Evaluation of Project Cost Management Practices in Tertiary Institutions in Ghana: A Case Study of the University of Cape Coast

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ABSTRACT

Effective project cost management is crucial for the sustainability of infrastructure development in tertiary institutions. This study focuses on the University of Cape Coast (UCC), exploring its current practices and challenges in managing project costs. The primary objectives are to assess UCC's project cost management practices, identify challenges faced in cost management, and evaluate the impact of budgeting and fund allocation on these practices. A quantitative research design, grounded in a positivist philosophy and employing a deductive approach, was utilised. A case study strategy was implemented, targeting UCC's administrators, project managers, and stakeholders involved in project execution. Data were collected from 56 respondents through electronically distributed questionnaires, with purposive and stratified sampling techniques ensuring representative insights. Descriptive statistical tools, including mean scores and standard deviations, were used for data analysis, while ethical considerations such as informed consent and confidentiality were prioritised. The study revealed effective cost estimation and budgeting practices, though challenges like limited funding, inflation, and underestimation of project scope hinder optimal performance. Budgeting and fund allocation practices significantly influence project cost management effectiveness. The findings indicate that while UCC has strong foundational practices, addressing identified challenges is critical for enhancing project management capabilities. This has broader implications for similar institutions seeking to improve their infrastructure development strategies. It is recommended that UCC invest in capacity-building initiatives for project managers, enhance strategic planning, and adopt more robust financial management practices to mitigate challenges.

Keywords: Project, Project Cost Management, Tertiary Institutions, Project Success.

INTRODUCTION

Effective project cost management is a vital component of overall project success, particularly in ensuring that resources are efficiently allocated and utilised within budget limits. This is especially critical in tertiary institutions, where financial discipline directly influences the achievement of academic and developmental goals (Elghaish et al., 2020). In Ghana, higher education institutions such as the University of Cape Coast (UCC) are key drivers of national development through research, capacity building, and innovation. However, these institutions often face persistent challenges in managing project costs effectively (Dauda et al., 2023).

Tertiary institutions frequently engage in large-scale infrastructure and research projects that require prudent cost control mechanisms. Yet, studies have revealed that inefficiencies in budgeting and fund allocation, coupled with procurement mismanagement, result in delayed or abandoned projects (Tsyhaniuk & Akenten, 2021; Segbedzi, 2023). At UCC, such inefficiencies may compromise not only project outcomes but also the university's long-term financial sustainability. The need to address these challenges is increasingly urgent given the growing complexity and scale of university-led projects (Adom-Mensah et al., 2022).

Furthermore, literature emphasises the importance of strategic agility in managing project costs in the ever-changing higher education environment. Institutions lacking this flexibility often struggle to adapt to economic shifts and funding uncertainties, limiting their ability to maintain cost efficiency (Bondzi-Simpson & Agomor,

2020). Technological integration, such as e-procurement systems, has also been found to significantly enhance cost control and transparency in project execution (Dwomoh & Affum, 2023).

Another crucial aspect of effective cost management is the capability of the human capital involved. The competencies and skills of project staff determine how well budgeting, procurement, and expenditure tracking are conducted (Boateng et al., 2023). Institutions that invest in staff training and development are more likely to implement efficient and responsive cost management practices.

Despite the relevance of these insights, few studies have focused specifically on UCC's cost management practices. Most existing research examines broader aspects of financial administration in higher education, creating a gap in localised understanding (Dauda et al., 2023; Boateng et al., 2023). This study, therefore, seeks to conduct a comprehensive assessment of project cost management at the University of Cape Coast. It aims to evaluate current practices, uncover prevailing challenges, and propose data-driven strategies for improvement.

By addressing this gap, the research contributes not only to academic literature but also provides actionable recommendations to support decision-making at UCC and other similar institutions. Ultimately, strengthening cost management will enhance financial sustainability, improve project outcomes, and reinforce the role of Ghana's tertiary institutions in national development.

LITERATURE REVIEW

Theoretical Framework

This study is grounded in several key theories that provide a comprehensive foundation for understanding and evaluating project cost management practices within tertiary institutions, specifically at the University of Cape Coast. These theoretical perspectives collectively inform the analysis of cost planning, control, and performance monitoring in institutional project management. Central to the framework is the Project Management Body of Knowledge (PMBOK), developed by the Project Management Institute. This framework outlines essential knowledge areas, particularly cost management, which encompasses budgeting, cost estimation, financing, and financial control—all vital to ensuring projects are delivered within approved budgets (PMI, 2021).

Complementing PMBOK is Earned Value Management (EVM), a performance measurement methodology that integrates scope, schedule, and cost to offer objective insights into project progress and resource utilisation. EVM provides project managers with timely, accurate data to enable corrective actions and ensure financial discipline (Fleming & Koppelman, 2016).

Agency Theory is also relevant, especially within the administrative structures of tertiary institutions. It explains the principal-agent relationship, highlighting the need for accountability and proper incentive systems between institutional leaders (agents) and governing bodies (principals). This theory underscores how misaligned goals or information asymmetry can lead to inefficiencies in project cost management (Jensen & Meckling, 1976).

Additionally, the Resource-Based View (RBV) emphasises the strategic use of institutional resources—such as human, financial, and technological assets—as a foundation for achieving cost efficiency and competitive advantage. In the context of UCC, this theory supports the argument that leveraging internal capabilities can enhance project execution and reduce waste (Barney, 1991).

Most directly aligned with the study is Cost Management Theory, which focuses on the processes of cost estimation, budgeting, cost control, and cost reporting (Horngren et al., 2012). This theory offers structured methodologies to monitor and manage project finances effectively. It reinforces the importance of accurate cost prediction (Elghaish et al., 2020), realistic budgeting (Baek & Ashuri, 2021), variance analysis, and transparency in reporting (Tsyhaniuk & Akenten, 2021).

Together, these theories provide a multidimensional framework that guides the evaluation of current practices, identification of gaps, and formulation of improvement strategies in project cost management at the University of Cape Coast.

Empirical Review

Project Cost Management Practices

This empirical review explores the diverse practices involved in project cost management, emphasising their role in ensuring projects are completed within planned budgets, timelines, and quality standards. Evidence from prior studies across various sectors highlights key strategies and their effectiveness in managing project costs.

