



The Effect of Budget Formulation on the Public Sector Effectiveness Moderated by Participative Budgeting in Addis Ababa City Administration

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ABSTRACT

KEY WORDS

Approval, Budget, Effect, effectiveness, formulation

Budget formulation, the process of creating and developing a government's budget, plays a crucial role in determining the effectiveness of public sector organizations. The budget serves as a financial plan that allocates resources and guides the implementation of government policies and programs. The effectiveness of budget formulation can be influenced by various factors, including the moderating variable of participative budgeting. The study conducted in the Addis Ababa City Administration aimed to assess the effect of budget formulation on public sector effectiveness, with the moderating variable of participative budgeting. The research employed a pragmatic research paradigm and a mixed research approach, combining qualitative and quantitative data collection methods. Quantitative data were collected through a 7-point Likert scale questionnaire administered to employees working in selected public sectors. The research utilized a combination of probabilistic and non-probabilistic sampling methods. The population size of the study was 4580, and a sample of 368 employees was selected, with 346 questionnaires returned. Once the data was gathered, it was analyzed using SPSS version-26 and AMOS-23. The analysis focused on factors related to budget formulation, including strategic planning, budget preparation, the competence of human resources, and budget approval. The study also examined the influence of participative budgeting as a moderating variable on the effectiveness of public sectors. The findings of the study were presented using descriptive and explanatory research techniques, leading to a discussion of the results. The study revealed a direct and significant positive relationship between the independent variables (strategic planning, budget preparation, budget approval, competence of human resources) and the dependent variable (organizational effectiveness). Additionally, the study found a significant effect of the moderating variable, the participative budget. Based on the results, the study suggests that to achieve effectiveness in the public sector, the city administration's public sectors should consider strategic planning, participative budgeting, and the revision of the existing line-item budget system during budget formulation. These factors contribute to improving organizational effectiveness in the public sectors examined in the study.

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1. Background of the Study

Effective budget formulation is the process of developing a well-structured and comprehensive budget plan for an organization. It involves setting financial goals, estimating revenues and expenses, and strategically allocating resources (Bryson, 2018). Effective budget formulation requires careful analysis, collaboration, and strategic decision-making. It enables organizations to allocate resources efficiently, align spending with organizational goals, and ensure financial stability and accountability (Magaya, Marango, Mutongoreni, Francis, & Kamuzhanje, 2018).

Various studies have examined different aspects of budgeting in various contexts. For example, Dunk (2009) discovered a positive correlation between budgetary participation and managerial performance in nonprofit organizations, while Osebo, Debebe, and Eshetu (2019) highlighted inadequate budgetary control practices in government-owned firms. Isaboke (2014) noted a gap between budget objectives and organizational performance, and Asefa (2007) and Tilahun (2010) identified challenges in budgeting processes in public sectors. Abera (2014) emphasized the connection between transparency, accountability, and effective fund utilization in public schools, and Ketema (2015) found challenges in budget utilization in the health sector. Taye (2016) discussed budget allocation challenges in Ethiopia's public sector, and Elias (2018) and Darge (2018) identified shortcomings in budget implementation and control in specific administrative bureaus.

In general, the effectiveness of public sector organizations is closely tied to their budget formulation processes. Several theories provide valuable insights into how budget decisions are made and how they impact organizational performance. In addition, the studies mentioned above in this study examine the application of key theories - participative budgeting theory, rational choice theory, public choice theory, stewardship theory, and bureaucracy theory - to understanding budget formulation and its effect on public sector effectiveness.

Participative budgeting theory suggests that involving stakeholders, such as employees, citizens, and community groups, in the budget formulation process can lead to positive outcomes that enhance organizational effectiveness (Johnson, 2017). This theory is grounded in the principles of participatory governance, which aims to expand public participation in decision-making (Wampler, 2012). By incorporating diverse perspectives, participative budgeting can improve the alignment of budgetary decisions with the needs and priorities of the organization and its stakeholders.

Rational choice theory posits that budget decisions in the public sector are made through a systematic evaluation of options, costs, benefits, and trade-offs, with the goal of aligning budgetary choices with organizational objectives (Padgett, 1980; Green, 2002). This theory emphasizes the importance of a logical and analytical approach to budget formulation, where decision-makers carefully weigh the potential impacts of different budget scenarios on organizational performance and societal outcomes.

Public choice theory examines how the self-interests and preferences of various stakeholders, including politicians, bureaucrats, and interest groups, influence public sector budget decisions (Zahariadis, 2003; Chandler, 2016). This theory highlights the need to understand the incentives and constraints faced by different actors in the budgeting process, as well as the potential for conflicts of interest or rent-seeking behavior that can undermine the effectiveness of budget decisions.

Stewardship theory offers an alternative perspective, suggesting that public sector leaders can be intrinsically motivated to act as "stewards" who prioritize the long-term success and sustainability of the organization and its stakeholders, rather than being driven primarily by self-interest (Van Slyke, 2007; Stritch & Christensen, 2016; Schillemans & Bjurstrøm, 2020). This theory has important implications for enhancing public sector effectiveness and accountability in budget formulation, as it suggests that public sector leaders can be trusted to make budget decisions that serve the greater good.

Finally, bureaucracy theory examines the role of formal structures and processes in budget formulation, highlighting both the challenges and the potential benefits of bureaucratic systems (Nkeobuna & Ugoani, 2019; Ketema, 2015; Luh et al., 2019). While bureaucratic structures can introduce rigidity and inefficiencies, they can also provide a framework for ensuring transparency, accountability, and equitable resource allocation in the budget formulation process.

By integrating these theoretical perspectives and gaps identified from the previous studies, this study aims to provide a comprehensive understanding of the factors that influence budget formulation and its effect on the effectiveness of public sector organizations of Addis Ababa's city administration moderated by Participative budgeting. The findings can inform policy recommendations and best practices for improving budget processes and enhancing public sector effectiveness, academicians, and practitioners. To achieve this, a combination of descriptive, explanatory, and Structural Equation Modeling (SEM) approaches were employed, utilizing both quantitative and qualitative data. In addition, the current study has answered the following question

2. Research Question

What are the effects of budget formulation on organizational effectiveness, in the case of the Addis Ababa city administration?

3. Theoretical review

3.1 Participative Budgeting Theory

Participative budgeting refers to a budget formulation process that actively involves stakeholders, such as employees, citizens, community groups, or interest groups, in decision-making (Johnson, 2017). The theory argues that when stakeholders have the opportunity to participate in budget formulation, it can lead to several positive outcomes that contribute to organizational effectiveness. In addition, this theory suggests that involving stakeholders in the budget formulation process through participative

mechanisms can enhance the effectiveness of public sector organizations.

Participatory budgeting falls under the umbrella of participatory governance, which encompasses a range of reforms aimed at expanding public participation in political decision-making processes. It involves granting citizens a formal role in decision-making beyond voting, allowing them to jointly control policy-making venues alongside government officials (Wampler 2012: 669).

3.2 Rational Choice Theory

Rational decision theory, also known as rational choice theory, is an approach in decision-making that assumes individuals or organizations make choices based on a rational and logical evaluation of available options. It posits that decision-makers aim to maximize their outcomes or utility by selecting the option that yields the greatest benefits or value given the available information and resources (Eriksson, 2011). The theory of rational decision-making in budget formulation posits that public sector organizations analyze available options and their expected outcomes systematically. Decision-makers carefully consider costs, benefits, risks, and trade-offs associated with different budgetary choices (Padgett, 1980). The effectiveness of budget formulation depends on the rationality of decision-making processes and the alignment of budgetary decisions with organizational goals. By following a logical and analytical approach, decision-makers can prioritize budgetary options that best support organizational objectives, leading to informed and effective budgetary decisions (Green, 2002).

