

# BUDGETING AND BUDGET QUALITY: A SYSTEMATIC REVIEW OF LITERATURE

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## Abstract

**Purpose:** The aim of this study is to highlight and provide a stronger focus on the literature related to budget and budget quality, consider how management can contribute to raising budget quality, and suggest how they can contribute individually and jointly in the future to improve budget quality. **Design/methodology/approach:** The authors collected data from peer-reviewed academic journals only. A total of 38 reviewed studies on various aspects of budgeting covering the period from 2003 to 2022 were systematically reviewed. Based on this, the researchers developed a set of search criteria focusing on several keywords (i.e., budget, budgeting, budget quality, budget performance, good budget, budget improvement, and better budget). **Findings:** Budgeting is fundamental to all public and private organizations. Based on the review, the researchers noted that budget quality has played a marginal role in public administration at the accounting research level, especially in the Middle East region. In addition, there is a dearth of studies that deal with budget quality; hence, more studies are needed to fill this gap. **Originality/value:** This study presents an overview of the existing literature and highlights unexplored questions about budgeting and budget quality for future research.

**Keywords:** Literature review, Budgeting, Budget Quality

## 1. INTRODUCTION

The success of economic activities depends on the rigor of planning. Improper planning results in detachment from the reality of the surrounding environment; the ability to plan and deliver activities in a constantly changing environment is the key to an institution's growth and survival (Achim, 2009). Generally, a budget represents an institution's list of projected revenue and expenses for a particular period. Such a detailed analysis is considered a scientific approach to finance. Budget planning underlines the development and measurement of an institution's financial resources as well as their distribution towards fulfilling set objectives (Blumentritt, 2006).

Budgetary documents incorporate a set of financial and/or non-financial information related to the institution's future activities. By definition, budget planning entails recording financial and/or non-financial information (Achim, 2009). Blumentritt (2006) delineated budget planning as "the process of allocating an organization's financial resources to its units, activities, and investments". Horngren et al. (2004) defined budgeting as the quantitative manifestation of the management's proposed plan of action covering a certain period, which serves as a guide for the implementation of the plan.

The income budget refers to the estimation of revenue, whereas the expenditure budget entails the estimation of the necessary resource consumption for attaining institutional objectives. In short, the researcher defines a budget as a financial plan or quantitative statement that lays out the plans and policies that must be achieved within a set timeline, which is normally a year.

Institutional decisions related to technical, economic, organizational, and other aspects would affect the current financial balance and set the requirement for a new balance, which would also change the level and structure of funds and resources required to finance them. More financial indicators are needed for a new financial budget. Hence, income and expenditure budgets are projections of the institution's revenues, expenditures and financial results, funds and loans, budget payments, and others (Uyar & Bilgin, 2011). An institution plans its finances by budgeting. The plan is set within a certain timeframe, which is typically one year, incorporating the projection of revenues and expenditures, other capital requirements, ways to finance them, and the key indicators of the desired efficiency level. Despite being a financial plan in essence, the budget is much more than just numbers. The budgetary process entails the selection of detailed objectives for future activities as well as institutional policies, programs, and procedures that would set the conditions for attaining the objectives (Achim, 2009).

Lubis et al. (2020) defined budgetary quality as the allocation of a budget in favor of community needs. This definition shows the importance of budget quality in public institutions as it is directly related to the quality of service provided to the community and the achievement of its well-being. Erlina et al. (2017) stated that some of the basic principles that must be adapted to achieve budgeting quality are transparency, participation, discipline, fairness, efficiency, and effectiveness, as well as being rational and measurable. The researcher believes that this definition explains the importance of applying the principles of good governance to achieve budgetary quality in public institutions. According to Octariani et al. (2017), budgetary quality is the budget that comes from allocating the right budget following the regional development plan with stakeholders who can formulate a program based on the aspirations of society in the budget preparation process. The quality budget can determine whether it contains clear information about the cost components, inputs, outputs, and outcomes. Other studies suggest that a quality budget has a structure and budget allocations that correspond to the needs of society. In budget preparation, the basic principle of assimilation is transparency (Erlina et al., 2017; Erlina et al., 2018). Meanwhile, Egbide and Agbude (2012) stated that for the budget to be described as "good", the process must be efficient, effective, and transparent, with high sensitivity, discipline, and accountability. These features ensure that public funds, financial assets, and liabilities are managed in the interest of the nation's welfare objective, which is always the objective of good governance.

