

How does Institutional Knowledge Sharing Culture Affect Individual's Knowledge Sharing Behaviour in the Public Sector?

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Abstract

Institutional Knowledge sharing culture (IKSC) is critical in determining the nature and content of individuals sharing behavior (IKSB) in the public sector. The purpose of this survey research is to explore the correlation between institutional KS culture and individual KS behavior (KSB) in the public sector. This study aims to identify the linkage between institutional KS culture and individual KS behavior (KSB) at the Lodwar County Referral Hospital (LCRH). This is a case study survey research involving healthcare workers as the unit of analysis. The results suggest the influence of open communication culture on individual KS behavior and employee self-efficacy in KS on healthcare outcomes respectively. Senior management may find insights that positive and sustainable KS behaviours among healthcare workers are a function of a positive KS Culture.

Keywords: institutional knowledge-sharing culture, individual knowledge-sharing behaviour, public sector, knowledge sharing, healthcare workers

INTRODUCTION

Knowledge is the fluid mix of framed experiences, values, contextual information, intuition, judgment, and expert insights that provide a framework for evaluating and incorporating new experiences and intelligence. Knowledge is an important and strategic organizational asset and has a significant influence on business operations. Knowledge sharing (KS) within an organization has often been asserted as a necessary practice for the success and sustainability of its performance (Kathiravelu et al, 2014). Significantly, this is an age where knowledge has assumed greater value than other factors of production. Due to its importance, there is a need for sharing, exchange, and creation of knowledge (Khan, 2010). Furthermore, according to Islamic principles, one who shows the right path to other people shares knowledge with others, and demonstrates citizenship behaviors is considered a virtuous person (Murtaza et al, 2016). The world is moving from an industrial age, based on natural resources, to an era of knowledge, based on skills, education, and research and development. Knowledge has emerged as a key

source of jobs and economic growth in the global economy because it is the basis for innovation (Gulbranson & Audretsch, 2008).

The institutional KS orientation has a stronger effect on the employees' disposition to KS practice. Perceptions of mutual trust and trustworthiness prompt team members to take the initiative to communicate, exchange, and share knowledge and information, and this active KS behaviour among members can enhance the team's knowledge content, thus contributing to improved creativity (Boone, 1997). Organizational design can be said to be one of the visible manifestations of organizational culture. Mayer *et al.* (1995) suggested that the impact of organizational structure "on the division of labour, allocation of decision rights, choice of coordinating mechanisms, delineation of organizational boundaries, and networks of information relationships impacts the way knowledge is managed and shared."

Public institutions adopting team-based performance management and evaluation strategically inspire teams to share knowledge and expertise to contribute to collective outcomes, results, impacts, and public value. The team-based collaboration to achieve the project learning outcomes, with the evaluation criteria and deadlines in mind, influenced students' choice of technology to support the two types of collaborative interactions – the activity coordination type of interactions and the content co-creation type of interactions (Jang, Y, 2015).

The Research Problem

Little research has been done on the nexus between KS and institutional performance in the public sector (especially Turkana County) in Kenya. This research work seeks to address this research gap. Available literature suggests that public sector institutions have not adequately deployed KS interventions for optimal productivity, efficiency, and effectiveness in public service delivery. The strategic insights from this research study will inform KS policy and practice at LCRH, Turkana County, and the public sector in Kenya. It will certainly contribute to the reservoir of the science of effective and sustainable public sector management.

The purpose of this study is to explore the correlation between institutional KS culture and individual KS behaviour (KSB) in the public sector. The research study aims to identify the linkage between institutional KS culture and individual KS behaviour (KSB). The Lodwar County Referral Hospital (LCRH) is taken as a case study.

Research Question (RQ) and Research Objective (RO)

RQ: Is there any linkage between institutional Knowledge sharing culture and employees' Knowledge sharing behaviour at the Lodwar County and Referral Hospital (LCRH)?

RO: To identify the linkage between institutional Knowledge sharing culture and employees' Knowledge sharing behaviour at the Lodwar County and Referral Hospital (LCRH).