3.3 Public Choice Theory

Public choice theory is an economic and political theory that applies the principles of rational decision-making to the analysis of public and political decision-making processes. It seeks to understand how individuals and groups make choices in the realm of politics and public policy, considering the incentives, motivations, and constraints they face (Zahariadis, 2003). Public choice theory applies economic principles to the analysis of public sector decision-making. It suggests that budget formulation is influenced by the self-interest and preferences of various stakeholders, such as politicians, bureaucrats, and interest groups (Chandler, 2016). The effectiveness of budgetary decisions depends on the extent to which they align with the preferences of key actors and promote efficient resource allocation.

3.4 Stewardship Theory

Stewardship Theory is a management and governance theory that suggests that organizational leaders can be motivated to act as "stewards" who prioritize the long-term success and sustainability of the organization and its stakeholders, rather than being driven primarily by self-interest. Stewardship theory has gained increasing attention in the public administration literature, offering a valuable lens for understanding the relationship between public sector leaders and their organizational stakeholders. In the context of public sector effectiveness and budgeting, stewardship theory provides important insights. Recent studies have explored the application of stewardship theory to improve public sector performance and budgeting outcomes. One key

aspect is the alignment of goals between public managers and the broader public interest.

Stewardship theory posits that public managers can be intrinsically motivated to act as stewards, prioritizing the needs of the organization and the citizens it serves over their own self-interests (Van Slyke, 2007; Stritch & Christensen, 2016). This contrasts with the traditional principal-agent perspective, which assumes that public managers are primarily driven by self-interest and must be monitored and controlled. In the budgeting domain, stewardship theory suggests that public managers can be trusted to make resource allocation decisions that maximize public value, rather than pursuing personal or political gains (Schillemans & Bjurstrøm, 2020). By empowering public managers as stewards, organizations can foster a culture of transparency, accountability, and ethical decision-making in the budgeting process.

Furthermore, stewardship theory highlights the importance of creating organizational structures and incentives that align the goals of public managers with those of the broader public (Van Slyke, 2007; Schillemans & Bjurstrøm, 2020). This may involve providing public managers with the necessary resources, autonomy, and decision-making authority to effectively manage public funds and deliver high-quality public services.

Recent empirical evidence supports the potential of stewardship theory in enhancing public sector effectiveness and budgeting outcomes. Studies have found that stewardship-oriented leadership and organizational cultures are associated with improved

financial management practices, greater transparency, and higher levels of public trust and satisfaction (Stritch & Christensen, 2016; Schillemans & Bjurstrøm, 2020). For instance, Stritch and Christensen (2016) found that public employees with a stronger sense of public service motivation and organizational commitment were more likely to engage in environmentally sustainable practices, which can contribute to improved public sector effectiveness and resource management. Similarly, Schillemans and Bjurstrøm (2020) observed that stewardship-oriented budgeting practices, such as collaborative decision-making and performance-based allocation, were associated with higher levels of public value creation.

3.5 Bureaucracy Theory

The influence of bureaucracy on budget formulation is further explored by Nkeobuna and Ugoani (2019), who examined budget management and organizational effectiveness in the Nigerian public sector. They found that rigid bureaucratic structures can hinder the flexibility and responsiveness needed for effective budget planning and execution. Ketema (2015) similarly noted that overly centralized budget preparation processes in the Addis Ababa City Administration Health Bureau led to suboptimal resource allocation and utilization.

On the other hand, a certain degree of bureaucratic structure can also support budget formulation and organizational performance. Luh et al. (2019) found that the competence of human resources involved in the budgeting process, combined with a strong organizational commitment, can positively influence budget planning and implementation within a

bureaucratic system. Therefore, the relationship between bureaucracy, budget formulation, and organizational effectiveness is complex, requiring a balance between formal structures and flexible, responsive processes

4. Review of Literature

A budget is a consolidated representation of an organization's financial elements and serves as a planning tool for resource allocation (Sharma, 2018). It outlines a plan of action for a specific period and guides organizational activities (Hornngren et al., 2014). Good budget formulation and implementation are essential for achieving organizational goals and evaluating performance. In addition, budgeting involves planning, while budgetary control ensures adherence to the plan (Joshua & Mohammed, 2013).

Budgets also facilitate the communication of objectives and expectations within an organization (Hornngren et al., 2014). In the context of national budgeting in Ethiopia, the Financial Calendar and the Macro-Economic and Fiscal Framework (MEFF) guide budget practices (Yimer, 2015). The budget process in Ethiopia includes stages such as preparation, approval, execution, and control. In summary, budgets serve as planning tools, facilitate communication, and play a crucial role in economic policy and resource allocation. In Ethiopia, the budget process follows a four-stage approach, guided by the Financial Calendar and the MEFF.

Strategic Planning and the Public Sector Effectiveness

Strategic planning is a crucial process in an administration that involves organizing activities, delegating authority, and establishing relationships to achieve mutual objectives. It is considered the most important aspect of administration (Steiner, 2010). Effective strategic planning involves preparing strategies and procedures to accomplish organizational objectives and allocate resources to achieve goals.

Planning, as discussed by Jimenez (2014), is a component of budgeting systems that encompasses long-range, strategic, and short-term planning. Short-term budgeting requires considering the organization's present environment and available resources. Planning involves setting objectives and identifying necessary actions to achieve them. It is a forward-looking process closely tied to budgeting, enabling the organization to evaluate its progress toward goals and objectives. Blumentritt (2006) suggests that organizations should integrate budgeting and strategic planning, but many still treat them as separate processes. (Mbugua, 2013) found that budgets are primarily used to implement short-term operational plans, with the majority of long-term plans being implemented before a planned budget is in place.

Proper strategic planning is crucial for setting priorities and establishing a planning control cycle within organizations. With numerous activities to be carried out, prioritization becomes necessary (Nartisa, Putans, & Muravska, 2012). Budgets are

formulated in advance of budget periods, based on anticipated circumstances or environments. Long-term planning involves making significant decisions, and the annual budgeting process refines these plans by requiring managers to create detailed plans for implementing long-range strategies. Without the annual budgeting process, managers may neglect planning for future operations due to immediate operational pressures (Regan, & Brown, 2021).

Following the steps in the strategic planning process, as outlined by Ongong (2013), is expected to enhance organizational effectiveness and enable the achievement of goals and objectives. Bryson (2018) supports the idea that aligning the budget with strategic planning serves as a managerial tool to effectively organize and formalize the planning process for an organization's goals and objectives. Additionally, it acts as a financial tool for monitoring, evaluating, and aiding in future planning. However, in practice, it is often observed that public sectors fail to align their budgets with their strategic planning and established management processes. Strategic planning provides a structured approach for organizations to define their goals, allocate resources, prioritize activities, adapt to changes, measure performance, and align efforts. By doing so, strategic planning significantly influences organizational effectiveness by enhancing focus, efficiency, adaptability, and coordination, ultimately leading to the achievement of desired outcomes (Kabeyi, 2019)

H₁: Strategic planning has a positive and significant effect on organizational effectiveness

Budget Preparation and the Public Sector Effectiveness

The process of budget preparation involves careful attention from the budget user, as it is the means of translating the overall objectives of the organization into a detailed, feasible plan of action. Igbinosun and Ohiokha (2012) emphasize the importance of budget preparation for public organizations, noting that it needs important energy, period, and expense. The budget serves as the financial expression of a country's plan for a specific period, and budget preparers need to carefully consider their previous budget and make adjustments based on expected changes for the next period. The prepared budget serves as a blueprint detailing how an organization will allocate and spend its funds. It provides a clear plan on how the organization intends to use its financial resources and identifies the sources from which funds will be obtained to cover these expenses (Shim, Siegel, & Shim, 2011).

Budget preparation involves identifying activities based on their priority. This ensures that the most important needs of the budget user are met first, while less important needs are deferred until sufficient funds are available. Shah (2007) mentions that budget preparation typically takes several months and involves all budgetary institutions. In Ethiopia, the process includes steps such as preparing the macro framework, allocating public expenditures between federal and regional governments, allocating between recurrent and capital budgets at the federal level, budget call and ceiling notification by the Ministry of Finance, submission of the budget proposal, budget hearing

with the Ministry of Finance, review and recommendation by the Ministry of Finance, submission to the Council of Ministers, submission to the Council of Peoples' Representatives, notification, publication, and allotment.

