members were the respondents, they included: lecturers, tutorial fellows and professors. The main rationale for using faculty members in collecting of data is because they are clearly regarded as the main knowledge backbones in institutions of higher education and are considered the prominent sources of the innovation that results in the competitive edge of the higher education institutions and improved organizational performance. To reduce ambiguity and get accurate responses, 50 questionnaires were sent out to faculty members of my university. From the 50, 45 respondents filled the questionnaires and others suggested an adjustment of the questions to be clarified. The concluding questionnaire used was adjusted according to the suggestions made during the process of pilot testing. Each questionnaire was accompanied by a well explained cover letter pointing out the purposes of the survey as well as assuring the respondents of their confidentiality.

Due to restrictions on time, money, and resource, the majority of researchers have problems in using random sampling techniques (Wallen & Fraenkel, 2001), therefore, the current work utilized convenience sampling. We collected the data from staff who were easily accessed first hand and their friends who are faculty members in diverse disciplines. The staff were recruited on the basis of their voluntary participation and they were

expected to complete all questionnaires. The generalizability of the results should be considered cautiously because of the representativeness of the sample. 200 survey questionnaires were distributed, among the responses 181 were valid, with a response rate of 90 %. This response rate is adequate for online self-administered questionnaires, where response rates usually vary from 25 to 50 % (Llieva, Baron, & Healey, 2002). 20 questionnaires were randomly dispersed in all of 10 universities, the 10 universities from which the sample for the study was taken are the major institutions of higher education in Kenya comprising more than the 80% of the total population of the Kenyan higher education system.

4.3. MEASURES

In this study, the measurements applied were adopted from preceding case studies and evaluated by a 5-point Likert scale starting from 1 for strongly disagree to 5 for strongly agree.

4.3.1. *KNOWLEDGE-BASED LEADERSHIP*

To measure the measure knowledge-based leadership, we adopted the tool established by Donate & de Pablo (2015) with a few modifications of the questions to fit the context of the research. The tool has also been endorsed by other scholars see (Naqshbandi & Jasimuddin, 2018). The faculty members also were requested to give their opinion the leadership conduct of their corresponding departmental chairpersons on 5 items in a 5-point Likert scale. The sample question included "The departmental head gives rewards to faculty members for sharing and applying knowledge".

4.3.2. *KNOWLEDGE MANAGEMENT*

The knowledge management aspect was operationalized as a second construct comprising 3 dimensions which include "acquisition of knowledge", "utilization of knowledge" and "sharing of knowledge". The work of Iqbal et al. (2019) points out to 16 knowledge measurement items in the institutions of higher education picked from previous research works. Acquisition of knowledge was assessed using 6 items. The sample item for acquisition of knowledge included "My university recruits news faculty members as a source of new knowledge". Sharing knowledge was assessed using 5 items in a 5-point Likert scale. The sample item included "My University encourages knowledge and information sharing across departments and among faculty members". Utilization of knowledge was assessed using 5 items in a 5-point Likert scale. The sample item included "My University utilizes existing knowledge in advancing services offered to its clients".

4.3.3. *INNOVATION*

Innovation was operationalized as a second order construct in as demonstrated in the first order constructs of process and product innovation. The work of Elrehail et al. (2018) points out 11-item scale borrowed to measure these dimensions in the higher education institutions context. Measuring process innovation involved 7 items while measuring product innovation involved 4 items in a 5 point Likert scale. The item sample for process innovation included "Our University is coming up with fresh training programs for faculty members". The sample item for product innovation included "Our University regularly comes up with fresh programs for faculty members and learners".

4.3.4. *ORGANIZATIONAL PERFORMANCE*

Organizational performance of the institutions of higher education was by assessing the curriculum development, research ranking and productivity, the responsiveness of the institution and satisfaction of the students. The study picked 7 items from the work of Iqbal et al., (2019) in assessing the construct in a 5 point Likert scale. The sample included "Our university research productivity is better when compared with our main competitors". Table 1 summarizes the variables and their measures.

