**Journal of Entrepreneurship, Business and Economics**
ISSN 2345-4695
2024, 12(1), 124–189

# UNDERSTANDING THE CATALYSTS AND OBSTACLES: THE PATH TO PERFORMANCE BUDGETING IN IRAQ'S HIGHER EDUCATION SECTOR

**Ali Hussein Khudhair [1,2]; Zaidi Mat Daud [1]; Hasri Abdul Razak Mustafa [1]; Ali Naeem Jasim [2]**

*[1] School of Business and Economics, Universiti Putra Malaysia, Serdang, Malaysia*
*[2] Ministry of Higher Education and scientific Research, Iraq*
*E-mail: gs60092@student.upm.edu.my*

Received May 2024; accepted July 2024

**Abstract**
Amid growing pressures for efficient governance, performance budgeting (PB) emerges as a crucial reform in developing regions, particularly Iraq, where traditional models have faltered. This study investigates the adoption of PB within Iraq's higher education sector, using a quantitative approach. Data from 401 respondents were analyzed through Partial Least Squares Structural Equation Modeling (PLS-SEM) to explore the influence of internal and external pressures and identify adoption barriers. Results revealed that internal pressures significantly promote PB adoption, while external pressures underscore the global trend towards accountable budgeting. However, persistent barriers, such as institutional resistance and resource scarcity, impede effective adoption. These findings underline the necessity for tailored approaches to PB in contexts like Iraq, offering insights for policymakers on overcoming these challenges.

**Research Paper**

**Keywords:** Performance Budgeting (PB), Iraqi Ministry of Higher Education (MOHE), Internal pressures (IP), External pressures (EP), Barriers (B), Financial management Reform, Government accounting, Organizational change

**Reference** to this paper should be made as follows: Khudhair, A.H., Daud, Z.M., Mustafa, H.A.R., & Jasim, A.N. (2024). Understanding the Catalysts and Obstacles: The Path to Performance Budgeting in Iraq's Higher Education Sector. *Journal of Entrepreneurship, Business and Economics*, *12*(1), 124–189.

## Introduction

Recent research in developing nations has increasingly focused on enhancing government accounting and budgeting systems, driven by strong commitments from governments and support from international organizations like the International Monetary Fund and the World Bank (Adhikari et al., 2013; Allen, 2009). These efforts have led to significant reforms and restructuring aimed at improving financial performance and management. Notably, in the Arab region, the adoption of performance budgeting has emerged as a crucial reform (Ji-yu, 2008; Ouda, 2013). This momentum for reform is propelled by a growing demand for the efficient use of public funds and the realization of policy objectives (Erkutlu et al., 2017; Niu et al., 2005).

Globally, Performance Budgeting (PB) has become a widely adopted technique to enhance public sector performance management. By shifting the focus from inputs to outcomes, PBB aims to provide stakeholders with clear information about the objectives, operating costs, and results of public organizations (Fitz Verploegh et al., 2022; Pollitt, 2018). In Iraq, traditional budgeting techniques are still prevalent (Al-Ameri et al., 2018). The country's budget structure has faced significant structural imbalances since the late twentieth century, primarily due to large fluctuations in public revenues and a sharp increase in operational expenses at the expense of investment expenditures (Al-Khawlani, 2019; Hamid, 2019; E. said Saleh et al., 2019). These imbalances have persisted through two distinct periods: the first marked by an economic embargo from 1990 to 2002, and the second characterized by ongoing deficits and budgetary challenges from 2003 to the present (Chohan, 2022; Khairullah, 2023).

Consequently, public budget reform has become a crucial aspect of Iraq's economic reform agenda (Al-Ghelaiqah et al., 2014; IBRD, 2021). The Iraqi government has expressed a commitment to advancing these reforms, with PBB proposed as an essential technique to advance the economy and safeguard public funds (Al-Jubouri & Hussein, 2019; Al-Mahaini & Karim, 2007; MOP, 2018). To achieve this goal in Iraq, efforts were made to partially adopt performance budgeting in only three ministries—Higher Education, Health, and Planning—in the year 2020 (Abu Meisam, 2019; MOP, 2018).

In the context of Higher Education, it has been reported that performance is one of the elements of the quality of Higher Education (Das & Mukherjee, 2017), and it is expected that adopting PBB will improve this quality. According to Pratolo et al. (2020), Higher Education has been affected by different pressures which push to revisit their organisational structures and internal management approach to provide better quality education because of the competition in labour and education markets to sustain their positions within national and global market competition (Gulden et al., 2020; Mwiya et al., 2019). Presently, the competitive advantage of an HEI, both globally and nationally, is assessed based on its quality and is indicated by its accreditation predicate given by the Accreditation Assessment Institution (Chu & Westerheijden, 2018). To encourage HEI quality improvement, many countries have issued regulations relating to new public management (NPM) practices. One of its focuses is to encourage HEIs to apply good university governance (GUG) practices, one of whose elements is Performance Budgeting (PB) (B. W. A. Jongbloed, 2011). Therefore, adopting new accounting practices within the higher education sector is crucial not only for advancing

national development but also for showcasing its relevance and potential impact to a global audience, particularly in developing countries.

Supporting this initiative, recent Iraqi studies have begun to evaluate the benefits of PBB within governmental frameworks. Researchers such as Almustawf (2022) and Muhammad et al., (2019) have highlighted PBB's potential to enhance planning and control over resources, demonstrating its flexibility and focused execution. Khalil (2019) discusses the possibility of developing program budgets and performance in government administrative units, while Daeem & Khalif (2023) propose a model for transitioning to program and performance budgeting at localized governmental units like Sumer University. Additionally, Muteb et al. (2018) explore the application of program and performance budgeting as tools for planning and control in government units. Taking such an approach can help public organizations achieve better performance (Crain & O'Roark, 2004; B. Jongbloed & Vossensteyn, 2001; Lorenz, 2012).

