



INTELLIGENT LEADERSHIP AND ITS EFFECT ON KNOWLEDGE SHARING BEHAVIOR AMONG ACADEMIC STAFF IN KENYAN UNIVERSITIES

Geoffrey Biwott 

Department of Management Science, School of Business, Bomet University, Kenya

ARTICLE INFO

Received: 15 November 2021

Revised: 19 February 2022

Accepted: 20 February 2022

Keywords: Leadership,
Emotional intelligence,
Intelligent Leadership,
Knowledge Sharing Behavior

Corresponding Author: Geoffrey
Biwott

Email: gbiwott@gmail.com

Copyright © 2022 by author(s)

This work is licensed under the
Creative Commons Attribution
International License (CC BY 4.0).
<http://creativecommons.org/licenses/by/4.0/>



ABSTRACT

Purpose: The main is to assess the impact of intelligent leadership in Kenyan universities on knowledge sharing behavior.

Approach/Methodology/Design: The research was motivated by Path Target Theory. An explanatory research design was adopted with a positivism approach. The target population consisted of 6400 and a selection of 366 academic workers from 14 chartered Nairobi County Kenyan universities. The study used a stratified technique to select the academic staff of the university into 14 strata representing each university in Nairobi County, Kenya, using simple random sampling. The study used a stratified technique to select the academic staff of the university into 14 strata representing each university in Nairobi County, Kenya. Both descriptive and inferential statistics were used for analysis while hypotheses were tested using multiple regression.

Findings: The regression results indicated that emotional leadership ($\beta = 0.37$, $p < 0.05$) and spiritual leadership ($\beta = 0.11$, $p < 0.05$).

Practical Implications: In addition, this study recommends that intelligent leadership in the sharing of knowledge is necessary in order for university leaders to consider leadership areas in university.

Originality/value: The study concluded that a high percentage of intelligent leadership results in improved behavior of sharing employee knowledge that is essential to transform Kenyan universities and drive behavior of sharing knowledge.

INTRODUCTION

Knowledge sharing is considered one of the most important aspects of knowledge management (Gupta et al., 2000), and knowledge management systems rely on knowledge sharing to be successful (Wang et al., 2010). Information management research argues that organizational knowledge and individual learning at the group level derive from collaboration, exchange and sharing between colleagues. Transferring of knowledge, knowledge sharing has its own place and importance in knowledge management (Özler et al., 2006).

In addition to promoting but also limiting the sharing of knowledge, many physical, technological, psychological, cultural and personal factors have effective roles. Despite the many benefits of knowledge sharing, researchers and implementers often argue that people do

not share their knowledge with others in many instances (Davenport, 2008). In addition, they say that knowledge sharing is unnatural and there are many reasons for individuals to refrain from sharing their knowledge with others.

According to Ikhsan and Ronald (2004), time is insufficient and motivation is not enough for sharing, and the culture of knowledge sharing is lacking. In addition, inadequacy in knowing what to share with whom, restricted appreciation of sharing knowledge and fear of gaining false knowledge can also impede acts of sharing knowledge (Majid et al., 2009). Furthermore, a study of the literature on the activities of people sharing information reveals that the motivations and factors involved in activity, such as knowledge sharing, are still difficult to understand in-depth and examine in detail (Holste & Hou, 2015). Therefore, understanding what inspires people to share their knowledge and what prevents them from sharing it is important.

One of the factors that can play an important role intelligent leadership can influence their knowledge-sharing efforts. Knowledge sharing and organizational behavior are aspects of leadership and are linked to each other (Yadav, et al., 2019). Higher education and smart leadership are considered essential components of each nation's education system, which could probably play a key role in achieving the objectives. In leadership theory, modern trends aim to interpret leadership through the lens of imaginative and intelligent phenomena. Intelligent leadership is a constructive dialogue between leaders and supporters that makes it easier to bring together their efforts to achieve a shared vision.