Cost estimation is foundational to project success. Flyvbjerg et al. (2018) report that up to 85% of large infrastructure projects exceed their budgets due to inaccurate forecasting. The use of techniques like parametric and bottom-up estimation is recommended for improving accuracy. Budgeting provides a financial framework for project execution. Ahsan and Gunawan (2010) found that detailed, phase-based budgeting enhances accountability and allows early identification of spending discrepancies, thus aiding cost control and decision-making.

Cost control, involving the tracking of actual expenses against budget, is critical for managing deviations. Abdallah et al. (2018) highlight the importance of automated tracking systems in providing real-time monitoring and enabling corrective actions. Cost forecasting helps anticipate future expenditures. Park et al. (2021) note that techniques such as time-phased budgeting and cash flow forecasting allow project teams to mitigate risks and stay within budget.

Earned Value Management (EVM) integrates cost, time, and scope to assess project performance. Vanhoucke (2018) confirms that EVM improves project efficiency by enabling early identification of issues and improving forecast accuracy. Variance analysis involves comparing actual and planned costs to identify discrepancies. Love et al. (2019) assert that projects conducting regular variance reviews are better able to control costs and adjust strategies effectively.

Change control is necessary for managing budget impacts from project modifications. Heravi & Gholami (2018) found that formal change control processes reduce unplanned overruns by ensuring disciplined adjustment protocols. Resource management ensures efficient allocation of labour, materials, and equipment. Nguyen and Hadikusumo (2020) demonstrated that effective resource optimisation reduces idle time and delays, which in turn minimises cost overruns. Procurement cost management focuses on acquiring goods and services cost-effectively. Mok et al. (2017) emphasise competitive bidding and supplier negotiations as strategies for reducing procurement costs and managing market price fluctuations.

Cash flow management is vital for ensuring liquidity throughout the project lifecycle. According to Shi et al. (2021), monitoring cash flow prevents delays and maintains smooth financial operations. Cost audits help review spending against financial plans. Rahman et al. (2019) found that frequent audits promote transparency and accountability, enabling early identification of inefficiencies. Contingency planning, which involves reserving resources for unexpected costs, strengthens resilience. Ghosh and Jintanapakanont (2004) highlight its importance in mitigating risks from inflation and supply chain disruptions.

Literature strongly supports the integration of structured cost management practices—such as estimation, budgeting, control, forecasting, EVM, and audits—to enhance financial discipline, reduce overruns, and ensure project success. These findings provide a robust empirical foundation for evaluating project cost management strategies within tertiary institutions.

Challenges in Managing Project Costs

Empirical evidence from various studies highlights a broad range of challenges associated with managing project costs in tertiary institutions, particularly within the context of developing countries. One of the most prevalent issues is poor project planning, compounded by inflation and frequent changes in government policy. Segbedzi (2023), in a study focused on Ghanaian public universities, identified these factors as central to construction cost overruns. The research revealed that weak planning frameworks and inadequate budgeting processes significantly undermine project cost performance, a trend also observed in other developing nations.

The lack of awareness and investment in sustainable procurement practices also presents a substantial barrier to effective cost management. Dauda et al. (2023) found that limited training, insufficient funding, and a general lack of understanding of sustainability principles hinder long-term cost efficiency in Ghanaian tertiary institutions. Despite the potential for sustainable procurement to generate long-term savings, its adoption remains minimal due to these systemic constraints.

Human resource limitations further exacerbate cost management challenges. Boateng et al. (2023) reported that many project managers in universities lack formal training and essential competencies in project management, which directly affects their ability to control costs. This points to an urgent need for continuous professional development and capacity-building initiatives within institutions. Another critical issue is the rigidity of financial structures in tertiary institutions. Bondzi-Simpson and Agomor (2020) observed that universities often lack the strategic agility needed to adapt quickly to changing economic conditions. This inflexibility limits their ability to respond effectively to cost-related disruptions and compromises project execution.

Communication and stakeholder involvement also play a significant role. Elghaish et al. (2020) highlighted how poor communication and limited stakeholder engagement lead to conflicts, misunderstandings, and ultimately, cost overruns in integrated project delivery environments. Effective stakeholder coordination is therefore essential for achieving cost control. Aboagye et al. (2022) emphasised the importance of technical competencies and professional development, finding that the absence of such skills leads to project inefficiencies and escalating costs. Similarly, Opoku et al. (2020) explored the role of energy efficiency in cost-saving efforts, noting that although technologies such as solar energy could significantly reduce operating costs, their adoption is hindered by high upfront costs and limited funding.

Procurement inefficiencies are another critical factor. Awuah et al. (2022) revealed that bureaucratic delays and a lack of transparency in procurement processes result in inflated project costs and significant delays. These challenges highlight the importance of transparent and streamlined procurement practices to achieve cost efficiency. Knowledge management is also lacking in many institutions. Musa (2020) found that poor documentation and inadequate collaborative tools lead to repeated mistakes and inefficiencies during project implementation. This emphasises the need for structured knowledge-sharing systems to enhance project learning and cost control.

Financial data management was also flagged as a concern. Hirji et al. (2022) reported that delayed and inaccurate financial reporting impedes effective cost monitoring and decision-making. Real-time financial data systems were recommended to address this gap and enhance cost control capabilities. Monitoring and evaluation practices, as discussed by Ngacha and McDonald (2023), are often insufficient, resulting in inefficient resource use and cost overruns. The study suggests that robust evaluation frameworks are crucial for ensuring the optimal use of project resources.

Ahmed et al. (2022) highlighted the absence of proper cost control mechanisms and comprehensive project planning as key contributors to budget overruns. Likewise, Vigneault et al. (2020) noted that resistance to technological adoption, particularly Building Information Modelling (BIM), and lack of training prevent the full realisation of technology's potential in managing project costs effectively. Obi et al. (2020) identified multiple challenges, including financial constraints, poor stakeholder engagement, and inefficient procurement processes. Their study suggests that integrated cost management models can address these issues holistically. Finally, Mangvwat et al. (2020) observed that fixed-price contracts in Nigerian tertiary institutions often suffer from cost overruns due to underestimated scopes of work and unforeseen project changes. The authors advocate for more flexible contracting models and improved scope management practices.

