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# Effect of Capitation Utilization on Operational Efficiency in Public Technical and Vocational Education and Training Institutions in Meru County, Kenya

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**Abstract**

Public Technical and Vocational Education and Training (TVET) institutions are central to developing skilled human capital for industrialization, employment creation, and socio-economic development. Despite increased government investment through capitation funding, many public TVET institutions continue to experience operational inefficiencies attributed to ineffective utilization of allocated financial resources. This study examined the effect of capitation utilization on operational efficiency in public Technical and Vocational Education and Training institutions in Meru County, Kenya. The study was anchored on Agency Theory and adopted a positivist research philosophy, quantitative research approach, and explanatory research design. A census of 108 management staff drawn from eight public TVET institutions was conducted. Data were collected using a structured questionnaire whose validity and reliability were established before the main survey. The collected data were analyzed using descriptive statistics, Pearson Product Moment Correlation, and simple linear regression analysis. The study achieved a response rate of 94.4%. Descriptive findings indicated that respondents generally agreed that effective utilization of government capitation enhanced budgeting, expenditure control, financial accountability, procurement efficiency, and institutional resource management. Pearson correlation analysis established a strong positive and statistically significant relationship between capitation utilization and operational efficiency ($r = 0.734$, $p < 0.001$). Simple linear regression analysis further revealed that capitation utilization exerted a positive and statistically significant effect on operational efficiency ($\beta = 0.781$, $p < 0.001$), explaining 53.9% of the variation in operational efficiency ($R^2 = 0.539$). The study concluded that prudent utilization of government capitation significantly enhances institutional planning, financial management, service delivery, and overall operational efficiency. It recommends strengthening financial accountability systems, expenditure monitoring, internal controls, procurement management, and capacity building to improve utilization of government capitation. The findings contribute to education financing literature by providing empirical evidence on the role of capitation utilization in improving operational efficiency within public TVET institutions.

**Keywords:** *Capitation utilization, operational efficiency, government capitation, financial accountability, public TVET institutions, Kenya.*

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## 1. Introduction

Technical and Vocational Education and Training (TVET) plays a fundamental role in national development by equipping individuals with practical skills and competencies required for industrialization, innovation, entrepreneurship, and labour market competitiveness. Well-functioning TVET systems contribute to economic transformation by producing a skilled workforce capable of responding to changing technological and industrial demands (McGrath, 2022; UNESCO-UNEVOC, 2022). Consequently, governments across both developed and developing countries have increased investment in technical education to strengthen institutional capacity, improve graduate employability, and promote sustainable socio-economic development (Johnes, 2022; Oketch, 2021).

Operational efficiency is a key indicator of institutional performance because it reflects the ability of educational institutions to optimally utilize financial, human, physical, and technological resources while maintaining quality service delivery and minimizing resource wastage (Bush, 2020; Bryson et al., 2023; Drucker, 2007). Within public TVET institutions, operational efficiency is demonstrated through prudent financial management, effective resource utilization, quality instructional delivery, infrastructure maintenance, and timely implementation of institutional programmes (Johnes, 2022).

Government financing remains the principal source of operational funding for most public TVET institutions. In Kenya, government capitation supports instructional programmes, infrastructure development, procurement of teaching and learning resources, maintenance of workshops and laboratories, implementation of Competency-Based Education and Training, and student support services (Ministry of Education, 2024; Ngware et al., 2022). However, institutional performance depends not only on the adequacy of government funding but also on the effectiveness with which the allocated resources are utilized (Brigham & Ehrhardt, 2022; Odden & Picus, 2023). Prudent utilization of capitation strengthens financial accountability, expenditure management, procurement efficiency, and institutional planning, thereby improving operational efficiency.

Globally, public education systems have strengthened financial management through transparent budgeting, expenditure controls, accountability mechanisms, and performance-based resource allocation to improve institutional efficiency (Christensen et al., 2020; Johnes, 2022). Similar reforms have been implemented across Africa, where governments have expanded investment in technical education despite persistent financial constraints and increasing demand for quality skills development (McGrath, 2022; Oketch, 2021). In Kenya, implementation of the Technical and Vocational Education and Training Act and increased government capitation have expanded access to technical education; however, many public TVET institutions continue to experience operational inefficiencies arising from weak expenditure controls, procurement delays, inadequate financial accountability, and ineffective utilization of allocated capitation funds (Government of Kenya, 2018; Government of Kenya, 2023; Ministry of Education, 2024; Ngware et al., 2022).