Despite these advances, the focus of empirical research in Iraq on the positive impacts of PBB, and the strong recommendation to support the government's decision to adopt it to improve financial management in Iraq, the adoption never took place. According to (Jasim et al., 2024) this can be related to the lack of research into the drivers and barriers to adopting PBB in Iraq remains underexplored.

The Iraqi's adoption failed to ride the wave of change in safety can be related to mimicking the reform approaches of developed nations. According to (Ehsein, 2014; Okoroafor, 2021; Surianti & Dalimunthe, 2015) developing countries in such change consider the global converging pressures and ignore

local diverging pressures that shape the development of performance budgeting. The consensus that has prevailed since the 1990s – that developing countries should mimic the reform approaches of developed nations has largely proven unsuccessful (Doorgakunt et al., 2022; Surianti & Dalimunthe, 2015). most studies on factors influencing PBB have been conducted in developed countries, often post-adoption in developing nations such as Libya, Indonesia, and Nigeria, the introduction of PBB has faced challenges due to both global converging pressures and local diverging pressures that shape the development.

Empirical evidence underscores the imperative of meticulous management of the change process to guarantee the efficacious adoption of novel accounting practices. Consequently, public entities must proactively discern and navigate both organizational and individual factors that impinge upon such transformative changes (Z. Saleh et al., 2012). As Iraq differs from developed countries as well as other developing countries, adopting new management systems requires considering its specific context (Aletaiby, 2018; Basheer et al., 2022; Rahi et al., 2024). Therefore, understanding and addressing the factors that may influence the successful adoption of PBB is particularly crucial.

Developing these arguments, this study aims to fill this gap by examining the internal and external pressures and barriers impacting PB adoption in Iraqi higher education, providing insights into both global influences and localized challenges.

The results of the study extend the body of knowledge, primarily that related to empirical studies of PBB issues in the HEI sector, particularly in

the developing country context. Many PBB studies have indeed been conducted. However, most were undertaken in developed country contexts, such as the US (Lu et al., 2011); the UK (Noman, 2008); Australia and New Zealand (Martí, 2013); and Western European countries (Jones et al., 2013a; Kuhlmann, 2010; Lorenz, 2012). In addition, previous studies have also mostly focused on for-profit organizations (FPOs), rather than not-for-profit organizations (NFPOs), such as HEIs.

## Literature Review

### Fiscal Evolution and the Drive for Performance Budgeting

The evolution of budgeting practices in Iraq, from its inception in 1921 with influences from Ottoman and British financial systems to contemporary challenges, illustrates a complex fiscal environment shaped by historical reforms and persistent economic dependencies. Initially, the budget was predominantly based on agriculture, customs, and taxes, with oil royalties making a minor contribution until the 1930s when oil began significantly impacting the economy (Chohan, 2016; Savage, 2013; Shoukry, 1990; Batrancea et al., 2019, 2022). Over the years, Iraq has undergone several critical legislative changes to modernize its fiscal framework, including the General Accounts Procedure Law of 1940, which aligned closely with British fiscal and parliamentary systems, and the significant restructuring in 1985 that segmented the budget into current, investment, and self-financed sectors (Mohsin, 2017; Savage, 2013).

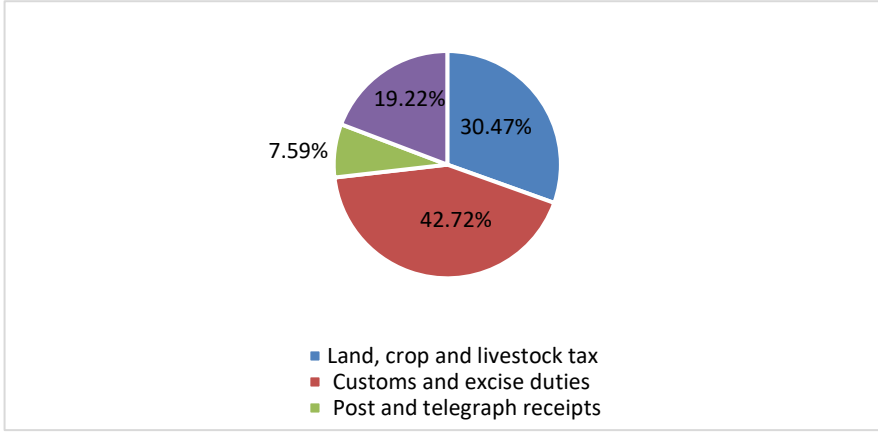



**Figure 1**. Revenue Distribution in Iraq (1921-1923) (Data source: Burrows & Cobbin, 2011)

Despite concerted efforts, Iraq's budgetary practices continue to face inefficiencies and structural imbalances, exacerbated by prolonged conflicts, economic sanctions, and a heavy reliance on oil revenues, which constitute more than 87.14% of the national income. These challenges have been particularly acute since the 1990s, leading to persistent economic difficulties and budget deficits (Al-Khawlani, 2019; Chohan, 2022; Hamid, 2019; Khairullah, 2023; E. said Saleh et al., 2019). The compounded impact of wars, economic blockades, and internal corruption has further strained the system, hindering effective policy adoption and development, particularly in sectors critical to societal stability and growth like higher education (Alebadi & AlSaadi, 2021; Alkhoja et al., 2016; Salih, 2024). Consequently, the traditional budgeting system (TBS) has been blamed for many of Iraq's economic issues, and it is recognized as an unsuitable technique for budget preparation in Iraq, prompting calls for significant reforms in this area (Al Saedi, 2020; Mansour et al., 2019; M. S. Muhammad, 1996).

