Knowledge Management Process Capabilities and Performance of Tea Warehouses in Mombasa County, Kenya

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ABSTRACT

Knowledge management is how firms acquire, apply and store their intellectual capital. The main objective of the study was to investigate the knowledge management process capabilities on performance of Tea warehouses in Mombasa County. The study specific objectives were to establish the effect of knowledge acquisition capability, knowledge conversion capability, knowledge protection capability and knowledge application capability on tea warehouses performance. The study was grounded on knowledge based theory, organization learning theory, intellectual capital theory and Resource based view. This study used cross-sectional design. The target population was the middle and top management of 78 licensed active tea warehouses in Mombasa county thus making it 156 staff.. The the sample size was 112 staff. Data was collected using structured questionnaires and analyzed using Statistical Package for Social Science (SPSS) version 29 tool. The results revealed that knowledge acquisition capability, knowledge conversion capability, knowledge protection capability and knowledge application capability have a positive and statistically significant effect on the performance of tea warehouses. The study concluded that knowledge acquisition capability, knowledge conversion capability, knowledge protection capability and knowledge application capability are key factors affecting the performance of tea warehouses. The study recommended that tea warehouse management should employ knowledge acquisition capability, knowledge conversion capability, knowledge protection capability and knowledge application capability so as to significantly improve the performance of tea warehouses in Mombasa County.

Keywords: acquisition, application, capability, conversion, knowledge, performance, protection

INTRODUCTION

In today's challenging and competitive world, success can be determined by whether a warehouse management is productive and effective enough to meet the expectations of customers. In addition, the competitive incentive for many public and private organizations to reconcile and consolidate knowledge assets in order to produce value that will endure over time has been heightened by the dynamic and fast-paced nature of the modern economy (Ndabari, 2021). Globalization, technological innovation, diversity in the workforce, and the impact of a better educated and informed public have all led to a greater emphasis on learning and development initiatives across all organizational kinds. But in spite of this, information availability has replaced information scarcity, and there are significant global management demands pertaining to knowledge generation, identification, sharing, and preservation (Nawaz, Hassan, & Shaukat, 2016).

Whether a company is for profit or not, performance has always been the most crucial factor (Ismael, Yusof & Davoud, 2017). As a result, one of the key factors in management research and possibly the most significant predictor of organizational success is organizational performance. According to Bhojaraju (2018), performance may be viewed as a collection of both financial and non-financial metrics that reveal how well a company is

doing in terms of achieving its overall goals and achievements. Organizational performance can be improved by utilizing intellectual assets while protecting them from deterioration and by looking for ways to improve choices, services, and products by adding value, being more intelligent, and offering flexibility (Stankosky, 2018).

Area and production have grown significantly over time in tandem with international trade. Since tea is an agricultural product, natural variations in its production are inevitable. But the tea sector has reached a crucial point due to stagnating prices and increased production costs, which has led to concerns about future investor interest in the company. The methodical and organizationally defined process of gathering, collecting, and disseminating employee knowledge so that other employees may utilize it to be more efficient and productive at work is known as knowledge management process capabilities (Alavi & Leidner, 2017). Knowledge management is essential to enhancing how people work, encouraging interaction among coworkers through efficient channels of communication, and developing a culture where behavior is influenced by norms and values (Grant, 2018). The majority of definitions, however, align with the proper methodology for knowledge management, which emphasizes the coordination of information creation, sharing, and distribution for maximum effectiveness (Schiuma, 2016).

Franco and Simao (2018) argue that enhancing an organization's competitive advantage relies on the acquisition and effective use of knowledge and information. Beyond simply leveraging knowledge to improve performance, it is crucial to adopt optimal knowledge management practices that elevate organizational performance to its highest potential. These practices focus on innovation, employee development, and information sharing across various channels, which together drive improved performance, the creation of new product lines, efficient service delivery, and increased customer satisfaction (Byukusenge & Munene, 2017).

Global Perspective of Tea Warehouses Performance

Fuel price volatility and other variables, including Russia's invasion of Ukraine, continue to cause major disruptions to supply systems. Compared to 85% in 2019, the consistency of timely arrivals at ports has declined and remains below 60%. Trade has decreased as a result of what appears to be a "decoupling" of commerce between the United States and China. According to China's customs figures, November saw a 25% decrease in shipments to the United States. November saw a 16.9% decline in tea shipments to the United States (Bolton, 2023). Mills and Smith (2016) investigated how knowledge management resources affected the performance of American firms. Their results showed that knowledge resources like acquisition and structure had a favorable impact on performance. However, the study discovered that neither organizational culture nor technology improved performance. According to Lee's (2017) research conducted in Singapore, knowledge management methods have a good effect on students' learning outcomes and polytechnic students' learning performance. There is still work to be done on knowledge management and performance, as evidenced by the inconsistent findings in the literature (Smith & McKeen, 2016).