Intelligent leadership's task is to create abilities, generate collective enthusiasm, and expand the knowledge capital of an organizational balance between current activity and planning for the future is provided by the adoption of such an approach at universities. (Cheng et al., 2014). Leaders' key qualities include the ability to negotiate and make decisions, strategic and critical thinking, and the ability to manage talent and teams, taking into account values, personalities, and personal values (Cheng et al., 2014).

Nevertheless, although smart leadership is a key asset, studies have less focused on how smart leadership impacts (Cheng et al., 2014). Therefore, since recent studies have found that human knowledge doubles on average every 13 months, the need to examine how to research the conduct of academic employees in higher education, especially in Kenya, to share knowledge (Schilling, 2013), should be enhanced, definitely calling for the development of knowledge sharing strategies in higher education institutions. The study thus examined the effect of intelligent leadership on the behavior of knowledge sharing.

LITERATURE REVIEW

The theory of the path-goal explains how subordinates are directed by a leader to achieve designated goals. In the early 1970s, in the leadership literature in the works of House (1971) and House et al., 1974, the path target theory first appeared, based heavily on studies on what motivates workers. The path-goal theory emphasizes the relationship between the styles of a leader, the characteristics of subordinates and the work environment, in contrast to the situational approach, which suggests that a leader must adapt to the developmental level of subordinates, and in light of the contingency theory, which emphasizes the match between the style of a leader and specific variables (House et al., 1971).

The fundamental principle of this model, according to Oluwatoyin (2006), is that leadership behavior should be motivating and satisfying to the extent that it increases subordinate goal achievement and clarifies the behavior that will contribute to these goals/rewards. The derived expectation theory is an assumption of path-goal theory, which suggests that subordinates will be motivated if they think they are able to perform their work; if they believe that their efforts will lead to a certain result and if they believe that the payoffs for performing this work are worthwhile (House, 1996).

To explain how leaders motivate subordinates to be productive and satisfied with their work, the Path goal theory was developed. Conceptually, intelligent leadership requires three primary components, vision, hope/faith, and altruistic love, as the leader's values, behaviors, and behavior, respectively. Vision refers to a bright future that makes workers feel the meaning of life and intrinsic self-worth. Hope/faith reflects the leader's trust in the achievement of the vision, elevated levels of which will inspire subordinates to achieve the organizational goal.

Hypothesis Development

Leadership is essentially an emotional activity, whereby the emotional states of followers are perceived by leaders. As Mayer et al. (2000) indicate, a high degree of emotional intelligence allows a leader to be better able to control how members of the workgroup feel and to take appropriate action. People in leadership positions need to express and share positive emotions (Prati et al., 2003) and lack of emotional control is associated with leadership ineffectiveness (Prati et al., 2003; Goleman, 1998b). Managers with a high level of emotional intelligence may encourage employees to address the possible impacts of stress (Goleman, 2006).

A significant part of emotional intelligence is the control of emotions and the power of others. It includes impacting people and interacting with them effectively (Mathews et al. 2004). Managers with high emotional intelligence achieve high levels of creativity and conflict management (Goleman, 2010). The emotional state of leaders can either encourage or impede employees' job performance. The above definition shows that in managing one's relationships with others effectively, emotional intelligence plays a critical role. To highly effective leaders, elevated emotional intelligence is available.

A well-trained, incisive and insightful person cannot make a good leader without it (Mayer, et.al 2010). High emotional knowledge and emotional regulations have been deemed important to institutions (Allen, 2013). Research has shown that emotional intelligence is a big predictor of key operational problems such as job success and successful leadership of teams. Managers with high emotional intelligence achieve high levels of creativity and conflict management (Goleman, 2010).