Based on the above, budget quality includes the effective use of financial resources, whether new or excess capital from previous activities. Annual budgets include business development strategies to achieve certain goals within a specified timeframe (Hansen et al., 2004). These strategies take precedence over environmental approaches that may reveal potential environmental uncertainties in the future, and thus enable the development of plans and goals to address them. Based on the foregoing, the current study defines the quality of the budget as

the budget that contains financial allocations that match the necessary needs of society, namely, the optimal distribution of resources available in municipal institutions by applying good governance principles to provide high-quality service and thus achieve community welfare. This budget should also contain clear information on cost elements, inputs, outputs, and outcomes.

## **2. LITERATURE REVIEW**

### **2.1 The Budget and its Criticism**

Budgeting is widely acknowledged as a key element in management control systems (Armstrong et al., 1996; Ekholm & Wallin, 2000; Hansen et al., 2003; Horngren et al., 2012). Budgeting offers various advantages, including cost control and achievement of financial goals for organizational survival (Merchant, 1998). It facilitates organizational efficiency via planning and coordination, while driving control and learning (King et al., 2010). According to Hansen et al. (2003) and Achim (2009), budgets were initially developed to control costs, but at present, it is considered a strategic framework for achieving the goals of the organization by providing a roadmap for future activities to achieve those goals.

Despite the significance of budgeting in facilitating organizational control and planning, several criticisms concerning budgeting had been highlighted by scholars such as Argyris (1953) and McNally (2002) who specifically criticized the issue of budget gaming. Budget gaming is performed by individuals with self-serving goals in an organization. Johansson and Siverbo (2014) assert that budgeting is deemed obsolete in modern business environments. This is because the process is costly and lengthy; upon approval, the budget may no longer be relevant to the current circumstances, as the business environment is constantly and rapidly changing. Additionally, as budgeting is mostly based on approximations, disputes would inevitably occur between managers and related staff (Blay et al., 2019). Because budget is a key tool for planning, controlling, and achieving goals, researchers have focused on improving the quality of the budget by adopting several principles such as participation, transparency, and fairness. These principles help build trust between managers and subordinates and increase the sense of fairness among subordinates, thus motivating them to participate in preparing budgets with accurate information and ultimately improving budget quality (Lubis et al, 2020; Egbide & Agbude, 2012; Libby & Lindsay, 2010).

### **2.2 Factors Influencing the Budget Quality**

Many studies have dealt with the factors affecting budget quality, some of which focus on external aspects, that is, those outside the control of the organization, such as economic and political conditions that affect the resources available to the organization and thus on its budget (Kasidi & Mwakanemela, 2013). Other studies have focused on the internal aspects that are under the control of the organization. For example, Ben (2014) reported that budget reforms negatively affect budgetary quality in Nigeria. Lismawati (2013) found that budgetary quality is driven by the motivation, knowledge, and competency of human resources. Nita (2011) asserted that budgetary participation significantly affects budgetary quality. Finally, Alif

(2010) states that budgetary quality is driven solely by employee behavior. In general, the current researcher did not find any agreement between the studies on a specific set of factors. Therefore, the current research addresses all the important factors that can affect the quality of the budget, whether internal or external.

### **2.2.1 Human Factor (Participation in Budgeting)**

Participation refers to the collaborative decision-making procedure involving several parties, whereby the decision made has an effect on the decision-makers, that is, low-level staff and managers (Navarin, 2017). Kepramareni et al. (2020) defined participation as an organizational process involving organizational members, specifically in decision making. According to the United Nations Development Program (UNDP, 2004), participation is the process of creating appropriate ways and mechanisms for individuals and groups to participate in decision-making processes. All the above definitions agree that participation is a process in which more than one person working in an organization contributes to making a specific decision. Therefore, this study defines participation as the participation of one or more people from different functional levels in the organization to make certain decisions aimed at achieving the general objectives of the institution. The participants were responsible for the accuracy of the information they contributed to decision-making.

