International Journal of Management Technology 12 (4), 101-128, 2025
Print ISSN: ISSN 2055-0847(Print)
Online ISSN: ISSN 2055-0855(Online)
Website: https://www.eajournals.org/
Publication of the European Centre for Research Training and Development -UK

Moderating Role of Management Style on the Relationship Between Budgetary Control System and Effective Public Financial Management in Bayelsa State

[1]Ebimobowei Appah & [2]Edisebra Paul Ayabina
Isaac Jasper Boro College of Education, Sagbama, Bayelsa State, Nigeria

doi: https://doi.org/10.37745/ijmt.2013/vol12n4101128 Published August 27, 2025

Citation: Appah E. & Ayabina E.P. (2025) Moderating Role of Management Style on the Relationship Between Budgetary Control System and Effective Public Financial Management in Bayelsa State, *International Journal of Management Technology* 12 (4), 101-128

Abstract: *This study explores the moderating role of management style on the relationship between budgetary control systems and investment management of tertiary institutions in Bayelsa State, Nigeria. The study adopted cross sectional survey research design and the population consisted of all the tertiary institutions in Bayelsa State and random sampling was utilized. Primary and secondary sources of data collection were employed with questionnaire as the major instrument of data collection after validity and reliability tests. A total of 343 questionnaires were administered and 241 were used for data analysis. The responses obtained from the administered questionnaires were statistically analysed using descriptive and inferential statistics. The findings reveal a positive and significant relationship between budgetary planning, budgetary coordination, budgetary monitoring, budgetary participation and budgetary reporting on investment management of tertiary institutions in Bayelsa State, Nigeria. Also, a positive and significant moderating effect of managerial style on the relationship between budgetary control system and investment management of tertiary institutions in Bayelsa State, Nigeria. The study highlights that leadership behaviour is a critical contextual factor that shapes how budgetary controls translate into strategic investment outcomes. These insights have practical implications for institutional governance, emphasizing the need to align budgeting processes with leadership development and organizational culture. The study contributes to the literature by deepening understanding of behavioral influences on financial management and recommends further research on how digital transformation and the use of financial management information systems interact with managerial styles to influence budgetary control and investment outcomes.*

Keywords: budgetary planning, budgetary monitoring, budgetary participation, managerial experience, cash flow management.

INTRODUCTION

Organisations today are visibly valuing the significance of budgetary control in achieving their goals and objectives. According to Isaac et al (2024), budgetary control is essential in managing public sector funds and finances in Nigeria, as in any nation. Budgetary control is generally recognized as the main instrument for allocating resources to specific recurrent and development activities, but many developing countries paid little attention to budgetary controls (Oluwaseun & Agwu, 2020). It is nevertheless also documented that a country can have a sound budget and financial system and still fail to achieve its intended targets because of lack or weakness budgetary control. Furthermore, budgeting and budgetary control occupy a central place among techniques used in planning and control functions of an organization. The application of budgetary control systems is universal and have been considered an essential tool for financial management. Therefore, the purpose of budgetary control is to provide a forecast of revenues and expenditures this is achieved through constructing a model of how our business might perform financially speaking if certain strategies, events and plans are carried out (Jayalakshmi et al., 2023). Similarly, Dare et al (2022) noted that effective budgetary control is vital to guarantee financial transparency, accountability, and fiscal responsibility. Isaac et al (2024) affirmed that budgetary controls systems would enable the tracking of public expenditure, detect financial irregularities and make public officials accountable. The authors advanced that the main benefits of budgetary control in Nigeria is the promotion of transparency and accountability in public sector finances. Also, Eunice and Iwedi, (2024) established that effective budgetary control enable government to allocate financial resources to priority sectors, ensuring that finances are directed towards projects that affects the country's growth and development.

Budgeting is very vital for the day-to-day activity of any organisation. It is a means for ensuring the execution, within a given period, of programs dealing with corporate goals and priorities using various available financial resources (Susuawu, 2020). It serves diverse functions in modern organizations. Drury (2021), Appah (2022) listed these functions to include planning annual operations, coordinating the organisation's activities, communicating plans, motivating managers, controlling activities and evaluating managers' performance. Matsosos et al (2021) noted that it is expected that the effects of budgeting and budgetary controls on organizations have attracted substantial interest among scholars (Ben-Caleb et al, 2022; Matsosos et al, 2021; Olaniyan & Efuntade, 2020; Owolabi et al, 2020). While budgeting guarantee careful planning of an organisation's future performance (Appah, 2022), budgetary control provides the structures that enable management to compare actual results with targets and implement corrective measures when deviations occur (Olaniyan & Efuntade, 2020; Owolabi et al, 2020; Matsosos et al, 2021). This understanding of budgetary control has aggravated better inquisitiveness among scholars (Matsosos et al, 2021). Ross (2020) argued that a properly planned and well-implemented budgeting and budgetary control system makes it easier for public sector organizations to achieve its set goals and objectives. According to Ariyo-Edu and Woli-Jomh (2024), budgeting emphasizes the significant functions of managers in terms of management by objectives, uninterrupted feedback, participative management, management by exception and responsibility accounting. The authors further stated that the contemporary perspectives in budgeting's broader function include directing managerial decision-making processes and weighing the benefits and weaknesses of thoughts, in dissimilarity to conventional perspectives that limit its application to controlling expenditures. Mehryar and Surminski (2021) noted that in addition to allocating finance, budget also impact on how management responds to thoughts while taking the present and potential future economic climates into account. Romenska, et. al. (2023) stated that budget implementation and monitoring techniques must be visible and well-organized for budgeting processes to effectively distribute financial resources in accordance with priorities and strategic objectives of government.

Effective and efficient financial management system improves the performance in any organization. According to Ariyo-Edu and Woli-Jomh (2024), excellent financial management system provides the basis for the attainment of corporate goals and objectives. Appah (2022), Mihajlović et al (2020), Irawan et al (2021) noted that effective management is that financing process that organises financial activities from planning, implementation and control to financial accountability in any given organization both in the public and private sector. Sukenti (2023) argued that financial management entails excellent management of funds, which means the efficient allocation of funds in a variety of investments, as well as trying to raise funds to finance efficient investment or consumption in organizations. Sitinjak et al (2023) opined that effective financial management is necessary ingredient for growth and survival of any given organisation. The authors further argued that financial management is commonly seen as an independent activity within an organization, but it is a system of interdependent subsystems that must be coordinated for the attainment optimal goals and objectives. Brooks et al., (2020); Dubey et al., (2020); Hale et al., (2021) claimed that managing an organisation’s financial resources means ensuring those finances are properly applied to further the goals and objectives of the organization. Sitinjak et al (2023) stated that effective financial management permits an organization to make the best utilization of funds for the attainment of corporate goals and objectives and to further promote the growth and survival of an organisaiton. The author further argued that budgeting and budgetary control are among the pillars for efficient financial management. Ariyo-Edu and Woli-Jomh (2024) argued that budgeting and budgetary control are the essential tools that provide assurance for financial restraints, the effective utilization of financial resources, and the general performance of the organization (Otieno, 2019 in Ariyo-Edu and Woli-Jomh, 2024). The authors further argued that budgeting and budgetary control are vital to the realization of sustainable socio-economic development goals of any economy.

The empirical studies portray obviously that budgeting and budgetary control is an aspect of frequent research in accounting and finance. But even though there have been several studies in this area, very little or nothing has been done on managerial experience and style on the relationship between budgetary control system and effective financial management of tertiary institution in Bayelsa State. However, Ariyo-Edu and Woli-Jomh (2024) investigated budgeting and budgetary control on public sector performance in Kwara State, Nigeria. The findings indicated a positive and significant association between budget efficiency, effective budgetary system and budget planning and implementation on societal impact. Also, the results revealed a positive and significant association between performance-based budgeting, frequent financial reporting and regular internal audit on goals and objectives. Isaac et al (2024) conducted a study of budgetary control and public sector performance in Nigeria. The results from the multivariate analysis suggested that government revenue budget variances and government tax compliance rate positively and significant influence public funds. The findings further suggested that government revenue budget variances and government tax compliance rate positively and significant impact on government finances in Nigeria. Katana et al (2022) carried out a study on budgetary control and financial performance of listed manufacturing firms in Kenya. The results revealed that budgetary control contributed 56.1% of ROA, while the 43.9% were contributed by other factors not covered by the model. In addition, the study indicated that liquidity control significantly affects financial performance of listed manufacturing firms in Kenya. Ben-Caleb et al (2022) studied budgetary control and organizational survival of manufacturing firms in Nigeria. The results indicated that change in operating costs negatively and insignificantly influence age of firm of the sampled companies; change in operating profit positively and significantly affects age of firm and sales growth positively but insignificantly impact on age of firm. Hence, the study concluded that budgetary control is not a significant determinant of survival of sampled manufacturing companies in Nigeria. Therefore, this study attempts to fill this gap existing in existing literature and investigate the moderating influence of managerial experience on the relationship between budgetary control system and effective financial management of tertiary institution in Bayelsa State.