Theoretical Background

Knowledge Sharing (KS)

KS has been conceived as a socially oriented process that involves the exchange of intellectual assets, expertise, and experiences among individuals within an institution. This is believed to be a switch in the logical capacity of employees within an organization (Lin, H., 2007). Because it involves exchanges among individuals, knowledge sharing is considered distinct from knowledge transfer, which generally describes intra-organizational exchanges of knowledge between entities such as departments, or describes inter-organizational movements of knowledge (Bartol & Srivastava, 2002). KS aims to make available new knowledge and augment employees' current knowledge and skill sets to become more effective in their work. To cultivate social collaboration, teamwork, and cooperation rather than a competitive culture in the workplace (Ebenyo, E.L., 2021).

Determinants of Institutional KS Culture

In this case, one of the major determinants that have been considered for KS is organizational culture. The culture of an organization can be strong or weak, such also implies that it can have positive or negative contributions to KS within the work environment (Suppiah & Sandhu, 2011). The factors that influence KS culture in the public sector domain include the institutional culture itself, the attitude of governmental authorities, the level of investment and disposition to technology, the employment terms, reward and compensation regimes, and performance measurement metrics (qualitative and quantitative). Others are the adoption of co-creation, joint planning, implementation, monitoring, evaluation, and reporting project design and delivery model. Furthermore, the strategic orientation of the institution to the KS agenda, social and ethical responsibility to the service of society, and finally, commitment to continuous improvement and learning also influence institutional KS culture. Culture is another factor that has proved to have a significant influence on KSB in organizations. Regardless of how strong an organization's commitment is to knowledge management, it has been found that the influences of the organization's culture are much stronger (O'Dell & Grayson, 1998).

Prior research identified several groups of factors which affect knowledge-sharing in organizations, including higher education institutions (HEIs): (i) knowledge-related, (ii) individual, (iii) organizational, and (iv) environmental. Two characteristics of knowledge have a significant influence on the sharing of knowledge in organizations: the extent to which knowledge is tacit or explicit and the perceived value (Kuzhabekova & Lee, 2020). More broadly, the factors influencing institutional KS culture in the public sector can be grouped into organizational, individual, technological, and evidence/knowledge-related factors. The work by Markopoulous and Vanharanta, 2020 on the public sector human capital/knowledge utilization preconditions best illustrates the determinants of KS in the public sector for overall institutional efficiency, effectiveness, and societal sustainable development. The six preconditions are now highlighted. The first precondition is related to the development of the organizational culture in which all employees can be guided on obtaining active roles based on their professional and not political skills, ideas, views, and capabilities.

The second precondition is related to applying quantitative and qualitative metrics to the ideas, thoughts, innovations, and initiatives proposed by each employee within a given timeframe. This approach gives each employee career development control and the opportunity to reach top management positions based on merit, work, and contribution, and not only on academic attainments or political and social networks. The third precondition is related to the promotion of a co-evolutionary framework where the right teams, composed of the right people, for the right project and for the right time, can work together. This approach offers experiences, work satisfaction, and financial compensation through a continuous and rewarding rotation of employees from project to project as project leaders or project members.

The fourth precondition is based on sharing the idea that the quality of the work produced in an organization is completely related to the lifespan of the organization. This concept can ensure quality services are delivered to the nation, the people, and the society. The fifth precondition is related directly to society, as public sector organizations are being formed to serve it. Ideas and innovations, through acts and projects, must always have a social impact on the citizens who pay and fund public sector organizations in the first place. And finally, the sixth precondition is based on continuous integration of the knowledge generated in the organization back into the public sector operations, products, and services. This integration ignites the iteration of the five preconditions towards a continuous optimization of the overall process under democratic and effective knowledge management, business management, and strategic leadership.

