PERFORMANCE

INFLUENCE OF NEEDS IDENTIFICATION ON ORGANIZATIONAL PERFORMANCE OF PUBLIC TVET INSTITUTIONS IN SOUTH RIFT REGION

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ABSTRACT

Statement of the Problem: Technical and Vocational Education and Training (TVET) provides specialized training in technical and skilled trades, enhancing a country's productivity, competitiveness, and economic growth. However, there is limited research on how needs identification influences the organizational performance of public TVET institutions, especially in the South Rift Region. Addressing this gap is essential for optimizing the effectiveness of these institutions in fulfilling their mandates.

Purpose of the Study: This study aimed to examine the influence of needs identification on the organizational performance of public TVET institutions in the South Rift Region.

Research Design: The study was guided by stakeholder theory and employed a descriptive research design. The target population included principals, procurement staff, and department heads in public TVET institutions within the South Rift Region. A census survey approach was adopted, and data was collected using structured questionnaires.

Findings: The study found that needs identification has a positive and statistically significant effect on the organizational performance of public TVET institutions in the South Rift Region.

Conclusion: The study concluded that effective needs identification is essential for enhancing the performance of public TVET institutions in the South Rift Region.

Recommendations: The study recommended that TVET institutions improve their needs identification processes by collaborating closely with industry partners, implementing feedback mechanisms, and integrating labor market data to better align training with industry demands.

Keywords: *Needs Identification, Organizational Performance, Public TVET Institutions, Stakeholder Theory, South Rift Region*

INTRODUCTION

Technical institutions, commonly referred to as Technical and Vocational Education and Training (TVET) institutions, play a vital role in societies worldwide (Sebola, 2022). These institutions provide specialized training and education in various skilled trades and technical fields, equipping individuals with the practical skills and knowledge necessary to enter specific workforces. TVET institutions are prevalent across all continents, serving diverse needs and contexts. Developed nations utilize them to fill critical skill gaps in their industries, while developing countries rely on them to empower youth with employable skills and contribute to economic growth (Bikse et al., 2022). In Africa, the role of public TVET institutions is particularly crucial. With a growing youth population and a rapidly developing economy, Africa faces a significant demand for skilled labour (Gyimah, 2020). TVET institutions help address this demand by providing relevant training programs, promoting entrepreneurship, and supporting the continent's overall socio-economic development. Technical institutions are typically divided into three types: technical schools and colleges, vocational schools, and polytechnics. Technical schools and colleges offer specialized programs in fields such as engineering, automotive technology, information technology, healthcare, agriculture, and hospitality (Sahasrabudhe & Bhagat, 2021). Vocational schools focus on specific trades and occupations, providing hands-on training in areas such as carpentry, welding, hairdressing, and tailoring. Polytechnics offer a broader range of programs that combine technical and academic education, often leading to diplomas or associate degrees (Bentum-Micah et al., 2024).

TVET graduates are equipped with the skills and knowledge sought by employers, leading to higher employment rates and better career prospects (Adams, 2019). A skilled workforce is essential for economic development, and by providing relevant training, TVET institutions contribute to a nation's competitiveness and productivity. Additionally, TVET can offer individuals skills and qualifications that help them escape poverty and improve their social standing. Technical education fosters a culture of problem-solving and innovation, which is crucial for technological advancement and economic diversification (Khilji & Roberts, 2022). The performance of public TVET institutions in Kenya varies significantly. Some institutions perform very well, while others face challenges (Ngware et al., 2024). Factors influencing the performance of these institutions include the quality of teaching, availability of resources, and administrative efficiency. High-quality teaching is critical, as institutions with effective teaching are more likely to produce skilled and employable graduates (Rajadurai et al., 2018).

TVET institutions require adequate resources to provide quality education, including well-trained teachers, up-to-date equipment, suitable facilities, and sufficient funding (Saeed, Gull, & Altaf, 2022). Comyn (2018) notes that recent reforms have positively impacted the performance of public TVET institutions, but there remains work to be done. Continued government investment and community support are necessary for TVET institutions to succeed (Kanwar et al., 2019).

As TVET institutions continue to play a crucial role in preparing individuals for the workforce, their performance has become a growing concern. Improving TVET institutions' performance is essential not only for the students they serve but also for overall economic growth (Ngware et al., 2022). However, ineffective procurement practices often lead to delays in service delivery, negatively affecting outcomes. This issue is particularly significant in TVET institutions, where the lack of training for tutors on the proper use of learning and teaching resources can hinder effective education delivery (Lund & Karlsen, 2020). Procurement planning involves determining the necessary goods or services for an organization, the timing of their requirements, appropriate pricing, and suitable suppliers (Ivanov et al., 2021). Effective procurement planning practices are vital as they significantly impact institutional performance. Poorly managed or executed procurement processes can lead to delays in service delivery and negatively impact outcomes (Wilson, 2019). Mosomi et al. (2014) highlight that effective procurement planning practices positively influence the performance of public TVET institutions.