The findings of the study provide serious and new contributions for human resource managers, accounting and finance scholars and industrial relations experts in the domain of management research. This study contributes to knowledge by clarifying how managerial style influence the effectiveness of budgetary control systems on financial management. The study shows that experienced managers are more capable of interpreting budget data correctly, make strategic adjustments and apply budgets for proactive decision – making. The study also demonstrates that the level of managerial style offers a new perspective that assists reconcile inconsistent findings in the literature. Further, this study strengthens the contingency theory by showing that induvial managerial traits impact how control systems operate and proposing that control systems should be adapted to fit the experience profile of major decision-makers. Moreover, the findings offer critical empirical evidence for tertiary institutions in the public sector. Precisely, the objectives of the study are to: investigate the effect of budgetary planning on cash flow management of tertiary institutions in Bayelsa State, Nigeria, to evaluate the effects of budget coordinating on investment management of tertiary institutions in Bayelsa State, Nigeria, determine the effects of budget participation on investment management of tertiary institutions in Bayelsa State, Nigeria, to evaluate the effects of budget monitoring on cash flow management of tertiary institutions in Bayelsa State, Nigeria, evaluate the effects of budget reporting on investment management of tertiary institutions in Bayelsa State, Nigeria and investigate the moderating influence of managerial style on the relationship between budgetary control system and effective financial management of public tertiary in Bayelsa State. The research questions of the study are: What is the effect of budgetary planning on investment management of tertiary institutions in Bayelsa

State, Nigeria? What is the effect of between budget coordinating on investment management of tertiary institutions in Bayelsa State, Nigeria? What is the effect of budget participation on investment management of tertiary institutions in Bayelsa State, Nigeria? What is the effect of budget monitoring on investment management of tertiary institutions in Bayelsa State, Nigeria? What is the effect of budget reporting on investment management of tertiary institutions in Bayelsa State, Nigeria? What is the moderating effect of managerial style on the relationship between budgetary control system and effective financial management of public tertiary in Bayelsa State? The hypotheses of this study are:

$H0_1$: Budgetary planning positively and significantly influence the investment management of tertiary institutions in Bayelsa State, Nigeria.

$H0_2$: Budget coordinating positively and significantly influence investment management of tertiary institutions in Bayelsa State, Nigeria.

$H0_3$: Budget participation positively and significantly influence investment management of tertiary institutions in Bayelsa State, Nigeria.

$H0_4$: Budget monitoring positively and significantly influence investment management of tertiary institutions in Bayelsa State, Nigeria.

$H0_5$: Budget reporting positively and significantly influence investment management of tertiary institutions in Bayelsa State, Nigeria.

$H0_6$: Managerial style positively and significantly moderate the relationship between budgetary control system and effective financial management of public tertiary in Bayelsa State.

REVIEW OF RELATED LITERATURE

Conceptual Review

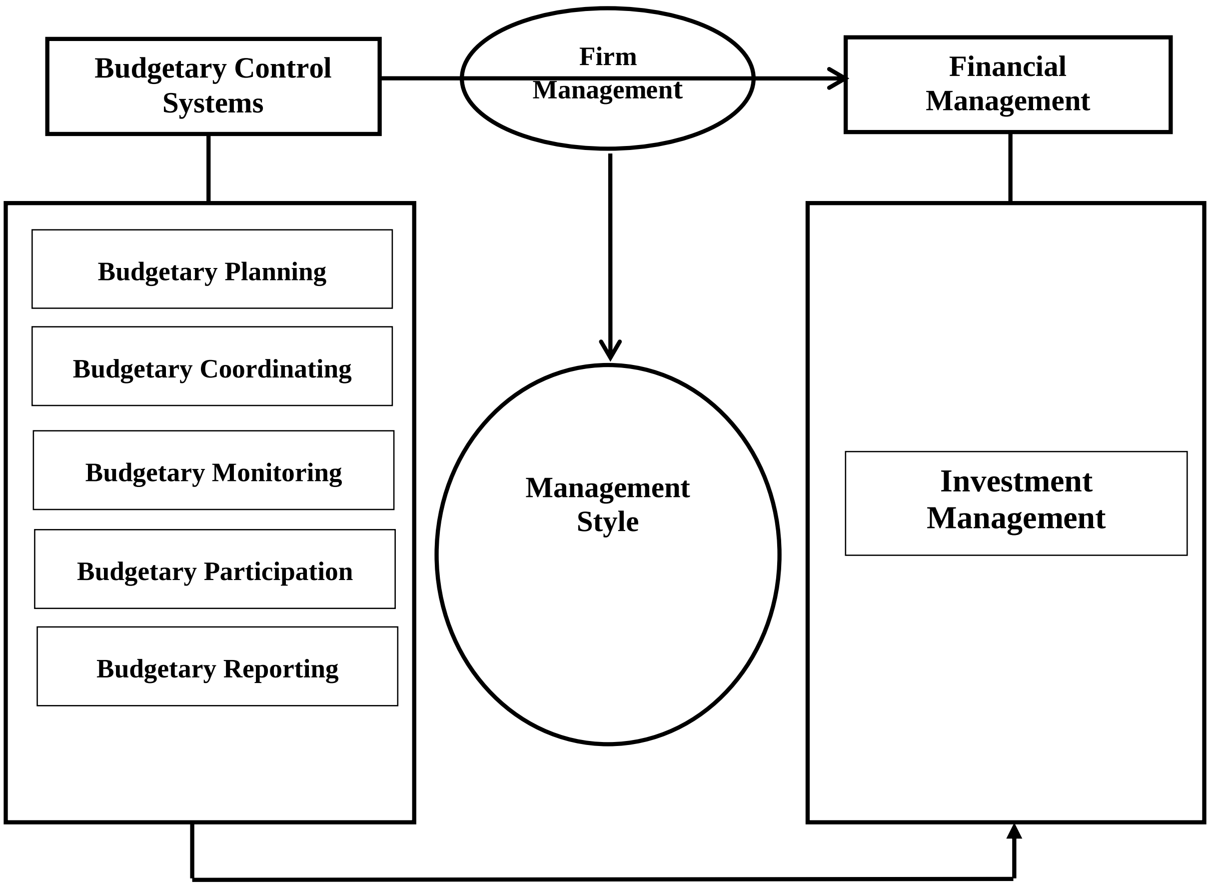

Figure 1: Conceptual Framework of Budgetary Control and Effective Financial Management
Source: Creation by the Authors (2025)

Concept of Budgetary Control System: Budgetary control can be described as a system of controlling cost which embraces the preparation of budget, coordinating the department and establishing responsibility, comparing actual performance with budgeted and acting upon results to achieve maximum performance (Egbunike & Unamma, 2017). Appah (2023), Appah (2017) stated that budgetary control is the establishment of budgets concerning the responsibilities of executives to the requirements of a policy, and the continuous comparison of actual with budgeted results, either to secure by individual action the objective of that policy, or to provide a basis for its revision. Budgetary control is a system of controlling costs and resources which includes comparing actual performance with the budgeted performance and subsequently acting upon the

Print ISSN: ISSN 2055-0847(Print)
Online ISSN: ISSN 2055-0855(Online)
Website: https://www.eajournals.org/
Publication of the European Centre for Research Training and Development -UK

actual results to minimize variance and achieve maximum returns. In essence, budgetary control is purported to ensure that the activities carried out are providing the desired results. Budgetary control: refers to any management approach that involves setting targets, regularly measuring variances between the original targets and actual outcomes and motivating people to reduce those variances. Ben-Caleb (2022) argued that budgetary control a part of the general system of responsibility accounting within an organization, as costs and revenues are analyzed in accordance with area of individual responsibilities of the budget holders through permitting financial monitoring. Owoloabi et al (2020), Katana et al (2022) described budgetary control is the process of employing the available financial resources, minimizing expenses, and aligning planned activities to actual results. According to Egbunike and Unamma (2017), the objective of budgetary control is to facilitate managers' plan and control the use of financial resources in systematic and logical manner to ensure that they attain their corporate financial objectives. Similarly, Owolabi et al (2020) noted that budgetary control provides support for organizations to attain organizational objectives. The authors further noted that budgetary control enable organisationals in fixing goals as a move for its attainment and involves management control in which actual revenue and expenditure are compared with estimated income and expenditure, to ascertain if plans are complied with and if those plans need to review in order to make better performance. Also, Owolabi et al (2020) noted that the objective of budgetary control is to provide a forecast of income and expenditure is attained through building a model of how organizations might perform financially through strategies, events and plans are carried out effectively and efficiently.