The Ministry of Finance plays a central role in managing the budget preparation process, including approving policy priorities, aligning ministry plans with resource needs, and facilitating government review and approval (Ababa, 2017). Budget preparation involves making decisions on allocating limited resources to competing demands and should be informed by strategic planning. Through this process, management can effectively organize and allocate resources, evaluate performance, and make adjustments when needed. When formulating budgets to assess and improve organizational performance, managers face numerous choices and decisions.

H₃: Budget preparation has a positive and significant effect on organizational effectiveness

Budget Approval and the Public Sector Effectiveness

Once a budget preparation is completed it has to be approved by the legislative body to become effective (Shaw, 2016). At the budget approval stage, legislators had a detailed discussion on the executive's budget. The legislators can accept it as it is or accept it with some amendments and adjustments. The process concludes when the legislature adopts the budget, either in its original form or with modifications. During the budget

approval stage, the legislature has the option to accept or reject the proposed budget, and in certain countries, they may substitute it with their proposal (Gomes, 2017). Conversely, Wehner and Byanyima (2004) contended that active involvement of the legislature in the budget process establishes mechanisms for oversight and accountability, which are crucial for promoting transparency and ensuring the effective provision of public services.

Posner and Park (2018) also discuss that the budget enactment stage grants the legislature the opportunity to deliberate and ultimately endorse the budget. This phase typically commences with the executive formally presenting the budget to the legislature. The legislature engages in discussions surrounding the budget, often entailing extensive work within legislative committees. During the budget approval phase, public hearings take place, allowing members of civil society to provide input on the budget proposal. It is generally during the budget refinement stage that public interest in the budget is at its peak, and the media plays a significant role in widely disseminating information about the budget (Amenu, 2016). Thus, budget approval is essential for effective resource allocation, goal alignment, performance measurement, decision-making, and control within an organization. It establishes financial discipline, promotes accountability, and drives efficiency, all of which contribute to organizational effectiveness by ensuring that financial resources are managed strategically and efficiently in pursuit of the organization's goals and objectives (McKinney, 2015).

H₅: Budget approval has a positive and significant effect on organizational effectiveness

Competence of Human Resources and the Public Sector Effectiveness

The competence of human resources working in budget formulation within the public sector has a significant effect on the effectiveness of government organizations and agencies. The competence of employees refers to the knowledge, skills, abilities, and expertise they possess to perform their roles and responsibilities effectively in the budget formulation (Syarifuddin, & Sjarlis, 2022). Public sector effectiveness, on the other hand, relates to the extent to which government organizations achieve their objectives and deliver quality services to the public.

Competency in human resources is a vital component for enhancing the effectiveness of governmental, non-governmental, and private organizations. To effectively conduct their operations, organizations must ensure they have competent personnel who possess the necessary knowledge and skills to execute budgetary control processes and procedures efficiently and effectively (Horngren, et al., 2014). For organizations to thrive in budgetary control, it is essential to have knowledgeable and skilled employees who can proficiently execute budgetary control measures and effectively implement budgetary control processes and allocations. The success of budgetary control within an organization is centered on the recognition and appreciation of the importance of strong interpersonal relationships among employees across different job levels, particularly within top management. Senior management can inspire and

motivate lower-level employees through their practices in budgetary control. It is crucial to acknowledge that organizational culture, management style, and attitudes toward employees significantly influence the approach to budgeting within a firm (Raghunandan, et al., 2012). The accomplishment of organizational objectives is heavily reliant on the quality and capabilities of its human resources. In the context of public sector organizations, human resources play a pivotal role in delivering exceptional services to the community. Emphasizing the delivery of superior service ensures that the organization maintains a reputation for outstanding performance and accountability in the eyes of the community (Luh, Anik, Nengah, & Putu, 2019). In general, the competence of human resources in budget formulation is crucial for public sector effectiveness. Competent employees contribute to effective budget planning and allocation, accurate financial analysis and forecasting, policy alignment, stakeholder collaboration, compliance and accountability, and continuous improvement (Sari, Yuesti, Sudja, & Kepramareni, 2019).. By investing in the development and utilization of competent human resources, public sector organizations can enhance their effectiveness in budget formulation and achieve their objectives while delivering quality services to the public (Moyo, 2015).

H₇: Competence of human resources has a significant and positive effect on organizational effectiveness

Budgetary Participation and Public Sector Effectiveness

Participatory budgeting is an approach to budgeting that fosters the involvement of lower-level managers in the process of preparing the budget. This approach aims to provide a sense of ownership to these managers, rather than simply imposing the budget from top management (Van Roestel, 2016). Amir et al. (2021) indicate that increased budget participation is linked to improved performance in regional government bodies. Similarly, Safitri (2014) found a positive impact of budgetary participation on the effectiveness of local governments, while Ferdiani and Rohman (2012) discovered a positive influence of budgetary participation on managerial performance. However, studies conducted by (Nazaruddin and Setyawan 2016; Puri 2015) yielded differing results, showing no positive relationship between budgeting participation and the performance of local government bodies. Participative budgeting also tends to generate more achievable budgets since lower-level employees have a better understanding of where funds should be allocated and can inform their supervisors accordingly. Implementing participative budgeting demonstrates top management's confidence in their staff (Jatmiko, Laras, & Rohmawati, 2020), fostering a sense of ownership and motivating employees to work hard toward the goals they helped shape.

For a participative budgeting process to be effective, organizations should establish checks and balances to prevent managers from abusing their authority. The budget draft should undergo review at each level

of management, with final approval resting with top managers. Lower-level managers should be involved in proposing changes to the budget draft and providing their justifications. Collaboration between managers and accounting staff is crucial for the effective utilization of funds (Klitgaard, et al., 2010).

Active participation plays a critical role in the budget process, particularly during the formulation phase, to ensure efficient allocation of resources and a fair distribution (Shapiro, 2010). Encouraging and motivating employees to dedicate themselves to the assigned budget is essential, emphasizing the need for budget education. Diligent work by employees significantly enhances an organization's ability to achieve its objectives efficiently. However, the public sectors often overlook employees' participation in the budget process (de Azevedo, Cardoso, Cunha & Wampler, B., 2022).

Additionally, Burhan and Abraham (2020) suggest that government finance organizations should identify stakeholders and actively engage them in the budgeting process to enhance the chances of success and maintain alignment between budget planning and implementation. John and Nnah (2019) further emphasize the importance of accountants and managers responsible for budget preparation in encouraging other managers and individuals involved in budget utilization to understand the financial consequences of their plans. This understanding enables timely investigation and reporting of any deviations from set targets. However, their study highlights significant issues in budget management in Nigeria, particularly in the

preparation stage, where user participation is lacking. Berhanu (2011) asserts that citizens, as the primary providers of budget funds, play a crucial role and should actively participate in both formulating and implementing the budget. This participation not only allows different levels of government to understand the community's unmet needs and demands but also ensures a more inclusive and representative budgeting process.

H₂: Participative budgeting moderates between strategic planning and organizational effectiveness

H₄: Participative budgeting moderates between Budget preparation and organizational effectiveness

H₆: Participative budgeting moderates between Budget approval and organizational effectiveness.

H₈: Participative budgeting moderates between the Competence of human resources and organizational effectiveness

H₉: Participative budgeting has a positive and significant effect on organizational effectiveness

5. Research design and Methodology

5.1 Description of the Study Area

The Addis Ababa City Administration manages the finances of public sector entities in Ethiopia's capital city. Effective budget formulation is crucial for providing essential services, developing infrastructure, and promoting the well-being of the population. The administration governs Addis Ababa, an important city in Ethiopia, with separate administrative status. Good financial management supports the diverse needs of the population and enhances the effectiveness of public sector organizations. A study by Poister, Aristigueta, and

Hall (2014) examined budget management practices in the Addis Ababa City Administration, highlighting strengths, weaknesses, and ways to improve budgetary processes. Improving budget management can lead to better organizational effectiveness and public service delivery in Ethiopia.