Table 1: Summary of Variables

Variables	Sub constructs	Items	Operation
Knowledge-based leadership	Transformational leadership Transactional leadership	Knowledge utilization Knowledge sharing	Motivation Encouragement Communication skills
Knowledge management processes	External knowledge acquisition Internal knowledge acquisition	Creating knowledge Sharing knowledge Knowledge utilization	Ideas Information
Innovation	Product innovation Process innovation	New technology New equipment New incentives	Teaching materials Methods Programs Courses
Organizational performance	Development organizational performance Progress organizational performance	Goals objectives	Programs Work quality Efficiency Innovation

4.4. DATA ANALYSIS

First we conducted missing data analysis, by checking the data at unit-level (when information is not able to be collected from a staff) and item-level (incomplete information collected from a staff). We did not have unit-level missing and followed the procedures of item-level missing analysis. All variables were controlled in terms of missing values; the proportions of missing are calculated, and it was observed that missing values were under 5% (see: Tabachnick & Fidell, 2013). To deal with them, we performed a dummy variable adjustment (see: Allison, 2001). Since no evidence about having a pattern in missing data, we replaced them with a series of means. As Tabachnick and Fidell (2013) suggested we retained the missing values and replaced them with the mean values.

Then we conducted descriptive and inferential statistics. Research involved a variance based structural equalization modelling technique in data analysis. The technique was picked because it imposes limited restriction on the normality of data. The technique is prediction oriented and therefore best suited when the research is meant for testing existing theories in an explanatory way (Hair et al., 2019). The work of Iqbal et al., (2019) also points out that the partial least squares structural equalization modelling technique use has increased because of the potential benefits in knowledge management research. The valuation of the measurement model was done to make sure the constructs used in the structural model are valid and reliable. The evaluation of the structural model is done to assess the statistical significance and predictive relevance of the model used in the research.

The study adopted the guidelines as a procedural remedy by ensuring the anonymity and confidentiality of the respondents to avoid dishonest and artificial responses from participants and reduce common method bias. The Harman's single factor test was used and found the single factor less than 50% indicating that common method bias is not a serious backlash in the research.

5. RESULTS & DISCUSSION

5.1. DESCRIPTIVE STATISTICS ON VARIABLES

Data has been cleaned through the Microsoft Excel software by eliminating some of the missing values for the entire respondent and some of the missing values replaced since they were minor. The minor values were considered as the record of a respondent has two or one missing value. The data cleaning process was done in excel since it is an easy tool for viewing the missing values using direct inbuilt functions. However, the data was then analysed in SPSS software version 25 which is an elaborate tool for data analysis with inbuilt capabilities suitable for statistical analysis. The analysis involved 181 questionnaires out of the 183 that were returned by respondents from the 200 that were sent out. The 2 questionnaires did not have enough information for analysis and therefore were not considered for analysis. The demographic features of the respondents are shown in table 2.

Table 2: Respondents' Demographic Information

Characteristic	Category	Frequency	Percentage (%)
Gender	Male	103	56.9
	Female	78	43.09
Age	Below 30 years	12	6.67
	30-40 years	68	37.78
	41-50 years	79	43.64
	51-60 years	17	9.39
	Above 60 years	5	2.78
Academic level	Bachelors	5	2.78
	Masters	57	31.67
	PhD	118	65.55
Academic position	Associate professors	45	25
	Lecturers	69	38.33
	Professors	20	11.11
	Tutorial fellow	46	25.56
Job tenure	Below 10 years	64	35.56
	10-15 years	57	31.67
	16-20 years	42	23.33
	More than 20 years	17	9.44

5.2. MEASUREMENT MODEL ASSESSMENT

Construct's reliability and validity of was assessed through measurement model assessment. The study involved two high-order constructs which include knowledge management processes and innovation.

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.997[a]	.993	.993	105.092
a. Predictors: (Constant), Knowledge-based leadership, Knowledge management, Knowledge utilization				

Table 3 indicates the model summary for regression analysis Structural model results SEM. The R-squared value is the coefficient of determination which indicates how the available data fits on the model. Since the value is .993, it shows that the data fit 99.3% to the model. Hence the model accuracy is improved. The p-value for the model is more than the level of significance, which is 0.05. Hence there is a positive effect on knowledge-based leadership, knowledge utilization, and knowledge management. The 0.85 coefficient determination from the results indicates that knowledge- based leadership, innovation and knowledge management processes explain 85% of the level of organizational performance. 0.70 coefficient knowledge management processes indicate that Knowledge-based leadership explains 70% in variance of knowledge management processes. 0.90 coefficient for innovation indicates that knowledge-based leadership and knowledge management processes explain the 90 variance in innovation. The findings from the study indicate that all the indicators loading above 0.70 except the organizational performance. The overall findings point out that the equation model is suitable for structural evaluation.