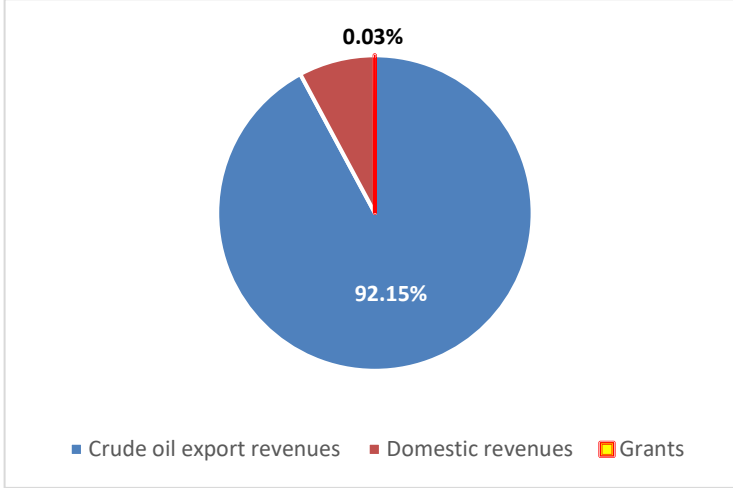



**Figure 1.** Revenue Distribution in Iraq (2013-2015) (Data source: PEFA, 2017)

In response, the Iraqi government has expressed a commitment to reforming its financial management practices, with Performance Budgeting (PB) at the forefront of this initiative. PB is seen as a potential catalyst for enhancing transparency, accountability, and efficiency in resource allocation. Recent studies have begun exploring the acceptance and benefits of PB within the governmental frameworks, suggesting its utility for more strategic planning and resource control (Al-Jubouri & Hussein, 2019; Al-Mahaini & Karim, 2007; MOP, 2018; M. T. Muhammad et al., 2019). However, there remains a significant gap in comprehensive, empirical research to assess the capacity to effectively adopt such reforms (Al-Baghdadi, 1998; Khudhair & Al-Zubaidi, 2024).

## Methodology of the Ministry of Higher Education and Scientific Research in Cost Allocation

The Ministry of Higher Education and Scientific Research's cost allocation methodology is predicated on a historical budgeting paradigm. This conventional method employs empirical data from the preceding fiscal period, as extracted from the accounting system to project forthcoming revenues and expenditures. While this approach is grounded in actual fiscal performance and accommodates modifications for inflation, growth, and strategic imperatives, it is not without its constraints. The historical budgeting method is inherently reactive, basing forecasts on antecedent assumptions and neglecting prospective external variables and uncertainties that may impinge upon fiscal planning (Mahaini & Salloum, 2007).

In the context of the Iraqi Ministry of Higher Education and Scientific Research, the historical budgeting approach is compounded by a paucity of collaboration with the Budget Department, resulting in misaligned budget allocations that prioritize remuneration over scientific endeavours (Khaghaany, 2022). The budgeting process within universities is characterized by its incremental nature and inflexibility, with a dearth of information dissemination and departmental engagement (Mah'd, 2014). The higher education infrastructure in Iraq grapples with challenges such as infrastructural inadequacies, the quality of education, and a deficiency of qualified teaching personnel (Mahmud, 2013). The significance of strategic planning in augmenting university competitiveness is underscored, advocating for enhanced strategic planning initiatives (Hussein, 2021). Moreover, the utility of electronic information sharing in bolstering service provision and decision-making processes is accentuated (Mohammed, 2015). A shift towards contractual budgeting is advocated to ameliorate financial performance (Khaghaany, 2022).