Tamil Nadu's tea supply chain is not an outlier in India; it suffers a number of difficulties that affect its overall effectiveness. The Company's tea exports decreased by 5.2% in Sri Lanka, despite the country's overall reduction in tea exports of 17.8%. (2020 Finlays Annual Report). The tea exporting company James Finaly reported a decrease in profits. LKR 2,391 million was the overall comprehensive income for the period under review, down from LKR 3,191 million in the prior year. From LKR 6,071 million in 2019 to LKR 5,656 million in 2020, group turnover fell. The cost of sales was LKR 4,488 million, a 7% drop from LKR 4,811 million the year before. As a result, the gross profit to sales ratio stayed at 21% while the gross profit dropped by 7% to LKR 1,168 million. The drop in package tea exports was the primary cause of the LKR 480 million drop in revenue from tea exports, which was LKR 6,092 million in 2019 to LKR 5,612 million in 2020.

Regional Perspective of Tea Warehouses Performance

In 2020–2021, Tanzania produced about 20,000 metric tons of tea. During the studied period, this was the lowest production volume ever recorded. The production of tea reached a peak of 37,200 metric tons in

2018/2019. In the year under review, tea exports totaled 29,570,391 kg, valued at US$46,177,539; this was an increase of 6,810,393 kg, or 30%, and US$ 1,561,475, or 3%, over the previous year. In comparison to the US$44 million earned by 22,759,998 kg in 2013/2014, the US$46 million won by 29,570,391 kg in export sales during the 2014–2015 era. This demonstrates that there was a 30% rise in tea exports and a 3% increase in income collected in 2014–2015. The amount of blended and packaged tea sold in the local market during the reviewed financial year was 5,521,557 kg, down from 5,672,286 kg the year before. This is a loss of 150,729,000 kg, or 3%, while earnings decreased by Tshs. 1,516,120,437, or 4%. After fish and coffee, tea is the third-largest agricultural export from Uganda. Its shipment of 58,000 MT brought in US dollars 89.95 million in 2015. Uganda saw a 15% growth in tea exports in the year that ended in 2022. Up from an average of 60 million bags exported in 2021, a total of 71 million bags of tea were exported (Monitor, 2023). Ethiopia produces seven thousand tons of black tea annually, of which about five thousand tons are used domestically. Thirty percent of Ethiopia's total tea exports are to other nations (Ministry of Agriculture and Rural Development, 2019). Ethiopia became the 83rd-highest tea exporter in the world in 2019 with $738,000 from tea exports. During the same year, tea ranked as Ethiopia's 93rd most exported good. Pakistan ($404,000), Kenya ($188,000), the United Kingdom ($61,300), Kuwait ($40,800), and the United States ($19,800) are Ethiopia's top export markets for tea (Mohammedsani, 2020).

Kenyan Perspective of Tea Warehouses Performance

The Kenya warehousing business had expanded slowly due to the severe shortage of high-quality, contemporary warehouses. Storage is one of the main areas of logistics that requires more financing and innovative technology. As a result, Kenya's economy greatly depends on the tea industry. Approximately 1.5% of the nation's GDP and 25% of all foreign revenues were generated by this industry in 2019. The expansion in tea production and exports to the global market is primarily responsible for the high GDP contribution (KIPPRA, 2022). According to the Tea Board of Kenya (2018), the tea business makes up 10% of the country's agricultural GDP and 4% of the nation's gross domestic product. Ten percent of the world's tea production, or about 350 thousand tons, are produced in Kenya each year. Kenya is the world's second-largest tea exporter, having sent $1.13 billion worth of tea in 2019. The top product that Kenya exported that year was tea. Pakistan ($429M), Egypt ($169M), the United Kingdom ($121M), the United Arab Emirates ($55.7M), and Yemen ($49M) are Kenya's top export markets for tea. It has frequently been asserted that knowledge management (KM) is a necessary component of creating a competitive advantage (KIPPRA, 2022). However, the tea supply chain is adopting KM somewhat slowly, particularly when considering Kenya.

From 50.71 million kg in the same month of 2021 to 49.22 million kg in November 2022, there was a 1.49 million kg decline in tea production. In addition, November's production was less than October's, which came in at 50.46 million kg. Declining and unevenly distributed rainfall is followed by lower production for the month (Tea Board of Kenya, 2024). The total export volume for November 2022 was 40.65 million kg, a 10% decrease from the 45.09 million kg reported during the same period in 2021. Though there were more export markets—54 as opposed to 46—for the same period in 2021, the export volume was still much higher than the 33.22 million kg recorded in October. This resulted from increased demand in certain markets brought on by the chilly weather that followed the arrival of winter. The jobs created in the tea warehouses and generally the tea industry is a key indication of the importance of the tea industry in Mombasa County and particularly the Kenyan economy at large.

Statement of the Problem

Just like other African nations, Kenya has structural problems with its logistical infrastructure (Rajpat, 2024). Capital Business (2023) noted that Kenya still has a low supply of warehousing facilities despite increased demand for storage and distribution spaces. Tea warehousing contributes significantly to the economic development of the country. In 2018, Kenya was ranked 68 in the Logistics Performance Index and 61 in the East of Doing Business Index. However, the sector has experienced a downturn in terms of revenue and net profits despite increase in volumes of tea dispatch. In the current knowledge-based economy, the declining performance trend can be attributed to the insufficient exploitation and utilization of the vast resources

available in Knowledge Management, despite its central role in Kenya's Vision 2030 blueprint. Rajpat (2024) noted that, Kenya warehousing business had expanded slowly due to the severe shortage of high-quality, contemporary warehouses. Kenya's tea warehouses face the challenge of modernizing their KM capabilities, often hampered by limited funding and outdated infrastructure. Tea Board of Kenya (TBK, 2022), noted that modernizing these warehouses is essential to keep pace with rising demand, as tea production has surged by over 60% in the past three years, while the number of warehouses has not kept up.