Budgetary Planning: This is the process of creating a detailed financial plan that outlines projected income and expenditure over a specific period, typically a year. According to Appah (2023), budgetary planning involves setting financial objectives, identifying sources of income, estimating expenditure and allocating resources to attain the desired outcome. Appah (2017) noted that budgetary planning helps organisations manage their finances effectively and make informed decisions, ensures that resources are allocated efficiently and effectively to attain the desired outcome, helps identify and mitigate potential financial risks and provides a framework for strategic planning and decision making.

Budgetary Coordinating: This is the process of integrating and reconciling different budgets within an organisation to ensure that they are aligned with the organisation's overall financial goals and objectives. According to Appah (2023), budgetary coordinating helps ensuring that all budgets are consistent with each other and with the organisation's overall financial plan, avoiding duplication of effort and resources by ensuring that different budgets are not overlapping or redundant and optimising the allocation of resources across different budgets to ensure that they are being used efficiently and effectively. Appah (2017), Owolabi et al (2020) stated that budgetary coordinating helps to ensure that an organisation's financial resources are being used efficiently and effectively, Appah (2023) argued that budgetary coordinating helps to ensure that financial decisions are made with a clear understanding of organisation's overall financial situation.

Budgetary Monitoring and Control: This is the ongoing process of tracking and analysing an organisation's financial performance against its budgeted plan. According to Appah (2023), budgetary monitoring involves regularly reviewing and comparing actual financial results with budgeted amounts to identify variances, trends and areas for improvements. Olaniyan and Efuntade (2020) argued that control is the continuous comparison of actual performance with budgets estimates. The authors further argued that the comparison of actual results to budgets will enable the budgetholders to draw conclusions concerning the efficiency of operations, product probability and pinpoint problem areas. Owolabi et al (2020), Appah (2017) argued that budgetary monitoring helps to ensure that an organisation's financial resources are being used efficiently and effectively, identify financial problems early, allowing for prompt corrective action, provides valuable insights that can inform financial decision-making.

Budgetary Participation: This is the involvement of employees, managers and other stakeholders in the budgeting process. Appah (2023) stated that budgetary participation involves soliciting their input, ideas, and feedback to create a more inclusive and effective budget. Owolabi et al (2020) argued that budget participation is a system in which all budget holders are given the opportunity to participate in setting their budget. Appah (2017), Olaniyan and Efuntade (2020) stated that budget participation fosters open communication and collaboration among team members, employees are involved in creating the budget and provide valuable insights into a more realistic budget target.

Budgetary Reporting: This is the process of preparing and presenting financial reports that compare actual financial results with budgeted amounts. These reports provide stakeholders with information on an organisation's financial performance, helping them make informed decisions. Appah (2023) argued that budgetary performance helps organisations manage their finances effectively, stakeholders receive timely and accurate financial information; provide valuable insights to support management allocation and organisations can allocate resources more efficiently based on budgetary report findings.

Concept of Financial Management: Financial management is the identification of the possible strategies capable of maximising an organisation's net present value, the allocation of scarce capital resources among the competing opportunities and implementation and monitoring of the chosen strategy to achieve stated objectives. Appah (2022) described financial management is the financial implications prospects of various business strategies and the strategic management of finances. It is also defined as a discipline which is concerned with planning, organising, procurement and utilisation of funds, as well as formulation and control of financial policies in order to maximise the value of the firm. Sukenti (2023) stated that financial management encompasses the full range of a company's finances including: setting objectives; identifying resources; analysing data; making financial decisions; and monitoring performance to identify problems. This study employed cash flow management and investment management as dimensions to effective financial management. This study used cash flow management as dimension for effective financial management. This study utilised investment management as the proxy for effective financial management. Investment management is the making of informed investment decisions to optimise returns and minimise risk. It is defined by Appah (2022) as the commitment of financial resources in the anticipation of returns. The author further noted that investment is devotion of financial and non-financial resources in each venture for the anticipation of financial returns. Boriki and Onuora (2024) described investment as the accumulation and commitment of finances in financial and real assets with the aim of obtaining income over time. The authors further stated that it is a commitment of financial resources made in the hope of realising benefits that are expected to occur over a reasonable long period of time in the future. Investment consequently includes new plant and equipment, construction of public works like roads, dams, buildings, etc. with the expectation of future income.

Concept of Managerial Style: Managerial style is the approach, attitude, and behaviour a manager exhibits when leading and managing a team, organisation or project. It encompasses the way a manager plans, organise, leads, and controls resources to achieve corporate goals and objectives. Akintoye and Odeh (2022) described management style as the methods a particular manager adopts to lead and manage an organization for the aim of achieving organizational goals and objectives. According to Bello and Oredein (2023), managerial style is the manner that managers employ to carry out their management responsibilities. This is described as specific conduct used by management in an organisation to push employees toward achieving a specific organisational goal. The authors noted that managerial style plays an important role in the contemporary organizations. It is the way and way a manager or supervisor chooses to act towards his employees or subordinates and the way the management function is being carried out by them and it reflects what managers "do" and how they behave (Bello & Oredein, 2022). Akintoye and Odeh (2022) noted that managerial styles include the commanding managerial style, visionary managerial style, affiliative managerial style, democratic managerial style, pacesetting managerial style, coaching managerial style and laissez faire managerial style.

Theoretical Review

This study is anchored on the stewardship theory. Stewardship theory has been advocated by several notable management theorists and researchers such as Davis, Schoorman and Donaldson; Hernandez, Caldwell, Karlson (Murtaza et al 2021; Sharma & Aruna, 2022). This is a management theory that describes managers as stewards of organisational resources, entrusted with the responsibility of acting in the best interests of the organisation and its stakeholders (Torfing & Bentzen, 2020). Sharma & Aruna, (2022), Davies et al (2018), Torfing and Bentzen (2020) provided some of the benefits of this theory to include: this theory emphasizes the significance of ethical leadership and decision making, which can lead to more responsible and sustainable management practices; stewardship theory encourages managers to take a long term view when making decisions, which can lead to more sustainable and responsible management practices; stewardship theory emphasises the significance of considering the interests of all stakeholders; stewardship theory encourages managers to align their decisions with the organisation's overall goals and objectives and stewardship theory emphasizes the relevance of holding managers accountable for their decisions and actions. Banda and Mwange (2023), Sharma & Aruna, (2022), Davies et al (2018), Torfing and Bentzen (2020) stated that the stewardship theory suffers from the following limitations: this theory places a high degree of trust in managers to act in the best interests of the organisation, which can be problematic if managers are not ethical or responsible; it theory does not provide clear guidelines for managers to follow, which can lead to confusion and inconsistent decision making; it may not be applicable to all contexts, such as situations where there are conflicting stakeholder interests or where there are significant power imbalance and stewardship theory emphasis on managerial responsibility and accountability can lead to paternalism, where managers make decisions on behalf of others without their input or consent. This theory can be applied to study the relationship between budgetary control system and effective financial management of tertiary institutions because budgetary control systems are essential for ensuring that managers are good stewards of organisational resources and are making decisions that support effective financial management.

Empirical Review

Ariyo-Edu and Woli-Jomh (2024) investigated budgeting and budgetary control on public sector performance in Kwara State, Nigeria. The study adopted cross sectional survey research design and a population of 130 staff from the Directorate of Planning, Research and Statistics (DPRS) and Directorate of Personnel and Finance and Supply (DPFS) of 5 ministries with the use of non-probability sampling to arrive at a sample size of 98 respondents. The study utilized primary source of data collection from a structured questionnaire and the questionnaire were designed using 5-point Likert scale. The study used budget efficiency, effective budgetary system and budget planning and implementation, performance-based budgeting, frequent financial reporting and regular internal audit as measurement of the independent variable budgeting and budgetary control while societal impact and goals and objectives as measures for the dependent variables. The responses obtained from the administered questionnaire were analyzing using descriptive statistics and multiple regression analysis. The findings from the data analysis indicated a positive and significant association between budget efficiency, effective budgetary system and budget planning and implementation on societal impact. Also, the results revealed a positive and significant association between performance-based budgeting, frequent financial reporting and regular internal audit on goals and objectives. Hence, the study concluded that budgetary control mechanisms have positively and significantly influence the level of public sector performance in Kwara State.