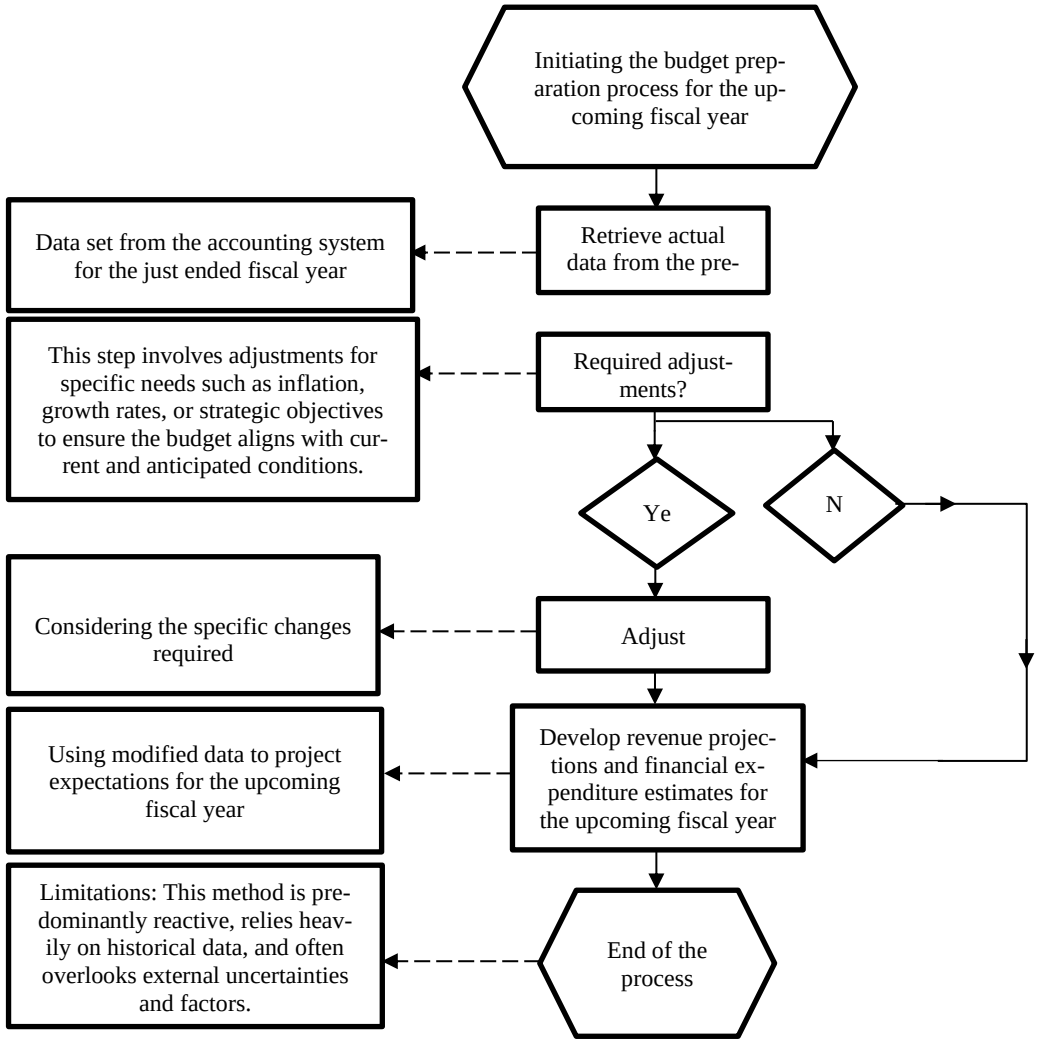



**Figure 3.** Flowchart of the Cost Allocation Methodology at the Ministry of Higher Education (Source: Jasim et al. (2024))

Figure 3 delineated by the Ministry elucidates the steps for cost allocation for the estimated fiscal year. It commences with the retrieval of the antecedent year's financial data, followed by an assessment for requisite adjustments pertinent to inflation, growth, or strategic objectives. After adjustments, the process culminates in the forecasting of revenue and expenditure

for the forthcoming year, predicated on the adjusted or original data. The flowchart elucidates the limitations of this methodology, highlighting its reactive nature, reliance on historical data, and disregard for external uncertainties such as market volatility, political instability, or environmental factors, which could significantly influence the Ministry's fiscal performance and budgeting (Dana et al., 2022; Salamzadeh et al., 2022; Jasim et al., 2024).

## Performance budgeting in higher education: bridging strategic planning and execution

The evolution of Performance Budgeting (PB) within higher education has been marked by a gradual shift towards outcome-based approaches to funding and resource allocation. This shift towards PB seeks to link the financial resources provided to higher education institutions with measurable performance goals and results, such as graduation rates, research output, and employment rates of graduates. The intent behind PB is to incentivize institutions to improve their performance in areas aligned with state and national educational priorities (Hagood, 2019; Shin et al., 2023; Ward & Ost, 2021).

In California, as in many parts of the world, performance-based funding has been explored to encourage higher education institutions to improve outcomes. The concept operates on the principle that funding should be contingent upon achieving certain educational benchmarks, reflecting an emphasis on accountability and efficiency in the use of public funds. The experience of California suggests that while the state has experimented with various forms of performance-based funding, it has yet to fully commit to linking outcomes with funding in a way that could potentially transform higher education (Murphy et al., 2014).

Similarly, the Turkish higher education system has seen significant reforms with the introduction of PB, which is rooted in the broader context of New Public Management reforms. Performance Budgeting on Strategic Planning has been adopted to enhance the alignment of treasury grants with the performance success levels of public institutions and universities. Despite challenges and deficiencies, such as the novelty of PB systems and the need for robust data collection mechanisms, Turkey has moved towards a strategic and performance-oriented funding model (Altundemir & Goksu, 2017).

The role of strategic planning in Performance Budgeting is pivotal. A strategic plan serves as a roadmap for an institution to define its mission, vision, goals, and performance indicators. Performance indicators, in turn, provide a quantifiable measure of an institution's progress towards achieving these goals. In PB, these indicators are used to determine the allocation of funds, thereby directly impacting an institution's financial health and operational focus. The emphasis is on rewarding institutions that demonstrate improvement and meet predefined performance metrics (Evelyn, 2019; Ojra et al., 2021).

Performance Budgeting has been first adopted in countries like Australia and New Zealand and has since become a global trend. The approach has been to ensure that the allocation of public funds to higher education institutions is based on performance indicators, which often include but are not limited to graduation rates, research outputs, and labor market outcomes (Ojra et al., 2021; Shin et al., 2023).

In Turkish higher education, the strategic plans and performance indicators are annually prepared by higher education institutions and are crucial for treasury grant allocation. However, the transition to a fully adopted PB

system in Turkey's higher education faces various challenges, including a persistent reliance on traditional funding methods and a lack of infrastructure for rigorous performance evaluation (Altundemir & Goksu, 2017).

In conclusion, performance budgeting in higher education is at various stages of adoption across different jurisdictions. While it offers the promise of more accountable and result-oriented management of higher education institutions, the effectiveness of PB systems is contingent upon the development of reliable performance indicators, the commitment of stakeholders, and the capacity of institutions to adapt to these performance-based funding models.

**Accounting to support higher education reform**

Due to the NPM-inspired reforms such as self-management of operations, many public agencies, including universities, have looked for new instruments to support decision-making. One such supporting instrument is the accounting system (Agasisti et al., 2008). As highlighted in the previous, public universities are now operating in an environment of decreased government funding coupled with university management taking more responsibility for financial management. This need for improved information has led to the modernization of the accounting practices employed within the government and its agencies. Performance Budgeting as a modernization of accounting practices (Diamond, 2002, 2003; Raudla & Bur, 2022; Shah & Shen, 2007) can be seen in the move from cash to accrual accounting; line-item budget allocations to program budgets; performance measurement based on both fi-

nancial and non-financial information; and contribute to better resource allocation and service delivery (Budding et al., 2022; Lorenz, 2012; Martí, 2013; Mcgill, 2001; Robinson & Brumby, 2005; Yamamoto, 1999).

