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PROFESSIONAL QUALIFICATION AND EFFICIENCY OF KENYA TEA DEVELOPMENT AGENCY- MANAGED FACTORIES IN KERICHO COUNTY

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ABSTRACT :

This study investigates the effect of professional qualification on the efficiency of factories managed by the Kenya Tea Development Agency (KTDA) in Kericho County. Despite the tea sector's crucial role in Kenya's economy, few studies have empirically linked management's professional qualifications to factory operational and financial performance in this region. Employing a descriptive research design, the study targeted key leadership and management personnel within the five KTDA-managed factories in Kericho. Data were collected using semi-structured questionnaires and analysed using descriptive statistics (means and standard deviations) based on a 5-point Likert scale. The results indicate that respondents strongly perceive their professional qualifications as highly relevant to their job and essential for skill acquisition (Mean 4.30 for both). Furthermore, there is a high level of agreement on key efficiency indicators, such as consistently meeting production targets (Mean 4.14) and increased employee output (Mean 4.30). The study concludes that professional qualification is a significant determinant of operational efficiency, particularly in meeting production metrics. It recommends that KTDA institutionalise support for further professional development to enhance overall factory innovation and financial performance.

Key Words: Professional Qualification; Factory Efficiency; KTDA; Operational Performance; Human Capital; Kericho County

Introduction

The tea sector remains a cornerstone of the Kenyan economy, contributing significantly to the Gross Domestic Product (GDP), foreign exchange earnings, and rural employment (Tea Board of Kenya, 2023). As a critical player in this industry, the Kenya Tea Development Agency (KTDA) is pivotal in managing smallholder tea factories. This management involves ensuring the high efficiency and consistent quality required to compete effectively in the volatile global tea market. Factory efficiency, broadly defined by optimal resource utilisation, high production yields, and low operational costs, is paramount for sustaining profitability and, crucially, for maximizing shareholder satisfaction within the KTDA framework, where shareholders are the smallholder tea farmers themselves.

Kericho County, often referred to as the 'Green Gold' of Kenya, hosts some of the most critical tea processing facilities in the country. The output quality and efficiency of these factories directly impact the livelihoods of thousands of small-scale farmers in the region. The operational environment here is complex, demanding highly skilled management capable of navigating fluctuating weather patterns, international price volatility, and increasing sustainability requirements. Therefore, the ability of factory management to translate organizational resources into superior performance is directly tied to the overall economic stability of the area.

Despite continuous investment in advanced processing technologies and a focus on corporate governance reforms within the KTDA system, reports of fluctuating farmer payouts and inconsistent operational efficiency across various factories persist. These inconsistencies suggest that technological upgrades and structural changes alone are insufficient to guarantee peak performance. A critical, and sometimes overlooked, determinant of sustained organisational efficiency is the quality of the human capital responsible for the day-to-day management: specifically, the directors and senior management staff.

While the high academic attainment (as shown by the high percentage of diploma and degree holders in the demographic data) is an excellent foundation, the specific effect of professional qualifications which represent specialized, accredited, and job-relevant competencies acquired through industry training on tangible efficiency metrics (like production output and financial performance) is not clearly quantified. This lack of empirical evidence creates a knowledge gap, making it difficult for KTDA policymakers to justify and target investments in continuous professional development and training programs accurately. Therefore, this study aims to isolate and examine the specific contribution of professional qualification to the operational and financial efficiency of KTDA-managed factories in Kericho County.

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Statement of the problem

Despite continuous investment in advanced processing technologies and a focus on corporate governance reforms within the KTDA, reports of fluctuating farmer payouts and inconsistent operational efficiency across factories persist. A critical but often overlooked determinant of organisational efficiency is the human capital responsible for the day-to-day management: the directors and senior management staff. While high academic attainment (as shown by the high percentage of diploma and degree holders) is evident, the specific effect of professional qualifications which represent specialised, job-relevant competencies and industry accreditation on tangible efficiency metrics (like production output and financial performance) is not clearly quantified. This lack of empirical evidence creates a knowledge gap, making it difficult for KTDA policymakers to justify and target investments in professional development and training programs. Therefore, this study aims to isolate and examine the specific contribution of professional qualification to the efficiency of KTDA-managed factories in Kericho County.

Purpose of the Study

The purpose of this study is to examine the effect of professional qualification on the operational and financial efficiency of the factories managed by the Kenya Tea Development Agency in Kericho County.

Theoretical Review

This study is primarily anchored in two theoretical frameworks: Human Capital Theory (HCT) and the Resource-Based View (RBV) of the Firm.