Isaac et al (2024) conducted a study of budgetary control and public sector performance in Nigeria. The study used ex post factor research design and secondary data were collected from several government statistical agencies. The study independent variable budgetary control utilized government revenue budget variances and government tax compliance rate as measurements while public revenue budget and budget expenditure budgets were employed as measures for the dependent variable public sector performance. The data collected from the secondary sources were analysed using univariate and multivariate analysis. The results from the multivariate analysis suggested that government revenue budget variances and government tax compliance rate positively and significant influence public funds. The findings further suggested that government revenue budget variances and government tax compliance rate positively and significant impact on government finances in Nigeria. The study further concluded that performing variance analysis on public sector revenue budgets positively and significantly influences the financial health of government in Nigeria.

Ben-Caleb et al (2022) studied budgetary control and organizational survival of manufacturing firms in Nigeria. The study employed ex post facto research design and the population consisted of all manufacturing firms listed on the Nigerian Exchange Group (NGX) from 2015 to 2019 with a sample of 38 companies. The study used organizational survival as the dependent variable measured with age of firm, calculated as present year less year of incorporation while the independent variable budgetary control was measured using change in operating costs (COC), change in profit (CIP), sales growth rate (SGR) of the companies in our study. The study employed secondary data collected from the annual reports of sampled firms and data collected were analysed using descriptive statistics, diagnostic tests, and multiple regression analysis. The results indicated that change in operating costs negatively and insignificantly influence age of firm of the sampled companies; change in operating profit positively and significantly affects age of firm and sales growth positively but insignificantly impact on age of firm. Hence, the study concluded that budgetary control is not a significant determinant of survival of sampled manufacturing companies in Nigeria.

Katana et al (2022) carried out a study on budgetary control and financial performance of listed manufacturing firms in Kenya. The study used correlational research design and the population consisted of all 8 manufacturing firms listed on KSE with census sampling technique as determine the sample size. The study employed secondary data obtained from the annual reports of sampled manufacturing firms and the data collected were analyzing using descriptive statistics, pearson correlation coefficient, random and fixed effects using STATA. The statistical analysis suggested that the Pearson correlation analysis revealed that control ratio positively and significantly influence return on asset (ROA); Hausman test revealed that random effect regression model was effective, since the hausman had a p-value of 0.0924, greater than 0.05 significant level. The random-effect models showed p-value of 0.000, indicating that the model was appropriate. The further revealed that budgetary control contributed 56.1% of ROA, while the 43.9% were contributed by other factors not covered by the model. In addition, the study indicated that liquidity control significantly affects financial performance of listed manufacturing firms in Kenya.

Owolabi et al (2020) investigated budgetary control and financial performance of insurance firms in Nigeria. The study utilized descriptive survey research design and the population comprised of 600 managerial staff from 33 listed insurance companies in Nigeria while a sample size of 230 from 15 insurance firms using convenience sampling. The study used primary data obtained from the distribution of well-structured questionnaires administered to the 230 managerial staff. The study used financial performance as dependent variable while budget monitoring, budget evaluation, budget performance and budget control were used as independent variables to measure budgetary control. The responses from the questionnaire were analysed using Pearson Correlation and regression analysis. The results indicated a positive and significant association between budget monitoring, budget evaluation, budget performance and budget control on the financial performance of sampled insurance firms in Nigeria.

Olaniyan and Efuntade (2020) conducted research on budget and the budgetary control system on the financial performance of tertiary institutions in Nigeria. The study utilized ex post facto research design and secondary data was used. The study used financial management as the dependent variable with operating cash flow, current ratio, debt equity ratio and asset turnover as measurements while budgeting and budgetary control as independent variable using budget planning, monitoring and control, budget participation, budget evaluation as measures. The study collected secondary data extracted from the Central Bank of Nigeria (CBN) statistical bulletin for the period 2004 to 2019 and the data were analysed using unit root test, cointegration test, and error correction model. The findings showed the presence of co-integration (long-run relationship) among the variables in the model with budget planning, budget evaluation, control and monitoring have significant association with financial performance in Nigeria, while budget participation is not significantly related to financial performance of the tertiary institution in the long run. The study therefore concluded that there is significant correlation between budgetary control system and financial performance of tertiary institution in Nigeria.

Matsoso et al (2021) investigated budgeting and budgetary control in small and medium enterprises in a developing economy. The study employed cross sectional survey research design and the population of the study comprised of 2477 SMEs and simple random sampling was used with Yamene formula to arrive at a sample size of 344. The study used primary data from a well-structured questionnaire after validity and reliability tests. The responses obtained from the questionnaire were analysed using descriptive statistics and the findings suggested that the utilisation of budgeting provides several advantages from a positive insight of the value of budgeting and budgetary controls by key SME operators. The study further revealed that the perception of budgeting mirrors the level of education of SME operators, as educated respondents appreciate the value of implementing robust budgeting and budgetary control systems.

Susuawu (2020) carried out a study of budgets and budgetary control on the performance of small and medium sized enterprises in Ghana. This study utilized descriptive survey research design. A target population of that comprised of three municipals namely, Ayawaso, Adma, Lannman and a sample size of 200 SMEs. The study used return on assets and profit as measurements for the dependent variable financial performance while budget planning, budget coordination and budgetary control were used as measurements for budget and budgetary control. This study used primary data collected from the questionnaires administered to sampled SMEs using five-point Likert scale. The questionnaire responses were analysed using descriptive statistics and regression analysis. The statistical analysis suggested that budget planning, budget coordination and

International Journal of Management Technology 12 (4), 101-128, 2025
Print ISSN: ISSN 2055-0847(Print)
Online ISSN: ISSN 2055-0855(Online)
Website: https://www.eajournals.org/
Publication of the European Centre for Research Training and Development -UK

budgetary control positively and significantly influence the financial performance of SMEs in Ghana.

RESEARCH METHODOLOGY

This study explored the relationship between budgetary control and effective financial management of tertiary institutions (Niger Delta University, University of Africa, Bayelsa Medical University, Federal University of Otuoke, Isaac Jasper Boro College of Education, Sagbama, Bayelsa State Polytechnic Aleibiri, Federal Polytechnic Ekewe) in Bayelsa State of Nigeria. The study employed survey and correlational research designs. The study population comprised of all public higher institutions in Bayelsa State, Nigeria. The respondents were randomly selected from all sampled higher institutions which comprised of three hundred and forty-three (343) staff. The study used secondary and primary sources of data. The secondary sources comprised of textbooks, journals, accounting professional pronouncements and magazines. The primary source of data was obtained from questionnaire, which was carefully designed and administered to a total of 343 respondents across the tertiary institutions with the application of simple random sampling technique, therefore, responses of the respondents emanated from a five-point Likert rating scale ranging from strongly disagree (1), disagree (2), neutral (3), agree (4) and strongly agree (5). The questionnaire was pre-tested using thirty (30) respondents in Isaac Jasper Boro College of Education, Sagbama and a reliability test was done on the data collected using Cronbach Alpha model, to explore the internal consistency of the questionnaire (Appah, 2020). The result of the reliability test shows that the designed questionnaire has a reliability of 0.78. The data obtained from respondents was presented and analyzed using statistical techniques such as univariate, bivariate and multivariate analysis. This study is guided by the functional relationship to test the hypotheses as presented as follows:

$$CAFM = \beta_0 + \beta_1 BUPG + \beta_2 BUCG + \beta_3 BUMG + \beta_4 BUPA + \beta_5 BURP + \varepsilon \text{ ------------------------ } (1)$$

$$INVM = \beta_0 + \beta_1 BUPG + \beta_2 BUCG + \beta_3 BUMG + \beta_4 BUPA + \beta_5 BURP + \beta_6 MASY + \beta_7 BUPG * MASY + \beta_8 BUCG * MASY + \beta_9 BUMG * MASY + \beta_{10} BUPA * MASY + \beta_{11} BUPA * MASY + \varepsilon \text{ ---------------- } (2)$$

Where:
BUPG = Budgetary Planning, BUCG = Budgetary Coordinating, BUMG = Budgetary Monitoring BUPA= Budgetary Participation, BURP= Budgetary Reporting, INVM= Investment Management MASY = Managerial Style, $\beta_{0-}\beta_5$ = Coefficients, $\beta_{6-}\beta_{11}$ = Coefficient of moderator variable, ε = Standard error. The priori expectation: β_1- β_{11} >0 and statistical software was applied in data analysis.

International Journal of Management Technology 12 (4), 101-128, 2025
Print ISSN: ISSN 2055-0847(Print)
Online ISSN: ISSN 2055-0855(Online)
Website: https://www.eajournals.org/
Publication of the European Centre for Research Training and Development -UK

RESULTS AND DISCUSSION

Table 1: Questionnaire Distribution

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number returned and correctly filled	241	70.3	70.3	70.3
	Number returned and not correctly filled	48	14.0	14.0	84.3
	Number not returned	54	15.7	15.7	100.0
	Total	343	100.0	100.0	

Source: Field Survey (2025) Via **SPSS Output**

Table 1 shows a total of Three Hundred and Forty-Three (343) copies of the questionnaire were distributed to the respondents. Out of this number, Two Hundred and Forty-One (241) representing 70.3% response rates were correctly filled and returned while Forty - Eight (48) copies representing 14.0% were returned but not correctly filled. However, Fifty - four (54) representing 15.7% were not returned. The implication is that the analysis of data will be based on Two Hundred and Forty-One (241) copies of the questionnaire representing 70.3% response rates that were returned and correctly filled.