Annually, the country produces over 450 million Kgs of tea, which earn the country over K.sh 120 Billion in export earnings, and 22.0 Billion on local sales (Tea Board of Kenya, 2023). The gap between tea production and innovative warehousing is widening and this calls for knowledge management process capabilities in warehousing sphere to alleviate the dire situation. Matusik (2017) found a negative relationship between firm knowledge and product development performance. On the other hand, the vast empirical studies suggest that knowledge management positively impact firm performance (Kanyi & Ndiege, 2019). A gap still exixt hence the need to study the effect of knowledge management process capabilities on performance of Tea warehouses in Mombasa County, Kenya.

General objective

The general objective is to establish knowledge management process capabilities and performance of Tea warehouses in Mombasa County, Kenya.

Specific Objectives

1. To determine the effect of knowledge acquisition capability on performance of Tea warehouses in Mombasa County, Kenya.

2. To evaluate the effect of knowledge conversion capability on performance of Tea warehouses in Mombasa County, Kenya.

3. To determine the effect of knowledge protection capability on performance of Tea warehouses in Mombasa County, Kenya.

4. To establish the effect of knowledge application capability on performance of Tea warehouses in Mombasa County, Kenya.

LITERATURE REVIEW

Theoretical Review

The theories considered include knowledge based theory, organization learning theory, intellectual capital theory and Resource based view.

Knowledge Based Theory

The proponent of the Knowledge-based view is Grant in 1996 and it is an extension of the resource-based view of the firm. According to the idea, the main factors influencing performance variations among entities are their varied bases of knowledge and their inclination to produce and apply information (Decarolis & Deeds, 2016). According to this theoretical concept, knowledge has a life cycle depending on whether it may be applied as professional knowledge inside an organization or in the outside world. This research concentrated on the application of knowledge for internal or organizational goals. The resource-based view of the company gives rise to the knowledge-based approach, which contends that an organization's ability to create and apply information, coupled with its variety of knowledge sources, is a major factor in its overall performance (Deeds & Decarolis, 2016). According to the idea, the main factors influencing performance variations among entities are their varied bases of knowledge and their inclination to produce and apply information (Decarolis & Deeds,

2016). According to this theoretical concept, knowledge has a life cycle depending on whether it may be applied as professional knowledge inside an organization or in the outside world.

Organization Learning Theory

The proponents of the organization learning theory are Easterby-Smith, Crossan and Nicolini in 2000. The theory emphasizes the generation of knowledge and its application inside organizational limits. According to the theory, an organization should make an effort to foster a culture that values knowledge sharing and teaches employees that there is much to be learned from mistakes. It should also foster a culture that empowers staff members of all ranks to embrace lifelong learning and feel free to question established practices and procedures. The fundamental tenets of the organization learning theory are that learning occurs when people collaborate to solve problems and find solutions to problems. Establishing and maintaining a learning culture inside an organization is crucial, according to organizational learning theory (Serenko, Bontis & Hardie, 2016). According to the theory, an organization should make an effort to foster a culture that values knowledge sharing and teaches employees that there is much to be learned from mistakes. It should also foster a culture that empowers staff members of all ranks to embrace lifelong learning and feel free to question established practices and procedures. According to the notion, a company that approaches and embraces the lessons it has learned from failure and continually evaluates its current procedures would eventually become an institution with extensive knowledge of lean methods and be able to readily adjust to the dynamics of the market. The knowledge acquisition and application variables in the current study is supported by the organization learning theory.

Intellectual Capital Theory

Intellectual capital theory proponent is Becker in 1962 and Rosen in 1976. The theory posits that employees possess skills set which are continuously improved through training and education. The notion sets knowledge apart from physical capital and highlights its importance in organizations. Patents, staff knowledge, company culture, personal networks, copyrights, trademarks, consumer loyalty, and information technology are all examples of intellectual capital. The notion of intellectual capital treats the organizational discrepancy between the company's book value and the potential revenue it may generate as its intellectual capital. Patents, staff knowledge, company culture, personal networks, copyrights, trademarks, consumer loyalty, and information technology are all examples of intellectual capital. According to the hypothesis, knowledge application for the purposes of this study originates from employee knowledge and spirals through employee networks.