Several studies have indicated the importance of participation in reaching the correct decision (Devie et al., 2017; Groen et al, 2017; Carlitz, 2013). Other studies have indicated its importance for budget quality. As the current study examines the factors that impact budget quality, the researcher discusses studies that deal with this relationship. According to Putri et al. (2017), in most organizations, managers at the lower-middle level have more accurate information than their superiors. Therefore, it can be said that budgetary participation provides an opportunity for subordinates to improve budgeting. According to Nasution (2020), budget participation can improve performance and eventually boost organizational effectiveness. This is because participation encourages subordinates, staff, and managers to improve their performance, work harder, and consider the organization's target as their target. Brownell (1983) argued that participation involves interactions between participants. Budget programs involve many employees and often operate in teams. Budget preparations whereby lower-level managers come out estimates, which are later coordinated and communicated upward, are referred to as “bottom-to-top” budgets. As a result, the attainment of goals is logically more likely as a result of lower-level managers having an active role in establishing budgets and also because of their daily involvement in departmental activities, as they know best the abilities of their department and the necessary resource requirements (Campbell, 1985). Participation in the budget also provides a setting in which managers can exchange information and ideas to make budgetary planning, coordination, and control more effective (De Baerdemaeker & Bruggeman, 2015). The authors further argued that effectiveness depends, in part, on goal interdependencies and interactions between participants.

Various scholars, including Lau et al. (2018), Kahar (2016), and Groen et al, (2017), argued that workers' involvement in the process of setting and developing a budget is the major determinant of good budgeting. De Baerdemaeker & Bruggeman, (2015) asserted that staff

participation in the budgeting process helps ensure the perceptions among workers that the goals were fair, and therefore would be more relevant to them. This finding is in line with the budgeting concept that workers' participation may contribute to their greater willingness to accept budgetary goals. Campbell (1985) also supports the notion that information gathered from lower-level managers can facilitate the process of budget preparation. This potentially provides an opportunity to improve the budget quality. In light of the above, the researcher notes the importance of the principle of participation in improving the performance of an institution, achieving its goals, and the role it may play in improving budget quality. Therefore, to reach a good budget, the principle of participation in institutions must be activated at both the individual and departmental levels.

### **2.2.2 Adequate Availability of Financial Resources**

Sufficiency of financial resources can influence effectiveness. In the context of budgets, organizations need to ensure adequate availability of financial resources to effectively finance their projects and conduct related activities. In short, project implementation should be preceded by proper budget planning (Dunk, 2009). Financial resources can be in the form of funds and physical assets (Hope & Fraser, 2003). Adequate fund allocation facilitates effective budget implementation, while physical resources, such as pertinent structures, aid effective project implementation. Regardless, both contribute to the achievement of organizational objectives.

Budget quality necessitates interaction between the finance department and other departments in the organization. Hence, it involves a top-down approach, that is, the finance department providing guidelines or instructions to other departments, as well as a bottom-up approach, that is, the other departments requesting the finance department for budget allocation. Both approaches must occur hand-in-hand; otherwise, negative effects are created, as asserted by Prendegast (2000): "a budget created from the bottom-up may lead to excessive spending and instability if not carefully organized and subject to re-established limits. By contrast, a highly centralized exercise introduces rigidities and loses the vision of those who are close to the service recipients". The implementation of both approaches must be clearly articulated, as it influences how priorities and fiscal targets are integrated into the budget.

### **2.2.3 Managerial Factors**

Organizational effectiveness is determined by various factors, one of which is management's capability to manage human resources within the allocated budget. Burkert et al (2011) highlighted that certain project managers lack knowledge of foreign fund management, budgeting, and accounting. Without proper financial management skills, managers would not be able to understand the protocols of donor expenditure, leading to an inability to secure the required funding. The manager's inability to provide timely and high-quality liquidation documents may complicate the rapid release of the requested funds for a certain project, thus resulting in ineffective donor funds (Douthit, 2015).