Financial accounting reform plays a central role in modernization (Baird, 2007; Clarke & Lapsley, 2004; Cohen & Zorgios, 2007; Venieris & Cohen, 2004), with techniques, such as accrual accounting considered essential to improve the overall performance and accountability of the public sector (BOSTON, 1987; Hood, 1995; Lapsley & Wright, 2004; Lye et al., 2005a). Modern management accounting techniques such as activity-based costing (ABC) (Baird, 2007; Baird et al., 2007; Brown et al., 2004), the balanced scorecard (BSC), and the use of key performance indicators (KPIs) (Kasurinen, 2002; Maina Waweru et al., 2004), are also needed to provide more relevant information to support decision making. Such techniques enable better control over resources in the public system and provide the knowledge to adapt to the rapidly changing organizational and social environment (Alawattage et al., 2007; Jackson & Lapsley, 2003; Lapsley & Wright, 2004). The adoption of an NPM-inspired performance budgeting approach has been seen to increase managerial control and improve efficiency, effectiveness, accountability and transparency of the public sector (Belhassan, 2023; Lorenz, 2012; Oh & Lee, 1995; Pangaribuan et al., 2024; Rokhman, 2017).

The benefit of the performance budgeting approach has been seen in improved measurement of costs and revenues; more efficient and effective use of resources; and improved measurement of financial performance (Diamond, 2003; Martí, 2013; Mohammadipour, 2014; X. Wang, 2000).

However, the ability of governments to effectively adopt NPM performance budgeting has been questioned. Nickson & Franceys (2003) question the capacity of low-income countries to successfully apply NPM principles broadly, citing constraints in resources and broader reach. Similarly, Djamhuri and Siti-Nabiha (2019) note that the adoption of performance management systems in Indonesia was impeded by an excessive number of performance indicators and varied staff competencies, complicating the application of the Government Institution Performance Accountability System.

Noutomi & Nakanishi (2007) point out specific difficulties in smaller local governments where adopting such reforms is often hindered by administrative and financial limitations. (Jong, 2011) expresses skepticism regarding the effectiveness of Performance Budgeting, suggesting that it does not always produce the anticipated outcomes. Rubakula (2017) emphasizes additional obstacles, such as budget deficits, weak administrative capacity, and a lack of political will, which collectively challenge the adoption of a results-based approach.

Further complicating the landscape, Joyce & Sieg, (2000); Willoughby, (2004) recognize the potential advantages of performance measurement, including enhanced communication and service quality. However, they also acknowledge the limitations of these systems in achieving cost reductions and altering spending patterns. Broom (1995) raises doubts about the long-term sustainability of performance-based government programs, while McNab & Melese (2001) highlight the administrative complexities and the insufficient investment in managerial and information systems necessary

for effective adoption. These critiques underscore that while NPM performance budgeting offers significant promise, its successful application is contingent on overcoming a myriad of substantial challenges.

The literature on performance budgeting in the public sector primarily focuses on post-adoption studies, which often overlook the crucial preparatory stages necessary for successful adoption. This gap is particularly notable in the context of developing countries. For instance, Ehsein (2014) examined factors influencing the success of Performance Budgeting Systems (PB) in Libya post-adoption. Similarly, Erkutlu et al. (2017) investigated the factors critical to the creation and sustainability of Performance Budgeting in Turkey, focusing on the post-adoption phase. Moreover, despite Egypt's attempts to adopt and adopt Performance Budgeting since the 1960s, it has not achieved the anticipated success, as detailed by (Ouda, 2013).

Researchers like Andrews, (2006); Shah & Shen, (2007); Ehsein, (2014); Surianti & Dalimunthe, (2015); Okoroafor, (2021); have emphasized the necessity for reform and the challenges it poses in developing countries, suggesting a strong need to focus on the preliminary stages of performance budgeting. Similarly, McGill, (2006); Tandberg, (2008) have pointed out the difficulties in realizing investment plans and the importance of accountability and measurability in performance budgeting systems. These insights underline a significant deficiency in the literature: a lack of focus on the initial challenges and preparatory stages that are critical for the successful adoption of performance budgeting, especially in developing contexts such as Iraq. This oversight necessitates a more thorough examination and understanding of these early stages to enhance the effectiveness of performance budgeting initiatives in such environments.

## Theoretical Framework: Exploring Accounting Change with Contingency Theory

Contingency theory has been instrumental in advancing our understanding of organizational behavior, particularly since the late 20th century. Originating from influential works by scholars such as Otley, (1980), Tarter & Hoy, (1998), and Thomas (1991), contingency theory offers a comprehensive framework for examining changes in accounting practices within organizations. Otley (1980) underscored the significance of situational factors in shaping financial management systems. Tarter and Hoy (1998) applied these principles within educational contexts, proposing that the efficacy of educational management is significantly influenced by both the internal dynamics of educational institutions and the external environmental pressures they face (Salamzadeh et al., 2013). Thomas (1991) broadened this perspective by integrating a variety of organizational structures and managerial processes, highlighting the necessity for organizations to align their strategies with external demands. Woods (2009) expanded on these concepts by introducing the idea of strategic choice within constraints, suggesting that organizations select from a spectrum of management strategies and structures based on their specific situational needs.