Balanced Scorecard Theory

The Balance Scorecard (BSC) is a theory of strategic management that was created in 1992 by David Norton and Robert Kaplan. The idea behind the Balance Scorecard emerged from the acknowledged necessity to gauge success from perspectives other than financial ones. They contended that performance metrics based on money were useless in the modern corporate world. Osewe (2019) asserts that the balancing scorecard surpasses the shortcomings of the conventional financial-based performance assessment instruments. Effective applications of the Balanced Scorecard have been made in both the public and nonprofit sectors. According to Gumbus (2005), the BSC or its variants are used as the primary instrument for strategic management and performance measurement by over 50% of Fortune 500 businesses. According to Kaplan and Norton (1992), the Balance Scorecard comprises four distinct measure views, namely the financial viewpoint, the internal processes perspective, the customer satisfaction perspective, and the learning and growth perspective. A combination of outcome indicators and performance drivers (objectives) is required for an effective balanced scorecard. A scorecard cannot tell us how well a business is doing without outcome metrics like profitability, market share, or customer happiness, to name a few.

Conceptual Framework

The conceptual framework shows the linkage between the independent variables and dependent variable.

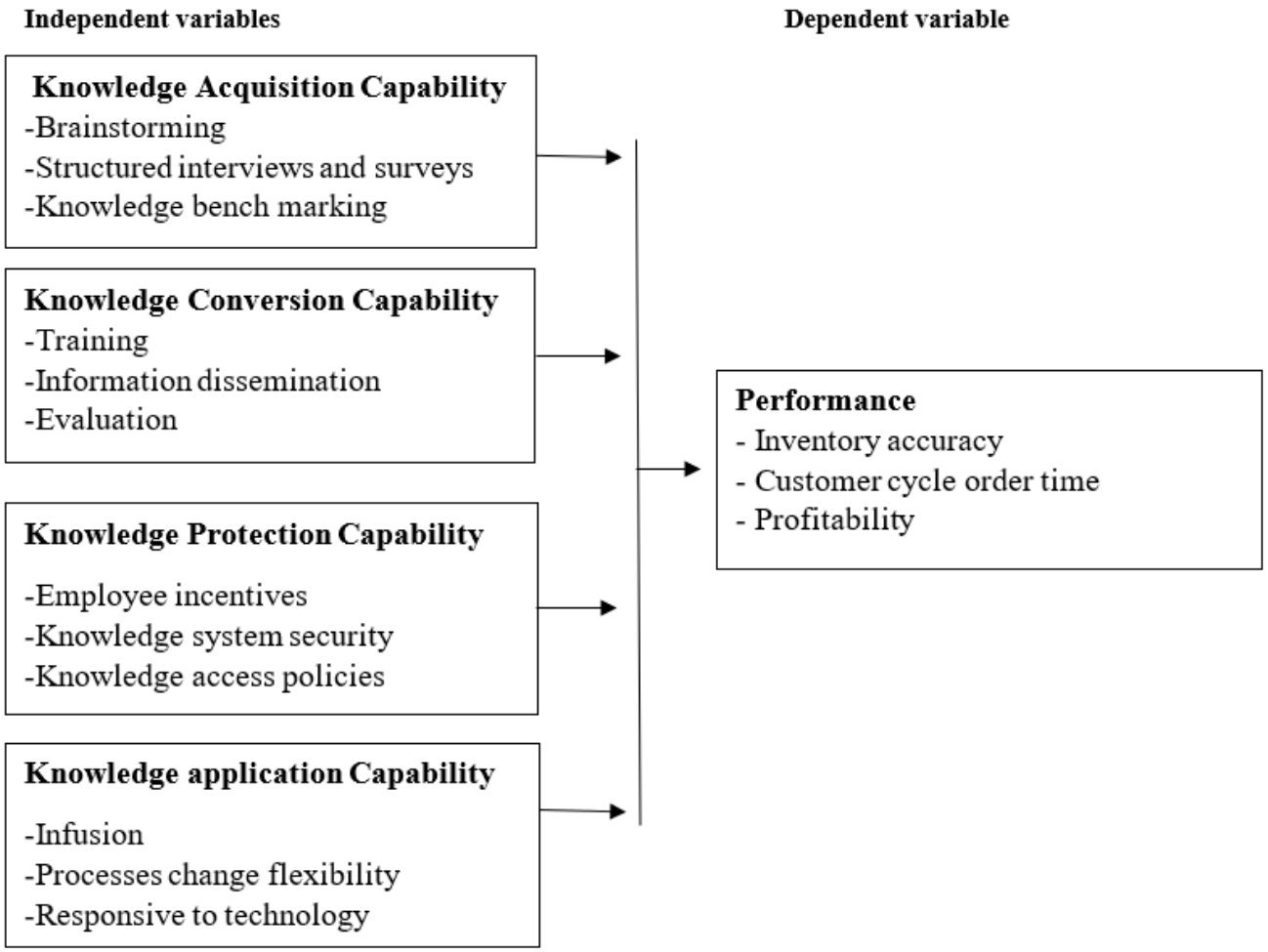

Figure 2.1: Conceptual framework

Empirical Review

Darroch (2020) did an empirical evidence to support the role of knowledge management within firms in New Zealand. Data were collected using a mail survey sent to CEOs representing firms with 50 or more employees from a cross-section of industries in New Zealand. A total of 1,743 surveys were mailed out and 443 were returned and usable (27.8 percent response rate). The sample was checked for response and non-response bias. Hypotheses were tested using structural equation modelling. This paper presents knowledge management as a coordinating mechanism. Empirical evidence supports the view that a firm with a knowledge management capability will use resources more efficiently and so will be more innovative and perform better. Nawaz, Hassan and Shaukat (2018) sought to investigate the impact of knowledge acquisition, knowledge dissemination and knowledge responsiveness on innovation and performance of the firm. The study used descriptive research design and data was collected from 407 manufacturing firms listed in Karachi Stock Exchange. The data analysis tool used was SPSS. The validity and reliability of the scales of measurement were confirmed by factor analysis and Cronbach's alpha. Regression analysis and correlation analysis were adopted as data collection techniques. The study showed that all the adopted proxies of knowledge management had a positive and significant relationship with performance and innovation.