The emotional state of leaders may either promote the job success of employees or hinder them. The above description indicates that emotional intelligence plays a critical role in handling one's relationships with others effectively. Elevated emotional intelligence is available to highly successful leaders. The product of leadership is emotional intelligence. A well-trained, incisive and insightful person cannot make a good leader without it (Mayer et al., 2010). An emotionally intelligent leader can say how important a problem is to another in order to prioritize the important issues. The greater the emotional intelligence of leaders, the more leaders use emotions to manage close relationships, and the more they are able to demonstrate efficient results (George et al., 2000). In addition, in order to support a team and the working group, it has been proposed that leaders must develop good emotional

relationships with team members and be able to handle those relationships effectively (George et al., 2000).

It is argued that leadership is fundamentally an emotional process in which leaders understand and control the emotional states of followers (Humphrey, 2002) and in which A critical component of leadership effectiveness is emotional intelligence, especially as leaders interact with teams and workgroup members. In two ways, emotionally intelligent leaders help team leaders inspire team members to work together towards team goals. Leaders often serve as a transformative influence on team members. In this way, leaders empower team members to work towards increasing team efficiency and success, promoting engagement dynamics between team members, building interpersonal trust and motivating participants to adopt the articulated vision (Goleman et al., 2002). Thus the hypothesis:

HO1: intelligent leadership has no significant effect on knowledge sharing behavior in Kenyan universities.

METHODOLOGY AND PROCEDURES

This study emphasized positivism by providing a profile to explain relevant aspects of the phenomenon of interest from an individual, organization to industry to the researcher by using the explanatory analysis study to analyze the cause-effect relationship and describe the characteristics of the variables of interest in a case. The target population consisted of 6423 academic staff from 14 chartered universities in Nairobi County's main campuses only and not satellite campuses and constituents of university colleges (Commission of University, 2018). A sample size of 376 academic employees was picked. After that, using simple random sampling, the respondents to the questionnaire were selected. For each stratum where the pre-specified size is drawn separately in different strata, this was achieved by assigning a consecutive number from one (1) to the Nth number.

For example, for Nairobi University, a consecutive number was assigned from one (1) to 1783 in the analysis. The data containing the academic staff's 1783 names were then entered into SPSS, and a random sample of 106 out of 1783 was chosen randomly.

Using a questionnaire, primary data was obtained. The method for data collection was a questionnaire for this analysis. The questionnaires were used as a data collection method to enable the researcher, by answering specific research questions, to achieve the specified objectives in the collection of primary data based on the five-point Likert-type scales. Reliability and Validity of variable measurement. In this analysis, the Intelligent Leadership Model by Keikha *et al* (2017), which consists of Emotional Leadership (6items) and Spiritual Leadership (6 items), was used to measure intelligent leadership, which is the independent variable (IV) (While the Dependent Variable (DV) Knowledge Sharing activity was calculated by the scale of knowledge sharing (Kankanhalli *et al.*, 2005), which consists of eight objects, was adopted.

The reliability of this analysis was calculated by using previous studies and Cronbach's Alpha test validated scales (Saunders, et al., 2007) and those things with an alpha coefficient of 0.7 and above were accepted (Fraenkel & Wallen, 2000). The adoption of a highly accurate instrument was used and carried out using Cronbach alpha on the questionnaire objects. In most relevant study, however, the appropriate threshold is 0.7 thresholds (Fraenkel & Wallen, 2000) and that influenced this research.

Reliability findings were obtained in this analysis as all the variables had more than 0.7 (see 4.15) Construct validity which is the degree to which a test tests what it claims or claims

to be the calculation or appropriateness of the inferences (often test scores) made based on observations or measurements, specifically whether the intended construct is assessed by the test. From Wieland et al (2017). Size objects were tested by principal component extraction with varimax rotation to determine the construct validity. In this research, the Kaiser-Meyer-Olkin (KMO), The Bartlett Test, is critical and confirms the appropriateness of the factor analysis for the data set.