The contingency theory of accounting specifically addresses how an organization's external environment, structure, and technology influence its accounting systems. This theory asserts that there is no universal management practice suitable for all organizations; instead, the efficacy of management practices depends on a myriad of factors that vary across different organizational contexts (Otley, 1980; Woods, 2009). External contingent factors may include market pressures, technological changes, and political environments

(Haldma & Lääts, 2002; Hopwood, 1990), while internal factors could involve organizational size and strategic objectives, which directly affect both the organizational structure and the performance metrics employed (Baird et al., 2007; Lüder, 1992).

Moreover, contingency theory helps elucidate the complex dynamics that drive changes in accounting practices. Research supports the notion that the appropriateness of an accounting system is contingent upon organizational contextual variables, suggesting that various internal and external factors influence accounting practices in distinct ways across different organizations (Chenhall, 2003; Christensen & Yoshimi, 2003; Innes & Mitchell, 1990; Lüder, 1992; Otley, 1980; Upping & Oliver, 2012). Lüder (1992) formulated the contingency model of governmental accounting innovations, incorporating both contextual and behavioral variables that impact the stakeholders involved in governmental financial information. This model has been widely referenced and applied in scholarly investigations of public sector accounting changes across a range of countries, including developed contexts such as Italy, the Netherlands, New Zealand, Australia, Japan, and the United States, as well as in developing nations like Thailand, Fiji, Egypt, and Malaysia (Anessi-Pessina et al., 2010; Christensen, 2002; Upping & Oliver, 2012). This research employs the contingency theory framework to explore the situational variables influencing the adoption and adoption of Performance Budgeting (PB) within the complex and varied context of Iraq's Ministry of Higher Education.

## Performance Budgeting: Investigating the Dynamics of Change

To explore the adoption of Performance Budgeting, this research will utilize insights from both public and private sectors to construct a framework that elucidates the contingent factors influencing how and why accounting changes occur in an organization and how these changes are shaped by various factors differently (Innes & Mitchell, 1990; Maina Waweru et al., 2004; Morakul & wu, 2001; Otley, 1980). These contingent variables, both internal and external, impact the need for change (Anderson & Lanen, 1999; Cobb et al., 1995; Innes & Mitchell, 1990; Kattan et al., 2007; Morakul & wu, 2001; Otley, 1980). External variables include uncertainties in the organizational environment such as market pressures, technological innovations, and political dynamics (Haldma & Lääts, 2002; Hopwood, 1990; Otley, 1980). Internal factors primarily relate to the organization's size and its strategic directives, which influence its structural, budgetary, and performance measurement systems (Baird et al., 2007; Hopwood, 1990; Lüder, 1992; Maina Waweru et al., 2004).

Numerous models have been developed to aid in the analysis of accounting change across public and private sectors. Among these, Luder's governmental accounting innovation model, known as the "contingency model," is notably significant for understanding changes in public sector accounting (Christensen, 2002). Originally formulated by Luder in 1992, this model addresses the external and internal factors that drive the reform process and helps elucidate the stimuli behind government accounting reform adoption. The model categorizes these drivers into three groups: (1) Stimuli, which are events triggering the need for better information; (2) Structural variables, en-

compassing the social and political-administrative systems that shape the attitudes of information users and producers; and (3) adoption barriers, which are environmental conditions that impede the change process.

This contingency model has been adapted and applied in various settings (Christensen, 2002; Godfrey et al., 1996, 2001; Yamamoto, 1999), and has been particularly tailored for developing countries by Godfrey et al. (1996, 2001), who introduced the role of international funding and donor agencies as additional contingent variables to drive government accounting reforms. These agencies often make their funding conditional on the adoption of such reforms.

Christensen (2002) expanded the model to include the roles of key actors in the change process—identifying them as promoters of change, information producers, and information users. He articulated that change could be driven by stakeholders with a vested interest in change, or by information producers such as public servants in central agencies and managers in government agencies. Users of the information, such as politicians and oversight bodies like auditors-general and public accounts committees, also stimulate change. Despite the willingness to change, various barriers, such as the public sector's intrinsic characteristics and its accounting system limitations, can constrain the adoption options. For example, Christensen pointed out the poor accounting skills of public servants and inadequate asset records as significant hurdles in shifting to accrual accounting.

Yamamoto (1999) applied this model to the context of Japanese local government, demonstrating how internal and external pressures interact with specific accounting changes needed to meet the demands of both information

preparers and users. His study identified three critical external pressures: performance, accountability, and market pressures, each necessitating specific information for assessment, transparency, and comparison, respectively.

From their study of private sector entities, Innes & Mitchell (1990) identified three primary types of contingent variables that drive accounting changes: motivators, catalysts, and facilitators. Motivators are associated more generally with change, such as market competitiveness, organizational structure, or production technology. Catalysts directly trigger change due to specific events like poor financial performance or new competitive threats. Facilitators, meanwhile, are factors that aid the successful adoption of change, such as available resources or organizational autonomy.

Further adaptations by Cobb et al. (1995) and Kasurinen (2002) refined these models to emphasize factors that facilitate or hinder the change process. Kasurinen's model particularly identifies barriers such as confusers, frustraters, and delayers, each representing challenges that create uncertainty, suppress change processes, or slow down the adoption, respectively.

From the literature review, a model has been developed to investigate the factors influencing accounting change in the Iraqi Ministry of Higher Education, as illustrated in Figure 1. This model aims to explore the situational variables that affect the adoption and adoption of Performance Budgeting (PB) within the diverse and intricate environment of Iraq's Ministry of Higher Education.

It consists of the following elements: pressures for change (both external and internal), and barriers to change, and will be used to investigate the following research questions that will be explored in this paper:

RQ1: What internal factors have influenced the adoption of adoption of PB in the Iraqi Ministry of Higher Education?

RQ2: What external factors have influenced the adoption of PB within the Ministry of Higher Education?

RQ3: What barriers can affect the adoption of PB within the Ministry of Higher Education?