Institutional imperatives

In today's rapidly changing environment, only the adoption of traditional sources does not guarantee the long-term survival of institutions (Sánchez, Marín, and Morales 2015). The institutions have to pay wider attention to the management of their intangible resources for rapid adaptation (Sánchez, Marín, and Morales 2015). Any organization that acknowledges and encourages learning and has a specific learning culture by which it develops its employee learning practices to select the most appropriate strategies can be identified as a "learning organization" (Skuncikiene *et al.*, 2009). Also, a learning organization is "a place where employees excel at creating, acquiring, and transferring knowledge" (Garvin *et al.*, 2008, p. 110). The main building blocks of learning organizations are a supportive learning environment, concrete learning processes and practices, and leadership practices (Rijal, et al, 2009).

Major organizational factors are management problems, absence of information sources, poor attention from staff, poor information-sharing culture, resource shortage, and poor infrastructure (Reige, A. 2005 & Orlikowski, W, 1993). Accuracy, maintenance issues, feasibility, interoperability issues, system failure, acceptance, and user-friendliness of the system are major technological-related factors (Hinds P & Pfeffer J, 2003 & Orlikowski W, 1993). Support from top management and political buy-in is the key factor for knowledge sharing in Limpopo municipalities. Without management support and political will, knowledge sharing will not succeed. Therefore, Limpopo municipalities need to solicit support from municipal managers and mayors to teach their employees to value and create a knowledge-sharing culture. Political buy-in and the involvement of top management will ensure that the necessary time, infrastructure, and budget are allocated to knowledge sharing (Dikotla, MA., 2019).

Survey Design

This research study was conducted in August 2023 at the LCRH. A quantitative approach was adopted, and this is considered a case study survey research. The sampling frame was 400 healthcare workers. A probability sampling strategy was deployed, first by dividing the sampling frame into fourteen strata/departments (stratified sampling) and then applying simple random sampling to identify a representative study sample of 140 healthcare workers (unit of analysis). A digital survey questionnaire using a 5-point Likert scale was used to collect data enabled by SurveyCTOCollect (digital data collection tool) after piloting with 10 healthcare workers. The survey enlisted the support of 7 trained survey assistants (SAs) to help in actual data collection using Android phones closely coordinated and supported by the researcher. The questionnaire had a demographics section (with six questions) and the survey constructs section

with 33 questions (3 questions per survey construct). The SAs would electronically submit the completed questionnaires in real time to the SurveyCTO server maintained by the researcher. Finally, data management and quality assurance were performed before exporting the **data** to SPSS statistical software for data analytics.

Ethical Considerations

The privacy and anonymity of the research elements were maintained at all times; the survey questionnaires did not bear any known identity or names of the respondents. The highest level of objectivity in the interviews, analysis of responses, discussions, and conclusions was strictly observed. Research ethics deals with how we treat those who participate in our studies and how we handle the data after we collect them. Each discipline will have its ethical guidelines regarding the treatment of human research participants (Vanderstoep & Johnson, 2009).