Table 1. Reliability and Validity of Measurement of Variables

(KMO and Bartlett's Test)	Loadings	Eigenvalue	% Var	CR	AVE
KSB(KMO=.731. $\chi^2=1529.73$, $p=.000$, Cronbach's Alpha=.0718)		3.21	33	0.78	0.48
KSB1	0.74				
KSB2	0.73				
KSB3	0.63				
KSB4	0.55				
KSB5	0.53				
KSB6	0.83				
KSB7	0.74				
KSB8	0.73				
Emotional leadership (KMO=.837. $\chi^2=2799.053$, $p=.000$, Cronbach's Alpha=.0761)		5.11	63.89	0.92	0.62
EL1	0.89				
EL2	0.88				
EL3	0.87				
EL4	0.83				
EL5	0.83				
EL6	0.77				
Spiritual leadership (KMO=.591 $\chi^2=1816.05$, $p=.000$, Cronbach's Alpha=.612)		3.002	37.529	0.84	0.45
SP1	0.82				
SP2	0.75				
SP3	0.67				
SP4	0.65				
SP5	0.64				
SP6	0.94				

Source: Author 2020

Analytical Model

The field data collected was entered, cleaned, and inspected for preliminary assumptions in SPSS (Statistical Package for Social Scientists) version 22, and then subjected to statistical analysis using descriptive and inferential statistics. The study's research priorities and research theories inspired the data analysis. This included the conceptualization of the multiple regression model. To analyze the effect of Intelligent Leadership on knowledge sharing behavior. A prediction model was developed by this. Therefore, to analyze data, multiple regression analysis was used for this report. A measure of the predictive ability of the model was given by R^2 , the determination coefficient. The null hypotheses were either rejected at level $p < 0.05$, or were not rejected at level $p > 0.05$.

RESULTS AND DISCUSSION

The study was planned to collect data from 376 respondents, but data from 337 respondents was collected successfully. This reflects an 89.62 percent response rate for the entire survey, of which 39 were further discarded due to either lack of response or insufficient filling. This answer falls within the confines of Anderson et al. (2003), as presented in table 4.1, a broad sample size. In addition, Babbie (2007) asserts that a 60 percent response rate is fine, 70 percent is very good, and for a sample, above 80 percent is excellent. The effect of descriptive statistics indicates that no missing values have been recorded, so no deletion. This research used the Mahalanobis D2 measure to classify multivariate outliers and deal with them.

Univariate outliers are taken care of by treating multivariate outliers. However, it does not actually take care of multivariate outliers to handle univariate outliers (Hair et al., 2010). Mahalanobis D2 was then determined using SPSS linear regression techniques, followed by a chi-square value estimation. Provided that 5 things were used, 4 reflect the degree of freedom with $p < 0.001$ Tabachnick and Fidell in the chi-square table (2013). This implies that any case with a Mahalanobis D2 probability value of less than 0.001 is a multivariate outlier and should be deleted. Cases with a value of less than 0.001 have therefore been removed from further study.

Sample characteristics

In the results, the profile of the respondents was 50.1 percent male, and 49.9 percent female. The findings show that both male and female workers are almost evenly distributed, while male employees form the majority. If both male and female individuals are allowed to share their experiences, the outcome of the company is likely to be greater. Workers have the skills needed to perform their duties efficiently. As such, the work experience of workers is part of the human capital of companies. The study showed that employees have the skills needed to perform their duties effectively. As such, the educational attachment of staff. The implication is that the employees possess the required skills to give reliable information about the study problem.

Univariate Analysis

All items that did not follow loading requirements were dropped after factor analysis and data was transformed by having the means of the items loaded to the respective factors and from categorical to interval scale by getting the average score for all items in each variable after factor analysis. The means of the different derived factors were then used for further study. The data transformation results are shown in Table 1. All items that did not follow loading requirements were dropped after factor analysis and data was transformed by having the means of the items loaded to the respective factors and from categorical to interval scale by getting the average score for all items in each variable after factor analysis. The means of the different derived factors were then used for further study. The data transformation results are shown in Table 1. All items that did not follow loading requirements were dropped after factor analysis and data was transformed by having the means of the items loaded to the respective factors and from categorical to interval scale by getting the average score for all items in each variable after factor analysis. The means of the different derived factors were then used for further study. The data transformation results are shown in Table 1.