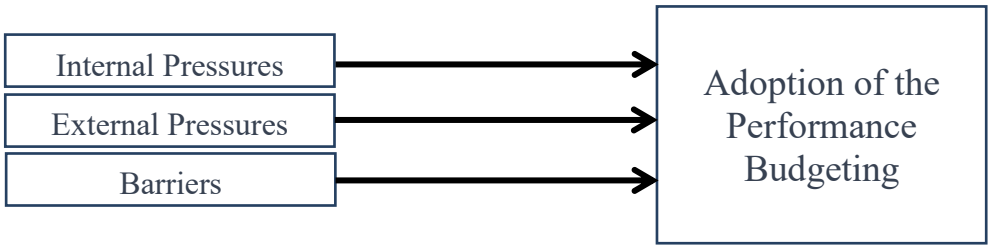



**Figure 4.** The Conceptual Framework (Source: developed by the researchers)

**Hypotheses Development**

Contingency theory posits that an organization's accounting practices are determined by its unique circumstances. According to Otley (1980), the efficacy of these practices hinges on the organization's adaptability to both internal and external changes, suggesting that no single accounting system fits all scenarios. This study draws upon this theory to explore the contingent factors affecting the adoption of accrual basis accounting within the context of Iraq's Ministry of Higher Education. The development of hypotheses is guided by the theoretical framework established earlier, which incorporates internal and external pressures, along with potential barriers that could impact the successful adoption of Performance Budgeting. The hypotheses aim to investigate the significant factors affecting the adoption of Performance Budgeting. These hypotheses will be tested to address the research questions

regarding what internal and external factors motivate changes and what barriers might hinder these changes within the Ministry of Higher Education.

## The Relationship Between Internal pressures and Performance Budgeting

The first objective of the study is to exam the relationship between internal pressures and performance budgeting. Based on the literature, the adoption of Performance Budgeting (PBB) within public sector organizations is profoundly shaped by internal pressures. These pressures arise from both institutional factors and the actions of internal stakeholders who manage and utilize accounting information. Christensen, (2002); Lüder, (1992); and Otley, (1980) underscore that internal pressures can originate from institutional factors such as systemic changes required in financial accounting systems, evolving accounting rules and routines, and attitudes towards organizational change (Burns & Scapens, 2000; Chan et al., 1996). Moreover, internal stakeholders, including the users and producers of accounting information, play a pivotal role in driving these changes, taking responsibility for the overarching accounting system (Harun et al., 2013; Innes & Mitchell, 1990; Kasurinen, 2002).

Institutional factors have increasingly spotlighted performance budgeting and expenditure control as central elements in government financial management. This shift is evident as performance-based budgeting has been found to significantly influence spending patterns and prioritize organizational needs within state governments (Qi & Mensah, 2012). Additionally, the institutional environment and stakeholder demands for increased efficiency and value for money also encourage the adoption of performance

budgeting practices (Brignall & Modell, 2000). Key to this is the utilization of performance information within the budgetary process, which Curristine, (2009); Curristine et al., (2007) highlight as a primary driver for improving public sector efficiency.

Factors such as fiscal transparency are crucial for the development of performance-based budgeting systems (Erkutlu et al., 2017), aligning with global trends towards institutionalizing more refined budgetary practices to meet international standards (Curristine, 2006; Shah, 2007). These trends are motivated by a mixture of coercive, normative, and mimetic pressures (Irvine, 2008). Critiques of traditional line-budgeting systems, which fail to provide precise cost information for performance measurement initiatives (Robinson, 2003), have led to increasing calls for the adoption of performance budgeting. Such systems are designed to enhance efficiency audits, foster external accountability, and spur innovation in government financial management (Dean, 1987).

Performance budgeting, by linking funding directly to results and focusing on outputs and outcomes rather than inputs, requires well-established, clear, and measurable objectives along with accounting systems that accurately report actual results (Ouda, 2013; Robinson, 2003). Essential components include comprehensive cost accounting, which encompasses direct, indirect, and capital costs (Rivenbark, 2000), and robustly designed performance measurement systems (Moullin, 2004).

Given the strategic imperative to refine financial data to support the Ministry's strategic planning, such institutional considerations are critically important. The need to provide information that enhances decision-making underscores the institutional focus on improving governance's effectiveness

and efficiency. As such, performance budgeting serves as a crucial mechanism in integrating strategic planning, program review, and budgeting processes to bolster decision-making and resource allocation (Beckett-Camarata, 2003; White, 2007). Building on the foundational understanding of internal pressures as catalyzers for performance budgeting, this study proposes the following hypothesis:

H1: Internal pressures positively influence the adoption of Performance Budgeting in Iraq's higher education sector.

**The Relationship between External pressures and performance budgeting**

The second objective of this study is to examine the relationship between external pressures and performance budgeting. External pressures encompass both environmental factors and individuals outside the organization capable of influencing accounting changes (Christensen, 2002; Lüder, 1992; Upping & Oliver, 2012). These elements include governmental initiatives for organizational improvement, investment in technology, and regional sociopolitical changes (Innes & Mitchell, 1990; Kasurinen, 2002; Lye et al., 2005b; Upping & Oliver, 2012). Additionally, the agents driving accounting transformations are not limited to the public, who utilize government financial data, but also include professional entities and organizations advocating for such changes. This notion is supported by Luder (1992), who argues that governmental accounting innovations are often propelled by a complex interplay of contextual and behavioral factors affecting both the demand and supply of financial information. Christensen (2002) elaborates on this by highlighting

the role of professional bodies in shaping accounting practices, while Paulsson (2006) offers empirical evidence from the Swedish central government's experience with accrual accounting, emphasizing its significance for public financial management. Upping & Oliver (2012) also discuss the modernization of accounting practices in Thai public universities, highlighting the impact of both external and internal factors.