Survey Design

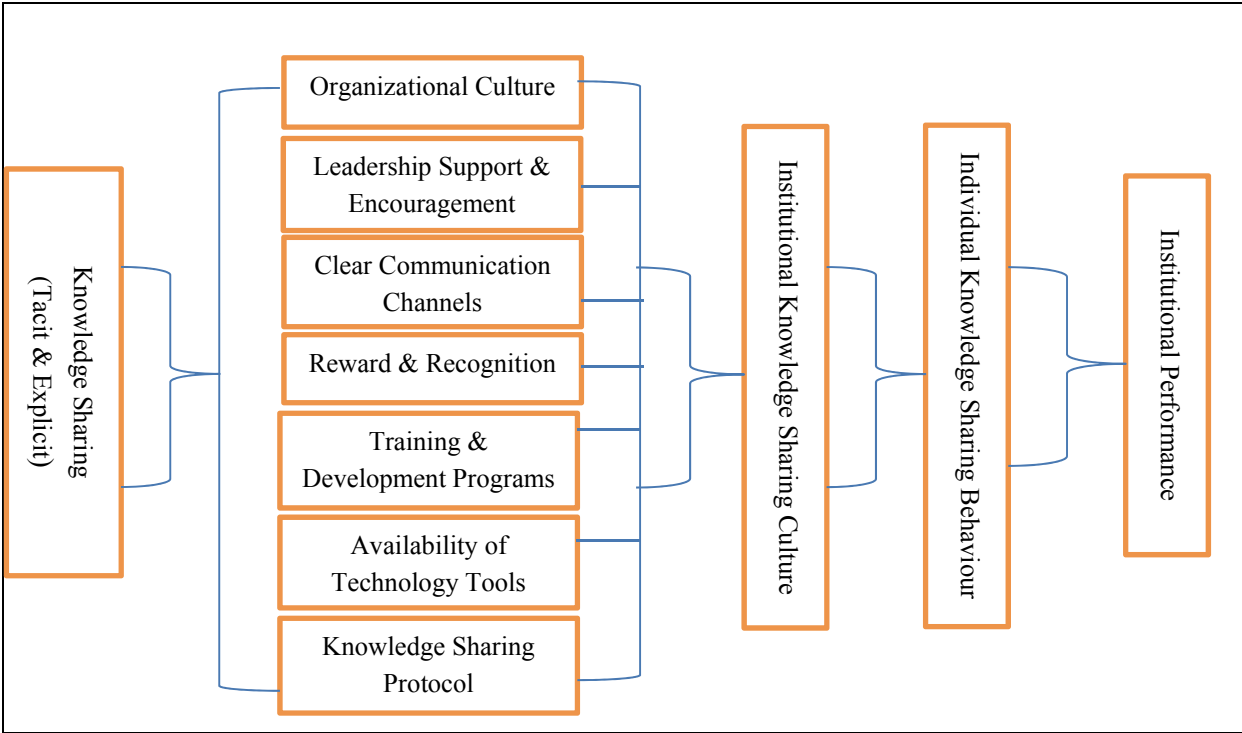


Figure 1: Research Model

There are 11 constructs developed in this study (Fig. 1) . Knowledge Sharing is the independent construct, while Institutional Performance is the dependent construct. Organizational Culture, Leadership Support and Encouragement, Clear Communication Channels, Reward and Recognition, Training and Development Programs, Availability of Technology Tools, Knowledge Sharing Protocol, Institutional Knowledge Sharing Culture, and Individual Knowledge Sharing Behaviour are the mediator constructs. However, the mediator constructs also play the role of independent and dependent variables, as indicated by the direction of the arrows in the model. For purposes of this survey research, Institutional Knowledge Sharing Culture is the independent construct while Individual Knowledge Sharing Behaviour is the dependent construct.