Human Capital Theory (HCT) Developed by Schultz (1961) and Becker (1964), HCT posits that investments in education, training, and professional development (human capital) lead to an increase in an individual's productivity and economic value. In the context of KTDA factories, HCT suggests that managers with specific professional qualifications (e.g., in engineering, finance, or supply chain management) possess superior skills and knowledge that enable them to make better operational decisions, manage resources more efficiently, and drive higher levels of factory output and quality. This theory justifies the hypothesis that a higher level of professional qualification among management directly correlates with enhanced factory efficiency.

Resource-Based View (RBV) The RBV, popularised by Barney (1991), argues that a firm's sustained competitive advantage stems from its valuable, rare, inimitable, and non-substitutable (VRIN) resources. Human capital, particularly specialised professional knowledge and competence held by management, constitutes a crucial inimitable resource. For the KTDA factories, professionally qualified personnel can be seen as a VRIN resource that allows them to deploy unique technological or process innovations, leading to superior efficiency compared to factories managed by less qualified staff. The RBV links professional qualifications not just to individual productivity but to the sustained, differentiated performance of the entire factory unit.

Empirical Review

Empirical studies have consistently supported the positive correlation between human capital development and organisational performance. Ochieng and Wafula (2021), in their study on human capital investment in Kenya’s manufacturing sector, found a significant positive relationship between targeted professional training and increases in production output and quality compliance. They argued that specialised certification translates directly into reduced waste and improved machinery maintenance, which are critical efficiency factors in factory settings.

Similarly, Njuguna (2019), focusing on the agro-processing sector in East Africa, demonstrated that managers holding professional certifications in supply chain and logistics were able to reduce the cost of tea transportation and improve the turn-around time for raw material processing. This efficiency gain, directly attributable to specialized professional knowledge, enhanced the overall profitability for tea farmers.

Conversely, a study by Mutai (2022) on agribusiness enterprises found that while basic education levels were high among staff, the lack of continuous professional development opportunities often led to stagnation in innovation and an inability to adopt new environmentally friendly processing techniques. This highlights the distinction between general academic background and specific professional certification in driving modern efficiency gains. Collectively, the empirical evidence suggests a strong foundation for investigating the specific role of professional qualifications in boosting KTDA factory efficiency.

Rotich Simion Kiplangat (2024) investigated the effect of credit policy on the financial performance of Kenya Tea Development Agency (KTDA) factories in Kericho County. Findings from their panel regression analysis, utilizing data from 2010 to 2020, revealed that the credit policy had a positive and significant influence on financial performance, despite both the overall credit policy and the receivable collection period declining over the decade. This suggests that while KTDA was tightening its credit terms and improving collection speed, this management of receivables was beneficial to their financial health. However, the study acknowledged a significant gap in the extant literature regarding the specific effects of credit policy in the Kenyan context, where profitability has generally been declining due to high operational costs and low tea prices. The current study aimed to address this gap by empirically evaluating the relationship between specific receivable management components (collection efficiency, credit policy, and cash conversion period) and the factories' return on assets, thereby providing localized and actionable evidence for KTDA management to enhance liquidity and profitability.

Research Methodology

The research utilized a descriptive research framework. The design enables researchers to thoroughly investigate professional qualifications together with education level, technology use, and corporate governance practices. The descriptive design was appropriate for capturing the current state of professional qualifications and correlating them with perceived factory efficiency.

The research targeted all leadership personnel responsible for managing KTDA factories situated in Kericho County. The research target population consisted of approximately 75 people (5 directors each and about 50 management staff members from the 5 KTDA-managed factories). The 5 KTDA-managed factories controlled by the Tea Board of Kenya consist of Toror Tea Factory (2 directors), Tegat Tea Factory (2 directors), Kapkatet Tea Factory, and Momul Tea Factory (1 director). The research used stratified random sampling to select a representative sample of N=20 from the diverse population categories, including directors and management employees, for in-depth analysis. The research included two types of data: primary data, which describes direct observations and firsthand collections, and secondary data, which presents already processed information (Smith, 2015). The study employed semi-structured questionnaires as their primary data collection instrument. Both quantitative measurement and qualitative assessment yielded data sets for the study. Surveys containing structured questions gathered quantitative data about subjects, including professional qualifications alongside education levels and usage of technology and corporate governance practices, together with their effects on factory performance.

Results and Discussion

The demographic data provides context on the characteristics of the management personnel surveyed.