5.2 Research Methods

The study utilized an explanatory research design with a mixed approach. The purpose of employing an explanatory research design was to investigate the causal relationship between variables and demonstrate their significant impact on the dependent variables. The targeted population for this study consisted of 48 public sectors, including sub-cities, which were categorized into two levels based on various factors such as their annual budget, number of projects, branches and expenditure centers, revenue collected, and utilization of shared services user offices, as outlined in the city administration BPR document from 2021. The total population comprised employees working in the finance, audit, planning budget preparation, monitoring and evaluation, and procurement and asset management directorates of the city administration's public sectors. The study specifically focused on these departments to gather information and draw conclusions that are relevant to employees within these areas. After categorizing the public sectors into three strata (first-level public sectors, second-level public sectors, and sub-cities), a total of 30 public sectors were selected, including nine from the first level, all 11 sub-cities, and an additional 10 public sectors from the second level

based on their longevity of existence. The number of employees selected from each public sector was proportional to their total number of employees. From the target population of 4,580 employees, a sample size of 368 respondents was determined using the sample size determination formula developed by Yamane (197) as follows.

$$n = \frac{N}{1 + N(e)^2}$$

Where:

n= sample size

N= Total population size

e = allowance of random error

$$n = \frac{4,580.00}{1 + 4,580.00(0.05)^2}$$

$$n = \frac{4,580.00}{1 + 11.45}$$

$$n = 368$$

6. Methods of Data Analysis

Data analysis involves examining, refining, transforming, and modeling data to gain insights for decision-making (Sharma, 2018). In this study, data from the Addis Ababa City Administration's public sectors was analyzed using SPSS-26/Amos-23 software. Structural equation modeling (SEM) was used to test the hypothesized model and assess its compatibility with the data, following Byrne's methodology (2013).

The validity of the measurement model in SEM was evaluated based on goodness of fit and construct validity evidence (Henseler, Ringle, & Sarstedt, 2015). Fit indices such as χ^2/df , CFI, NFI, and RMSEA were used for model assessment (Hair et al., 2010). Out of 368 distributed questionnaires, 350 were returned, resulting in a 95% response rate. After excluding incomplete questionnaires, 346 (94%) were used for analysis. A response rate of 50% and above is considered sufficient for conclusion (Nulty, 2008). Measurement models were developed to meet fit criteria, followed by testing research hypotheses with structural models. The results supported the research hypothesis and provided insights for further study.

7. Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy/Bartlett's Test of Sphericity

Before conducting factor analysis, it is important to assess the appropriateness of the respondent data using the KMO Measure of Sampling Adequacy and Bartlett's Test of Sphericity (Bartlett, 2010). The

KMO value should be at least 0.50 for factor analysis to be appropriate (Tabachnick, 2007), and Bartlett's Test of Sphericity should yield a significant result ($p < 0.05$) (Awang, 2014). In this study, the KMO value of 0.972 indicates high suitability for factor analysis, exceeding the threshold of 0.5. The p-value of 0.000 < 0.05 from Bartlett's Test of Sphericity suggests the presence of meaningful correlations among the variables (Tabachnick, 2007; Awang, 2014). This information supports the use of factor analysis for further analysis.

8. Measurement model

The evidence of a good measurement model should have all the items loading greater than 0.70. In addition, the traditional method using Cronbach alpha is with a minimum threshold of 0.70. This is also applied using the Composite reliability with a

threshold value of 0.70. While the average variance extracted is set to the minimum threshold of 0.50 (Awang, 2014; Hair, et al., 2015; Heller et al., 2015). The researcher uses a measurement model of factor analysis with constructs. Six constructs were observed: strategic planning (STPL), budget preparation (BUPR), budget approval (BUAP), participative budgeting (PABU), competence of human resources (COHR), and public sector effectiveness (OREF). In the measurement model factor analysis, all the factor loadings are greater than 0.70, the minimum threshold. In addition, the results of, Chi-square, Chi-square/DF, Incremental fit index, Comparative fit index, Normed fit index, Tucker Lewis index, and Root mean square error of approximation meet the standard threshold. This indicates that the model is fit. The diagram of the measurement model and its output is given below.

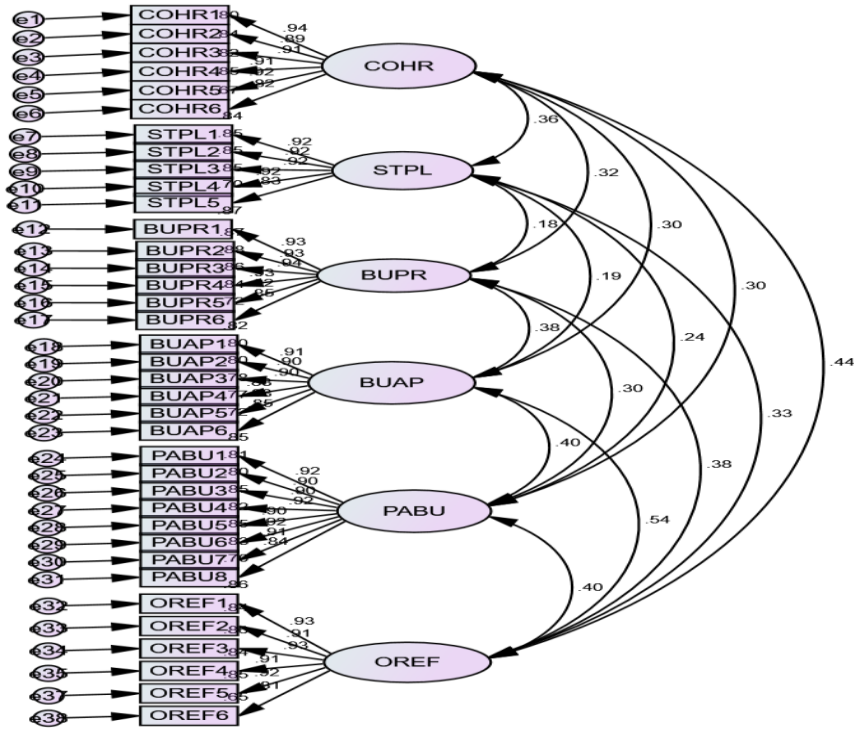


Figure 1.1: measurement Model

9. Results

9.1 Standardized loading

In SPSS AMOS, factor loading estimates the strength and direction of the relationship between observed variables and latent factors in a structural equation model (SEM) (Awang, 2014; Hair et al., 2015; Heller et al., 2015). It quantifies the contribution of each observed variable to its associated latent factor. The loading factors for the measurement variables in this study surpass the threshold of 0.70. Variables from strategic planning (STPL), budget preparation (BUPR), budget approval (BUAP), participatory budgeting, the competency of human resources (COHR), and public sector effectiveness were examined, and all variables reached the minimum threshold, ranging from 0.805 to 0.940. This indicates that the variables effectively measure the latent variables (Awang, 2014; Hair et al., 2015; Heller et al., 2015).

9.2 Model Fit Summary

In AMOS, model fit refers to assessing how well a structural equation model (SEM) aligns with observed

data. Fit indices, such as the chi-square test, CFI, RMSEA, SRMR, and TLI/NNFI, are used to evaluate the extent to which the model accurately represents the data. The study's model fit results and threshold values for evaluating model fit are presented in the tables.

Table 1.1 Summary of Model Fit

Measure	Threshold	Result	Interpretation
Chi-square	Insignificant	.000	Not a good fit, it is expected for a large sample
Chi-square/DF (1184.275/615)	Between 1 and 3	1.926	Good fit
Incremental fit index (IFI)	>.95	.964	Good fit
Comparative fit index (CFI)	>.95	.964	Good fit
Normed fit index (NFI)	>.90	.928	Good fit
Tucker Lewis index (TLI)	>.95	.961	Good fit
Root Mean Square Error of Approximation (RMSEA)	<.08	.052	Good fit

Source: Hair et al. (2010) and SPSS-Amos output (2024)

In general, the structural equation model generated through AMOS was used to test the relationship. All the given criteria fulfilled the minimum threshold. Thus, the model is good and accepted for further analysis.