Mtawali (2018) did an investigation on knowledge management practices and performance of micro-finance institutions in Kenya. The study adopted descriptive research design where data was collected through questionnaires. The target population was 111 employees of Uwezo Micro-finance bank. The sample size for the questionnaire was 87 respondents determined using Cooper and Schindler's formula for sample size selection. Quantitative data were analyzed using frequencies and percentages. Results were presented using frequency distribution tables. Qualitative data were analyzed using bivariate correlation analysis. From the discussion of the key findings, the study made a conclusion that knowledge management practices positively

impacted the organizational performance of Micro-Finance institutions in Kenya. Ngahu (2017) sought to investigate trends in the dimensions of low, medium, and high knowledge management (KM) capability of business process outsourcing (BPO) firms and explore the trends in BPO performance with different levels of KM capabilities of BPO firms. A survey was employed to collect data on managers from 605 firms. Kmeans cluster analysis was performed on the aggregate measures of the four KM capability dimensions and BPO performance to reveal trends. Subsequently, MANOVA was used to evaluate the effects of four firm characteristics on KM capability, and individual ANOVA tests were performed to examine the specific differences among the four dimensions. They found that each dimension of knowledge management capability has a positive effect on business process outsourcing performance. Knowledge application was found to be the most significant dimension correlated to business process outsourcing performance.

Wamitu (2016) carried out a study on the influence of tacit knowledge sharing in public sector. The study employed descriptive research design. The collected data was analyzed quantitatively by use of Statistical Package for Social Science. The results of the study established that functional boundaries have significant influence on performance. Muhoya (2017) did a study on the influence of knowledge management practices on performance of audit firms. The study applied descriptive research design. Questionnaires were used to collect primary data. The study was quantitative in nature. The results indicated that knowledge application significantly affected the performance of audit firms in Kenya. Karani (2018) did a study on Knowledge management practices and performance mobile telephone companies. The study targeted senior management staff of mobile telephone firms in Kenya. The study applied descriptive research design. Questionnaires were used to collect primary data. The study was quantitative in nature. The study results showed that knowledge sharing had the most significant effect on performance of mobile telephone companies.

Kinyua and Muathe (2018) examined the effect of knowledge conversion and knowledge application on performance of Commercial Banks in Kenya. The study adopted explanatory and cross-sectional survey design. The target population of this study comprised of all the 43 Commercial Banks in Kenya. The unit of observation was the functional area in each bank. Five areas were identified in each bank comprising human resource, finance, marketing, information communication technology, and operations in each bank. This study used primary and secondary data. Primary data was collected using a semistructured questionnaire. The questionnaire was administered using the drop-and-pick later method. Secondary data was collected using document review and was used to validate information collected from the questionnaire. The findings of the study established that knowledge conversion and knowledge application positively influence performance.

RESEARCH METHODOLOGY

The study employed descriptive survey design because the design tend to be more flexible hence lead to collection of a wider range of information (Cooper & Schindler, 2013). The choice of the research design has been motivated by the capability of the design to offer practical framework for accessing large groups to sample its ability to provide reliable data (Kothari, 2014). The target populations was two staff each of 78 licensed active tea warehouses in Mombasa as licensed by Tea Board of Kenya (TBK) (2024. .

Table 1: Target Population and sample Size

Strata	Target Population	Sample Size
Top management	78	56
Middle management	78	56
Total	156	112

Source; TBK (2024)

The Yamane 1967 mathematical formula was adopted to derive a sample size of 112 warehouses. Simple random sampling method was used to identify the warehouses to be studied.

$$n=\frac{N}{1+N(a)^2}=\frac{156}{1+156(0.05)^2}=112$$

Where:

N = Total population

n = Sample population

α = Sampling error which is 0.05 (95% confidence level).

Primary data was collected using structured questionnaires with a five point Likert scale and data was analyzed using descriptive and inferential statistics. The analytical model was as shown below;

$$\mathbf{Y=\beta_0+\beta_1X_1+\beta_2X_2+\beta_3X_3+\beta_4X_4+\varepsilon}$$

Where:

Y is Performance

α is regression constant

β is regression coefficients

$\mathbf{X_1}$ is knowledge acquisition capability

$\mathbf{X_2}$ is knowledge conversion capability

$\mathbf{X_3}$ is knowledge protection capability

$\mathbf{X_4}$ is knowledge application capability

Ɛ is error term

DISCUSSION OF RESULTS

Reliability Test Results

Table 2: Cronbach's Alpha for All Variables

	N of Items	Cronbach's Alpha
Knowledge acquisition capability	6	0.792
Knowledge conversion capability	4	0.709
Knowledge protection capability	4	0.744
Knowledge application capability	4	0.738
Performance	4	0.761
Average		0.749

All the five study constructs registered a Cronbach's Alpha score of above 0.7 thus all were deemed suitable and good for data collection and analysis.