According to Kahar (2016), an effective manager ensures the success and timely delivery of a project. Managers' participation in the budgeting process could lead to several favorable



behavioral outcomes, including lower stress, enhanced motivation and job commitment, and greater performance. In contrast, without managerial participation in budget preparation, unwanted behavioral outcomes such as anxiety, stress, and low performance may occur (Reid, 2002). Many organizational failures occur because managers fail to identify problems in advance due to poor monitoring and budget planning to suit current environments (Horngren, Forster & Dater, 2005).

#### **2.2.4 Proper Planning**

Joshi et al (2003) defined budget planning as the process of establishing organizational goals and preparing budgets. To control a budget, a well-planned financial and quantitative plan must be formulated for an upcoming period, typically occurring within a year. The plan must match the organization's long-term development strategy, even if certain events that occur within the budget year may change its objectives. For instance, an economic downturn may temporarily deviate from long-term plans. Hence, prior to budget planning, it is necessary to establish the aims to be achieved in the next financial period (Dunk, 2009).

Once the budget is in place, managers tasked with its operations must be provided with a feedback channel, typically via monthly budget reports. These reports would provide comparisons between the budget and the actual situation, technically known as variance. Properly co-ordinated budget plans are crucial for avoiding bottlenecks. The co-ordination of individual budgets ensures a time- and cost-effective implementation process (Horngren, Forster & Dater, 2005). To this end, the expenditure and revenue patterns over the life cycle of an undertaken project must be properly identified by the management team. This includes potential costs incurred during the project. Realistic financial planning is fundamental for project implementation (Lal Joshi and Abdulla, 1996). Finally, Mwanguni et al (2020) in his cross-sectional study found that budget planning is positively correlated to the quality of the budget.

#### **2.2.5 Monitoring and Evaluation**

Effectiveness is also driven by evaluation. Evaluation plans can facilitate organizations to determine the priorities, resources, time, and skills necessary to accomplish the evaluation. Effectiveness and transparency can only be ensured by the management team's active engagement in monitoring and evaluating budgetary control processes (Lau, C. M., & Scully, G. 2015).

Evaluation plans developed by a workgroup of stakeholders foster collaboration and a sense of mutual purpose, which in turn contributes to the achievement of effective budgetary control (Wang, 2000). This link between policymaking and budget planning is key to ensuring the actualization of a policy. To achieve this, two clear rules are required. The first is the identification of the resource implications of a policy change prior to policy decision-making. The proposal of new policies should be accompanied by quantification of their effects on public expenditure. The Ministry of Finance must be consulted regarding all expenditure-related proposals prior to presenting them to a ministerial committee or the government and unquestionably prior to making any public announcements. Second, implemented budgets must

be monitored and controlled to ensure budget quality over a set period (Horngren, Forster & Dater, 2005).

### **2.2.6 Staff Motivation**

Challenging realistic budgetary targets can significantly help motivate managers. Clear and achievable targets can drive managers to set their budgets (Hansen, Otley & Stede, 2003). The budget enables senior management to assess team performance. However, it should be noted that mere adherence to the budget may not enable a comprehensive measurement of the manager's performance. An effective budget implementation necessitates clear and accurate budget planning, readily available and sufficient financial resources, and involvement of both staff and stakeholders in the budgetary process, which must be motivated enough to ensure the success of the budgetary process (Hansen et al., 2003). In examining the effects of strategy, human resource management, budgeting, and participation in return on assets, Parkinson and Taggar (2000) revealed that budget participation is positively related to motivation.