9.3 Construct Reliability and Construct Validity Analysis

Construct Reliability

Reliability is the measure of the internal consistency of constructs in the study. Hair et al. (2010) stated that reliability is one of the indicators of convergent validity. High reliability shows that internal consistency exists, indicating that measures can represent the same latent construct. In this study, we can see both Cronbach's alpha and Composite Reliability.

Cronbach's alpha

Hair et al. (2010) state that a construct is considered reliable if Cronbach's alpha (α) value exceeds 0.70. In this study, construct reliability was assessed using Cronbach's alpha. The results indicated that strategic planning ($\alpha = 0.970$), budget preparation ($\alpha = 0.975$), budget approval ($\alpha = 0.965$), participative budgeting ($\alpha = 0.927$), competence of human resources ($\alpha = 0.966$), and public sector effectiveness ($\alpha = 0.972$) all exhibited high reliability. All constructs had alpha values greater than 0.70, ranging from a minimum reliability of 0.927 (participative budgeting) to a maximum reliability of 0.975 (budget preparation).

Composite reliability

Composite reliability measures the internal consistency of indicator variables loading on a latent

variable. A composite reliability greater than 0.7 indicates that the indicator variables share variance among them (Gaskin & Lim, 2016). It allows for evaluating the consistency of a variable or set of variables in measuring what it intends to measure (Straub, Boudreau & Gefen, 2004). Table 5.8 displays the composite reliability (CR) of all constructs: strategic planning (STPL) with a CR of 0.957, budget preparation (BUPR) with a CR of 0.969, budget approval (BUAP) with a CR of 0.956, and competence of human resources (COHR) with a CR of 0.962. These results indicate that there are no validity concerns as all constructs demonstrate high composite reliability.

Table 1.2: Composite Reliability and Validity Measures

	CR	AVE	MSV	MaxR(H)	BUAP	BUPR	COHR	OREF	STPL	PABU
BUAP	0.956	0.782	0.287	0.957	0.885					
BUPR	0.969	0.839	0.146	0.972	0.376***	0.916				
COHR	0.962	0.810	0.197	0.967	0.302***	0.316***	0.900			
OREF	0.963	0.814	0.287	0.968	0.536***	0.382***	0.444***	0.902		
STPL	0.957	0.815	0.133	0.960	0.195***	0.178**	0.364***	0.333***	0.903	
PABU	0.972	0.814	0.164	0.974	0.397***	0.303***	0.300***	0.405***	0.241***	0.902

Source: SPSS-AMOS output (2024)

Significance of Correlations:

† p < 0.100, * p < 0.050, ** p < 0.010, *** p < 0.001

Construct Validity

Validity is the ability of the scale or measuring instrument to measure what it is intended to measure (Hair et al., 2010). It is the measure of how well the items selected for the construct measure the construct. Construct validity refers to the degree to which multiple measures of a construct that theoretically should be related are related (Gefen, Straub & Boudreau, 2000). Construct validity is established through two forms of validity, such as convergent validity and discriminant validity.

Convergent validity

Convergent validity is the kind of validity when multiple indicators converge or are associated with one another. It means that multiple measures of the same construct hang together or operate in similar ways. Hair et al. (2010) explain that convergent validity is the extent to which the scale correlates

positively with other measures of the same construct. Fornel and Larcker (1981) have suggested that convergent validity is established when the variance extracted value is higher than 0.5 for one factor. From Table 5.9 we can observe that all the construct, variance extracted value (VAE) for Strategic planning (STPL) 0.815, budget preparation (0.839), budget approval (BUAP)0.782, the competence of human resources (COHR) 0.810 Participative budgeting (PABU) 0.814, public sector effectiveness 0.814 respectively. Thus, since the values are greater than 0.5 which is the minimum criteria there is no validity concern. i.e. The minimum criteria are met.

Discriminant Validity

Discriminant validity, also known as divergent validity, refers to the extent to which measures that should not be highly correlated with each other are distinct. It ensures that different constructs have their

own unique identity without overlapping. Hair et al. (2010) explain that discriminant validity is the ability of measures to have low correlations with measures of dissimilar concepts.

In this study, discriminant validity was assessed using two methods. First, the pairwise correlations between constructs were compared with the variance extracted estimates (VAE) for each pair. According to Fornell and Larcker's criterion, the shared variance between constructs should not exceed their VAEs. The maximum shared variance (MSV) between the six constructs in the model, including strategic planning, budget preparation, budget approval, the competence of human resources, participative budgeting, and public sector effectiveness, was found to be below

their respective VAEs. Specifically, the MSV values were 0.133, 0.146, 0.287, 0.197, 0.164, and 0.287, indicating that discriminant validity is established.

However, it is worth noting that recent research has questioned the sensitivity of this shared variance approach in capturing discriminant validity issues. As an alternative, the Hetrotrait-Monotrait ratio of correlation (HTMT) technique has been proposed. This method examines the ratio of correlations between indicators across constructs to correlations within the constructs. A value below 0.90 for HTMT indicates discriminant validity between two reflective constructs. In this study, the HTMT method is also applied to assess discriminant validity, but specific results or values are not provided.

Table 1.3: Hetrotrait-Monotrait ratio discriminant validity

	OREF	COHR	PABU	BUAP	BUPR	STPL
OREF						
COHR	0.444299					
PABU	0.536168	0.299722				
BUAP	0.536168	0.302317	0.39721			
BUPR	0.381908	0.316367	0.302919	0.375917		
STPL	0.333252	0.364539	0.241582	0.194633	0.178002	

Source: SPSS-AMOS output (2024)

Table 1.3 shows that the Hetrotrait-Monotrait ratio is less than the threshold of 0.90. Thus, discriminant validity is established. Therefore, we can say that both the Fornel and Larcker criterion and Hetrotrait-Monotrait ratio criterion discriminant validity are met.

10. Testing of Research Hypotheses

Once the measurement model demonstrated a satisfactory fit, the author proceeded to construct a structural model or hypothesized model. This structural model serves as a framework to examine and evaluate the hypothesis, and it is presented as follows.