Validity Test Results

Content validity was assessed using expert opinion from assigned supervisor, their opinion (s) was sought with the view of incorporating their views, criticisms, and/or suggestions in modeling the questionnaire for use in

the collection of data for the main study. Further, Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) was used.

Table 3: KMO and Bartlett's Test of Sampling Adequacy

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.726
Bartlett's Test of Sphericity	Approx. Chi-Square	52.109
	Df	105
	Sig.	0

The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy is .726, indicating that the sample is "meritorious" and suitable for factor analysis. A KMO value above 0.7 suggests that the correlations among variables are strong enough to proceed with Principal Component Analysis (PCA). Bartlett's Test of Sphericity has a significant chi-square value of 52.109 with 105 degrees of freedom and a p-value of .000. This highly significant result indicates that the correlation matrix is not an identity matrix, meaning there are meaningful correlations among the variables, justifying the use of PCA for data reduction.

Descriptive Statistics

Knowledge Acquisition Capability

Table 4: Knowledge Acquisition Capability

	N	Mean	Std. Deviation
Having a well-developed knowledge reporting system	106	3.21	0.825
Being market focused by actively obtaining customer and industry information	106	3.37	1.141
Being sensitive to information about changes in the marketplace	106	3.5	1.08
Getting information from the market surveys	106	3.05	1.036
Readily disseminating market information around the organization	106	3.98	0.805
There is knowledge dissemination on the job	106	3.53	0.875

The results showed that respondents slightly agreed (Mean 3.44, rounded off to 3) that knowledge acquisition capability affects performance of tea warehouses in Mombasa county.

Knowledge Conversion Capability

Table 5: Knowledge Conversion Capability

	N	Mean	Std. Deviation
Readily disseminating market information around the organization	106	3.98	0.805
There is knowledge dissemination on the job	106	3.53	0.875
There is use of techniques such as quality circles, case notes, mentoring and coaching to disseminate knowledge	106	3.69	0.866
The warehouse uses technology (such as teleconferencing, video conferencing and groupware) to facilitate communication	106	3.4	0.836
The warehouse prefers written communication to disseminate knowledge	106	3.75	0.814
The warehouse databases of good practices are updated regularly	106	3.37	0.908

The results showed that respondents agreed (Mean 3.62, rounded off to 4) that knowledge conversion capability affects performance of tea warehouses in Mombasa county.

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Knowledge Protection Capability

Table 6: Knowledge Protection Capability

	N	Mean	Std. Deviation
The organization have adequate knowledge access policies to protect knowledge	106	3.94	0.882
Knowledge is protected by putting strong firewalls in the information systems	106	3.08	1.07
The organization has knowledge protection maps	106	3.25	0.849
There is employee awareness of knowledge protection through incentives	106	3.17	0.941

The results showed that respondents slightly agreed (Mean 3.36, rounded off to 3) that knowledge protection capability affects performance of tea warehouses in Mombasa county.

Knowledge Application Capability

Table 7: Knowledge Application Capability

	N	Mean	Std. Deviation
Responds to knowledge about customers, competitors and technology	106	3.74	0.82
Being flexible and opportunistic by readily changing products, processes and strategies	106	3.22	0.781
Having a well-developed marketing function	106	3.27	0.763
The warehouse utilizes experts judgement	106	4.08	0.796
Employee adhere to rules in the organization	106	4.1	0.839

The results showed that respondents agreed (Mean 3.68, rounded off to 4) that knowledge application capability affects performance of tea warehouses in Mombasa county. The findings agree with Ngahu (2017) who established that knowledge application has the most significant effect on performance.

Performance

Table 8: Performance

	N	Mean	Std. Deviation
The customer cycle order time has reduced in the last five years	106	4.08	0.602
The accuracy of inventory in the warehouse has improved	106	4.01	1.011
The parking costs has significantly reduced	106	2.27	0.459
The capacity adjustment rate has been on the rise	106	3.88	0.812
The profitability of the warehouse has increased over the last five years	106	3.93	0.696

The results showed that respondents agreed (Mean 3.63, rounded off to 4) that profitability of the warehouse had increased over the last five years. This was an indication that knowledge management process capabilities increased the performance of tea warehouses in Mombasa county, Kenya thus supporting the study.