Literature reveals that cost management in tertiary institutions faces multifaceted challenges ranging from planning inefficiencies and skill deficits to structural rigidity, poor communication, procurement flaws, and underutilization of technology. Addressing these issues requires a coordinated approach involving strategic planning, capacity development, improved governance, and the adoption of modern project management tools.

Impact of Budgeting and Fund Allocation Practices on Cost Management

Budgeting and fund allocation practices play a critical role in ensuring effective project cost management in tertiary institutions. Empirical studies have demonstrated that transparent budgeting processes and efficient fund

allocation reduce incidences of cost overruns and financial mismanagement. For instance, Tsyhaniuk and Akenten (2021) found that institutions with transparent budgeting frameworks tend to perform better in cost control.

The use of real-time cost data systems was also identified as a valuable tool for enhancing cost management. Hirji et al. (2022) highlighted how accurate and timely financial data help institutions stay within budget and make informed financial decisions. Similarly, Ngacha and McDonald (2023) showed that consistent monitoring and evaluation practices help detect and address budget deviations early, improving overall financial efficiency.

Efficient procurement processes were found to complement budgeting efforts. Awuah et al. (2022) revealed that streamlined procurement, supported by correct budgeting and fund allocation, reduces delays and increases transparency, thereby improving cost outcomes. On the other hand, Opoku et al. (2020) pointed out that while sustainable energy practices like solar power offer long-term cost savings, their adoption is limited by high initial costs and funding gaps.

The importance of detailed and comprehensive budgeting was further emphasised by Guraziu (2023), who found that institutions with full-spectrum budgeting are more likely to complete projects on time and within budget. Ahmed et al. (2022) reinforced this point by showing that poor cost control mechanisms and inadequate planning are major barriers to effective cost management in construction-related university projects.

Strategic financial planning and flexibility also emerged as crucial factors. Bondzi-Simpson and Agomor (2020) demonstrated that institutions with adaptable financial strategies can better navigate economic changes and manage costs more effectively. Baek and Ashuri (2021) added that accurate cost estimation based on historical data and quantitative methods leads to better financial outcomes, aligning with broader project management theories.

Finally, Povazhnyi et al. (2023) highlighted persistent challenges such as inadequate budgeting processes, insufficient skilled personnel, and bureaucratic inefficiencies, which hinder cost control in Ukrainian universities—challenges that are also prevalent in other public institutions globally.

The empirical literature underscores the significance of transparent budgeting, real-time data, continuous monitoring, strategic flexibility, and skilled financial personnel in enhancing project cost management in tertiary institutions.

Conceptual Framework

The conceptual framework in this study provides a structured understanding of the factors influencing project cost management practices at the University of Cape Coast (UCC). Various scholars define a conceptual framework as a graphical or theoretical representation of key variables and their relationships within a research context. According to Barasa (2014), Apiyo and Mburu (2014), and Jabareen (2009), it illustrates how interconnected concepts support research analysis. Maxwell (2005) emphasises that it is a foundational element grounded in literature and theory, while Gregory (2020) sees it as the ideas and assumptions that shape a study's direction.

In this research, the conceptual framework is intentionally developed to explore how budgeting, fund allocation, and project management challenges affect cost outcomes at UCC. It proposes that effective project cost management depends on several institutional factors: sound budgeting processes, appropriate resource allocation, and the competencies of project staff. Additionally, it recognises that external influences such as policy changes and organisational culture can significantly affect these internal practices.

The framework assumes that enhancing cost management requires addressing both systemic challenges in budgeting and fund distribution and investing in the professional development of project personnel. By establishing these linkages, the conceptual framework sets the stage for evaluating how institutional practices and external conditions interact to influence the efficiency, timeliness, and financial sustainability of university projects.

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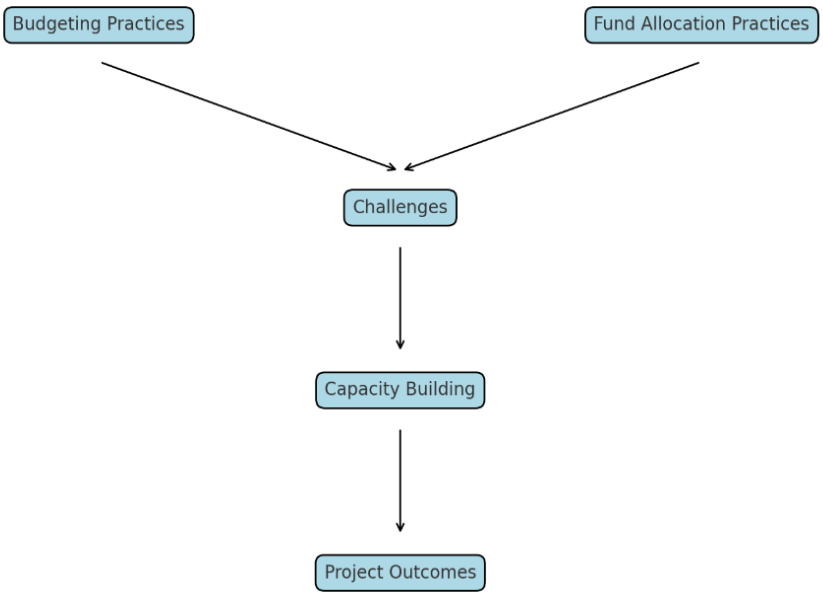

Source: Author's Construct (2025)

RESEARCH METHODOLOGY

This study employed a positivist research philosophy, emphasising objectivity and the use of quantifiable data to analyse project cost management practices at the University of Cape Coast (UCC). The research followed a deductive approach, beginning with hypotheses and testing them using statistical analysis. The chosen method was quantitative, aligning with the study's goal of measuring and evaluating patterns and relationships numerically.

The research design was descriptive, aimed at accurately detailing existing cost management practices at UCC without manipulating any variables. A case study strategy was combined with survey research, using structured questionnaires to gather data from professionals across relevant departments.

The target population comprised 95 professionals from departments such as Project Management, Finance, Administration, Engineering, Procurement, Quantity Surveying, and Architecture. A sample size of 76 was determined using Krejcie and Morgan's table. Purposive and stratified sampling techniques were used to ensure relevance and proportional representation.