Although previous studies have examined education financing, institutional performance, and public financial management (Johnes, 2022; Kahiga et al., 2024; Salmi, 2021), limited empirical evidence exists on the specific effect of capitation utilization on operational efficiency in public TVET institutions. This study therefore examined the effect of capitation utilization on operational efficiency in public Technical and Vocational Education and Training institutions in Meru County, Kenya.

### 1.1 Problem Statement

Government capitation is intended to improve operational efficiency in public Technical and Vocational Education and Training (TVET) institutions by supporting teaching and learning, infrastructure development, procurement of instructional resources, and institutional operations (Ministry of Education, 2024). Effective utilization of these funds is expected to enhance financial accountability, strengthen resource allocation, improve service delivery, and enable institutions to achieve their strategic objectives (Odden & Picus, 2023). Despite increased government investment in TVET through capitation funding, many public institutions in Kenya continue to experience operational inefficiencies characterized by procurement delays, inadequate instructional resources, poor infrastructure maintenance, weak expenditure controls, and ineffective financial accountability (Ngware et al., 2022; Waweru & Mwangi, 2023).

Previous empirical studies have examined public financing, institutional performance, and financial management practices within educational institutions (Johnes, 2022; Kahiga et al., 2024; Salmi, 2021). However, most studies have conceptualized government financing as a broad construct without specifically examining how the utilization of government capitation influences operational efficiency in public TVET institutions. Furthermore, limited empirical evidence exists within the Kenyan TVET sector, particularly in Meru County, where public institutions operate under similar government financing policies but continue to exhibit varying levels of operational efficiency. This contextual and empirical gap necessitated an investigation into whether prudent utilization of government capitation significantly influences operational efficiency in public Technical and Vocational Education and Training institutions in Meru County, Kenya.

### 1.2 Research Objective

To determine the effect of capitation utilization on operational efficiency in public Technical and Vocational Education and Training institutions in Meru County, Kenya.

### 1.3 Research Hypothesis

$H_0$: Capitation utilization has no statistically significant effect on operational efficiency in public Technical and Vocational Education and Training institutions in Meru County, Kenya.

## 2. Literature Review

### 2.1 Theoretical Review

This study was anchored on Agency Theory, developed by Jensen and Meckling (1976), which explains the contractual relationship between principals, who delegate authority and resources, and agents, who are entrusted with the responsibility of managing those resources on the principals' behalf. The theory posits that conflicts may arise because agents may pursue personal interests that diverge from those of the principals, resulting in agency costs and organizational inefficiencies. To mitigate such conflicts, the theory advocates effective monitoring, transparency, accountability, and incentive mechanisms that promote responsible stewardship of organizational resources (Eisenhardt, 1989; Panda & Leepsa, 2017).

Agency Theory has been widely applied in public sector financial management because governments, as principals, delegate the management of public resources to institutional administrators, who serve as agents responsible for ensuring that allocated funds are utilized efficiently and accountably (OECD, 2023). Within public Technical and Vocational Education and Training (TVET) institutions, government capitation represents public resources entrusted to institutional managers for financing instructional programmes, infrastructure development, procurement of teaching and learning materials, and other operational activities (Ministry of Education, 2024). Consequently, institutional managers are expected to exercise prudent financial management by adhering to approved budgets, maintaining transparent procurement systems, implementing effective expenditure controls, and complying with established financial accountability frameworks (Brigham & Ehrhardt, 2022; OECD, 2023).

The theory further suggests that effective monitoring mechanisms, including internal controls, financial reporting, performance evaluation, and regular audits, reduce information asymmetry between principals and agents while enhancing accountability and operational performance (Jensen & Meckling, 1976; Panda & Leepsa, 2017). Conversely, weak financial oversight and poor utilization of public funds may result in resource wastage, procurement inefficiencies, delayed programme implementation, and diminished institutional performance (OECD, 2023). These outcomes are particularly significant in publicly funded educational institutions where operational efficiency depends largely on prudent management of limited government resources.