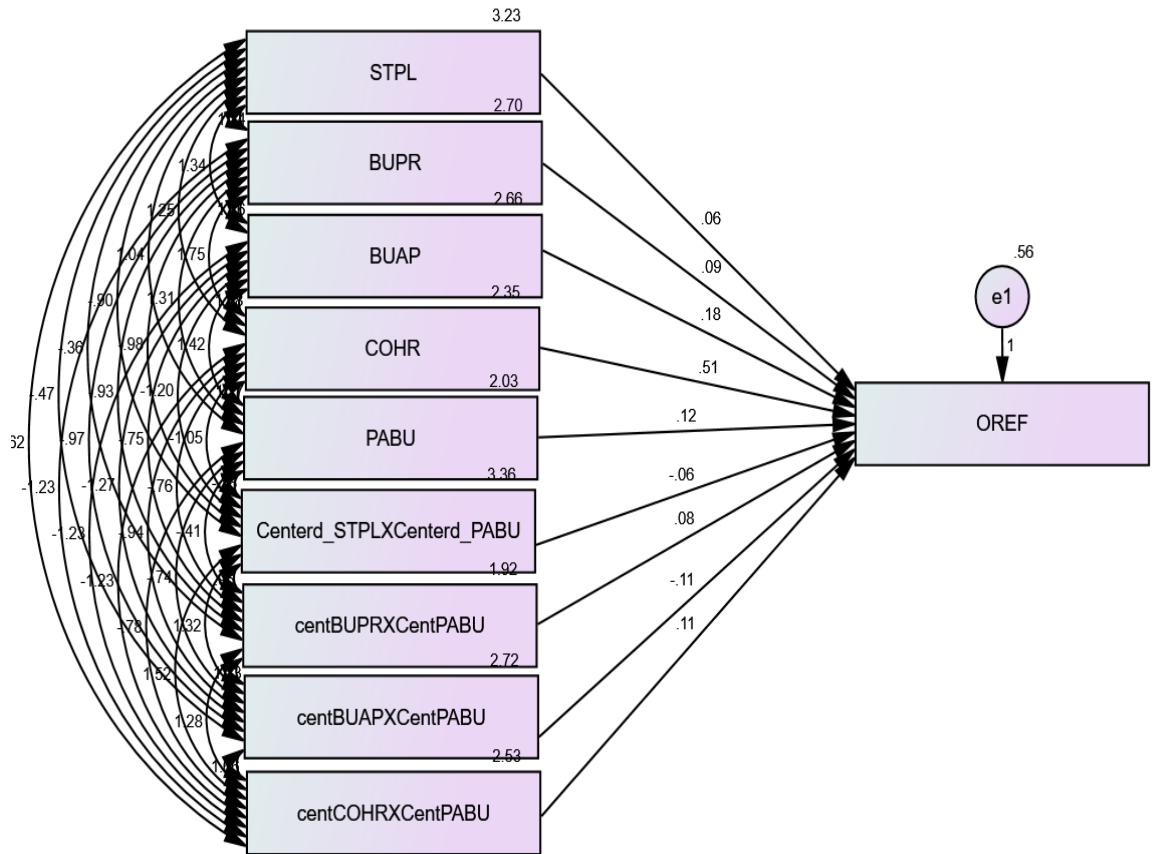


Figure 1.2: Fitted structural model

Source: survey data (2024)

In this model strategic planning (STPL), budget preparation (BUPR), budget approval (BUAP), participative budgeting (PABU) competence of human resource (COHR) had a direct effect on the public sector effectiveness (OREF) and PABU is a moderator between the strategic planning (STPL),

budget preparation, budget approval, competence of human resource (COHR) and public sector effectiveness (OREF). Based on the above-fitted model the following Amos output are available for the hypothesis testing.

Table 1.4: SPSS-AMOS output

			Estimate	S.E.	C.R.	P
STPL	→	OREF	.060	.027	2.242	.025
BUPR	→	OREF	.092	.038	2.410	.016
BUAP	→	OREF	.178	.043	4.109	.000
COHR	→	OREF	.506	.045	11.229	.000
PABU	→	OREF	.119	.038	3.179	.001
STP*PABU	→	OREF	-.060	.027	-2.253	.024
BUPR*PABU	→	OREF	.083	.038	2.179	.029
BUAP*PABU	→	OREF	-.115	.035	-3.324	.000
COHR*PABU	→	OREF	.109	.039	2.804	.005

Source: SPSS-AMOS output (2024)

In this particular section, the focus is on conducting tests and analyses to determine the direct effect of the independent variables, moderating variables, and dependent variables. The purpose is to investigate the relationship and influence between these variables, shedding light on the hypothesis being tested. By examining these direct effects, researchers can gain a better understanding of how the variables interact and contribute to the overall research question or objective.

The study aimed to examine the direct effect of strategic planning on organizational effectiveness and the moderating role of participative budgeting (PABU) in the relationship between strategic planning (STPL) and organizational effectiveness (OREF). The results of the analysis indicate a positive and significant direct effect ($b = 0.060$, $t = 2.242$, $p = 0.025 < 0.05$), providing support for Hypothesis 1. This suggests that strategic planning has a positive influence on organizational effectiveness. Furthermore, the results reveal a

negative and significant moderating effect of participative budgeting (PABU) between strategic planning (STPL) and organizational effectiveness (OREF), ($b = -0.060$, $t = -2.253$, $p = 0.024 < 0.05$), supporting Hypothesis 2. This indicates that the relationship between strategic planning and organizational effectiveness is influenced by participative budgeting. The result of the current study is consistent with the studies conducted by (Ongonge, 2013, Bryson, 2018)

In summary, the findings of the study suggest that strategic planning has a positive direct effect on organizational effectiveness. Moreover, participative budgeting acts as a significant moderator, influencing the relationship between strategic planning and organizational effectiveness negatively. To elucidate the moderating effect, a visual representation in the form of a slope diagram is provided below.

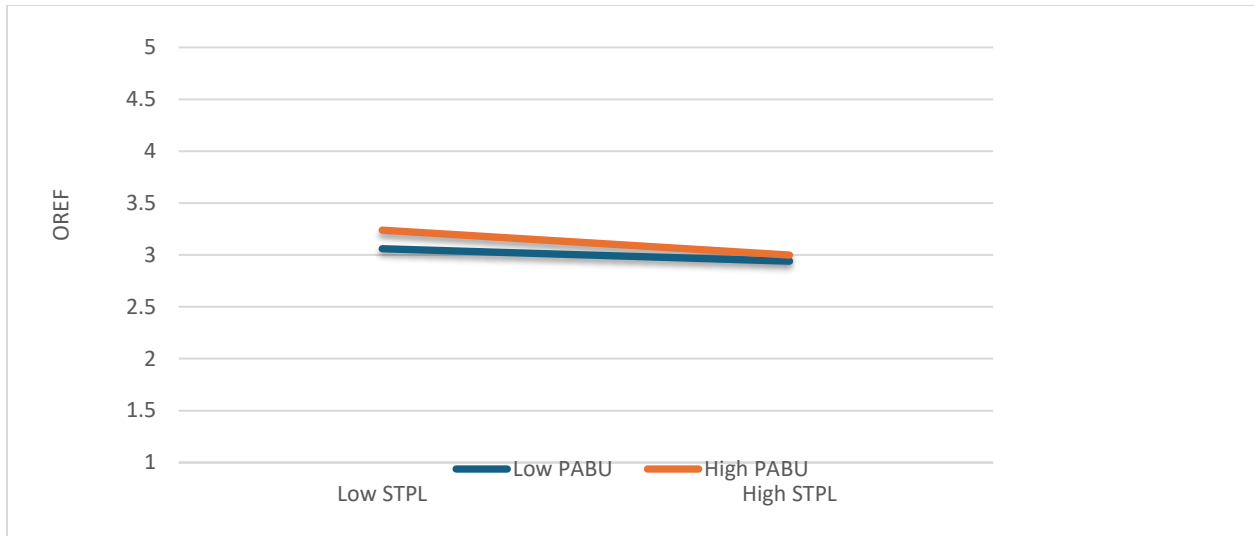


Figure 1.3: Simple slope showing moderating of PABU between STPL and OREF

Source: survey data (2024)

The visual representation of the slope in Figure 5.4 above demonstrates the moderating effect of participative budgeting (PABU) on the relationship between strategic planning (STPL) and organizational effectiveness. It indicates that when there is increased participative budgeting (PABU), the connection between strategic planning (STPL) and organizational effectiveness is weakened. In other words, participative budgeting (PABU) dampened the positive relationship between strategic planning (STPL) and organizational effectiveness (OREF).

The purpose of the study was also to examine the direct effect of budget preparation on organizational effectiveness and the moderating role of participative budgeting (PABU) in the relationship between budget preparation (BUPR) and organizational effectiveness (OREF). The results indicate a significant and positive direct effect of ($b = 0.092$, $t = 2.410$, $p = 0.016 < 0.05$), providing support for Hypothesis 3. This suggests that budget

preparation has a favorable effect on organizational effectiveness. Organizations that engage in effective budget preparation processes are more likely to experience higher levels of effectiveness. Furthermore, the findings reveal a significant and positive moderating effect of participative budgeting (PABU) on the relationship between budget preparation (BUPR) and organizational effectiveness (OREF), ($b = 0.083$, $t = 2.179$, $p = 0.029 < 0.05$), supporting Hypothesis 4. This implies that the influence of budget preparation on organizational effectiveness is enhanced by the presence of participative budgeting. Organizations that involve employees in the budgeting process have experienced even greater improvements in organizational effectiveness. The result of the current study is consistent with the studies conducted (Amen, 2019)

In summary, the study demonstrates that budget preparation has a direct positive effect on organizational effectiveness. Moreover, the presence of participative budgeting as a moderating factor

strengthens this relationship. These findings highlight the significance of effective budget preparation practices and the involvement of employees through participative budgeting in

enhancing organizational effectiveness. To improve the clarity of the findings, a clear and straightforward slope diagram has been included below.