Data were collected using a structured questionnaire divided into four sections: socio-demographic information, evaluation of current practices, challenges in cost control, and the impact of budgeting and fund allocation. A 5-point Likert scale was used to assess responses.

Analysis was performed using descriptive statistics (means and standard deviations) with SPSS software, enabling clarity through tables and charts. Ethical considerations included informed consent, confidentiality, the right to withdraw, and ethical clearance from the university, ensuring participant protection and research integrity.

RESULTS

A total of 76 questionnaires were distributed for the study, out of which 56 were completed and returned, resulting in a commendable response rate of 73.7%. This high level of participation suggests strong engagement from the respondents and minimises the risk of non-response bias, thereby enhancing the reliability and validity of the data for further analysis of project cost management practices at the University of Cape Coast (UCC).

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To assess the internal consistency and reliability of the data collected, Cronbach's Alpha was employed. All research objectives recorded values above the acceptable threshold of 0.7 in Table 4.1, indicating a high degree of reliability. Specifically, the reliability scores were 0.873 for current project cost management practices, 0.809 for challenges in managing project costs, and 0.799 for the impact of budgeting and fund allocation practices on cost management. These results confirm that the data is consistent and suitable for drawing meaningful conclusions.

Table 4.1: Reliability of the Research Objectives

Objectives	Number of Variables	Cronbach's Alpha
Current Project Cost Management Practices	12	0.873
Challenges in Managing Project Costs	12	0.809
Impact of Budgeting and Fund Allocation Practices on Cost Management	17	0.799

Source: Field Data (2024)

The demographic analysis of respondents in Figure 4.1 revealed a diverse and experienced group. Participants represented several departments, with the majority coming from the Project Management department (26.8%), followed by Finance (17.9%), Administration (14.3%), Engineering (16.1%), Procurement (12.5%), and other departments (12.5%). This distribution reflects the involvement of key stakeholders in project cost oversight.

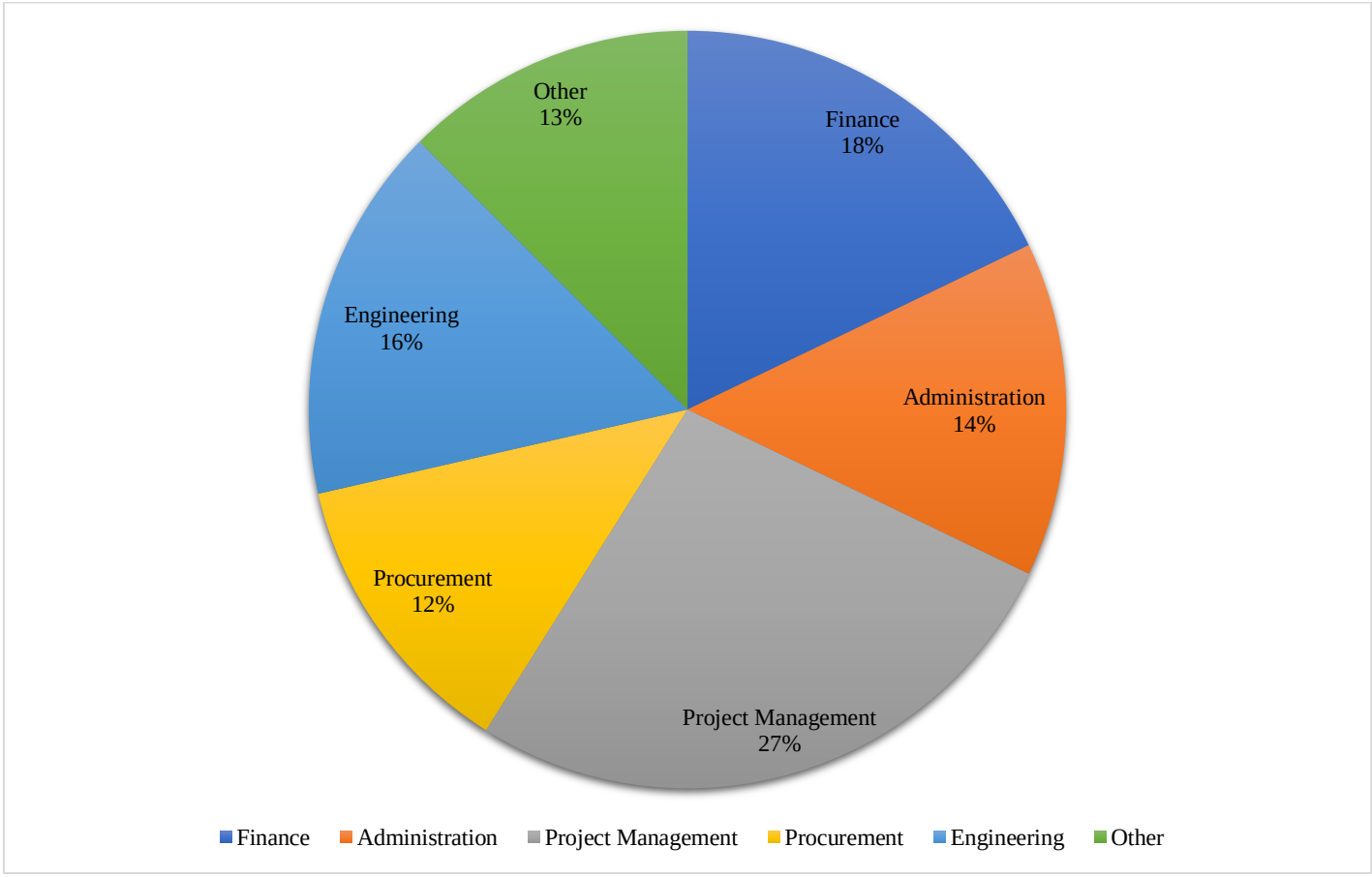

Figure 4.1: Distribution of Respondents by Department

Source: Field Data (2024)

In terms of organisational roles in Figure 4.2, Officers formed the largest group (32.1%), suggesting that much of the data came from staff directly involved in operational project management. Managers accounted for 21.4%, Assistant Managers for 16.1%, Clerks for 14.3%, and other positions made up the remaining 16.1%. This mix ensured representation from both management and support levels.