Table 2: Descriptive Statistics of Budget Planning

S/N	Items	N	Min	Max	Mean	Std. D
1	Budget planning aligns with the organisational strategy of investment management of tertiary institutions	241	1.00	5.00	3.609	1.293
2	Budget planning assists investment management of tertiary institutions	241	1.00	5.00	3.812	1.268
3	Budget planning supports the innovation and growth in the promotion of proper investment management	241	1.00	5.00	3.609	1.365
4	Budget planning ensures that tertiary institutions adhere to actual spending	241	1.00	5.00	3.581	1.273
5	Budget planning reduces the cost of running tertiary institutions true proper budgetary control system	241	1.00	5.00	3.601	1.290
Valid N (listwise)		**241**			**3.642**	**1.298**

Source: Field Survey (2025)

The results in Table 2 depict the descriptive statistics of the mean and standard deviation responses on the budget planning variable using five questionnaire items that were designed on a five-point

Likert scale. Thus, the questionnaire items labelled above and the mean and standard deviation of the five items were calculated to determine the overall mean and standard deviation responses on budget planning. Notwithstanding, all the items are above the cut-off point of 2.5. However, the grand mean and standard deviation responses on the questionnaire items disclosed (**Mean =3.642; Std. D =1.298**) respectively. This implies that budget planning is a significant predictor of investment management of tertiary institutions in Bayelsa State, Nigeria.

Table3: Descriptive Statistics of Budget Coordinating

S/N	Items	N	Min	Max	Mean	Std. D
1	Budget coordinating develops a comprehensive plan that aligns with organizational goals and objectives	241	1.00	5.00	3.709	1.315
2	Budget coordinating implements the budget plans and managing financial resources	241	1.00	5.00	3.486	1.303
3	Budget coordinating promotes transparency and accountability in financial management	241	1.00	5.00	3.522	1.300
4	Budget coordinating provide accurate financial information for informed decisions.	241	1.00	5.00	3.717	1.227
5	Budget coordinating enhances financial discipline and responsibility	241	1.00	5.00	3.932	1.210
Valid N (listwise)		**241**			**3.673**	**1.271**

Source: Field Study (2025)

The results in Table 3 show the descriptive statistics of the mean and standard deviation responses on the budget coordinating variable using five questionnaire items that were designed on a five-point Likert scale. Thus, the questionnaire items labelled above and the mean and standard deviation of the five items were calculated to determine the overall mean and standard deviation responses on budget coordinating. Notwithstanding, all the items are above the cut-off point of 2.5. However, the grand mean and standard deviation responses on the questionnaire items disclosed (**Mean =3.673; Std. D =1.271**) respectively. Therefore, this implies that budget coordinating is a significant predictor of investment management of tertiary institutions' effective financial management in Bayelsa State, Nigeria.

Table 4: Descriptive Statistics of Budget Monitoring

S/N	Items	N	Min	Max	Mean	Std. D
1	Budget monitoring provides the financial tracking of actual expenditures and revenues against budget amounts.	241	1.00	5.00	3.609	1.293
2	Budget monitoring identifies and analyse differences between actual and budgeted amount	241	1.00	5.00	3.812	1.268
3	Budget monitoring addresses budget variances and ensure alignment with financial goals	241	1.00	5.00	3.609	1.365
4	Budget monitoring provides regular financial reports to the organizations	241	1.00	5.00	3.581	1.273
5	Budget monitoring optimizes resource allocation and reduces waste	241	1.00	5.00	3.601	1.290
Valid N (listwise)		**241**			**3.642**	**1.298**

Source: Field Study (2025)

Table 4 represents the descriptive statistics of the mean and standard deviation responses on the budget monitoring variable using five questionnaire items that were designed on a five-point Likert scale. Thus, the questionnaire items labelled above and the mean and standard deviation of the five items were calculated to determine the overall mean and standard deviation responses on budget monitoring. Notwithstanding, all the items are above the cut-off point of 2.5. However, the grand mean and standard deviation responses on the questionnaire items disclosed (**Mean =3.642; Std. D =1.298**) respectively. Consequently, this implies that budget monitoring is a significant predictor of cash flow management of investment management of tertiary institutions effective financial management in Bayelsa State, Nigeria.

Table 5: Descriptive Statistics of Budget Participation

S/N	Items	N	Min	Max	Mean	Std. D
1	Budget participation provides stakeholders with a clear understanding of the budgeting process and financial decisions.	241	1.00	5.00	3.709	1.315
2	Budget participation holds decision makers accountable for their financial decisions	241	1.00	5.00	3.486	1.303
3	Budget participation incorporates diverse perspectives and expertise into the budget process.	241	1.00	5.00	3.522	1.300
4	Budget participation encourages individuals to participate in the budgeting process and take an active role in their organizations.	241	1.00	5.00	3.717	1.227
5	Budget participation provides the allocation of resources in a way that reflects the needs and priorities of stakeholders	241	1.00	5.00	3.932	1.210
Valid N (listwise)		**241**			**3.732**	**1.244**

Source: Field Study (2025)

Table 5 shows the descriptive statistics of the mean and standard deviation responses on budget participation using five questionnaire items that were designed on a five-point Likert scale. Thus, the questionnaire items labelled above and the mean and standard deviation of the five items were calculated to determine the overall mean and standard deviation of responses on budget participation. Although all the items are above the cut-off point of 2.5. However, the grand mean and standard deviation responses on the questionnaire items disclosed (**Mean =3.732; Std. D =1.244**) respectively. So, this implies that budget monitoring is a significant predictor of the investment management of tertiary institutions' effective financial management in Bayelsa State, Nigeria.

Table 6: Descriptive Statistics of Budget Reporting

S/N	Items	N	Min	Max	Mean	Std. D
1	Budget reporting provides stakeholders with a clear understanding of an organisation's financial position and performance.	241	1.00	5.00	3.609	1.293
2	Budget reporting holds decision makers accountable for their financial decisions.	241	1.00	5.00	3.812	1.268
3	Budget reporting provides stakeholders with accurate and timely financial information to inform decision making.	241	1.00	5.00	3.609	1.365
4	Budget participation builds trusts with stakeholders by providing regular and detailed financial information	241	1.00	5.00	3.581	1.273
5	Budget reporting identifies areas for improvement and optimizing financial performance	241	1.00	5.00	3.601	1.290
Valid N (listwise)		**241**			**3.642**	**1.298**

Source: Field Study (2025)

The results in Table 6 portray the descriptive statistics of the mean and standard deviation responses of budget reporting using five questionnaire items that were designed on a five-point Likert scale. Thus, the questionnaire items labelled above and the mean and standard deviation of the five items were calculated to determine the overall mean and standard deviation responses on budget reporting. Notwithstanding, all the items are above the cut-off point of 2.5. However, the grand mean and standard deviation responses on the questionnaire items disclosed (**Mean =3.642; Std. D =1.298**) respectively. So, this implies that budget reporting is a significant predictor of the cash flow management of tertiary institutions' effective financial management in Bayelsa State, Nigeria.

Table 7: Descriptive Statistics of Managerial Style

S/N	Items	N	Min	Max	Mean	Std. D
1	Participative managers are more likely to ensure that investment strategies are both budget-compliant and strategically sound.	241	1.00	5.00	3.6096	1.30803
2	Managers with balanced risk tolerance enable the budgetary system to support well evaluated investments rather than constrain them	241	1.00	5.00	3.7410	1.31783
3	Long term-oriented managers use the budgetary control system as a guide not a limitation for prioritizing high value investments	241	1.00	5.00	3.7729	1.37994
4	Flexible control styles allow budgets to respond to dynamic investment needs, enhancing strategic capital allocation.	241	1.00	5.00	3.6614	1.20036
5	Performance oriented managers align budgetary goals with investment returns, maximizing value creation.	241	1.00	5.00	3.4701	1.27832
Valid N (listwise)		**241**			**3.651**	**1.297**

Source: Field Survey (2025)

The results in Table 7 describe the descriptive statistics of the mean and standard deviation responses of management style using five questionnaire items that were designed on a five-point Likert scale. Thus, the questionnaire items labelled above and the mean and standard deviation of the five items were calculated to determine the overall mean and standard deviation of responses on budget reporting. Notwithstanding, all the items are above the cut-off point of 2.5. However, the grand mean and standard deviation responses on the questionnaire items disclosed (**Mean =3.651; Std. D =1.267**) respectively. So, this implies that management style is a significant predictor of budgetary control systems on investment management of tertiary institutions, effective financial management strategy in Bayelsa State, Nigeria.