Agency Theory was therefore considered appropriate for this study because it provides a sound theoretical foundation for explaining how prudent utilization of government capitation enhances operational efficiency. The theory supports the proposition that effective budgeting, expenditure prioritization, financial accountability, procurement efficiency, and sound resource management improve institutional performance by ensuring that government capitation is utilized in accordance with institutional objectives and public financial management principles.

## 2.2 Empirical Literature Review

### 2.2.1 Effect of Capitation Utilization on Operational Efficiency

Capitation utilization has emerged as a critical component of education financing because the effectiveness of government investment depends not only on the adequacy of financial resources but also on how efficiently those resources are managed and utilized. Prudent utilization of government capitation strengthens budgeting, expenditure prioritization, procurement efficiency, financial accountability, and resource allocation, thereby improving institutional performance and operational efficiency (Brigham & Ehrhardt, 2022; Odden & Picus, 2023). Conversely, ineffective utilization of public funds often results in resource wastage, procurement delays, deteriorating infrastructure, and reduced quality of educational service delivery (OECD, 2023).

Empirical evidence from developed countries demonstrates that effective utilization of public education resources contributes significantly to institutional efficiency. Johnes (2022), in a study of publicly funded higher education institutions in Europe, established that institutions characterized by prudent expenditure management, transparent financial systems, and effective accountability mechanisms consistently achieved higher levels of operational efficiency than those with weak financial controls. The study concluded that efficient resource utilization enhances institutional performance by improving financial sustainability, service delivery, and resource allocation.

Similarly, McGrath (2022) examined financing of Technical and Vocational Education and Training in developing countries and reported that prudent utilization of government funding improves institutional sustainability through enhanced infrastructure development, availability of teaching and learning resources, and effective implementation of academic programmes.

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The study emphasized that sound financial management remains essential for improving the quality and competitiveness of technical education systems.

Within the African context, Oketch (2021) found that efficient management of public education funds significantly enhances institutional performance by strengthening procurement systems, financial accountability, and infrastructure maintenance. The study further established that educational institutions implementing transparent financial management practices and effective expenditure controls consistently reported higher operational efficiency than institutions characterized by weak financial governance.

In Kenya, Ngware et al. (2022) observed that although increased government capitation has expanded access to technical education, many public TVET institutions continue to experience operational challenges associated with weak expenditure management, procurement inefficiencies, and inadequate monitoring of government funds. The authors concluded that strengthening financial accountability and improving utilization of government capitation would significantly enhance institutional efficiency and educational outcomes. Likewise, Waweru and Mwangi (2023) established that prudent utilization of public financial resources improves service delivery, institutional planning, procurement efficiency, and organizational performance within publicly funded educational institutions, recommending stronger internal controls and continuous expenditure monitoring to maximize the benefits of government financing.

Although existing empirical literature consistently demonstrates that prudent financial management contributes to improved institutional performance (Johnes, 2022; McGrath, 2022; Ngware et al., 2022), most previous studies have examined education financing and public financial management from a broader perspective without specifically isolating capitation utilization as a predictor of operational efficiency within public Technical and Vocational Education and Training institutions. Moreover, limited empirical evidence exists within the Kenyan TVET sector, particularly in Meru County, where institutions operate under similar government financing frameworks but continue to exhibit varying levels of operational efficiency. This empirical and contextual gap necessitated the present study, which examined the effect of capitation utilization on operational efficiency in public Technical and Vocational Education and Training institutions in Meru County, Kenya.

### 2.3 Conceptual Framework

The conceptual framework illustrates the proposed relationship between the independent and dependent variables, as presented in Figure 1.