### **2.3 The Role of the Agency Theory in Understanding Budgeting**

The agency theory aims to resolve these two issues. The first is the occurrence of an agency problem, that is, when shareholders and agents have different goals and when shareholders cannot monitor the activities of the agents because of certain complications. The second is the occurrence of risk-sharing issues, that is, when shareholders and agents have differing attitudes or opinions regarding a certain risk. When this problem occurs, shareholders and agents carry out conflicting actions because of their dissimilar inclinations towards managing risks (Eisenhardt, 1989). The relationship between the principal and agent can lead to a condition of imbalanced information because, in the preparation of the budget, the agent has more information about the company than his superiors. This theory states that when a business is dealing with incomplete information and uncertainty, agency problems arise in the form of moral hazard and unfavorable choices. Moral hazard is a condition in which the principal is unsure of whether the agent is using his/her ability to work appropriately without thinking about the rewards he/she is receiving (Kahar & Chariri, 2016).

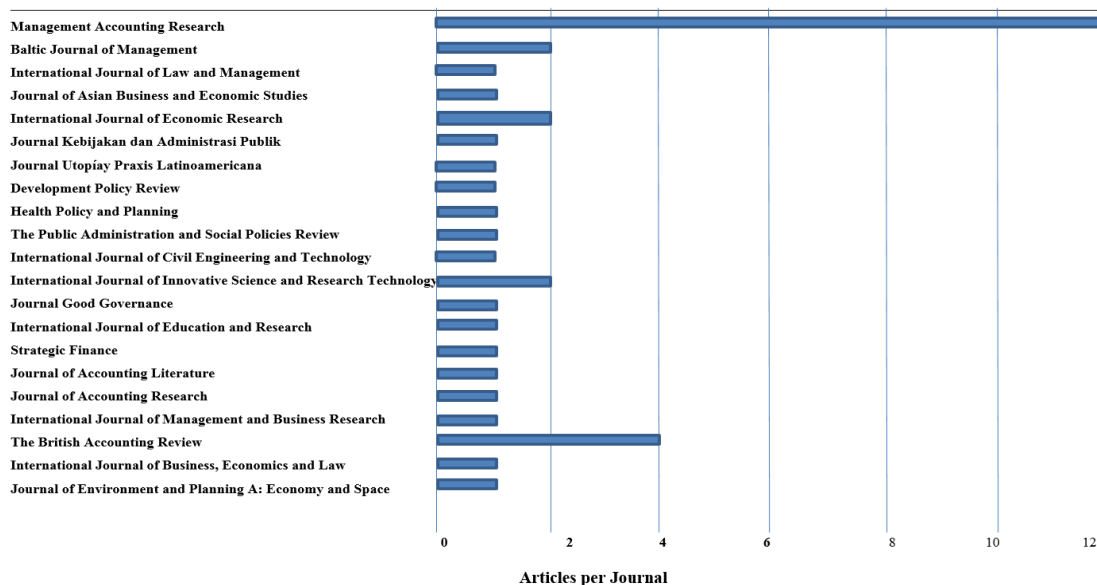
Agency theory focuses on minimizing information asymmetry, that is, a situation in which the agents, as opposed to the principal, are in possession of better information. In the context of budget quality, this theory assumes that due to opportunistic behavior and personal interests, subordinates tend to draft a budget that is profitable for them. Hence, the theory makes several predictions that are of high importance for budgeting, and can help understand the circumstances under which information asymmetry leads to budget slack (Brown & Moser, 2009). For instance, the theory predicts that participants create slack to maximize their expected utility (Brown & Moser, 2009). Studies have shown that the amount of slack can be reduced if the principal knows the production capability of the agent because of associated social pressure (Brown et al., 2009).

### 3. METHODOLOGY

A systematic literature review employs a clear algorithm and multiple-phase review strategy to collect and analytically evaluate a series of research studies (Denyer & Tranfield, 2009; Crossan & Apaydin, 2010). The researcher collected data only from peer-reviewed academic journals. A total of 38 peer-reviewed studies on various aspects of budgeting covering the period from 2003 to 2022 were systematically reviewed. Based on the guidelines for conducting a systematic review derived from Winchester and Salji (2016) and Nguyen et al. (2018), the current study developed a set of search criteria focusing on several keywords (i.e., budget, budgeting, budget quality, budget performance, budget improvement, and better budget). Although the terms differ in the articles obtained, they explain the same interactions between subordinates and superiors, as well as the factors and circumstances affecting budget quality. In addition, the researcher conducted the search using online databases, such as Scopus, Science Direct, ProQuest Dissertations, and Google Scholar. The search focused on all accessible years and articles on business, management, economics, and accounting to eliminate non-related publications.