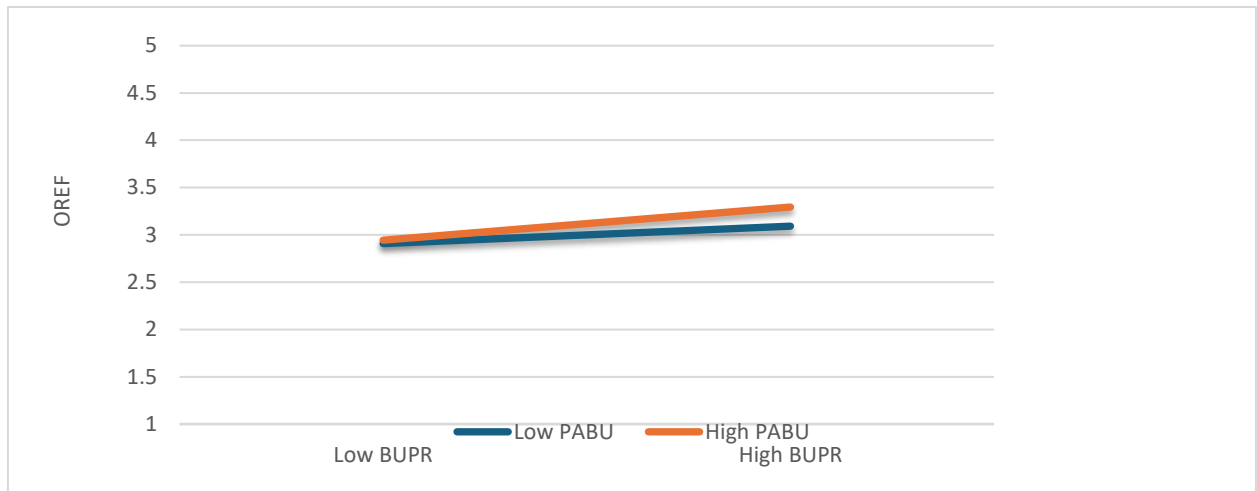


Figure 1.4: Simple slope showing the moderating role of PABU between BUPR and OREF

Source: survey data (2024)

The slope depicted in Figure 5.5 illustrates the visual representation of how participative budgeting (PABU) acts as a moderating factor between budget preparation (BUPR) and organizational effectiveness (OREF). This indicates that the connection between budget preparation (BUPR) and organizational effectiveness (OREF) becomes more robust when there is increased participative budgeting (PABU). In other words, participative budgeting (PABU) strengthens the positive relationship between budget preparation and organizational effectiveness (OREF).

In addition, the study aimed to investigate the direct effect of budget approval on organizational effectiveness and the moderating role of participative budgeting (PABU) in the relationship

between budget approval (BUAP) and organizational effectiveness (OREF). The results indicate a significant and positive direct effect ($b = 0.178$, $t = 4.109$, $p = 0.000 < 0.05$), providing support for Hypothesis 5. This suggests that budget approval has a substantial positive effect on organizational effectiveness. Organizations that have their budgets approved are more likely to experience higher levels of effectiveness. Furthermore, the findings reveal a negative and significant moderating effect of participative budgeting (PABU) on the relationship between budget approval (BUAP) and organizational effectiveness (OREF), ($b = -0.115$, $t = -3.324$, $p = 0.000 < 0.05$), supporting Hypothesis 6. This indicates that the relationship between budget approval and organizational effectiveness is influenced by the presence of participative budgeting. The involvement of employees in the

budgeting process amplifies the positive effect of budget approval on organizational effectiveness. The result of the current study is consistent with the studies conducted by (Wehner and Byanyima, 2004; Amen, 2019)

In summary, the study demonstrates that budget approval has a direct and positive effect on organizational effectiveness. Additionally, the presence of participative budgeting as a moderating factor strengthens this relationship. These findings

emphasize the importance of obtaining budget approval and involving employees through participative budgeting to enhance organizational effectiveness. To enhance the lucidity of the findings, a concise and easily understandable slope diagram has been included below.

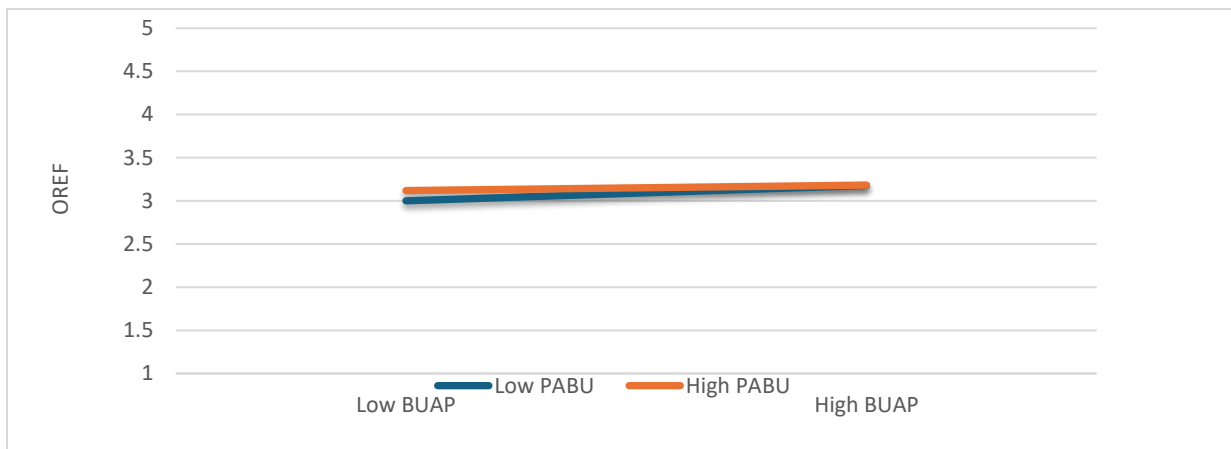


Figure 1.5: simple slop showing the moderating role of PABU between BUAP and OREF

Source: survey data (2024)

The slope depicted in Figure 5.6 above visually represents the moderating effect of participative budgeting on the relationship between budget approval (BUAP) and organizational effectiveness (OREF). It indicates that when there is increased participative budgeting, the connection between BUAP and OREF is weakened. In other words, participative budgeting dampens the positive relationship between BUAP and OREF.

Furthermore, the purpose of the study was to assess the direct effect of the competence of human

resources on organizational effectiveness and examine the moderating role of participative budgeting (PABU) in the relationship between the competence of human resources (COHR) and organizational effectiveness (OREF). The results indicate a highly significant and positive direct effect of ($b = 0.506$, $t = 11.229$, $p = 0.001 < 0.05$), providing support for Hypothesis 7. This implies that the competence of human resources has a substantial and positive effect on organizational effectiveness. Organizations that have highly skilled and capable human resources are more likely to achieve higher levels of effectiveness in their operations.

Furthermore, the findings reveal a significant and positive moderating effect of participative budgeting (PABU) on the relationship between the competence of human resources (COHR) and organizational effectiveness (OREF), ($b = 0.109$, $t = 2.804$, $p = 0.005$), supporting Hypothesis 8. This suggests that the influence of human resource competence on organizational effectiveness is amplified by the presence of participative budgeting. When employees are actively involved in the budgeting process, the positive effect of competent human

resources on organizational effectiveness is strengthened. The result of the current study is consistent with the studies conducted by (Ragunandan, et al., 2012; Horngren, et al., 2014; Luh, Anik, Nengah, & Putu, 2019;). To ensure the findings are presented in a clear and easily comprehensible manner, a concise slope diagram has been provided below.