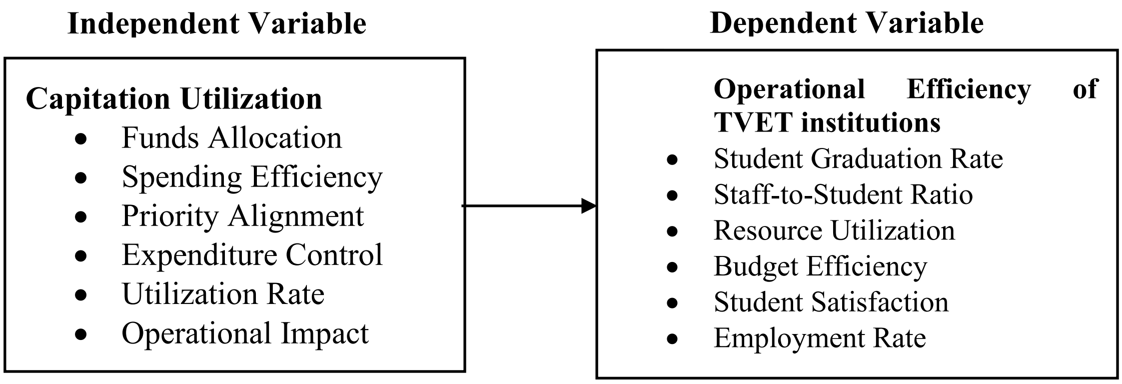


**Figure 1: Conceptual Framework**

## 3. Methodology

The study adopted a positivist research philosophy and a quantitative research approach to objectively examine the effect of capitation utilization on operational efficiency in public Technical and Vocational Education and Training (TVET) institutions in Meru County, Kenya (Creswell & Creswell, 2023). An explanatory research design was employed because the study sought to determine the cause-and-effect relationship between capitation utilization and operational efficiency through statistical analysis (Saunders et al., 2023).

The target population comprised 108 management staff drawn from eight public Technical and Vocational Education and Training institutions in Meru County, Kenya. The respondents included principals, deputy principals, finance officers, procurement officers, internal auditors, registrars, heads of academic departments, heads of information and communication technology, human resource officers, and deans of students, who possessed adequate knowledge regarding institutional financial management and utilization of government capitation. Owing to the manageable population size, a census approach was adopted, and all 108 respondents were included in the study. Data were collected using a structured questionnaire comprising demographic information and Likert-scale items measuring capitation utilization and operational efficiency. A pilot study involving approximately 10% of the target population was conducted in a public TVET institution in Isiolo County to assess the suitability of the research instrument. Content validity was established through expert review, while reliability was assessed using Cronbach's Alpha coefficient with a minimum acceptable threshold of 0.70 (Cronbach, 1951; Hair et al., 2022).

The collected data were coded, entered, cleaned, and analyzed using the Statistical Package for the Social Sciences (SPSS) Version 30. Descriptive statistics comprising frequencies, percentages, means, and standard deviations summarized the study variables, while Pearson Product Moment Correlation and simple linear regression analyses were used to determine the relationship and predictive effect of capitation utilization on operational efficiency. Diagnostic tests for normality, linearity, homoscedasticity, multicollinearity, and independence of errors confirmed that the data satisfied the assumptions of regression analysis. Statistical significance was evaluated at the 5% level (Field, 2024; Gujarati & Porter, 2021).

## 4. Results and Discussion

### 4.1 Response Rate

The study sought to examine the effect of capitation utilization on operational efficiency in public Technical and Vocational Education and Training (TVET) institutions in Meru County, Kenya. A total of 108 questionnaires were distributed to management staff across the selected public TVET institutions. Of these, 102 questionnaires were completed and returned, representing a response rate of 94.4%, while six questionnaires were not returned.

**Table 1: Response Rate**

| Response Category | Frequency | Percentage (%) |
|---|---|---|
| Questionnaires Distributed | 108 | 100.0 |
| Questionnaires Returned | 102 | 94.4 |
| Questionnaires Not Returned | 6 | 5.6 |
| Usable Questionnaires | 102 | 94.4 |

The response rate of 94.4% was considered highly satisfactory for statistical analysis. According to Babbie (2021), a response rate exceeding 70% is considered adequate for survey research because it minimizes non-response bias and enhances the credibility and generalizability of the findings. The high response rate indicated strong participation by respondents and demonstrated their willingness to provide information regarding the utilization of government capitation and operational efficiency within their institutions.