Table 8: Descriptive Statistics of Investment Management

S/N	Items	N	Min	Max	Mean	Std. D
1	Investment management determines the optimal mix of asset classes, such as stocks, bonds, and real estates to achieve investment objectives.	241	1.00	5.00	3.374	1.400
2	Investment management selects specific securities within each asset class such as individual stocks or bonds to include in the investment portfolio.	241	1.00	5.00	3.485	1.226
3	Investment management spreads investment across different asset classes, sectors and geographical regions to reduce risk and increase potential returns.	241	1.00	5.00	3.235	1.109
4	Investment management evaluates investment performance using metrics such as return on investment (ROI), sharpe ratio, and benchmark comparison.	241	1.00	5.00	3.853	1.256
5	Investment management regularly review and rebalance investment portfolios to ensure they remain aligned with investment objectives and strategies.	241	1.00	5.00	3.485	1.248
Valid N (listwise)		**241**			**3.486**	**1.248**

Source: Field Survey (2025)

The results in Table 8 presents the descriptive statistics of the mean and standard deviation responses of management style using five questionnaire items that were designed on a five-point Likert scale. Thus, the questionnaire items labelled above and the mean and standard deviation of the five items were calculated to determine the overall mean and standard deviation of responses on budget reporting. Notwithstanding, all the items are above the cut-off point of 2.5. However, the grand mean and standard deviation responses on the questionnaire items disclosed (**Mean =3.486; Std. D =1.248**) respectively. So, this implies budgetary control systems influences investment management of tertiary institutions, effective financial management strategy in Bayelsa State, Nigeria.

Table 9: Correlation Matrices

	INVM	BUPG	BUCG	BUMG	BUPA	BURP	MASY
INVM Pearson Correlation Sig. (2-tailed) N	1 0.00 241						
BUPG Pearson Correlation Sig. (2-tailed) N	0.674 .000 241	1 .000 241					
BUCG Pearson Correlation Sig. (2-tailed) N	0.628 .000 241	0.523 .000 241	1 .000 241				
BUMG Pearson Correlation Sig. (2-tailed) N	0.618 .000 241	0.629 .000 241	0.569 .000 241	1 .000 241			
BUPA Pearson Correlation Sig. (2-tailed) N	0.557 .000 241	0.635 .000 241	0.624 .000 241	0.694 .000 241	1 .000 241		
BURP Pearson Correlation Sig. (2-tailed) N	0.735 .000 241	0.588 .000 241	0.695 .000 241	0.622 .000 241	0.506 .000 241	1 .000 241	
MASY Pearson Correlation Sig. (2-tailed) N	0.563 .000 241	0.525 .000 241	0.611 .000 241	0.643 .000 241	0.604 .000 241	0.627 .000 241	1 .000 241

Source: ***Computed by Author Via SPSS (2025)***

The bivariate analysis was carried out using Pearson's Product-Moment Correlation Coefficient (PPMC), showing the relationship between budgetary control system (budgetary planning, budgetary coordinating, budgetary monitoring, budgetary participation and budgetary reporting), financial management (investment management) and firm management (managerial experience). Table 8 shows a strong and positive (r = 0.674, P = 0.00) relationship between budgetary planning and investment management of tertiary institutions in Bayelsa State, Nigeria; a strong and positive (r = 0.628, P = 0.00) relationship between budgetary coordinating and investment management of tertiary institutions in Bayelsa State, Nigeria; a strong and positive (r = 0.618, P = 0.00) relationship between budgetary coordinating and investment management of tertiary institutions in Bayelsa State, Nigeria; a moderate and positive (r = 0.557, P = 0.00) relationship between budgetary participation and investment management of tertiary institutions in Bayelsa State, Nigeria; a strong and positive (r = 0.735, P = 0.00) relationship between budgetary coordinating and investment management of tertiary institutions in Bayelsa State, Nigeria; and a moderate and positive (r = 0.563, P = 0.00) relationship between management style and investment management of tertiary institutions in Bayelsa State, Nigeria.

Table 10: Multiple Regression Analysis Model One
Dependent Variable: INVM
Method: Least Squares
Date: 07/25/25 Time: 18:12
Sample(adjusted): 1 241
Included observations: 241 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.275444	1.256856	3.401698	0.0188
BUPG	1.285935	0.495662	2.594379	0.0335
BUCG	0.749495	0.302735	2.475761	0.0376
BUMG	0.616547	0.302573	2.037680	0.0463
BUPA	0.853341	0.421846	2.022873	0.0385
BURP	1.234756	0.612637	2.015477	0.0421
R-squared	0.584537	Mean dependent var		12.99346
Adjusted R-squared	0.463324	S.D. dependent var		3.098167
S.E. of regression	2.888766	Akaike info criterion		4.997962
Sum squared resid	1226.711	Schwarz criterion		5.116803
Log likelihood	-376.3441	F-statistic		6.382415
Durbin-Watson stat	2.848014	Prob(F-statistic)		0.000207

Source: e-view output

Table 10 shows the multiple regression analysis for budgetary Control systems and investment management of tertiary institutions in Bayelsa State, Nigeria. The result suggested a positive and significant ($t = 2.594379$, $p = 0.0335 < 0.05$) relationship between budgetary planning (BUPG) and investment management (IVNM) of tertiary institutions in Bayelsa State, Nigeria. The finding also showed a positive and significant ($t = 2.475762$, p value $0.0376 < 0.05$) relationship between budgetary coordinating (BUCG) and investment management (IVNM) of tertiary institutions in Bayelsa State, Nigeria. The result also revealed a positive and significant ($t = 2.037680$, $p = 0.0463 < 0.05$) relationship between budgetary monitoring (BUMG) and investment management of tertiary institutions in Bayelsa State, Nigeria. The findings also indicated a positive and significant ($t = 2.022873$, $p = 0.0385 < 0.05$) relationship between budgetary participation and investment management of tertiary institutions in Bayelsa State, Nigeria. and a positive and significant ($t = 2.015477$, $p = 0.0421 < 0.05$) relationship between budgetary reporting (BURP) and investment management of tertiary institutions in Bayelsa State, Nigeria. Therefore, budgetary control systems (BUPG, BUCG, BUMG, BUPA and BURP) have a significant and positive effects on investment management of tertiary institutions in Bayelsa State, Nigeria. The R^2 (coefficient of determination) of 0.584537 and adjusted R^2 of 0.563324 shows that the variables combined determines about 58% and 46% of investment management of tertiary institutions in Bayelsa State, Nigeria. The F-statistics and its probability shows that the regression equation is well formulated explaining that the relationship between the variables combined affects investment management (CAFM) of tertiary institutions in Bayelsa State, Nigeria. (F-stat = 6.382415; F-pro. = 0.000207).

Table 11: Multiple Regression Analysis Model Two
Dependent Variable: INVM
Method: Least Squares
Date: 07/25/25 Time: 18:36
Sample(adjusted): 1 241
Included observations: 241 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.275444	2.256856	1.451330	0.1488
BUPG	0.285935	0.095662	2.989017	0.0237
BUCG	0.249495	0.106627	2.339885	0.0365
BUMG	0.216547	0.102573	2.111150	0.0238
BUPA	0.275632	0.123481	2.384517	0.0476
BURP	0.273341	0.123184	2.218965	0.0473
MASY	0.293842	0.137482	2.137313	0.0374
BUPG*MASY	0.287452	0.134273	2.182735	0.0342
BUCG*MASY	0.382834	0.182347	2.394851	0.0427
BUMG*MASY	0.238474	0.283415	2.398345	0.0374
BUPA*MASY	0.273341	0.123481	2.123481	0.0476
BURP*MASY	0.234756	0.112637	2.126453	0.0486

R-squared	0.824857	Mean dependent var	12.99346
Adjusted R-squared	0.768473	S.D. dependent var	3.098167
S.E. of regression	2.888766	Akaike info criterion	4.997962
Sum squared resid	1226.711	Schwarz criterion	5.116803
Log likelihood	-376.3441	F-statistic	5.567008
Durbin-Watson stat	2.718372	Prob(F-statistic)	0.000100