Table 2. Univariate Analysis

n=337	Mean	Std. Dev	KSB	Emotional leadership	Spiritual leadership
KSB	4.166	0.726	1		
Emotional leadership	3.745	0.745	.666**	1	
Spiritual leadership	3.666	0.754	.533**	.502**	1

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

Source: Research Data (2019)

Tests for Regression Assumptions

Statistical assumptions were tested to decide if the data fulfilled the assumptions of normality, heteroscedasticity, multicollinearity and autocorrelation. It was based on these findings that the association and prediction experiments were carried out. The results confirmed that data normality was not a problem because K-S and S-W tests of all the variables were not significant. Hence, for multivariate analysis, the data distribution in the study was accurate. Furthermore, tolerance values of less than 0.1 suggest that multicollinearity is present. The results showed that for all of the independent variables, the VIF values were below 10 and the tolerance values were above 0.1. This suggests there was no existence of multicollinearity for all the independent variables. The Durbin Watson (DW) statistics are used to assess autocorrelation in the residuals from a statistical regression analysis. The results showed a strong auto correlated association between all the independent variables and the actions of sharing information.

Homoscedasticity was calculated by Levene's test, which indicated non-violation of the assumptions of autocorrelation. Homoscedasticity is not a concern for all the variables, based on Levene statistics, $p\text{-value} > .05$. This implies that there is a linear relationship and there is no need to address a non-linear transformation of data or a quadratic term. The assumptions of homoscedasticity of variance in this study were, therefore, supported.

Hypothesis Testing (Multiple Regression)

To measure the coefficients of independent variables with knowledge-sharing behavior, a multiple linear regression analysis was performed. Approximately 66 percent of the overall variance in information sharing behavior ($R = .81$, $R^2 = .66$) was the combined prediction of all the variables. The regression model showed that all the independent Variables were jointly expected, as shown in Table 4. Thus, using emotional leadership and spiritual leadership, the model was sufficient to predict information sharing behavior.

The hypothesis (H_{O1} :) claimed that emotional leadership had no significant impact on the conduct of information sharing among academic staff in Kenyan universities. Emotional leadership had a positive and significant effect on knowledge-sharing behavior ($\beta = 0.37$, $p < 0.05$). Thus, the hypothesis was rejected. The implication is that good Emotional leadership enhances knowledge sharing behavior among universities staff. In regards to the effect of Emotional leadership on employee knowledge sharing, the findings suggested that workers who have strong Emotional leadership are usually realistic in what they can and cannot do thus improving the quality of knowledge sharing. Self-aware workers are normally not self-critical or naively hopeful so they don't spend a lot of time criticizing themselves for being too ambitious.

Emotional leadership empowers employees to do self-reflection and be thoughtful thus staffs evaluate themselves from time to time. Self-aware people typically find time to reflect quietly on their ways of life and performance and improve where they fall short. Self-aware people can pre-think things over before taking any actions and this enables them to make better

decisions and judgments which improves the quality of their performance and knowledge sharing. This confirmed the study of Victoroff and Boyatzis (2012) that reported that Emotional leadership has enabled employees to know themselves and thus recognize their behaviors when under the spotlight and this in return enabled them to direct their behaviors towards achieving their set targets. Being self-aware also enables the employees to constantly remain conscious both as individuals and when in teams and this has been a very big factor in their positive knowledge sharing. This has been verified by recent studies that the altruistic intent of a person predicts information sharing behaviors (Matzler *et al.*, 2008).