Correlation Analysis Results

Table 9: Correlation Analysis Results

		KAC	KCC	KPC	KAC	Performance
Knowledge acquisition capability	Pearson Correlation	1				
	Sig. (1-tailed)					
	N	106				
Knowledge conversion capability	Pearson Correlation	.331	1			
	Sig. (1-tailed)	.043				
	N	106	106			
Knowledge protection capability	Pearson Correlation	.270	.147	1		
	Sig. (1-tailed)	.060	.067			
	N	106	106	106		
Knowledge application capability	Pearson Correlation	.166*	.128	.211*	1	
	Sig. (1-tailed)	.045	.096	.015		
	N	106	106	106	106	
Performance	Pearson Correlation	.143	.293**	.219*	.350**	1
	Sig. (1-tailed)	.031	.001	.012	.000	
	N	106	106	106	106	106
*. Correlation is significant at the 0.05 level (1-tailed).						
**. Correlation is significant at the 0.01 level (1-tailed).						

The correlation analysis results showed that knowledge acquisition capability (r=.143, p=.031), knowledge conversion capability (r=.293, p=.001), knowledge protection capability (r=.219, p=.012), and knowledge application capability (r=.350, p=.000) were positively and significantly correlated with the performance of tea warehouses in Mombasa County. This implies that an improvement on knowledge acquisition capability, knowledge conversion capability, knowledge protection capability, and knowledge application capability would increase the performance of warehouses in Mombasa County.

Multiple Linear Regression Analysis Results

Table 10: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.685[a]	0.469	0.362	0.541
a. Predictors: (Constant), Knowledge application capability, Knowledge conversion capability, Knowledge acquisition capability, Knowledge protection capability				

The results demonstrate that the coefficient of determination (R^2) was 0.469 which implied that knowledge management process capabilities explained 46.9% of variation in performance.

Table 11: Analysis of Variance (ANOVA)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	17.363	4	4.341	22.376	.000[b]
	Residual	19.607	101	0.194		
	Total	36.969	105			
a. Dependent Variable: Performance						
b. Predictors: (Constant), Knowledge application capability, Knowledge conversion capability, Knowledge acquisition capability, Knowledge protection capability						

The results showed that F value was 22.376 with a p-value of 0.000 which was significant. The regression model, therefore, was robust in explain the relationship between knowledge management process capabilities and performance. This implied that the model had a good predictive power of the effect of knowledge management process capabilities on performance of tea warehouses.

Table 12: Multiple Linear Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		β	Std. Error	Beta		
1	(Constant)	0.468	0.231		2.026	0.031
	Knowledge acquisition capability	0.117	0.056	0.012	2.089	0.028
	Knowledge conversion capability	0.341	0.13	0.238	2.63	0.01
	Knowledge protection capability	0.136	0.062	0.123	2.194	0.022
	Knowledge application capability	0.384	0.123	0.291	3.125	0.002
a. Dependent Variable: Performance						

The multiple linear regression results showed that that knowledge acquisition capability (β =.117, p=.028), knowledge conversion capability (β =.341, p=.010), knowledge protection capability (β =.136, p=.022), and knowledge application capability (β =.384, p=.002) were positively and significantly correlated with the performance of tea warehouses in Mombasa County. This implies that an improvement on knowledge acquisition capability, knowledge conversion capability, knowledge protection capability, and knowledge application capability would increase the performance of warehouses in Mombasa County. The derived model was as follows;

Performance =.117KAC + .341KCA + .136KPA + .384KAPC

CONCLUSION AND RECOMMENDATIONS

Conclusions

Based on the findings, the study concluded that;

1. Knowledge acquisition capability has a positive and statistically significant effect on the performance of tea warehouses in Mombasa County.
2. Knowledge conversion capability has a positive and statistically significant effect on the performance of tea warehouses in Mombasa County.
3. Knowledge protection capability has a positive and statistically significant effect on the performance of tea warehouses.
4. Knowledge application capability has a positive and statistically significant effect on the performance of tea warehouses.

Recommendations

The study recommended that;

1. Tea warehouse management should develop a well-structured knowledge reporting system and establish active methods for acquiring customer and industry information. This is because knowledge conversion was found to have a positive and statistically significant effect on performance. Furthermore, enhancing information sensitivity and dissemination practices within the warehouses could strengthen performance outcomes, as these were identified as critical components in achieving higher organizational effectiveness.
2. Tea warehouse management should invest in advanced communication technologies, such as teleconferencing, video conferencing, and groupware, to facilitate more efficient knowledge transformation and dissemination.
3. Tea warehouse management should enhance knowledge protection measures by implementing strong firewalls in information systems and introducing knowledge protection maps to safeguard critical organizational knowledge.
4. Tea warehouse management should prioritize the development of a more dynamic marketing function to enhance the adaptability and application of knowledge within the organization.