To ensure that only related articles were selected, a predetermined and structured multiple-step selection procedure was carried out according to the guidelines of Siebels and Knyphausen Aufse (2012) and Vom Brocke et al. (2015). Specific inclusion criteria were determined following Temblrier and Pare (2015). The selection procedure entailed (1) title scanning, (2) abstract reading, (3) duplicate removal, (4) comprehensive reading and analysis of outstanding papers, and (5) cross-referencing and identifying the most frequently cited articles. It is pertinent to find other related studies on this topic. Ultimately, 38 studies on budgeting and its quality determinants were selected for this study. Figure 1 illustrates the distribution of the analyzed studies from journals.

**Figure 2.1: Articles published by journals**





#### 4. FINDINGS

Most previous studies have concentrated on the managerial and intra-organizational functions of budgeting, typically considering budgeting as part of a reform package with obvious disregard of its multi-faceted nature (Johansson & Siverbo, 2014; Hyndman, N. & Connolly, C. 2011; Fisher et al., 2019). In reality, budgeting is an essential medium for bargaining and allocating power and resources, a key planning, decision-making, steering, and controlling mechanism in management, and a primary accountability tool for ensuring transparency and stakeholder engagement (Libby & Lindsay, 2010). Budgeting is a mutual territory for managers, accountants, and employees, but these players typically do not interact well because of cultural, perception, expectation, professional, and managerial differences. Therefore, the significance and purpose of budgeting are frequently disregarded, both academically and practically (Petera et al., 2021). Consequently, budgeting is demoted by the crevices of many fields.

The review of past studies enables researchers to identify the key hindrances to achieving budgetary quality. The first factor entails individual characteristics that are often ignored (Altenburger, 2021). The individuals involved in a project are highly influential in determining its success. Early studies on budgeting have linked the extent of the locus of control to managerial performance (Brownell, 1981; Frucot & Shearon, 1991; Licata et al., 1986). When external managers perceive that organizational outcomes are determined by forces beyond their control, they will develop very little trust in their employees and hence prohibit them from participating in the budgetary process (Licata et al., 1986).

The second factor entails information asymmetry and loss of control due to environmental uncertainty, which also affects practicability. Environmental uncertainty creates fears and disturbances that can result in employee fatigue, which in turn affects practical abilities (Bedford et al., 2022). According to Douglas and Wier (2000) and Heinle et al. (2014), an increase in information asymmetry between managers and subordinates typically leads to changes in budgetary arrangements. The high probability of the prevalence of information asymmetry necessitates greater communication between related parties to reach a definite final budget. According to Chen (2003), budgeting is impractical in certain situations. Without proper incentives that would motivate subordinates to share discreet information, the budgetary process is likely to be expensive and time-consuming to reach an acceptable level of quality (Liverpool, 1990). Dishonesty is among the worst outcomes of subordinates' informational leverage. Misreporting, including the creation of budgetary slack, can occur via participative budgeting; that is, when subordinates have self-serving motivations (Douglas & Wier, 2000; Heinle et al., 2014; Pope, 1984). The superior loses substantial control as the subordinates hold authority over reporting and decision-making (Heinle et al., 2014).

The third factor entails creating a long-distance culture to increase budgetary performance (Douglas & Wier, 2005). Guo et al. (2019) explained that the rule of thumb emerges from the basic assumption that low vertical pay dispersion ensures budgetary success and quality. A situation in which the superior has massive pay or power will create the perception of unfairness, causing subordinates to be demotivated and engaging in misreporting and

budgetary slack. Guo et al. (2019) asserted that long-distance culture and low vertical pay dispersion are most suitable for an open-information culture. In such a setting, the prevalence of dishonesty can be reduced by establishing peer observability, in which honest reporting is the central driver of everybody's work. Hence, this question arises: How can budgetary quality be improved and the rising challenges addressed?