It is, therefore, important for TVET institutions to adopt effective procurement planning practices to ensure adequate provision of learning and teaching materials, such as textbooks, laboratory equipment, and computers (Edokpolor & Dumbiri, 2019). This results in well-equipped institutions with the necessary tools for students. Further, Mapanga and Garidzirai (2021) suggest that integrating intelligent technologies can enhance value chain management through efficient procurement processes, reducing costs, and increasing agility, flexibility, and resiliency within public sector organizations. Consequently, there is a need to integrate modern technology systems into traditional procurement models used by many TVET institutions to maintain competitiveness while focusing on quality outcomes in their unique educational environments (Bozkurt et al., 2020).

Gachunga (2020) states that procurement planning is essential for documenting frameworks that guide future objectives, supporting organizational growth and development over time. This

information is valuable for adopting best practices in procurement decisions, especially when budgets are limited. Kim et al. (2018) argue for long-term plans driven by clear goals, which help maintain focus. A top-down approach should be adopted, aligning inputs with targets before any short-term purchases are made (Xiang & Chin, 2021). The motivation for this study is to address the importance of effective procurement planning practices in TVET institutions. The study aims to integrate modern technology systems into traditional procurement models in TVETs to remain competitive with private sector industries while maintaining quality outcomes within their unique educational contexts. The study sought to answer the question of how needs identification influences the organizational performance of public TVET institutions in the South Rift Region.

LITERATURE REVIEW

This section presents a theoretical and empirical review of the relevant literature.

THEORETICAL REVIEW

Stakeholder theory, a foundational concept in organizational management and business ethics, addresses the morals and values associated with managing an organization. Initially outlined by Freeman (1984), stakeholder theory seeks to identify and analyze the various groups that have an interest in a corporation. It provides a framework for management to consider and address the concerns and interests of these stakeholders (Jawahar & McLaughlin, 2018). Essentially, it focuses on determining who or what holds true importance. Traditionally, a company's stakeholders were considered to be its owners, with the organization obligated to prioritize their interests and work to enhance their value. However, stakeholder theory posits that multiple entities, including government bodies, political groups, trade associations, trade unions, communities, financiers, suppliers, employees, and customers, also hold legitimate interests. Competitors may also be considered stakeholders if they can influence the company or its stakeholders (Gesteland, 2005). This theory is applicable to the present study, as it involves stakeholders such as project managers, TVET institutions, and county government, who are responsible for assigning tasks to employees and ensuring that selected suppliers act in the public's best interest by providing high-value goods.

EMPIRICAL REVIEW

Njenga (2023) conducted a study examining the relationship between needs identification processes and academic outcomes in public TVET institutions within Kenya's Nairobi

Metropolitan Area. The findings indicated that institutions engaging in thorough needs identification processes tended to achieve better academic outcomes and overall institutional performance. This study emphasized the importance of involving industry stakeholders and employers in needs identification to ensure the relevance of the training programs offered by public TVET institutions. Dennis et al. (2022) investigated the relationship between needs identification and performance in public TVET institutions in Kenya. The study found that institutions conducting comprehensive needs assessments were better able to tailor their procurement plans and curricula to meet the specific demands of students and local industries. Consequently, these institutions reported higher levels of student satisfaction and improved graduate employability.

Chamadia and Shahid (2018) demonstrated the critical role of needs identification in the development and functioning of TVET institutions. Their study provided evidence that accurate and comprehensive needs identification helps institutions align resources and programs with labor market demands, leading to improved performance and effectiveness. In the context of the South Rift Region, where TVET institutions contribute significantly to socio-economic development, these findings underscore the importance of needs identification for institutional success. Ali et al. (2021) examined the implementation of a need's identification process in a TVET institution in the South Rift Region, finding a positive correlation between identified needs and improved student employability and career advancement. The study highlighted the collaborative nature of effective needs identification, which involves educators, industry experts, and local authorities.

Abarca-Gómez et al. (2017) emphasized the importance of engaging industry partners in needs identification. Their study indicated that industry input is essential for identifying technological advancements, emerging skill requirements, and changes in the job market, ensuring that TVET institutions align their offerings with current industry demands. Newton et al. (2019) explored the impact of stakeholder engagement in needs identification on TVET institutions' performance. The study revealed that institutions involving industry representatives, local authorities, and educators in needs assessment were more successful in aligning programs with job market demands. This engagement facilitated the development of relevant, updated curricula catering to industries' evolving skill requirements, thus enhancing graduate employability (Jackson & Meek, 2021). Chen et al. (2018) demonstrated that a proactive and well-planned needs identification process could yield cost-saving benefits for TVET

institutions. Their study provided statistical evidence that accurate needs identification and the avoidance of unnecessary purchases enabled more efficient budget allocation, positively impacting financial performance and resource allocation.