5.3. STRUCTURAL MODEL EVALUATION

The Structural model evaluation is generated after PLS-SEM analysis stage regarding the measurement requirement of the model. The technique was picked because it imposes limited restriction on the normality of data. The technique is prediction oriented and therefore best suited when the research is meant for testing existing theories in an explanatory way (Hair et al., 2019). First stage we generate coefficient determination (R^2 value) that predicted cross – validated redundancy index and accuracy that predicted the structural model relevance. Table-4

Table 4: Factor-Generating Reliability Average

Construct	Code	Loading	Cr	AVE
Knowledge-based leadership	KBL1	0.79	0.89	0.68
	KBL2	0.88		
	KBL3	0.89		
	KBL4	0.81		
	KBL5	0.76		
	KBL6	0.77		
Knowledge management processes	K/A	0.88	0.91	0.79
	K/S	0.89		
	K/U	0.84		
Innovation	Product Innovation	0.90	0.87	0.82
	Process Innovation	0.79		
Organizational performance	O/P1	0.61	0.94	0.77
	O/P3	0.81		
	O/P4	0.89		
	O/P5	0.78		
	O/P6	0.96		
	O/P7	0.78		

In the second stage, we involved bootstrapping procedure to compute p-values and t-values to test significance level trail for hypotheses associations' valuation. The technique mostly suits analysis mediation as in this case of study and in the merging of PSL-SEM analysis. Also variance is evaluated to better resolute strength of indirect effect.

Table 5: Structural Model Results

KNOWLEDGE Man processes	0.78	0.71
Innovation {proc & prod)	0.81	0.72
Organizational performance	0.99	0.38

Aggregate outcome	Coefficients	{SE}	*t* values	*p* values
KBL → O/P	0.77	0.09	29.93	0.00
Direct outcome				
KBL → O/P	0.36	0.03	4.43	0.00
KBL → KMP	0.79	0.12	21.98	0.00
KBL → Innov	0.57	0.09	19.98	0.00
KMPS → Innov	0.84	0.12	12.87	0.00
KMPS → Op	0.27	0.05	8.43	0.00
Inno → O/P	0.48	0.09	4.43	0.00
Indirect outcome				
KBL → KMP → O/P	0.19	0.11	2,99	0.00
KBL → Inno → O/P	0.21	0.01	6.32	0.00
KBL → KMP → Innov → O/P	0.12	0.12	3.01	0.00
Overall indirect outcome				
KBL → O/P	0.79	0.06	2.89	0.00

Table 6: Factor-Generating Reliablity and AVERAGE at the 2nd Level

	1	2	3	4
1. Innovation	*0.94*			
2. Knowledge M processes	0.96	*0.89*		
3. Knowledge-based leadership	0.49	*0.62*	*0.88*	
4. Organizational performance	0.68	*0.61*	*0.69*	*0.79*

NB: Values are the square root of averages, above are the generated correlations outcome between the used research constructs.

Figure 2 shows the structural path coefficients and the overall outcome, both indirect effects and both direct effects and each of their impact.

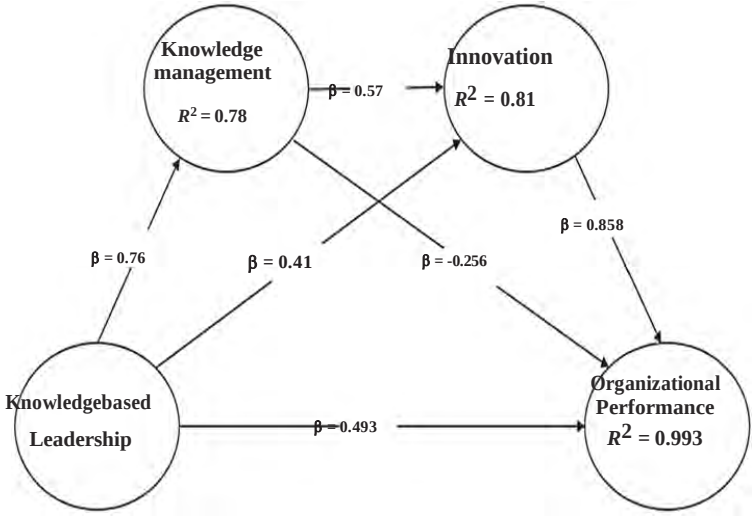

Figure 2: Structural Path

The operational path coefficients point out that knowledge-based leadership has a significant positive impact on organizational performance as proposed in H1. The positive impact of knowledge-based leadership towards organizational performance (β 5 0.25, t 5 2.99, p < 0.01) shows how it is linked to mediation effect of innovation and knowledge management processes.