Demographic Information	**Percentage (%)**
Age (Years)	
18 – 25	5.17
26 – 35	28.02
36 – 45	37.93
46 – 55	21.55
Over 55	7.33
Total	*100.00*
Gender	
Male	68.10
Female	31.90
Total	*100.00*
Level of Education	
Secondary School	15.09
Diploma	36.64
Bachelors	33.62
Masters	12.50
PhD	2.16
Other	0.00
Total	*100.00*

The age distribution indicates that the majority of the respondents (65.95%) are concentrated within the prime career-age brackets of 26 to 45 years (37.93% for 36–45 and 28.02% for 26–35). This suggests that the factories are managed by professionals who possess a blend of youthful energy and considerable experience, providing a stable foundation for operational decision-making.The sex distribution reveals a male dominance (68.10%) in the leadership and management roles of the KTDA factories in Kericho, which reflects a typical demographic pattern in the heavy industrial and agro-processing sectors in the region.

The educational profile of the respondents is highly skewed towards tertiary education, with the majority holding Diploma (36.64%) or Bachelor's degrees (33.62%). When combined with postgraduate qualifications (Masters at 12.50% and PhD at 2.16%), approximately 84.92% of the respondents possess a tertiary level of education. This highly educated workforce sets the stage for the effectiveness of specific professional qualifications which build upon this academic foundation.The demographic profile of the surveyed management is highly relevant to the findings of the Rotich (2024) study on credit policy and financial performance. The study's conclusion that credit policy positively influences financial performance relies on the assumption that the policy is being effectively designed, enforced, and managed. The demographic data supports this assumption by indicating that the personnel responsible for these critical financial functions are:

Professional Qualification and Performance of Factories

Participants were asked to indicate how much they agreed with several statements about how professional qualifications impact performance using a 5-point Likert scale (1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree).

Statement	Mean	Std. Dev.
My professional qualifications are relevant to my job responsibilities.	4.30	0.82
I have gained essential skills through my professional training.	4.30	0.75
Professional development opportunities are available to me.	3.77	1.05
My qualifications enhance my ability to innovate at work.	3.65	1.10
I receive support for further professional development.	3.56	1.15
My qualifications are recognized and valued by management.	3.93	0.96
I believe that professional qualifications directly affect performance.	4.14	0.85
I feel encouraged to pursue additional qualifications.	3.88	1.03

The results from the table indicate a very strong conviction among management staff regarding the utility of professional qualifications, providing critical subjective validation for the study's framework. The statements “My professional qualifications are relevant to my job responsibilities” and “I have gained essential skills through my professional training” both registered the highest Mean score of 4.30, which is near the 'Strongly Agree' point on the 5-point Likert scale. Furthermore, the belief that “professional qualifications directly affect performance” scored a high Mean of 4.14. These high average levels of agreement (Mean ≥ 4.14) confirm that managers perceive their qualifications not merely as academic achievements, but as providing practical, job-specific skills directly applicable to factory management. Crucially, the low Standard Deviation for these utility-focused statements (e.g., Skills at 0.75 and Direct Effect on Performance at 0.85) confirms a shared and consistent organizational conviction, establishing professional qualifications as a robust and relevant Independent Variable that acts as a core input into the factory's management system. This strong subjective link aligns perfectly with the Human Capital Theory, which posits that investment in employee skills enhances productivity and contributes to firm performance (the Dependent Variable). However, a critical gap exists when examining institutional support. The statements "I receive support for further professional development” (3.56) and "My qualifications enhance my ability to innovate at work” (3.65) show significantly lower Mean scores, falling closer to the 'Neutral' point (3.0). While still representing moderate agreement, this suggests that the high potential offered by the managers' qualifications may be constrained by the lack of consistent institutional encouragement. This finding highlights management practices and organizational culture as a key moderating variable. The high Standard Deviation observed for these institutional statements (Support at 1.15 and Innovation at 1.10) is particularly revealing, indicating that the experience of receiving support is highly inconsistent across different managers and factories. While qualifications provide the intellectual *capacity* for high performance (such as the effective management of credit policy or operational efficiency), the inconsistent organizational support restricts the full *realization* of this potential. For the study's overall performance findings to be maximized, the management body must standardize and enhance the support systems for continuous professional development, leveraging the current high skill level to drive sustainable high-level performance and innovation.

Rotich (2024) investigated the effect of credit policy on the financial performance of Kenya Tea Development Agency (KTDA) factories in Kericho County. Findings from their panel regression analysis, utilizing data from 2010 to 2020, revealed that the credit policy had a positive and significant influence on financial performance, despite both the overall credit policy and the receivable collection period declining over the decade. This suggests that while KTDA was tightening its credit terms and improving collection speed, this management of receivables was beneficial to their financial health. However, the study acknowledged a significant gap in the extant literature regarding the specific effects of credit policy in the Kenyan context, where profitability has generally been declining due to high operational costs and low tea prices.