Coletti et al. (2020) explored the significance of effective data collection and analysis in needs identification. They found that data-driven decision-making positively influenced the alignment of educational offerings with regional skill demands. By using a combination of qualitative and quantitative methods, TVET institutions gained insights into local industry requirements, enabling informed procurement decisions. Ismail et al. (2020) investigated the cost-saving benefits of effective needs identification in TVET institutions. They found that institutions that accurately identified their requirements and avoided unnecessary purchases reported improved financial performance. By allocating resources efficiently, these institutions could invest in high-impact areas like staff training and modern equipment, resulting in enhanced educational services (Sadeghnezhad et al., 2018).

METHODOLOGY

The study employed a descriptive research design, as defined by Creswell (2018), to systematically gather, quantify, analyze, and interpret data aligned with the research objectives. The target population consisted of principals, procurement staff, and department heads across six public TVET institutions, totaling 53 individuals (Asiamah et al., 2017). Given the relatively small population size, a census approach was utilized, allowing data collection from all individuals within the target group, thereby capturing comprehensive perspectives essential for achieving the study's goals. Data was collected using a structured questionnaire composed of closed-ended questions, which enabled the collection of quantifiable data for straightforward analysis. Post-collection, data processing involved sorting, checking, and editing for completeness and consistency before coding, editing, and analysis through the Statistical Package for Social Sciences (SPSS) software, version 25. Descriptive statistics (frequencies, percentages, means, and standard deviations) and inferential statistics (regression analysis) were used.

FINDINGS AND DISCUSSIONS

The study used census to conduct surveys among 53 staffs that is principals, procurement staff and department heads. Out of the 53 questionnaires that were distributed, only 44 were eventually returned and taken into account for results and analysis. The response rate was 83.02%, as Table 4.1 demonstrates a particularly high level of engagement. 9 questionnaires,

or 16.98% of the total, were not returned by respondents. Fulton, (2018) suggested that a response rate of 50% is adequate 60% is good and 70% and above, very good for analysis. This implies that 83% response rate was very appropriate for data analysis.

Needs identification

Respondents were also requested to establish the influence of needs identification on organizational performance of public TVET institutions in South Rift Region. The average response rate and the frequency of agreement were then computed, and the findings are presented in Table 4.7. For clarity in this table, the abbreviations used are as follows: SD (Strongly Disagreed), D (Disagree), N (Neutral), A (Agree), and SA (Strongly Agree). Analysis of the mean scores of the responses was carried out on a continuous scale: scores below 1.5 indicated strong disagreement, 1.5-2.4 indicated disagreement, 2.5-3.4 denoted neutrality, 3.5-4.5 indicated agreement, and scores above 4.5 signified strong agreement. A total of 7 statements were used to establish the influence of needs identification on organizational performance of public TVET institutions in South Rift Region and responses elicited on a 5-point Likert scale as shown in Table 1.

Table 1: Needs identification

Statement	SD	D	N	A	SA	Mean	Std
Public TVET institutions engage in proactive collaboration with industries to pinpoint skill gaps and emerging needs, ensuring alignment with procurement planning practices.	11%	16%	2%	43%	27%	3.59	1.35
TVET institutions employ robust feedback mechanisms to capture student insights on curriculum relevance and essential employability skills, a vital aspect of needs identification in procurement planning	5%	18%	11%	41%	25%	3.64	1.18
Tracking alumni data enables institutions to map career trajectories and pinpoint areas for enhancing skills within existing programs, a strategic approach to needs identification in procurement planning	5%	16%	5%	39%	36%	3.86	1.21
Public TVET institutions prioritize regular surveys to assess employer satisfaction with graduate skillsets, a key component of needs identification within procurement planning strategies	5%	7%	14%	46%	30%	3.89	1.06
The institution systematically conducts needs assessments to pinpoint training requirements for instructors, aligning with industry trends and pedagogical advancements, crucial for effective procurement planning practices	9%	11%	5%	48%	27%	3.73	1.25
Integration of labor market analysis data into curriculum development and program planning underscores the institution's commitment to needs identification, a cornerstone of successful procurement planning strategies	9%	9%	7%	41%	34%	3.82	1.26
By conducting needs assessments within the local community, the TVET institution identifies essential skills for local economic development, a proactive approach in procurement planning practices	7%	14%	2%	46%	32%	3.82	1.21