Source: e-view output

Table 11 shows the multiple regression analysis for budgetary Control systems and investment management of tertiary institutions in Bayelsa State, Nigeria. The result suggested a positive and significant (t = 2.989017, p = 0.0237< 0.05) relationship between budgetary planning (BUPG) and investment management (IVM) of tertiary institutions in Bayelsa State, Nigeria. The finding also showed a positive and significant (t = 2.339885, p value 0.0365 < 0.05) relationship between budgetary coordination (BUCG) and investment management (IVNM) of tertiary institutions in Bayelsa State, Nigeria. The result also revealed a positive and significant (t = 2.111150, p = 0.0238 < 0.05) relationship between budgetary monitoring (BUMG) and investment management of tertiary institutions in Bayelsa State, Nigeria. The findings also indicated a positive and significant (t = 2.384517, p = 0.0473 < 0.05) relationship between budgetary participation and investment management of tertiary institutions in Bayelsa State, Nigeria. The result also revealed a positive and significant (t = 2.218965, p = 0.0473 < 0.05) relationship between budgetary reporting (BURP) and cash flow management and investment management of tertiary institutions in Bayelsa State, Nigeria. Furthermore, the result suggested a positive and significant (t = 2.182735 p = 0.0374 < 0.05) relationship between management style and investment management of tertiary institutions in Bayelsa State, Nigeria. Therefore, budgetary control systems and management style (BUPG, BUCG, BUMG, BUPA, BURP and MASY) have a significant and positive effects on investment management of tertiary institutions in Bayelsa State, Nigeria. The R^2 (coefficient of determination) of 0.824857and adjusted R^2 of 0.768473 shows that management style moderates the variables combined determines about 82% and 77% of investment management of tertiary institutions in Bayelsa State, Nigeria. The F-statistics and its probability shows that the regression equation is well formulated explaining that the relationship between the variables combined affects investment management (IVNM) of tertiary institutions in Bayelsa State, Nigeria. (F-stat = 5.567008; F-pro. = 0.000100).

DISCUSSION OF FINDINGS

The paper makes vital contributions to existing body of knowledge on managerial style, budgetary system and effective financial management. First, the result established that budgetary planning had a significant positive effect on investment management (financial management). This outcome aligned with the previous findings of Ariyo-Edu and Woli-Jomh (2024), Halwiidi and Mwanzi (2022), Isibor et al (2022), Alade et al. (2020), and Olaniyan and Efuntade (2020) who emphasize the central role of the budgeting planning on financial performance of public sector entities. However, the finding disagrees with the study of Lyndon and Joseph (2019) study, stating that there is no significant linkage between budgeting and performance in Bayelsa State. Hence, the empirical evidence of the present study supports the statement and further suggests that an increase in budgetary planning would lead to an increase in investment management of tertiary institutions' financial management structure in Bayelsa State. The second finding of this paper is that budgetary coordination had a positive and significant effect on investment management. This result is consistent with the investigation performed by Susuawu (2020) in Ghana that budget coordination had a positive and significant impact on the performance of small and medium enterprises. Similarly, the findings agree with the study carried out by Ariyo-Edu and Woli-Jomh (2024). This result suggests that budgetary coordination would lead to an increase in investment management. The third finding of this paper is that budget monitoring had a positive and significant impact on investment management. The finding supports the outcome of the investigation conducted by Isibor et al (2022), Owolabi et al (2020) that budget monitoring influences the financial performance of organisations. However, the findings of the study disagree with Lyndon and Joseph (2019) study, stating that there is no significant connection between budgeting and performance in Bayelsa State. The fourth finding of this paper is that budget participation had a significantly positive effect on investment management. Consequently, the empirical evidence of the present study supports the statement and further suggests that an increase in budget participation improves investment management. The fifth finding reveals that budget reporting had a positive and significant impact on investment management. Hence, the empirical evidence of the present study supports the statement and further suggests that an increase in budgetary reporting would lead to an increase in investment management of tertiary institutions' financial management structure in Bayelsa State. The sixth contribution of this study is the moderating role of management style on the relationship between budgetary control and cash flow management of tertiary institutions' financial management structure in Bayelsa State. The findings suggest that managerial style had a positive moderating effect on the relationship between budgetary control and investment management. Therefore, the empirical evidence of the present study supports the statement and further suggests that an increase in managerial style would lead to an increase in budgetary control systems and investment management of tertiary institutions' financial management structure in Bayelsa State.

CONCLUSION, POLICY IMPLICATIONS, LIMITATIONS AND FURTHER RESEARCH

This study examined the moderating role of managerial style on budgetary control systems and investment management of tertiary institutions' financial management structure in Bayelsa State. The paper employed univariate, bivariate and multivariate statistics to find out if the change in managerial style, budgetary planning, budgetary coordination, budgetary monitoring, budgetary participation and reporting affects the investment management of tertiary institutions' financial management structure in Bayelsa State. The result from our analysis indicates a strong and positive association between managerial style, budgetary planning, budgetary coordination, budgetary monitoring, budgetary participation, and reporting affects the investment management of tertiary institutions' financial management structure in Bayelsa State. This demonstrates that an effective budgetary control system would improve investment management in tertiary institutions in Bayelsa State. The results also demonstrated that managerial style had a positive and significant moderating effect on the association between budgetary control and investment management of tertiary institutions in Bayelsa State, Nigeria. Based on the findings, the paper concludes that budgetary control systems are a significant determinant of investment management of tertiary institutions in Bayelsa State. Also, managerial style moderates a significantly positive association between budgetary control systems and investment managerial of tertiary institutions in Bayelsa State.

The findings that managerial style positively and significantly moderates the association between budgetary control systems and investment management has several key policy implications, especially for tertiary institutions. These implications affect how institutions structure decision-making, allocate resources, and develop leadership capabilities. Tertiary institutions should formulate polices that encourages adaptive and participative managerial styles, as these have been shown to enhance the effectiveness of budgetary controls in influencing sound investment decisions. Since participative and transformational managerial styles promote transparency, inclusiveness, and alignment of budgetary goals with long-term investment strategies. Tertiary institutions recruitment, promotion, and training policies should priorities leadership competencies that align with effective budgetary competences and investment management. This is because leaders who demonstrate strategic thinking, financial acumen, and inclusive decision making can better leverage budgetary systems to drive investment decisions. Tertiary institutions policies should explicitly connect budgetary control frameworks with strategic investment planning, ensuring that managerial style considerations are embedded in both. Since a cohesive policy framework ensures consistency and accountability in how budget information is used to guide capital and infrastructural investment. Tertiary institutions should introduce performance evaluation mechanisms that consider how managers apply their style to enhance the efficiency of budgetary control and investment decisions. Since rewarding managerial behaviours that strengthen the connection between budgetary discipline and prudent investment can improve institutional financial health. Tertiary institutions should encourage a decentralized approach to budgeting and investment that allows departmental heads or units to exercise leadership in resource allocation within clear control systems.

The study offered significant and insightful results, but with limitations. Managerial styles are often influenced by organizational culture, national values, and institutional frameworks. What is effective in one tertiary institution may not be applicable elsewhere. Hence, this contextual specificity limits the generalizability of findings across different regions or types of institutions. Measuring management style can be subjective and prone to bias, especially when relying on self-reports or perception-based surveys. Hence, inaccurate measurement may weaken the validity of the moderating effect or produce spurious corrections. This study examined the relationship between the variables using cross – sectional analysis, that captured the dynamic interaction between the variables overtime. Hence, this design makes it difficult to infer causality or observe how managerial style evolves with changes in budgetary or investment conditions. The study focused on formal classifications without considering informal leadership practices that may significantly impact budgeting and investment decisions. This can oversimplify the real influence of managerial behaviour on financial management processes.

Future research should adopt longitudinal designs to observe how the moderating role of managerial style evolves over time in relation to changes in budgetary control practices and investment outcomes. Further studies should be conducted to compare different types of tertiary institutions or institutions in different regions that could yield deeper insights into contextual differences. Also, future studies could be carried out to incorporate both qualitative and quantitative methods to explore not only the statistical significance of managerial style but also the lived experiences and decision-making narratives of institutional leaders. Additionally, future research can be done to investigate how digital transformation and the use of financial management information systems interact with managerial styles to influence budgetary control and investment outcomes. Furthermore, future studies could explore whether managerial style not only moderates but also mediates or interacts with other factors such as organizational structure, institutional autonomy or staff capacity.

Acknowledgement

We would like to express our profound gratitude and deep regards, especially to the Tertiary Education Trust Fund (TETFUND) for the provision of the grant (funding) for this research project and Isaac Jasper Boro College of Education, Sagbama, Bayelsa State, Nigeria for the enabling environment to conduct and complete the study.

REFERENCES

Akintoye, E. O. & Odeh, L. O. (2022). The effects of managerial style on decision making in organizations. *Journal of Sustainable Development in Africa,* 24(1), 27 – 41.

Appah, E. (2017). *Cost Accounting: Theory and Application,* Convince Concept.

Appah, E. (2022). *Financial Management: Theory, Strategy and Practice.* Ezevin Minting Printing Enterprises.