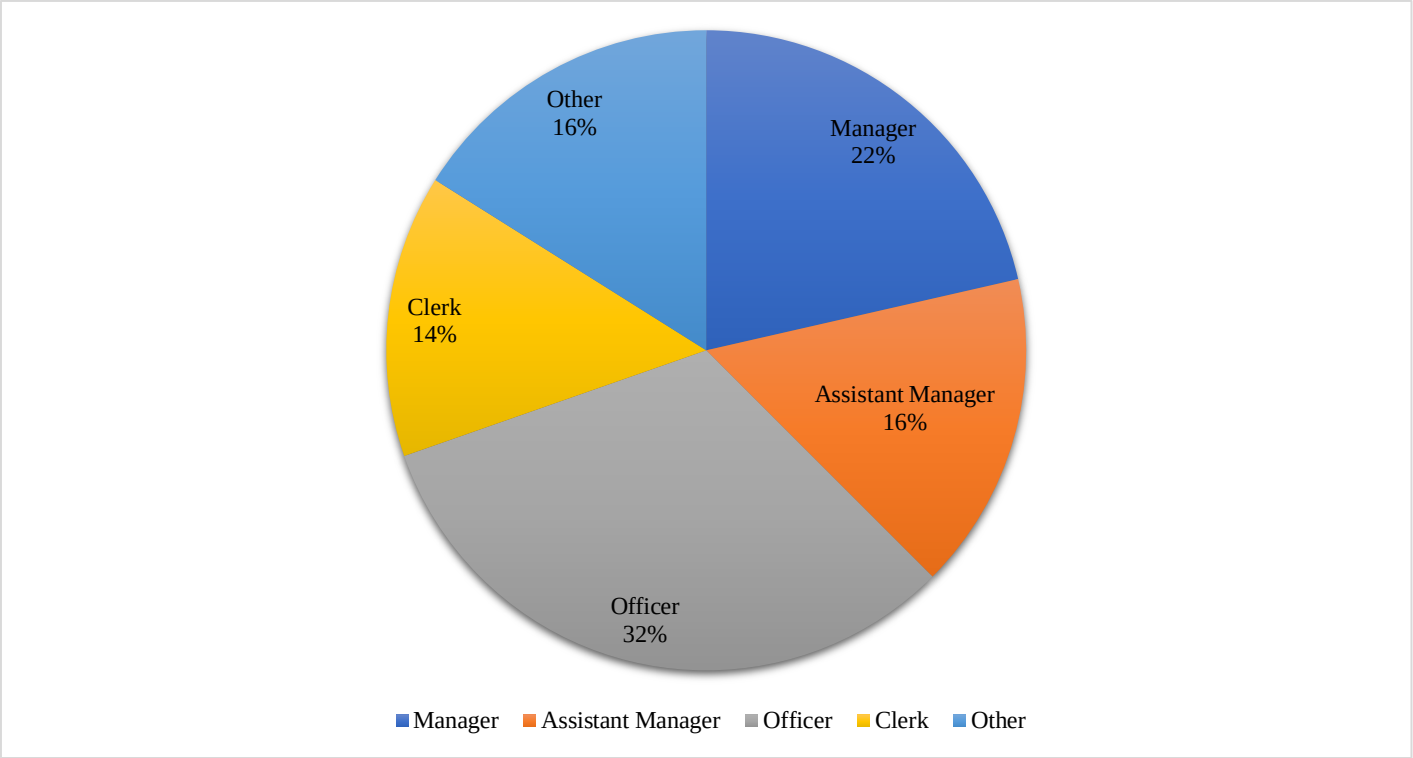

Figure 4.2: Distribution of Respondents by Position

Source: Field Data (2024)

The majority of respondents in Figure 4.3 had significant industry experience, with 26.8% having 7–10 years, and 25% each having 4–6 years and over 10 years of experience. A smaller proportion had 1–3 years (16.1%) and less than 1 year (7.1%) of experience. This indicates that most participants were seasoned professionals, well-positioned to offer informed perspectives on project cost management practices.