To address these challenges, several studies have indicated the role of governance principles in improving budget quality. Most studies have tested the effect of a specific number of governance principles (one or two) on budget quality (Carril et al., 2020; Lubis et al., 2020; Putra, 2017; Harnovinsah et al., 2020). Therefore, the current study suggests that public and private institutions should adopt the principles of governance to improve the quality of the budget, because measurement errors may appear when using single governance mechanisms or a limited number of governance features (Elmagrhi et al., 2018; Srinidhi et al., 2014).

In conclusion, based on the review, the researchers noted that budget quality has so far played a marginal role in public administration at the accounting research level, especially in the Middle East region. In addition, there is a dearth of studies dealing with budget quality; hence, more studies are needed to fill this gap. Similar notes were reported by Bhiman et al. (2018), Goddard (2010), and Jacobs (2013), who stated that, despite the growth of new journals, mainstream publications have largely focused on topics concerning public sector budgeting.

## 5. DISCUSSION AND FUTURE RESEARCH

Budgeting is central to public organizations. From a research viewpoint, this is an extremely multifaceted and potentially rich field for investigation and development. Moreover, the changing institutional and socioeconomic landscape requires a profound reassessment of its roles and features. However, budgeting has been underinvestigated. The aim of this paper is to review and make sense of the existing literature on public budgeting, looking at how public administration, public management, and accounting have contributed to current budgeting theories and practices, and more importantly, how they can individually and jointly contribute to the future.

After selecting the literature and analyzing the contents, we created a preliminary overview of the objective composition and quality of the budget. Our study combines definitions and aspects that affect budget quality, as well as the importance of agency theory in budgeting. In addition, we discuss some of the challenges faced in the budget preparation process. Thus, by supplementing the overview of budgeting with generalizable findings, we provide an overview of this research topic. Our research indicates that the quality of the budget depends on several factors, including the extent to which employees from different levels of management participate in preparing the budget, the appropriateness of the plans developed with the financial position of the institution, the organizational situation, internal culture, and control systems, in addition to the behavioral aspects of the working parties. Because the studies in our listed literature often focus on case studies, there is a need to explore a broader range of situations. Hong (2015) challenged this increase in basic empirical data to ensure its applicability and generalizability.

Research on budgeting and budget quality considers individuals and their behavior, which are governed by contracts and incentives. Although there is much focus on locus of control (Brownell, 1981; Frucot & Shearon, 1991), the research lacks evidence for other behavioral aspects, personality types, and the influence of subordinate attitude or organizational culture. Therefore, expanding research on these topics and the effects of contracts would improve our understanding of the budget preparation process. The authors also believe that expanding the study of budget preparation and budget quality in institutions that comprehensively adopt the principles of governance will help to better understand the extent to which departments can reduce the challenges facing the budget process, and thus the ability to improve its quality, especially in the Middle East region.

## 6. LIMITATIONS

This review was limited to journals and articles, as shown in the methodology section, whereby the study only included 38 papers. The focus was on internationally acknowledged journals in the scientific community. We cannot guarantee an objective approach because it is impossible to eliminate all partiality, although we used a multi-action approach to ensure a highly objective view. Moreover, some papers and magazines were not available, and only papers written in English were considered, thus limiting our choice of literature. In addition, we only addressed articles published within a specific period, that is, from 2000 to 2022.

## 7. CONCLUSION

This study has developed a systematic review of the literature by reviewing 38 articles containing the related search terms (i.e., budget, budgeting, budget quality, budget performance, budget improvement, and better budget). The quality of budgeting appears to depend on several factors, including the extent to which employees from different levels of management participate in preparing the budget as well as the appropriateness of the plans developed with the financial position of the institution, company culture, information asymmetry, and personal factors of the actors, such as locus of control and risk aversion, which can affect job satisfaction and performance. To deepen the understanding of this method of budgeting, future research with a broader set of factors and more empirical work on longer timeframes is necessary. Other aspects, such as governance principles and their effects on the budgeting process, can benefit this field of research.

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