The findings from Table 1 indicated that 70.5% of respondents agreed that public TVET institutions engage proactively with industries to identify skill gaps and emerging needs, ensuring alignment with procurement planning, while 27.3% disagreed (mean=3.59, standard deviation=1.35). These results align with Tekle et al. (2024), who observed limited engagement of key stakeholders in policy formulation processes. Additionally, 65.9% of respondents affirmed that resource allocation in projects is forecast-driven, with 22.7% disagreeing (mean=3.64, standard deviation=1.18), supporting Ahmed and Khalid's (2019) findings on the value of forecast accuracy in resource planning. Furthermore, 75.0% of respondents agreed that tracking alumni data helps map career trajectories and enhance skill development, while 20.4% disagreed (mean=3.86, standard deviation=1.21). Also, 75.0% agreed that TVET institutions conduct regular surveys to assess employer satisfaction with graduates' skills, a core element of procurement planning, while 11.3% disagreed (mean=3.89, standard deviation=1.06), aligning with Thlomedi (2018) on skill gaps in TVET. Moreover, 75.0% agreed that the institution conducts systematic needs assessments for instructor training in line with industry trends, while 20.5% disagreed (mean=3.73, standard deviation=1.25), supporting Walden (2018) on the importance of aligning training content with industry requirements. Additionally, 75.0% of participants supported integrating labor market analysis into curriculum planning, with 18.2% dissenting (mean=3.82, standard deviation=1.26), consistent with Branson et al. (2020) on institutional capacity for targeted interventions. Lastly, 77.3% agreed that local community needs assessments help TVET institutions identify essential skills for local economic development, with 20.4% disagreeing (mean=3.82, standard deviation=1.22), in line with Thlomedi (2018) on community-driven skill development.

Regression Analysis

Regression analysis was run to establish the effect of independent variable on dependent variable.

Table 2: Regression Analysis Results

Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate		
.893a	0.798	0.777	0.35007		
		ANOVA			
	Sum of Squares	df	Mean Square	F	Sig.
Regression	18.885	4	4.721	38.526	.000b
Residual	4.779	39	0.123		
Total	23.665	43			
		Coefficients			
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.086	0.324		0.266	0.792
Needs identification	0.285	0.13	0.257	2.194	0.034

The study results in Table 2 provided a model summary with a coefficient of determination (R^2) revealing the proportion of variance in the dependent variable—organizational performance—that could be predicted from the independent variable, needs identification, and a correlation coefficient (R) of 0.893, indicating an 89.3% degree of association between organizational performance and needs identification. These results suggest that the model applied was satisfactory in linking the relationship between the variables. The findings also showed an F test value of 38.526, with a p-value of 0.000, which is below the threshold of 0.05, confirming that the model was effective in predicting the influence of needs identification on the organizational performance of public TVET institutions in the South Rift Region. This implies that the independent variable is a strong predictor of organizational performance. Further, Table 4.23 presented the overall significance test results for the hypothesized research model, showing that needs identification had a positive and significant effect on organizational performance ($\beta_1 = 0.285$, $p < 0.05$, .034). Based on these findings, the regression model was interpreted as follows:

$Y=0.086+0.285X_1$ $Y = 0.086 + 0.285X\_1$ $Y=0.086+0.285X1$

Indicate that, with all other factors held constant, a one-unit increase in needs identification would result in a 0.285 improvement in the organizational performance of public TVET institutions in the South Rift Region.

CONCLUSIONS

The study concludes that needs identification plays a pivotal role in enhancing organizational performance in public TVET institutions in the South Rift Region. By proactively collaborating with industries, employing robust feedback mechanisms, and integrating labor market analysis data, these institutions ensure that their procurement planning practices align with both industry trends and local economic development needs. This strategic approach not only addresses skill gaps but also ensures the relevance of the curriculum and the effectiveness of instructor training. The study also concludes that there was a moderate positive and statistically significant correlation between needs identification and organizational performance in public TVET institutions in the South Rift Region, ($r = 0.285$; $p < 0.05$). This implies that better needs identification enhances in public TVET institutions in the South Rift Region.

RECOMMENDATIONS

The study recommends that; Public TVET institutions in the South Rift Region should strengthen their needs identification processes. Institutions should actively collaborate with industries, employ robust feedback mechanisms, and integrate labor market analysis data to ensure that procurement planning aligns with industry trends and local economic needs. This approach will help in addressing skill gaps, ensuring the relevance of the curriculum, and improving the effectiveness of instructor training. Additionally, institutions should regularly assess and refine their needs identification strategies to enhance organizational performance.

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