Table 3. Regression Coefficient of Study Variables

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
(Constant)	0.37	0.16		2.39	0.02
Emotional leadership	0.36	0.04	0.37	9.37	0.00
Summary Statistics					
R	0.81				
R Square	0.66				
Adjusted R Square	0.65				
Std. Error of the Estimate	0.43				
Change Statistics					
F Change	127.88				
df1	5.00				
df2	331.00				
Sig. F Change	0.00				
Durbin-Watson	1.84				

a Dependent Variable: KSB

Source: Research Data (2020)

CONCLUSION AND SUGGESTION

Based on the findings, it is concluded that emotional leadership outcomes contribute to increasing sharing of employee information. In whatever decisions they make and in doing their job, staff who had good emotional leadership were realistic. From the results, there was a minimal element of emotional intelligence as a basis for self-reflection and thoughtfulness. Self-aware individuals usually find time to self-evaluate has had a major impact on success and information sharing, and the management of universities in Kenya needs to find a way to enable their workers to think about things rather than respond impulsively. Improving the intelligent leadership skills of employees leads to increased employee performance and sharing of expertise, which then contributes to achieving overall organizational performance. The study suggested that if they need better employee information sharing, universities in Kenya should support their employees to develop their emotional leadership. Universities need to concentrate on training employees to have good emotional leadership so that in whatever decisions they make and in doing their job, they can be practical. It is important to motivate self-aware workers to refrain from voicing themselves anyway and to be excessively self-critical or naively hopeful in doing their job. Emotional leadership can serve as a propensity for thoughtfulness and self-reflection. Intelligent leadership needs to be supported and promoted so that workers are better able to judge their actions and make very informed decisions.

Further Research

The study focused only on a case of chartered Kenyan Universities that is insufficient to infer the impact of emotional intelligence and intelligent on knowledge sharing behaviour. Further studies on the impact of emotional intelligence on knowledge-sharing behaviour and transformative leadership on comparative study must also be carried out by using other moderators to compare the findings of various universities. To obtain precise results specific to a given university based on its existence or venue, a survey may also be performed. In order to obtain confirmatory or divergent views of outcomes, further study may be carried out on universities, technical schools, and polytechnics.

Conflict of Interest

The authors declare no conflict of interest.

Funding

No funds received for conducting this study.

REFERENCES

- Allen T. J. (2013). *Architecture and communication among product development engineers (Working Papers Nr. 165-97)*. Cambridge, MA: Sloan School of Management.
- Bartol, Kathryn M. & Srivastava, Abhishek (2002). Encouraging knowledge sharing: the role of organizational reward systems. *Journal of Leadership & Organizational Studies*, summer, 9, 64-76. <https://doi.org/10.1177/107179190200900105>
- Davenport, T. (2008). Enterprise 2.0: the new, new knowledge management?. *Harvard Business Online*, 19.
- Fraenkel, R. J., & Wallen, E. N. (2000). How to design and evaluate research in education (4th ed.). San Francisco McGraw-Hill.
- George, G., & Sleeth, R. G. (2000). Leadership in computer-mediated communication: Implications and research directions. *Journal of Business and Psychology*, 15(2), 287-310. <https://doi.org/10.1023/A:1007872002139>
- George, J. M. (2000). Emotions and leadership: The role of emotional intelligence. *Human Relations*, 53(8), 1027-1055. <https://doi.org/10.1177/0018726700538001>
- Goleman, D. (2010). *An EI-based theory of performance*. In D. Goleman, & C. Cherniss (eds.), *The Emotionally Intelligent Workplace: How to Select for, Measure, and Improve Emotional Intelligence in Individuals, Groups, and Organizations*. San Francisco, CA: Jossey-Bass.
- Goleman, D., (1998). *Working with Emotional Intelligence*. Bantam Books, New York.
- Gupta, A. K., & Govindarajan, V. (2000). Knowledge management's social dimension: Lessons from Nucor Steel. *MIT Sloan Management Review*, 42(1), 71-80.
- Hair J.F., Jr, & Celsi, Mary & Money, Arthur & Samouel, Phillip & Page, Michael. (2010). *the essentials of business research methods*: 3rd Ed. 1-494.
- Humphrey, R. H. (2002). The many faces of emotional leadership. *The Leadership Quarterly*, 13(5), 493-504. [https://doi.org/10.1016/S1048-9843\(02\)00140-6](https://doi.org/10.1016/S1048-9843(02)00140-6)