Appah, E. (2023). *Management Accounting: A performance measurement approach.* Ezevin Minting Printing Enterprises.

Appah, E. (2020). *Research Methodology: Principles, Methods and Techniques,* Vinson Printing and Publishing Enterprises.

Ariyo-Edu, A. A., & Woli-Jomh, I. A. (2024). Budgeting and budgetary control and public sector performance: A study of public sector in Kwara State, Nigeria. *Fuoye Journal of Finance and Contemporary Issues, 6(1),* 15-30.

Banda, M. & Mwange, A. (2023). Corporate governance: A theoretical review. *European Journal of Business and Management, 15(16),* 60 – 71.

Bello, E. O. & Oredein, A. O. (2023). Principal managerial styles and organizational commitment among secondary school teachers in Oyo State, Nigeria. GEN *Multidisciplinary Journal of Sustainable Development, 1(2),* 137 – 150.

Bello, E. O. & Oredein, A. O. (2022). School climate, principal managerial style and organizational commitment among junior secondary school teachers in Oyo State, Nigeria. *International Journal of Research, 10(7),* 51 – 69.

Ben-Caleb, E., Madugba, J. U. & Innocent, F. I. (2022). Budgetary control and organizational survival: Evidence from manufacturing firms in Nigeria. *Universal Journal of Financial Economics, 1(1),* 1 – 13.

Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. J. (2020). The psychological impact of quarantine and how to reduce it: Rapid review of the evidence. *The Lancet*, *395*(10227), 912–920. https://doi.org/10.1016/S0140 6736(20)30460-8.

Dare, C. T., Akinola, A. O., & Wahab, A. O. (2022). Government budgets and economic development in Nigeria: An empirical investigation. *International Journal of Social Sciences and Management Research*, *8(5)*, 123 135

Davis, J.H.; Schoorman, F.D.; & Donaldson, L. (2018). Toward a stewardship theory of management. In *Business Ethics and Strategy;* Routledge: Milton Park, UK,.

Davis, G. F., & DeWitt, T. (2021). Organization theory and the resource-based view of the firm: The great divide. *Journal of Management, 47:* 1684–1697.

Drury, C. (2021), *Management and Cost Accounting, 11th ed.*, Cengage Learning, Hampshire.

Dubey, S., Biswas, P., Ghosh, R., Chatterjee, S., Dubey, M. J., Chatterjee, S., Lahiri, D., & Lavie, C. J. (2020). Psychosocial impact of COVID-19. Diabetes & Metabolic Syndrome: Clinical Research & Reviews, 14(5), 779–788. https://doi.org/10.1016/j.dsx.2020.05.035

Egbunike, P.A. & Unamma, A. N. (2017). Budgeting, budgetary control and performance evaluation: Evidence from hospitality firms in Nigeria. *Studies and Scientific Researchers Economic Education, 26,* 23 – 31.

Egwu, E. M., Orugun, F. I. & Adelakun, A. (2021). Exploration of cash flow management for enterprise's business performance. *Asian Journal of Economics, Business and Accounting, 21(10),* 97 – 105.

Etale, L. & Idumesaro, B. (2021). Assessing the relationship between budgetary control and performance: A case study of Bayelsa State, Nigeria. *Journal of Public Administration, 30(2),* 88-104.

Eunice, R. C., & Iwedi, M. (2024). Public sector financial management reforms and government expenditure in Nigeria. *Finance and Accounting Research Journal, 6(4),* 567-579

Glynn, M. A. (2020). Rediscovering the macrofoundations of institutions: Reflections on the language of institutional theory. In C. W. J. Steele, T. R. Hannigan, V. L. Glaser, M. Toubiana, & J. Gehman (Eds.), Macrofoundations: Exploring the institutionally situated nature of activity. Research in the sociology of organizations, 68: 203–220. Bingley, U.K.: Emerald Publishing.

Harney, B. (2023). *Contingency theory.* In S. Johnstone, & A. Wilkinson (Eds.), Encyclopedia of Human Resource Management: 470: Edward Elgar.

Harney, B. & Collings, D. G. (2021). Navigating the shifting landscapes of HRM, *Human Resource Management Review, 31(4),* 1-9.

Irawan, A. P. Supriyatna, E., Widjaja, I. & Lin, L. L. C. (2021). The Implementation of basic principles of financial management to improve higher education reputation," in Proceedings of the *International Conference on Economics, Business, Social, and Humanities*, Atlantis Press, 1510–1514.

Isaac, A., Ojeme, S. S. & Olusegun, A. A. (2024). Budgetary control and public sector financial management in Nigeria. *International Journal of Advanced Multidisciplinary Research and Studies, 4(4),* 603 – 608.

Iyoha, A. E. (2021). Impact of budgeting and budgetary control in tertiary institutions. A Case Study of Edo University, Iyamho, Edo State. *African Scholar Journal of Humanities and Social Sciences.* 20(6):12-22.

Jayalakshmi, M., Shetty, J. H., Poornima, H., Sumithra, N., Vernekar, C. R. M. & Shedthi, A. (2023). Impact of the budgetary control on organisation performance. *Journal of Survey in Fisheries Sciences*. 10(3S):1664-1670.

Katana, H. W., Atieno, M. & Wanyana, S. M. (2022). Budgetary control and financial performance of listed manufacturing firms in Kenya: Application of liquidity control. *International Journal of Advanced Research Publications, 5(10),* 33 – 41.

Matsoso, M. L., Nyathi, M. & Nakkpodia, F. A. (2021). An assessment of budgeting and budgetary controls among small and medium–sized enterprises: Evidence from a developing economy. *Journal of Accounting in Emerging Economy, DOI 10.1108/JAEE-04-2020-008.*

Mehryar, S., & Surminski, S. (2021). National laws for enhancing flood resilience in the context of climate change: Potential shortcomings. *Climate*, 133-151.

Mihajlović, M., Tadin, D. & Gordić, B. (2020). The role of financial management in the company, *Tehnika*, *75(4)*, 498–503, doi: 10.5937/tehnika2004498M.

Murtaza, S.A., Mahmood, A., Saleem, S. Ahmad, N., Sharif, M.S. & Molnár, E. (2021). Proposing stewardship theory as an alternative to explain the relationship of CSR and employees' engagement in pro-environmental behavior. *Sustainability*, 13, 8558. https://doi.org/10.3390/ su13158558.

Ogiriki, O., Atagboro, E. & ogoun, S. (2020). Impact of cash flow on the performance of consumer goods companies in Nigeria. *Niger Delta Journal of Management Sciences, 1(4),* 1–21.

Oluwaseun, A. A. & Agwu, O. N. (2020). Budgetary Control and Public Service Delivery in Nigeria: A Case Study of Lagos State. *International Journal of Business and Management.* 15(1):157-170

Olaniyan, N.O. & Efuntade, L.O. (2020). Budget and the budgetary control system in tertiary institutions' financial performance in Nigeria. *KIU Interdisciplinary Journal of Humanities and Social Sciences*, *1(2),* 281-302

Owolabi, S. A., Kwarbai, J.D., & Olasehinde, O. J. (2020). Budgetary control and financial performance of insurance companies in Nigeria. *The International Journal of Business and Management*, *8(7)*, 312 – 317.

Romenska, K., Chentsov, V., Rozhko, O., & Uspalenko, V. (2023). Budget planning with the development of the budget process in Ukraine. University of Ukraine Printing Press.

Ross, T. K. (2020). Budgeting for results. *Health Manager, 39(1)*, 24-34

Sharma, M. & Aruna, S. (2022). Stewardship in organizations: A theoretical view. Journal of Fundamental and Comparative Research, VII I(111), 16 – 22.

Sitinjak, C., Johanna, A., Avinash, B. & Bevoor, A. (2023). Financial management: A system of relations for optimizing enterprise finances – a review. Journal of Markout Finance, 1(3), 160 – 170.

Sukenti, S. (2023). Financial Management Concepts: A review. *Journal of Contemporary Administration and Management, 1(1)*, 13 – 16.

Susuawu, D. (2020). The application of budgets and budgetary control on the performance of small and medium–sized enterprises in Ghana. *Journal of Accounting, 8(5),* 1 – 18.

Susuawu, D. (2020). The application of budgets and budgetary control on the performance of small and medium – sized enterprises in Ghana. *Journal of Accounting, 8(5)*, 1 – 18.

Torfing, J. & Bentzen, T. O. (2020). Does stewardship theory provide a viable alternative to control fixed performance management. *Administrative Sciences,* 10, 86, doi:10.3390/admsci.10040086.

Weik, E. (2019). Understanding institutional endurance: The role of dynamic form, harmony, and rhythm in institutions. *Academy of Management Review, 44:* 321–335.