REFERENCES

1. Alavi, M. & Leidner, D. E. (2017), Knowledge Management and Knowledge Management Systems: Conceptual foundations and Research Issues. *MIS Quarterly, 25*(1), pp. 107-136.
2. Bhojaraju, G. (2015). Knowledge management: Why do we need it for corporate? *Malaysian Journal of Library and Information Science, 10*(2), pp. 37-50.
3. Bolton, D. (2023), *Logistics Issues Continue to Drag on Tea Trade.* Stir Publication. Retrieved from https://stir-tea-coffee.com/tea-coffee-news/logistics-issues-continue-to-drag-on-tea-trade_feb/
4. Capital Business (2023), *Warehousing distribution in Kenya.* Retrieved from https://www.capitalfm.co.ke/business/2023/02/kenya-lacks-sufficient-warehousing-facilities-despite-increased-demand-developer/
5. Carmeli, A. & Tishler, A. (2017). Relationship between intangible organizational elements and organizational performance. *Strategic Management Journal, 25*, pp. 1257-1278.
6. Cooper, R. D. & Schindler, P. S. (2016). *Business Research Methods*. (9th Edn) New York,: McGraw-hill publications.
7. Creswell, J. W. (2015). *Research design: Qualitative, quantitative, and mixed methods approaches*, (4th Ed.). Los Angeles: Sage.
8. Darroch, J. (2003), Developing a measure of knowledge management behaviours and practices, *Journal of Knowledge Management, 7*(5), pp. 41-54.
9. Darroch, J. (2020), Knowledge management, innovation and firm performance. *Journal of Knowledge Management, 9*(3), pp. 101-115.
10. Grant, R. M. (2018). Towards a knowledge-based theory of the firm. *Strategic Management Journal, 17*, pp. 109–122
11. Hoskisson, R. E., Eden L., Chung M. L. & Wright, M. (2000). Strategy in emerging economies. *The Academy of Management Journal, 43*(3), pp. 249-267.
12. Huang, J. W. & Li, Y. H. (2009). The mediating effect of knowledge management on social interaction and innovation performance. *International Journal of Manpower, 30*(5), pp. 285-301.
13. Ismael, Y., Yusuf, A. & Davoud, M. (2016). *A Review paper on Organizational Culture and Performance*. Available at www.ijbssnet. Com/Journals/vol.-1-no.3 December-2010/4.Pdf.
14. Kanyi, R. A. & Ndiege, M. (2019), *Knowledge management practices and performance mobile telephone companies.* Published Master's Thesis, University of Nairobi, Kenya.

15. Kinyua, G., Muathe, S., & Kilika, J. (2018) examined the effect of knowledge conversion and knowledge application on performance of Commercial Banks in Kenya. *International Journal of Education and Research, 3*(10), pp. 431-444.
16. KIPPRA (2022), *Fluctuations in Market Earnings for Tea in Kenya: What Could be the Cause and Remedy?* Retrieved from https://kippra.or.ke/fluctuations-in-market-earnings-for-tea-in-kenya-what-could-be-the-cause-and-remedy/
17. Lin, H. (2016). Knowledge sharing and firm innovation capability: An empirical study. *International Journal of Manpower*, *28*(4), pp. 315-332.
18. McAdam, R., & Reid, R. (2016). A comparison of public and private perceptions and use of Knowledge Management. *Journal of European Industrial Training*, *24*(6), pp 317-329.
19. Ministry of Agriculture and Rural Development (2019), *Agricultural investment potential of Ethiopia*, MoARD, Abuja Nigeria, 2019.
20. Mohammedsani, (2020), Review on impacts of climate change on tea yield, yield components and quality, *International Journal of Research Studies in Agricultural Sciences, 4*(5), pp. 24–37, 2018.
21. Monitor (2023), Tea exports end 2023 at highest level ever. Retrieved from https://www.monitor.co.ug/uganda/business/prosper/tea-exports-end-2023-at-highest-level-ever-1807954
22. Nawaz, M. S., Hassan, M., & Shaukat, S. (2016). Impact of Knowledge Management Practices on Firm Performance: Testing the Mediation Role of Innovation in the Manufacturing Sector of Pakistan. *Pakistan Journal of Commerce & Social Sciences*, *8*(1).
23. Ndabari, M. (2021). Knowledge management and performance: A conceptual review. International *Academic Journal of Human Resource and Business Administration*, *3*(9), 538-553
24. Prieto, I. M. & Revilla, E. (2016). Learning capability and business performance: A non-financial and financial assessment. *The Learning Organization*, *13*(2), pp. 166-185.
25. Rajpat, K. (2024), *Kenya Logistics and Warehousing Market Outlook to 2023*. Retrieved from https://www.linkedin.com/pulse/kenya-logistics-warehousing-market-outlook-2023-ken-research-rajput/
26. Senanji, T. & Nyabonga, A. B. (2017). Knowledge management process capability: Operations strategy perspective. *International Journal of Management & Information Systems*, *15*(3).
27. Stankosky, M. (2017). *Keynote Address to ICICKM* (international Conference on Intellectual Capital, Knowledge Management and Organizational Learning), (pp. 9-10).
28. Tea Board of Kenya (2024), *Kenya Tea Industry Performance Report - 2022 November*. Retrieved from https://teaboard.or.ke/resources/kenya-tea-industry-performance-reports/kenya-tea-industry-performance-report-2022-november
29. Terer, K. M. & Kipkorir, S. C. M. (2019). Management practices and performance of tea companies in Kericho County, Kenya. *International Academic Journal of Human Resource and Business Administration, 3*(7), pp. 410-424
30. Wamitu, S. M. (2017). *Tacit knowledge sharing and public sector performance in Kenya*. Published Doctorate Thesis, Dedan Kimathi University of Technology, Kenya.