Table 1: Survey items

Constructs	Sub-level constructs	Questionnaire items
Knowledge Sharing (KS)	Access to Knowledge	KS1-The overall rate of access to Knowledge by healthcare workers at LCRH
	Knowledge sharing practices	KS2-Frequently applied KS practices.
	Participation in KS	KS3-Level of engagement in KS
Organizational Culture (OC)	Leadership structure	OC1-Effectiveness of the leadership structure
	Institutional norms	OC2-Supportiveness of institutional norms
	Trust and openness	OC3-level of trust and openness
Leadership Support and Encouragement (LSE)	Visionary leadership	LSE1-Impact of visionary leadership on institutional KS culture
	Collaboration and teamwork	LSE2-The overall rate of collaboration and teamwork at LCRH
	Emotional support and well-being	LSE3-Level of emotional support and well-being at LCRH
Clear Communication Channels (CCC)	Formal communication channels	CCC1-Effectiveness of formal communication channels
	Informal communication channels	CCC2-Effectiveness of informal communication channels
	Cross-functional communication	CCC3-Level of cross-functional communication among healthcare workers
Reward and Recognition for KS (RR)	Performance-based rewards	RR1-Consistency in providing performance-based rewards
	Recognition programs	RR2-Availability of recognition programs
	Opportunities for advancement	RR3-Impact of opportunities for advancement on KS culture
Training & Development Programs (TDP)	Knowledge acquisition	TDP1-Frequency of Knowledge Acquisition programs
	Skills development	TDP2-Level of skills development
	Transfer of training	TDP3-Impact of transfer of training
Availability of Technology tools for KS (ATT)	Access to digital platforms	ATT1-Satisfaction with the level of access to digital platforms
	Communication and Collaboration tools	ATT2-Effectiveness of communication and collaboration tools
	Knowledge management systems	ATT3-Impact of Knowledge Management systems
KS Protocol (KSP)	Knowledge sharing guidelines	KSP1-Effectiveness of formal KS guidelines on KS practices
	Information classification and access control	KSP2-Likelihood of adherence to formal information classification and access control procedures
	Documentation and Knowledge capture	KSP3-Elements of effective protocols and mechanisms for capturing, documenting, and disseminating knowledge within the LCRH
Institutional KS Culture (IKSC)	Open communication	IKSC1-Influence of open communication on individual KS behaviour
	Learning and continuous improvement	IKSC2-Influence of learning and continuous improvement culture on other employees' KS behaviour
	Knowledge sharing norms and standards.	IKSC3-Impact of KS norms and standards on overall KS behaviour among employees
Individual KS Behaviour (IKSB)	Willingness to share Knowledge	IKSB1-Impact of employee willingness to share Knowledge
	Perceived benefits of Knowledge Sharing	IKSB2-Impact of employee perceived benefits of KS
	Self-Efficacy in Knowledge sharing	IKSB3-Impact of employee self-efficacy in KS on healthcare outcomes
Institutional Performance (IP)	Innovation and creativity	IP1-Impact of employee KS behaviour on Innovation and creativity
	Decision-making quality	IP2-Impact of employee KS behaviour on the decision-making quality
	Problem-solving effectiveness	IP3-Impact of employee KS behaviour on Problem-solving effectiveness

Results and Findings

The results of the data collection process by the Survey Assistants (SAs) show the number of planned respondents (PRs) against actual respondents (ARs) across the 14 departments. A response rate of 98.6%

was recorded, with 138 against 140 respondents participating. This also represents 34.5% of the study sampling frame.

Table 2: Respondents' details

S/N	Departments at the LCRH	SAs	PRs	ARs
1	Accident and Emergency, Intensive Care & Renal Unit	SA 1	10	09
2	Mother and Newborn Child Health	SA 1	10	09
3	Pharmacy	SA 2	10	10
4	Laboratory	SA 2	10	10
5	Paediatrics	SA 3	10	10
6	Medicine	SA 3	10	10
7	Surgery	SA 4	10	12
8	Obstetrics and Gynaecology	SA 4	10	07
9	Ophthalmology	SA 5	10	10
10	Medical Records	SA 5	10	10
11	Rehabilitative Services and Public Health	SA 6	10	09
12	Dental Unit	SA 6	10	10
13	Radiology	SA 7	10	08
14	Administration	SA 7	10	14
		Total	140	138

Demographics Analysis

The descriptive statistics for the centrality measures of mean, median, and mode and the measures of spread/variability (standard deviation and variance) for the valid sample units (n=138) were given, as shown in Table 3 below. The demographic variables included age, gender, job position (JP), department, years of service (YoS), and highest academic level (HAL). The mean age and years of service at LCRH of the respondents were 32.30 and 5.71 years, respectively. There were more respondents aged 35, more males (1), more nurses (2), more respondents from the administration department (14), more respondents with 1 year of service, and finally, more respondents with a diploma qualification. Furthermore, there was more variability to the right of the mean values for age, job position, department, and years of service.