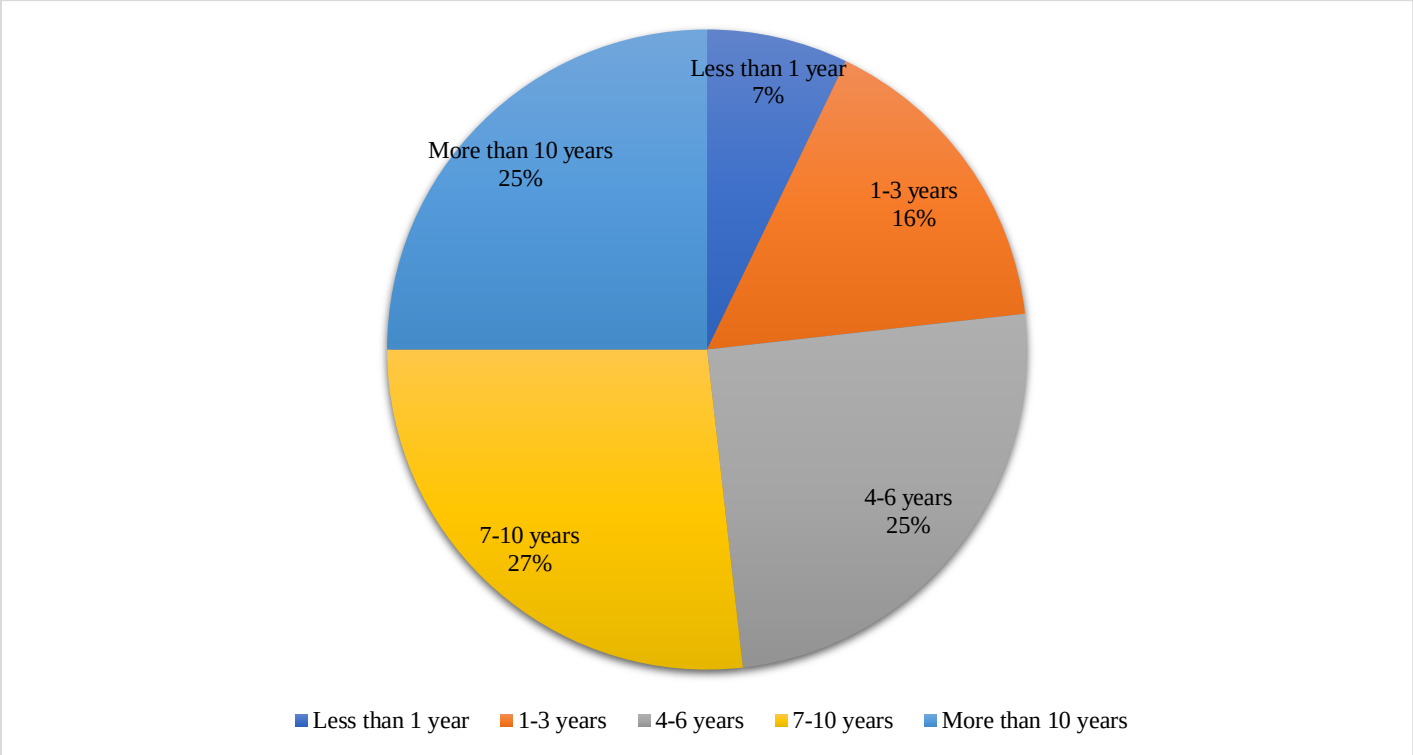

Figure 4.3: Distribution of Respondents by Years of Experience

Source: Field Data (2024)

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Figure 4.4 shows that the respondents were generally well-educated, with 35.7% holding Master's degrees and 32.1% holding Bachelor's degrees. Additionally, 14.3% had Doctorates, while 17.9% held Diplomas or HNDs. This high level of academic qualification indicates that the participants likely possess strong subject knowledge, enhancing the credibility of their input on project cost management practices.

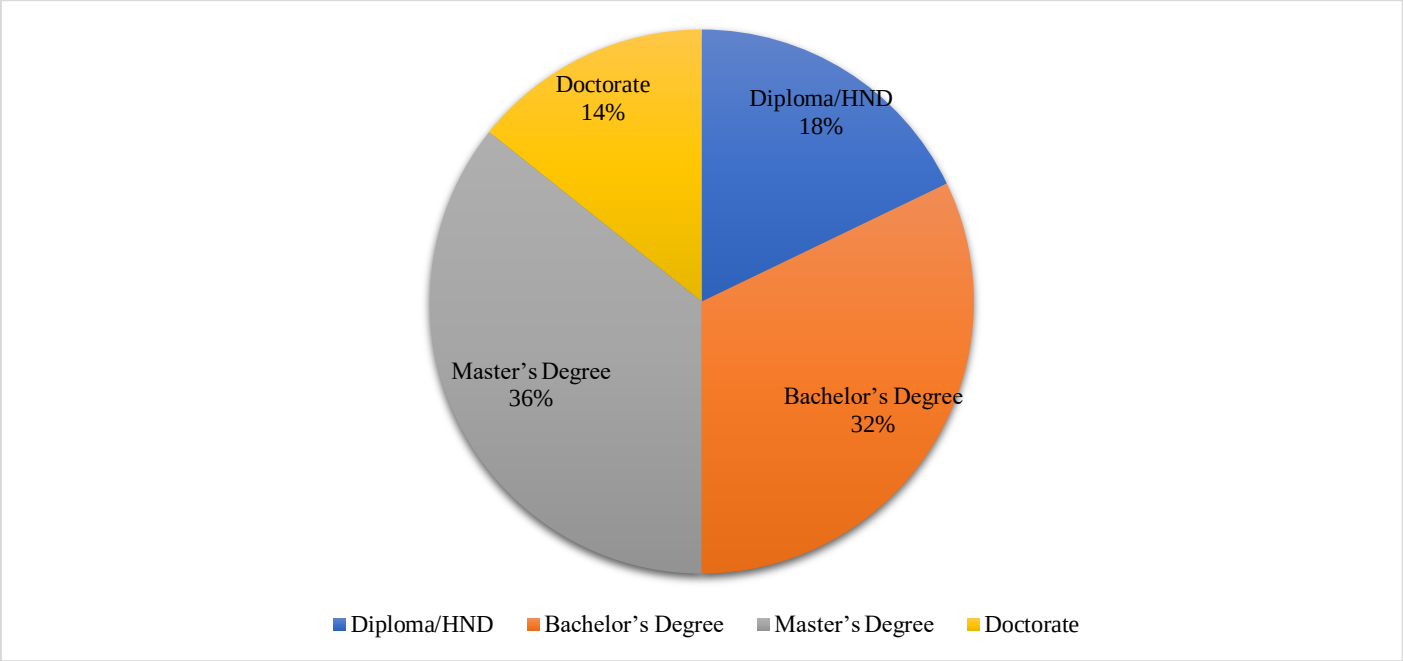

Figure 4.4: Distribution of Respondents by Highest Educational Qualification

Source: Field Data (2024)

Figure 4.5 reveals that the majority of respondents had substantial project management experience. Specifically, 30.4% had managed 11–20 projects, 28.6% had handled 5–10 projects, and 23.2% had overseen more than 20 projects. Only 17.9% had experience with fewer than 5 projects. This distribution indicates that the data was collected from respondents with considerable expertise, enhancing the credibility of their insights into project cost management practices.