H1 predicted that knowledge-based leadership has a positive impact on knowledge management processes (β 5 0.76, t 5 21.98, p < 0.01) whereas H3 predicted that knowledge management process has a positive effect on organizational performance (β 5 0.25, t 5 8.43, p < 0.01). The result shows that knowledge-based leadership has a positive impact on knowledge management processes while knowledge management processes have a positive impact on organizational performance. The outcome substantiates H2 & H3. The result indicate that knowledge management process has a mediating effect on knowledge based leadership that result in positive organizational performance (β 5 0.493, t 5 4.02, p < 0.01). which supports H4. H5 predicted that knowledge-based leadership has a significant impact on innovation (β 5 0.41, t 5 19.98, p < 0.01) while H6 predicted that innovation has positive impact on organizational performance. The result from the study supports the two hypothesis because it shows that knowledge-based leadership has a significant impact towards innovation (β 5 0.57, t 5 19.98, p < 0.01) while innovation has a significant impact towards organizational performance (β 5 0.858, t 5 4.43, p < 0.01). The findings also indicate that innovation plays a mediating effect on the impact of knowledge-based leadership on organizational performance (β 5 0.28, t 5 6.32, p < 0.01) which supports H7. H8 predicted that knowledge management processes have a positive impact on the level of innovation in an organization. The results of the study supported this hypothesis. The results also indicated that knowledge management processes and innovation play a mediating role in knowledge-based leadership and increased organizational performance (β 5 0.858, t 5 3.01, p < 0.01) which supports H9.

Overall assessment shows that mediators' inclusion within the model, shows that direct impact on the knowledge-based leadership on organization performance is reduced when compared with the total impact but it is significant.

6. CONCLUSION, IMPLICATIONS AND LIMITATIONS

6.1. CONCLUSION

The research was commenced to examine the impact of knowledge-based leadership on organizational performance and that mediation effects of innovation and knowledge management processes. Data was collected from top 10 major universities to examine the predictions of nine hypotheses. The research involved academic staff members from public and private universities in Kenya. The research's findings add to the body of literature in several different ways. The study's results confirmed the first hypothesis, which held that knowledge-based leadership enhances organizational performance. Firstly, there are numerous knowledge

related factors in an organization such as the leadership, technology, culture and structure which increase the effectiveness of an organization. Knowledge-based leadership both transactional and transformational helps in aligning the expectations of the employees and their roles with organizational objectives which increase organizational performance. Knowledge-based leaders encourage acquisition of external knowledge, learning and positive employee behavior. As a result, such leadership in higher education institutions increases academic quality, research productivity and the level of student satisfaction.

The results also indicated that institutions with knowledge-oriented leaders have positive knowledge management processes. Knowledge-based leadership plays a significant role in effective knowledge management processes such as acquisition, utilization, application, and knowledge sharing. Such institutions have responded indicating that they have engaged in research activities to further knowledge. Good knowledge management processes can help higher education institutions to develop effective curriculum increase the level of satisfaction and research productivity. The results demonstrate a strong link between knowledge-based leadership and the level of innovation in an organization. Innovation helps organizations to survive stiff competition in their respective industries. The study findings indicate that the organizational leadership is critical in ensuring innovative practices in higher education institutions. The study substantiates previous works which hold that knowledge-based leadership is critical in the facilitation of knowledge management processes in higher education institutions because institutions with knowledge-based leaders demonstrated implementation of knowledge management processes.

There is need for knowledge-based leadership in higher education institutions because they are knowledge intensive. Knowledge-based leadership helps in ensuring effective management of the knowledge assets in higher education institutions. Proper management of knowledge assets in higher education institutions promotes innovation and increased organizational performance. The findings of the research indicate that knowledge-based leadership has both direct positive effect on the performance of higher education institutions as well as an indirect positive effect through the mediating role of innovation and knowledge management processes. Additionally innovation, in today's dynamic environments, requries more attention. Thus, for higher education institutions, more research is required regarding how more flexible organizational settings might be helpful to manage such conditions. Also, leader-member relationships can be investigated to reveal information exchange channels and networks. From organizational settings point of view, it is also suggested to investigate different higher education settings, such as public and private. Last but not least, culture might be a potential determinant, thus it is suggested to conduct further studies in various cultural settings.

6.2. IMPLICATIONS

The research finds will help extend the existing literature on the knowledge-based leadership impact towards organizations performance and the intermediating roles of innovation and knowledge management processes within higher education institutions.

6.3. LIMITATIONS AND FUTURE RESEARCH

The research involved responses from members of the academic staff from the top ten universities in Kenya which might have better knowledge-sharing culture as compared to small higher education institutions, as a result the findings may be less generalized for all the higher education institutions. The institutions are based in relatively developed parts of the country as a result, there is need for future research to focus on samples from remote areas higher education institutions to understand how different settings may influence the outcome.

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