- Hung S. Y., Lai H. M., and Chou Y. C. (2011). "The determinants of knowledge sharing intention in professional virtual communities: An integrative model", in *The 14th Pacific Asia Conference in Information Systems*, July 9-12, 2010, Taipei, Taiwan
- Majid, S., & Kowtha, R. (2009). Utilizing Environment Knowledge for Competitive Advantage. *CONF-IRM 2008 Proceedings*,62.
- Mayer, J. D., Salovey, P., Caruso, D. R., & Sitarenios, G. (2010). Measuring emotional intelligence with the MSCEIT V2.0. *Emotion*, 3(1), 97–105. <https://doi.org/10.1037/1528-3542.3.1.97>
- Mazzarol, T., Soutar, G.N., and Thein, V. (2002). Critical Success Factors in the Marketing of an Education Institution - A Comparison of Institutional and Student Perspectives. *Journal of Marketing for Higher Education* 10(2),39-57. https://doi.org/10.1300/J050v10n02_04
- McKeen, J. D., & Smith, H. (2003). *Making IT happen: critical issues in IT management* (p. 366). Chichester: Wiley.
- Mohayidin, M. G., Azirawani, M.N., Kamuriddin, N. & Idawati, M. M. (2016). The application of knowledge management in enhancing the performance of Malaysian universities. *Electronic journal of knowledge management*, 5 (3), 301-312. <https://doi.org/10.1.1.454.7058>
- Özler, B. & Hoogeveen, J. G. (2006). Poverty and inequality in post-apartheid South Africa: 1995-2000. *Poverty and policy in post-apartheid South Africa*, 59-94. <https://doi.org/10.1086/511191>
- Sallis E. and Jones G. (2006). *Knowledge Management in Education: Enhancing Learning and Education*, Kogan Page, London.
- Saunders, M., Lewis, P., and Thornhill, A. (2007). *Research Methods for Business Students*. 4th Edition, Financial Times Prentice Hall, Edinburgh Gate, Harlow.
- Sharma A. (2010). Enabling knowledge management of organizational memory for groups through shared topic maps. *MBA Thesis*, Iowa State University.
- Singer P. and Hurley J. E. (2005). The importance of knowledge management today. *ALA-APA Library Worklife Home*, 2(6), 1-3. <https://doi.org/10.1201/1078/43204.20.2.20030301/41468.6>
- Tabachnick G.Barbara & Linda S. Fidell (2013). *Using multivariate statistics*,6th edition California state university Northridge, Pearson.
- Wambui Christine Njoroge (2017). *Factors influencing effective strategy implementation in Sameer Africa limited*. Unpublished Research Project USIU- Africa.
- Jun Wang, Sanjiv Kumar, and Shih-Fu Chang. 2010. Sequential projection learning for hashing with compact codes. In *Proceedings of the 27th International Conference on International Conference on Machine Learning (ICML'10)*. Omnipress, Madison, WI, USA, 1127–1134.
- Wang, W., and Hou, Y. (2015), Motivations of employees' knowledge sharing behaviors: A self-determination perspective. *Information & Organization*, 25(1), 1–26. <https://doi.org/10.1016/j.infoandorg.2014.11.001>
- Yang, M. Y., & Lai, H. F. (2012, January). The relationships between psychological contract breach and counterproductive work behaviors. *Academy of Management Proceedings*,2011(1), 1-6. <https://doi.org/10.3389/fpsyg.2018.01273>