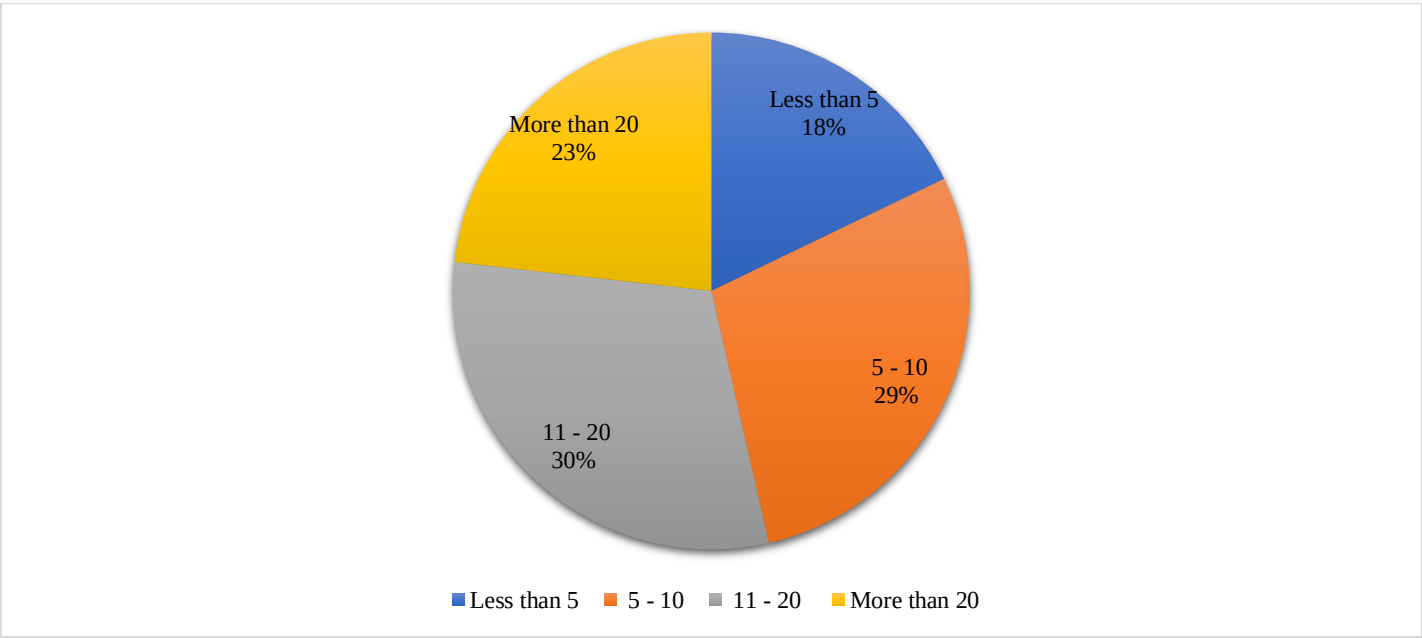

Figure 4.5: Distribution of Respondents by Number of Projects Handled

Source: Field Data (2024)

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Current Project Cost Management Practices at UCC

When evaluating current project cost management practices at UCC in Table 4.2, respondents rated cost estimation as the most effective (mean = 4.361), followed closely by budgeting (mean = 4.278) and cost control (mean = 4.204). These high scores suggest a strong focus on the core financial aspects of project management. Procurement cost management and cash flow management were also rated positively, though with slightly greater variation in responses. Conversely, practices such as cost audits (mean = 3.807), earned value management (mean = 3.892), and variance analysis (mean = 3.948) were rated lower, suggesting these areas may require improvement or further development within UCC's cost management framework.

Table 4.2: Assessment of Current Project Cost Management Practices at UCC

Practice	Mean	Std. Dev.	Rank
Cost Estimation	4.361	0.823	1
Budgeting	4.278	0.894	2
Cost Control	4.204	0.921	3
Procurement Cost Management	4.139	0.955	4
Cash Flow Management	4.082	1.095	5
Change Control Management	4.064	1.032	6
Contingency Planning	4.064	1.082	6
Resource Management	4.014	1.036	8
Cost Forecasting	3.975	1.114	9
Variance Analysis	3.948	1.145	10
Earned Value Management (EVM)	3.892	1.276	11
Cost Audits	3.807	1.204	12

Source: Field Data (2024)

Challenges in Managing Project Costs

Regarding challenges in managing project costs, the most significant issues identified in Table 4.3 were limited funding (mean = 4.518) and inflation (mean = 4.446), indicating that financial constraints and economic conditions are major concerns. Other prominent challenges included the underestimation of project scope, poor project planning, and inadequate skills among project managers. Administrative and procedural issues, such as delays in financial reporting, bureaucratic inefficiencies, and lack of transparency in procurement, were also cited, but with lower severity ratings. The least pressing challenge, according to respondents, was ineffective communication (mean = 3.589), though this item showed the greatest variability in responses.

Table 4.3: Challenges in Managing Project Costs

Challenges in Managing Project Costs	Mean	Std. Dev.	Rank
Limited funding	4.518	0.779	1
Inflation	4.446	0.842	2
Underestimation of project scope	4.321	0.861	3
Poor project planning	4.187	0.928	4
Insufficient project planning	4.116	0.913	5
Inadequate skills among project managers	4.089	0.926	6
Lack of project management knowledge	4.062	0.936	7
Lack of proper cost control mechanisms	4.012	0.994	8
Lack of real-time cost data	4.012	0.955	8
Delays in financial reporting	3.982	1.038	10
Bureaucratic delays	3.964	1.043	11
Inefficient procurement processes	3.911	1.087	12
Lack of transparency in procurement	3.875	1.102	13

Unexpected changes in fixed-price contracts	3.857	1.045	14
Poor stakeholder involvement	3.786	1.134	15
Inadequate monitoring practices	3.696	1.138	16
Lack of effective communication	3.589	1.181	17

Source: Field Data (2024)

Impact of Budgeting and Fund Allocation Practices on Cost Management

The study also explored the impact of budgeting and fund allocation practices on cost management. Respondents highlighted timely and accurate financial data (mean = 4.393) and real-time cost collection (mean = 4.339) as the most influential practices. Proper cost control mechanisms, accurate fund allocation, and effective monitoring were also seen as critical to successful cost management. While practices such as adaptive planning and the use of quantitative techniques in cost estimation were acknowledged, they were ranked lower, indicating that they may be less emphasised or less understood in current practices. This is shown in Table 4.4

Table 4.4: Impact of Budgeting and Fund Allocation Practices on Cost Management

Impact of Budgeting and Fund Allocation Practices on Cost Management	Mean	Std. Dev.	Rank
Timely and accurate financial data	4.393	0.772	1
Real-time cost collection	4.339	0.807	2
Proper cost control mechanisms	4.268	0.823	3
Accurate fund allocation to prevent discrepancies	4.232	0.897	4
Effective monitoring practices	4.179	0.892	5
Efficient fund allocation to reduce cost overruns	4.161	0.894	6
Enhanced project cost management through proper budgeting	4.143	0.925	7
Transparent budgeting processes	4.116	0.936	8
Detailed planning for effective cost management	4.089	0.976	9
Comprehensive budgeting	4.089	0.963	9
Effective evaluation to prevent budget deviations	3.989	0.981	11
Utilisation of historical data	3.971	0.956	12
Reduction in financial mismanagement	3.971	0.954	12
Efficient procurement processes	3.962	0.948	14
Enhanced transparency in procurement	3.954	0.962	15
Quantitative techniques in cost estimation	3.918	0.977	16
Adaptive planning	3.9	1.019	17

Source: Field Data (2024)

DISCUSSION OF RESULTS

The findings reveal that the University of Cape Coast (UCC) is making notable progress in project cost management, particularly in the areas of cost estimation and budgeting, which were ranked highest by respondents. These findings align with existing literature emphasising that accurate cost estimation is critical in preventing project failure (Flyvbjerg et al., 2018), while well-structured budgeting enhances accountability and project success (Ahsan & Gunawan, 2019).