Table 3: Demographics of respondents

		Demographics Statistical Results Table					
		Age	Gender	JP	Department	YoS	HAL
N	Valid	138	138	138	138	138	138
	Missing	0	0	0	0	0	0
Mean		32.30	1.41	5.71	7.65	5.276	4.54
Median		31.00	1.00	5.00	7.00	4.000	4.00
Mode		35	1	2	14	1.0	4
Standard Deviation		7.190	.494	3.591	4.093	5.8242	1.274
Variance		51.699	.244	12.893	16.754	33.921	1.622
Range		38	1	11	13	39.0	6
Minimum		22	1	1	1	.0	1
Maximum		60	2	12	14	39.0	7

Factor Analysis

Factor analysis revealed the factors that had the greatest influence on each of the eleven constructs since they had the highest mean values. The Kaiser-Meyer-Olkin (KMO) test (were all greater than 0.5), Bartlett's Test of Sphericity (BTS) all had significant levels of less than 0.05, Total Variance Explained (TVE) revealed factors with the highest eigenvalues and Cronbach's alpha (CA) coefficient (α) revealed acceptable values for psychometric properties (reliability and validity) of the measurement scale. The CA coefficients ranged from 0.547 to 0.891. The common notion of there being a threshold of acceptability for alpha values, if only as a rule of thumb (Plummer & Tanis Ozcelik, 2015), was not always seen as implying that lower values of alpha should be taken as indicating an unsatisfactory instrument. The authors used a wide range of different qualitative descriptors to interpret Cronbach's alpha values. So, alpha values were described as excellent (0.93–0.94), strong (0.91–0.93), reliable (0.84–0.90), robust (0.81), fairly high (0.76–0.95), high (0.73–0.95), good (0.71–0.91), relatively high (0.70–0.77), slightly low (0.68), reasonable (0.67–0.87), adequate (0.64–0.85), moderate (0.61–0.65), satisfactory (0.58–0.97), acceptable (0.45–0.98), sufficient (0.45–0.96), not satisfactory (0.4–0.55) and low (0.11) Keith, S.T, (2018).

Specifically, the *influence of open communication culture on individual Knowledge sharing behaviour* was the most important factor influencing institutional Knowledge sharing culture. Additionally, the *impact of employee self-efficacy in Knowledge sharing on healthcare outcomes* was the most important factor influencing Individual KS Behavior at LCRH. Importantly, authors should interpret the value of Cronbach's alpha reported in the context of their particular study, taking into account the expected dimensionality of what they are seeking to measure and the total number of items included in the instrument or scale discussed (Keith, S.T, 2018). In the case of this survey research, the number of items per construct in the research instrument (questionnaire) was restricted to three.

Results and Findings

The preceding factor analysis confirmed the critical factors in the survey study as indicated in Table 4 below;

Table 4: Survey factors after factor analysis

Research Model Constructs	Survey Questionnaire Items/Factors
Knowledge Sharing (Tacit and Explicit) - KS	<i>KS2 - Frequently applied KS practices – Coaching.</i>
	<i>KS3 - Level of Engagement in KS</i>
Organizational Culture - OC	<i>OC1 - Effectiveness of the Leadership Structure</i>
Leadership Support and Encouragement - LSE	<i>LSE2 - The overall rate of collaboration and teamwork for KS</i>
Clear Communication Channels - CCC	<i>CCC1 - Effectiveness of formal communication channels</i>
Reward and Recognition for Knowledge Sharing - RR	<i>RR2 - Availability of recognition programs</i>
Training and Development Programs - TDP	<i>TDP1 - Frequency of Knowledge acquisition programs</i>
Availability of Technology Tools for Knowledge Sharing - ATT	<i>ATT1 - Satisfaction with the level of access to digital platforms</i>
Knowledge Sharing Protocol - KSP	<i>KSP3 - Defined Roles and Responsibilities.</i>
	<i>KSP3 - Training and Development Programs.</i>
	<i>KSP3 - Legal and Ethical Considerations.</i>
Institutional Knowledge Sharing Culture - IKSC	<i>IKSC1 - Influence of open communication culture on individual's KS behaviour</i>

Individual Knowledge Sharing Behaviour - IKSB	<i>IKSB3 – Impact of employee’s self-efficacy in KS on healthcare outcomes</i>
Institutional Performance - IP	<i>IP3 – Impact of employee’s KS behaviour on problem-solving effectiveness</i>

The master regression results (Table 5) below indicate the correlation between independent and dependent constructs, as illustrated in the research model. For purposes of this survey study, the hypothesis testing of the relationship between the independent construct (Institutional Knowledge Sharing Culture – IKSC) and dependent construct (Individual Knowledge Sharing Behaviour – IKSB) is also shown.