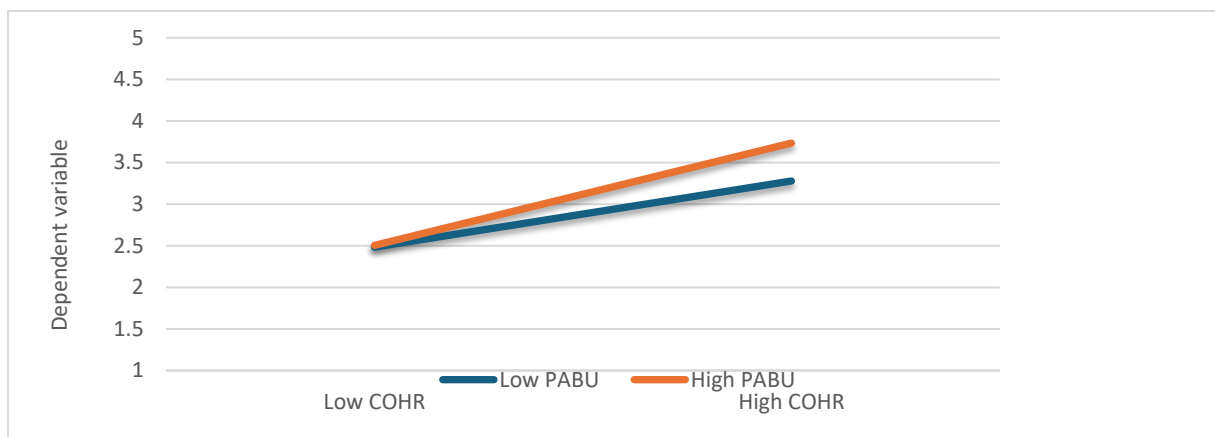


Figure 1.6: Simple slope showing the moderating role of PABU between COHR and OREF
Source: survey data (2024)

The slope illustrated in Figure 5.7 above visually demonstrates the moderating effect of participative budgeting on the relationship between the competence of human resources (COHR) and organizational effectiveness (OREF). It indicates that when there is increased participative budgeting, the connection between COHR and OREF is strengthened. In other words, participative budgeting enhances the positive relationship between the competence of human resources and organizational effectiveness.

The study also aimed to examine the effect of participative budgeting on organizational effectiveness. The results revealed a significant and positive direct effect ($b = 0.119$, $t = 3.179$, $p = 0.001 < 0.05$), providing robust support for Hypothesis 9. This suggests that effective participative budgeting has a substantial and positive influence on organizational effectiveness.

11. Conclusions and Recommendations

11.1 Conclusions

The study examined the effect of budget process practices on the organizational effectiveness of the city administration of Addis Ababa. The findings related to strategic planning, budget preparation, budget approval, on organizational effectiveness are summarized as follows:

This analysis focuses on hypothesis testing about the direct effects of independent variables, moderating variables, and dependent variables. The study examines the effect of strategic planning, budget preparation, budget approval, and the competence of human resources on organizational effectiveness, as well as the moderating role of participative budgeting in these relationships.

For Hypothesis one and two, the results indicate a positive and significant direct effect of strategic planning on organizational effectiveness, supporting Hypothesis 1. The study also finds a negative and significant moderating effect of participative budgeting on the relationship between strategic planning and organizational effectiveness, supporting Hypothesis 2. This suggests that strategic planning positively influences organizational effectiveness, and the presence of participative budgeting affects this relationship negatively.

For Hypothesis Three and Four, the study demonstrates a significant and positive direct effect of budget preparation on organizational effectiveness, supporting Hypothesis 3. The results also reveal a significant and positive moderating effect of participative budgeting on the relationship between budget preparation and organizational effectiveness, supporting Hypothesis 4. This

indicates that effective budget preparation positively affects organizational effectiveness, and the involvement of employees through participative budgeting strengthens this relationship.

For Hypothesis Five and Six, the analysis also shows a significant and positive direct effect of budget approval on organizational effectiveness, supporting Hypothesis 5. The study also finds a negative and significant moderating effect of participative budgeting on the relationship between budget approval and organizational effectiveness, supporting Hypothesis 6. This suggests that obtaining budget approval positively influences organizational effectiveness, and the presence of participative budgeting affects this relationship negatively.

For Hypothesis Seven and Eight, the results indicate a highly significant and positive direct effect of the competence of human resources on organizational effectiveness, supporting Hypothesis 7. The study also reveals a significant and positive moderating effect of participative budgeting on the relationship between the competence of human resources and organizational effectiveness, supporting Hypothesis 8. This implies that competent human resources positively affect organizational effectiveness, and the involvement of employees through participative budgeting strengthens this relationship.

11.2 Recommendation

Based on the conclusions drawn from the analysis, the following recommendations can be made:

The city administrations in Addis Ababa should prioritize engaging in comprehensive strategic planning processes. This involves setting clear goals and objectives, formulating strategies and action plans, and aligning resources accordingly. By proactively defining their long-term vision and identifying key priorities, city administrations can enhance organizational effectiveness and improve their ability to achieve desired outcomes.

While participative budgeting has a negative moderating effect on the relationship between strategic planning and organizational effectiveness, it remains an important practice for fostering employee engagement and ownership. City administrations should carefully consider the appropriate level of employee participation in budgeting processes, taking into account the specific context and organizational culture. By involving employees in the budgeting process, city administrations can tap into their diverse knowledge and expertise, enhance motivation and commitment, and create a sense of shared responsibility towards organizational goals.

In addition, the city administrations should focus on developing effective budget preparation processes. This includes conducting thorough analyses of financial data, evaluating resource needs, and aligning budgets with the strategic goals and priorities identified through the strategic planning process. By ensuring that the budget is realistic, well-structured, and directly supports the organization's strategic objectives, city administrations can optimize resource allocation,

enhance operational efficiency, and improve overall organizational effectiveness.

City administrations must establish transparent and well-defined budget approval processes. This ensures that budget proposals are thoroughly reviewed and assessed for their alignment with strategic priorities, financial feasibility, and potential impact on organizational effectiveness. Transparent budget approval processes enable stakeholders to provide input, ask questions, and contribute to the decision-making process, fostering accountability and trust. By streamlining the approval process and ensuring timely decisions, city administrations can facilitate effective resource allocation, mitigate potential bottlenecks, and promote organizational effectiveness.

Furthermore, the city administrations should invest in developing and nurturing the competence of their human resources. This can be achieved through various initiatives, such as providing training programs, offering professional development opportunities, implementing talent management strategies, and conducting performance evaluations. By enhancing the skills, knowledge, and capabilities of employees, city administrations can improve their ability to perform tasks effectively, adapt to changing circumstances, and contribute to organizational effectiveness. Additionally, investing in human resource competence contributes to employee satisfaction, retention, and overall organizational performance.

The city administrations should also implement effective participative budgeting practices that

actively involve employees in the budgeting process. This can be done by encouraging open communication, soliciting ideas and feedback, and providing opportunities for collaboration. By fostering a culture of participation, city administrations can enhance employee engagement, motivation, and ownership. When employees feel valued and empowered to contribute to the budgeting decisions, they are more likely to align their efforts with organizational goals, leading to improved organizational effectiveness.

11.3 Implication for the Policy

Budgeting policies and procedures are critical for the budget formulation process in public sectors, as they establish guidelines for planning and controlling resource allocation to prioritize areas efficiently. In the case of Addis Ababa city administration, the study recommends revising the existing line-item budgeting system and exploring alternative methods, such as program budgeting. The study findings highlight that adopting program budgeting can enhance resource allocation and accountability, ultimately improving the effectiveness of budget management.

11.4 Suggestions for Further Research Study

The study conducted specifically focused on the public sectors of Addis Ababa in Ethiopia, and it is worth considering conducting similar studies in other public sectors at the federal and regional levels. This would allow for a broader understanding of budget formulation practices and their effect on the effectiveness of public sectors in different administrative contexts.

The current study utilized cross-sectional research, which involved collecting data from respondents at a single point in time to assess their perceptions of the issues being studied. Future studies could adopt different research to explore the long-term effects of budget formulation on the effectiveness of public sectors. Alternative designs, such as longitudinal studies, would track changes over time and provide deeper insights into the relationship between budget formulation practices and sector effectiveness.

The research findings reveal a negative moderating effect of participative budgeting between strategic planning and budget approval on organizational effectiveness, which contradicts conventional wisdom or general truth. This important finding should be considered by future researchers in their studies.

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