### 4.2 Descriptive Analysis of Capitation Utilization

The study examined respondents' perceptions of capitation utilization as a government financing practice influencing operational efficiency in public Technical and Vocational Education and Training (TVET) institutions in Meru County, Kenya. The findings indicated general agreement that prudent utilization of government capitation contributes positively to institutional operational efficiency. The perception that underutilization of capitation funds leads to inefficiencies in service delivery recorded the highest mean score (M = 4.33, SD = 0.661), suggesting that respondents strongly recognized the importance of prudent financial management in achieving institutional effectiveness. Similarly, the statement that effective utilization of capitation funds enhances operational efficiency recorded a mean of 4.29 (SD = 0.693), reinforcing the critical role of prudent financial management in improving institutional performance. Respondents also agreed that capitation funds are allocated to priority operational areas such as education and infrastructure (M = 4.21, SD = 0.742), demonstrating that government funding generally supports key institutional functions.

The findings further revealed positive perceptions regarding other dimensions of capitation utilization. Alignment between capitation utilization and institutional strategic goals recorded a mean of 4.15 (SD = 0.736), while efficient utilization of capitation funds to enhance educational outcomes recorded a mean of 4.09 (SD = 0.781). These findings suggest that most public TVET institutions align government capitation with strategic priorities and utilize the allocated resources to improve teaching, learning, and institutional performance.

Effective expenditure controls for capitation funds recorded the lowest mean score (M = 4.06, SD = 0.804), indicating that although respondents generally agreed that financial control mechanisms existed, there was comparatively less agreement regarding the effectiveness of expenditure management. This suggests that opportunities remain for strengthening expenditure controls and financial oversight to maximize accountability and improve the efficiency of government capitation utilization.

The aggregate mean score of 4.19 (SD = 0.736) confirmed overall agreement that capitation utilization positively contributes to operational efficiency in public TVET institutions. The findings suggest that prudent expenditure prioritization, strategic resource allocation, financial accountability, and effective expenditure controls collectively enhance institutional performance and service delivery. These findings support Agency Theory, which argues that prudent stewardship of public resources through accountability, transparency, and effective financial management enhances organizational performance and operational efficiency (Jensen & Meckling, 1976; Panda & Leepsa, 2017).

**Table 2: Descriptive Analysis of Capitation Utilization (N = 102)**

| Statement | N | Mean | SD |
|---|---|---|---|
| Capitation funds are allocated to priority operational areas such as education and infrastructure. | 102 | 4.21 | 0.742 |
| The institution uses capitation funds efficiently to enhance educational outcomes. | 102 | 4.09 | 0.781 |
| There is clear alignment between capitation utilization and the institution's strategic goals. | 102 | 4.15 | 0.736 |
| The institution has effective expenditure controls for capitation funds. | 102 | 4.06 | 0.804 |
| Effective utilization of capitation funds enhances operational efficiency. | 102 | 4.29 | 0.693 |
| Underutilization of capitation funds leads to inefficiencies in service delivery. | 102 | 4.33 | 0.661 |
| **Aggregate Mean / SD** | | **4.19** | **0.736** |

### 4.3 Descriptive Analysis of Operational Efficiency

The study examined the level of operational efficiency in public Technical and Vocational Education and Training (TVET) institutions in Meru County, Kenya. The findings indicated that the participating institutions exhibited a relatively high level of operational efficiency across the selected indicators. Efficient utilization of government capitation improving institutional performance recorded the highest mean score (M = 4.31, SD = 0.689), suggesting that respondents perceived prudent utilization of government funds as a key driver of institutional effectiveness. Similarly, the statement that operational efficiency contributes to improved quality of education recorded a mean of 4.27 (SD = 0.704), indicating that efficient institutional operations enhance the delivery of quality technical and vocational education.