Table 5: Master Regression Results

Regression model	Statistical Summary							
	Mean	Std. Dev.	N	PC (r)	Sig.	DW	ANOVA Mean Square	ANOVA Sig.
OC → IKSC	3.54	.929	138	.242	.002	1.872	5.689	.004
LSE → IKSC	3.81	.797	138	.280	<.001	1.858	7.632	<.001
CCC → IKSC	3.51	.890	138	.241	.002	1.900	5.641	.004
RR → IKSC	3.58	.965	138	.199	.010	1.897	3.838	.019
TDP → IKSC	3.60	1.000	138	.111	.097	1.850	1.204	.194
ATT → IKSC	3.72	.886	138	.361	<.001	1.874	12.671	<.001
KSP → IKSC	3.92	.855	138	.227	.004	1.897	5.694	<.001
IKSC → IKSB	3.76	.842	138	.394	<.001	1.734	10.979	<.001
IKSB → IP	3.90	.718	138	.558	<.001	1.805	21.104	<.001
KS → IP	3.43	.912	138	.316	<.001	1.860	4.071	<.001

Regression Analysis

Looking at Table 5 above, a positive correlation (dependence) was found between the Institutional KS Culture and Individual KS Behaviour with Pearson’s Correlation coefficient (PC) $r = 0.394$ while statistically significant (<0.001). This means the independent construct (IKSC) positively predicts the dependent construct (IKSB); the rise in IKSC generates an increase in IKSB with a strength of 39.4%. The DW value of 1.734 reveals a positive autocorrelation of residuals/errors between the independent variable and dependent variable. This reveals the similarity of a time series over successive time intervals between the independent and the dependent construct. The ANOVA statistical significance of the regression model indicated a significance level less than the p-value of 0.05. Consequently, the regression model statistically significantly predicts the outcome/dependent variable. This indicates that the regression model predicts the dependent variable significantly well.

Discussion

The purpose of this survey research was to explore the correlation between institutional Knowledge sharing culture and individual Knowledge sharing behavior (KSB) in the public sector. The research objective was to identify the linkage between institutional KS culture and individual Knowledge sharing behaviour (KSB) at the LCRH. The factor analysis process for the two constructs has scientifically revealed the following: the Influence of open communication culture on individual Knowledge sharing behaviour is the most important factor influencing institutional Knowledge-sharing culture at LCRH. Additionally, the Impact of employee self-efficacy in Knowledge sharing on healthcare outcomes is the most important factor influencing Individual KS Behavior at LCRH.

The regression analysis of the linkage between the independent construct (IKSC) and the dependent construct (IKSB) has positively been confirmed by empirical evidence. All three correlation tests revealed a positive and strong correlation between the independent and dependent constructs. Consequently, the research purpose and objective have been adequately achieved, and the research question has been positively answered.

Concluding remarks

The two factors, the influence of open communication culture on individual KS behaviour and the impact of employee self-efficacy in KS on healthcare outcomes, are more critical in influencing institutional KS culture and individual KS behaviour, respectively, at LCRH. It, therefore, behoves management to foster a KS culture that reinforces open, transparent, strategic, and deliberate communications across the LCRH. It is incumbent upon management to ensure healthcare workers have equitable access to KS opportunities to encourage positive KS behaviours. Furthermore, management should intentionally nurture a KS culture that enhances healthcare workers' self-efficacy and belief in their capacity to share knowledge with colleagues at LCRH. This will translate to improved overall healthcare outcomes and bolster the quality of healthcare service delivery.

Senior management at LCRH should embrace and apply the emerging evidence of the strong and positive correlation between institutional KS culture and individual KS behaviour to reconfigure KS policy and practice at LCRH. Every effort should be considered to enhance the KS culture to guarantee positive and sustainable KS behaviour among healthcare workers. This survey research was limited to the LCRH case study. Further research is recommended to explore the extent of the research question across the Turkana County Government.

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