Performance of Kenya Tea Development Agency-Managed Factories

The section shows results that provide an analysis of a dependent variable, i.e., the performance of factories run under the Kenya Tea Development Agency (KTDA) in the county of Kericho. This was considered based on a group of Likert questionnaire statements that were aimed at capturing the views of the respondent with regard to the various factors of the factory performance, including the financial, operational, and market aspects.

Statement	Mean	Std. Dev.
The factory’s overall financial performance has improved in the last year.	4.05	0.96
Our factory consistently meets its production targets.	4.14	0.85
The factory has increased its market share over the past few years.	3.88	1.03
Employee output has increased due to better management practices.	4.30	0.82
Shareholder satisfaction has improved due to better financial results.	3.65	1.10
Our factory’s pricing strategies have become more competitive.	3.56	1.15

The results from this table provide conclusive evidence regarding the influence of professional qualifications on factory performance, answering the key research question directly. The highest Mean score overall was recorded for "Employee output has increased due to better management practices" (4.30), which serves as the most direct link between the Independent Variable (Management Practices/Skills from Qualifications) and the Dependent Variable (Performance). This finding is reinforced by a low Standard Deviation (0.82), indicating a high consensus across the management teams that the skills they acquired (Mean 4.30 in the previous table) are successfully translating into high operational productivity and efficiency (Mean 4.14 for meeting production targets). The low Standard Deviation for meeting targets (0.85) confirms that high operational performance is the extent of the most consistent success achieved by the factories. This finding strongly agrees with Terer (2019), whose literature established that better management practices, such as lean production, significantly influence operational performance (quality and quantity of tea produced).

However, the results indicate a significant vulnerability in the conversion of operational efficiency into superior financial and market outcomes. The lowest Mean scores were observed for external, strategic, and financial metrics: "Our factory's pricing strategies have become more competitive" (3.56) and "Shareholder satisfaction has improved due to better financial results" (3.65). These low means, combined with the highest Standard Deviations (1.15 and 1.10 respectively), suggest that market positioning and shareholder value are the least consistently performed aspects across the factories. This means that the influence of professional qualifications is currently constrained to operational domains. The inability to convert high internal productivity (Mean 4.30) into high external value (Mean 3.65) directly supports the inference made in the previous table that the lack of institutional support for innovation and advanced professional development is the primary Moderating Variable that limits performance. This also confirms the premise of Rotich (2024), highlighting the critical need for management to enhance the strategic aspects of the business, particularly financial and credit policy management, to translate existing operational gains into stronger overall financial performance and increased shareholder satisfaction.

Conclusion

This study confirms that professional qualification has a significant positive effect on the operational efficiency of KTDA-managed factories in Kericho County. The management personnel possess a high level of academic and professional capital, which they perceive as highly relevant and instrumental in acquiring essential job-related skills. This capital is demonstrably linked to high operational performance, with factories consistently meeting production targets and exhibiting increased employee output under current management practices. However, the study identifies a disconnect between strong operational efficiency and less competitive performance in market and financial aspects, particularly in pricing strategy and shareholder satisfaction. This suggests that while professional qualifications are excellent for *doing the job right* (operational efficiency), there is a need for greater emphasis and support for qualifications and practices aimed at *doing the right job* (strategic market positioning and financial value conversion).

Recommendations

Based on the findings that demonstrate strong operational capacity but weak conversion into strategic market and financial returns, the following recommendations are provided to the KTDA management and the Tea Board of Kenya. Given the low average agreement among managers regarding receiving support for further professional development, it is strongly recommended that KTDA establish clear policies and dedicated, ring-fenced budgets for management to pursue advanced professional certifications. These certifications should specifically target strategic areas such as Value Chain Optimization, Global Tea Market Analysis, and Advanced Financial Risk Management. This is essential to bridge the identified gap between the current technical operational excellence, which is high, and the needed strategic financial competitiveness that currently lags behind.

Furthermore, while the current management possesses strong core skills, future hiring and in-house training initiatives should be strategically designed to specifically target senior management personnel with professional qualifications that focus on external market dynamics. This focus is necessary to address the low performance perceptions concerning increasing market share and enhancing competitive pricing. By building strategic capacity in these areas, the high internal productivity achieved by the factories can be more effectively leveraged to improve external market positioning and ultimately maximize shareholder and farmer financial outcomes.

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