The findings further revealed positive performance across other operational efficiency indicators. Achievement of educational goals through efficient resource management recorded a mean score of 4.18 (SD = 0.733), while the ability of institutions to effectively meet students' and industry needs recorded a mean of 4.11 (SD = 0.781). These findings suggest that efficient management of institutional resources contributes to improved service delivery and responsiveness to stakeholder expectations.

Staff and student satisfaction resulting from efficient resource utilization recorded a mean score of 4.07 (SD = 0.825), while institutional ability to maintain operational stability despite financial constraints recorded the lowest mean score of 4.03 (SD = 0.802). Although respondents generally agreed that their institutions remained operationally stable, the comparatively lower mean suggests that financial constraints continue to pose challenges to achieving optimal institutional efficiency.

The aggregate mean score of 4.16 (SD = 0.756) confirmed that the participating public TVET institutions exhibited an overall high level of operational efficiency. The findings suggest that effective resource management, improved institutional performance, enhanced service delivery, quality education, and responsiveness to stakeholder needs collectively reflected efficient institutional operations. These findings are consistent with Johnes (2022), who reported that effective resource utilization and prudent financial management enhance operational efficiency and institutional performance within publicly funded educational institutions.

**Table 3: Descriptive Analysis of Operational Efficiency (N = 102)**

| Statement | N | Mean | SD |
|---|---|---|---|
| The institution achieves its educational goals through efficient resource management. | 102 | 4.18 | 0.733 |
| The institution effectively meets students' and industry needs. | 102 | 4.11 | 0.781 |
| Staff and student satisfaction is enhanced through efficient resource utilization. | 102 | 4.07 | 0.825 |
| The institution maintains operational stability despite financial constraints. | 102 | 4.03 | 0.802 |
| Efficient utilization of capitation improves institutional performance. | 102 | 4.31 | 0.689 |
| Operational efficiency contributes to improved quality of education. | 102 | 4.27 | 0.704 |
| **Aggregate Mean / SD** | | **4.16** | **0.756** |

### 4.4 Bivariate Correlation Analysis

The results presented in Table 4 indicate a strong positive and statistically significant relationship between capitation utilization and operational efficiency in public Technical and Vocational Education and Training (TVET) institutions ($r = 0.734$, $p < 0.05$). This suggests that prudent utilization of government capitation, including effective expenditure prioritization, financial accountability, procurement efficiency, strategic resource allocation, and expenditure control, is associated with improved operational efficiency. The findings imply that public TVET institutions that effectively utilize government capitation are more likely to achieve efficient resource management, improved service delivery, enhanced institutional performance, operational stability, and better educational outcomes than institutions characterized by less effective financial management practices.

The positive and statistically significant relationship further demonstrates that capitation utilization is a critical component of public financial management. Institutions that prudently allocate, monitor, and account for government capitation are better positioned to optimize available resources, strengthen financial accountability, improve procurement processes, and make informed financial decisions that enhance operational efficiency. These findings support previous empirical studies which established that prudent utilization of public financial resources improves institutional performance through enhanced financial planning, expenditure management, and efficient resource allocation (Johnes, 2022; Ngware et al., 2022).

The findings also support Agency Theory, which emphasizes that prudent management of public resources strengthens financial accountability, transparency, monitoring, and organizational performance by ensuring that institutional managers utilize government funds in the best interests of the public (Jensen & Meckling, 1976; Panda & Leepsa, 2017). The results therefore demonstrate that strengthening capitation utilization practices is essential for enhancing operational efficiency in public Technical and Vocational Education and Training institutions in Meru County, Kenya.

**Table 4: Pearson Correlation Analysis**

| Category | $X_1$ | Y |
|---|---|---|
| **Capitation Utilization ($X_1$)** | | |
| Pearson Correlation | 1 | |
| Sig. (2-tailed) | — | |
| N | 102 | |
| **Operational Efficiency (Y)** | | |
| Pearson Correlation | .734** | 1 |
| Sig. (2-tailed) | .000 | — |
| N | 102 | 102 |