Although cost control was ranked third, the variation in responses suggests inconsistent implementation. This observation contrasts with Abdallah et al. (2021), who assert that effective cost control systems—especially those involving automated tracking—are vital in reducing cost overruns. Similarly, procurement cost management showed mixed perceptions, indicating partial understanding and possible implementation gaps. Mok et al. (2017) advocate for best procurement practices such as competitive bidding and strategic negotiation, which appear to be underutilised at UCC.

Cash flow management was identified as a significant practice, supporting earlier research by Shi et al. (2021), which stressed the importance of monitoring liquidity to avoid project delays. Meanwhile, contingency planning and change control were rated moderately, reflecting the need for adaptive planning processes. This is consistent with Heravi et al. (2018), who found that formal change control systems reduce unexpected cost overruns, and Ghosh & Jintanapakanont (2020), who linked strong contingency planning with better financial risk mitigation.

Less commonly practised tools at UCC include cost audits and earned value management (EVM). These tools are essential in identifying inefficiencies early (Rahman et al., 2019) and integrating project scope, cost, and schedule for performance evaluation (Vanhoucke, 2016). Their underuse suggests an opportunity for UCC to enhance its cost management frameworks.

Regarding challenges, limited funding was the most prominent issue, aligning with studies by Dauda et al. (2023) and Obi et al. (2020), who found systemic funding constraints in Ghanaian tertiary institutions. Inflation was also highlighted as a major factor impacting budgets, corroborating Segbedzi (2023), who documented similar effects in construction projects.

Additional challenges include poor planning, scope underestimation, and insufficient project management skills, mirroring findings by Segbedzi (2023), Mangvwat et al. (2020), and Aboagye et al. (2022), respectively. These emphasise the importance of professional development and better planning systems to address systemic inefficiencies.

The study also identified ineffective communication and low stakeholder involvement as significant issues. Elghaish et al. (2020) similarly concluded that these factors often lead to misunderstandings and conflicts that drive cost overruns. Moreover, inefficient procurement practices—including bureaucratic delays and lack of transparency – support findings by Awuah et al. (2022), reinforcing the need for procurement reform.

When evaluating the impact of budgeting and fund allocation, the most emphasised practice was the availability of timely and accurate financial data, echoing Hirji et al. (2022), who stressed the need for real-time cost collection to enable proactive budget monitoring. Tsyhaniuk and Akenten (2021) similarly noted that transparency in budgeting reduces cost overruns.

Proper cost control mechanisms were also seen as crucial, aligning with Guraziu (2023), who argued for appropriate fund appropriation to ensure budget adherence. Practices like efficient fund allocation and good monitoring reinforce the role of structured monitoring systems in ensuring financial accountability (Ngacha & McDonald, 2023).

However, lower-ranked practices such as the use of quantitative cost estimation techniques and adaptive planning point to potential gaps. Baek and Ashuri (2021) advocate for the use of historical data and statistical methods to improve estimation accuracy, while Awuah et al. (2022) underscore the overlooked importance of procurement efficiency.

In conclusion, while UCC demonstrates strength in foundational cost management practices such as estimation and budgeting, areas like cost control, procurement, and advanced analytics require attention. Addressing challenges related to funding, planning capacity, and communication, alongside investing in training and data systems, could significantly improve project cost outcomes in the tertiary education sector.

CONCLUSION

This study provides a critical evaluation of project cost management practices at the University of Cape Coast (UCC), offering practical insights and policy guidance relevant to tertiary institutions in Ghana. It reveals that UCC has established solid foundations in cost estimation and budgeting, essential elements for maintaining financial control. However, persistent challenges such as limited funding, inflation, and inadequate scope planning highlight the need for improved strategic planning and more efficient resource allocation.

The findings emphasise the crucial role of accurate budgeting and timely financial data in cost management, reinforcing the importance of real-time cost tracking systems and institutional transparency. Gaps in project

management skills further underscore the need for continuous capacity-building initiatives tailored to financial and project management staff.

From a policy and academic perspective, the study fills a gap in empirical literature on cost management in Ghana's tertiary institutions, offering a framework for both theoretical refinement and future research. It provides a foundation for comparative studies, technological assessments, and longitudinal evaluations to guide best practices across the sector.

RECOMMENDATIONS

Enhance Staff Training: Implement regular professional development programs to build expertise in budgeting, monitoring, and procurement.

Leverage Technology: Introduce real-time cost tracking and financial data systems to improve decision-making and reporting accuracy.

Standardize Budgeting Procedures: Establish clear budgeting guidelines to promote consistency and accountability.

Strengthen Monitoring Frameworks: Develop robust systems for cost monitoring and evaluation to detect and respond to deviations promptly.

Promote Stakeholder Collaboration: Increase stakeholder involvement to improve communication, coordination, and project outcomes.

These recommendations aim not only to improve UCC's internal practices but also to serve as a model for other tertiary institutions seeking to enhance their project cost management capabilities. Ultimately, stronger financial practices will contribute to sustainable infrastructure development and broader national education goals.

LIMITATIONS

This study, while insightful, faced a few limitations. It focused exclusively on the University of Cape Coast (UCC), limiting the generalizability of its findings to other tertiary institutions in Ghana. Additionally, the relatively small sample size may not capture the full range of perspectives. The use of self-reported data also presents a risk of bias due to varying individual perceptions. Finally, the study was conducted within a short timeframe, which may have constrained the depth of analysis.

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