*Correlation is significant at the 0.05 level (2-tailed).*

### 4.5 Bivariate Linear Regression Analysis

The hypothesis examined whether capitation utilization significantly influences operational efficiency in public Technical and Vocational Education and Training (TVET) institutions in Meru County, Kenya. The null hypothesis ($H_{01}$) stated that capitation utilization has no statistically significant effect on operational efficiency. The model summary results presented in Table 5 indicate a correlation coefficient (R) of 0.734, suggesting a strong positive relationship between capitation utilization and operational efficiency. The coefficient of determination ($R^2 = 0.539$) indicates that approximately 53.9% of the variation in operational efficiency is explained by capitation utilization. The adjusted $R^2$ value of 0.534 further confirmed the robustness of the regression model after adjusting for sample size. These findings suggest that prudent capitation utilization, including effective expenditure prioritization, financial accountability, procurement efficiency, expenditure control, and strategic resource allocation, is associated with improved operational efficiency in public TVET institutions.

**Table 5: Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .734 | .539 | .534 | .438 |

*a. Dependent Variable: Operational Efficiency*
*b. Predictors: (Constant), Capitation Utilization*

The ANOVA results presented in Table 6 further confirmed the validity of the regression model. The findings revealed an F-statistic of 117.223 with a p-value of 0.000, indicating that the regression model was statistically significant at the 95% confidence level. This implies that the relationship between capitation utilization and operational efficiency was not due to chance but represented a genuine predictive relationship.

**Table 6: ANOVA**

| Model | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 22.681 | 1 | 22.681 | 117.223 | .000 |
| Residual | 19.347 | 100 | 0.193 | | |
| Total | 42.028 | 101 | | | |

a. *Dependent Variable: Operational Efficiency*

b. *Predictors: (Constant), Capitation Utilization*

The regression coefficients presented in Table 7 indicate that capitation utilization had a positive and statistically significant effect on operational efficiency (β = 0.781, Beta = 0.734, t = 10.827, p = 0.000). This implies that a one-unit improvement in capitation utilization results in a corresponding 0.781-unit increase in operational efficiency, holding other factors constant. Since the significance level was below 0.05, the null hypothesis ($H_{01}$), which stated that capitation utilization has no statistically significant effect on operational efficiency, was rejected. The findings demonstrate that prudent utilization of government capitation significantly enhances expenditure management, financial accountability, procurement efficiency, resource allocation, and overall operational efficiency in public Technical and Vocational Education and Training institutions.

**Table 7: Linear Regression Coefficients**

| Predictor | Unstandardized Coefficients (β) | Std. Error | Standardized Coefficient (Beta) | t | Sig. |
|---|---|---|---|---|---|
| Constant | 1.147 | .246 | – | 4.663 | .000 |
| Capitation Utilization | .781 | .072 | .734 | 10.827 | .000 |

*Dependent Variable: Operational Efficiency*

**5. Conclusion**

The study established that capitation utilization has a positive and statistically significant influence on operational efficiency in public Technical and Vocational Education and Training (TVET) institutions in Meru County, Kenya. Effective utilization of government capitation, including prudent expenditure prioritization, financial accountability, procurement efficiency, expenditure control, and strategic resource allocation, was found to enhance service delivery, institutional performance, operational stability, and efficient resource management. The regression findings confirmed that capitation utilization significantly predicts operational efficiency, leading to the rejection of the null hypothesis. The study therefore concludes that prudent utilization of government capitation is a critical public financial management practice for improving operational efficiency and promoting the sustainable performance of public TVET institutions.

## 6. Recommendations

Public Technical and Vocational Education and Training institutions should prioritize strengthening capitation utilization by enhancing expenditure planning, financial accountability, procurement management, expenditure control, and strategic resource allocation. Institutional management should ensure that government capitation is allocated to priority operational areas and utilized efficiently to improve service delivery, instructional quality, infrastructure maintenance, and institutional performance. The Ministry of Education, the National Treasury, the Technical and Vocational Education and Training Authority (TVETA), and other education sector stakeholders should strengthen financial oversight, monitoring, and capacity-building programmes to enhance prudent utilization of government capitation. In addition, regular financial audits, continuous monitoring of capitation expenditure, and training in public financial management should be institutionalized to promote accountability, minimize resource wastage, and improve operational efficiency within public TVET institutions.

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