In terms of organizational environment factors, economic crises have been shown to significantly influence organizational practices, particularly in budgeting. During such crises, organizations tend to prioritize certain budgeting functions, notably planning and resource allocation (Becker et al., 2016), and may also spur innovation in management practices and production methods (Alvarez et al., 2010). Crisis budgeting can lead to alterations in conventional practices and affect the broader budget process (Schick, 2010). The global financial crisis, for instance, has necessitated a reevaluation of budgeting practices (Karkatsoulis, 2010). Concurrently, the globalization of markets pressures public administrations to enhance their efficiency and effectiveness (Saner, 2001), influencing public financial management and budgeting practices worldwide. This trend has facilitated the adoption of international accounting standards and performance-based budgeting systems (Judge et al., 2010; Küçükaycan & Goksu, 2021), driven by efficiency needs, legitimation pressures (Aguilera & Cazurra, 2004), and isomorphic forces (Guler et al., 2002). Furthermore, international organizations and global benchmarks exert significant pressures on countries, especially developing ones, to adopt best practices in the public sector (Andrews, 2012; Fuhr, 2001), promoting techniques like Performance Budgeting (PB) and international accounting standards (Grossi et al., 2018; Sellami & Gafsi, 2019) aimed at improving

resource allocation and utilization (Hepworth, 2015; Moynihan & Beazley, 2016).

Compliance with established budgeting norms by governmental bodies, including legislative bodies, is pivotal for effective oversight and accountability of public finances (Kanyi & Minja, 2019). Increased professionalism among legislators is believed to favorably impact the adoption of PBB reforms (Bourdeaux, 2006; Jang et al., 2021). In the context of Iraq, the public budget is overseen by a mandated permanent parliamentary committee. However, members are not typically experts in fiscal matters, enhancing their professional acumen could substantially improve budgeting practices, thereby fostering a more accountable and transparent fiscal management system.

In the context of external pressures, public organizations are increasingly driven to improve efficiency, transparency, and value creation in service delivery. These pressures arise from specific groups or individuals outside the organization who demand changes in accounting practices, leading to a shift towards new management practices and budgeting approaches. Value-based management, for example, has been introduced to make organizations more responsive to stakeholder demands (Pedersen & Rendtorff, 2004). Transparency practices have been documented to positively impact public value creation (Douglas & Meijer, 2016), and budget transparency has been shown to correlate positively with economic development and inversely with corruption (Bastida & Benito, 2007). In response, innovative accounting policies have been developed to enhance the disclosure and understanding of public finances (S. Cosimato et al., 2015). It is expected that similar patterns will be observed in Iraq. Accordingly, the following hypothesis is proposed:

H2: External pressures positively influence the adoption of Performance Budgeting in Iraq's higher education sector.

**The Relationship Between Barriers to change and Performance Budgeting**

The fourth objective of this study is to examine the relationship between barriers to change and the adoption of performance budgeting. The literature on barriers to accounting change identifies various factors that hinder the adoption of new systems (Schwarze et al., 2007; Upping & Oliver, 2012). Kasurinen (2002) categorizes these barriers as confusers, frustrators, and delayers within change processes. Confusers are defined as factors that create confusion or misunderstanding about the change process or its requirements. Notably, Performance Budgeting (PB) adoption faces several challenges, including confusers that create misunderstandings about the change process. These include a lack of understanding and knowledge among financial management staff, and the absence of a proper adoption blueprint (Diamond, 2003; Erkutlu et al., 2017). Successful PBB adoption necessitates organizational commitment, adequate resources, and appropriate incentives (Kuntadi & Velayati, 2022), with key success factors including management support, a skilled project team, and stakeholder commitment (Parr et al., 1999). Change management strategies are crucial for overcoming these adoption barriers (Bourne et al., 2002; Diamond, 2003). However, many performance measurement initiatives fail due to partial adoption processes that lack guidance on full execution (Bourne et al., 2003).

Frustrators in organizational change processes stem from various sources, including conflicting interests, preferences, and perceptions of costs

and benefits (Demir & Aktan, 2016). Lack of commitment from top management, resistance from financial staff, and resistant mindsets can act as frustrators (Kasurinen, 2002; Pimentel et al., 2009). Communication deficiencies and limited employee involvement are significant contributors to resistance (Appelbaum et al., 2017; Canning & Found, 2015). Organizational culture plays a crucial role in change acceptance (Appelbaum et al., 2017; Trader-Leigh, 2002). Successful change adoption requires adaptive organizational systems, transformational leadership, and the integration of new behaviors into existing culture (Appelbaum et al., 2017). While traditionally viewed negatively, resistance can be a constructive tool for change when properly managed (Waddell & Sohal, 1998). Understanding these factors can help organizations navigate change processes more effectively and improve adoption outcomes (Bourne et al., 2002; Trader-Leigh, 2002). While top management support is important, external expertise can be equally critical (Thong et al., 1996). Consultants play significant roles in various adoption phases, and their effectiveness depends on factors such as technical skills, communication, and conflict resolution abilities (E. T. G. Wang & Chen, 2006). However, ineffective consultants can delay adoption due to user confusion, lack of guidance, and insufficient accounting skills (Pulakanam & Suraweera, 2010). Therefore, organizations should focus on selecting high-quality consultants and ensuring effective knowledge transfer during adoption (Haines & Goodhue, 2000).

Delays in management accounting changes can result from various factors, including insufficient human resources (Allahyari & Ramazani, 2011). While technological solutions like Robotic Process Automation can address some staffing issues, they cannot fully replace human analytical skills

(Fernandez & Aman, 2018). The slow adoption of Human Resource Accounting has been attributed to technical adoption challenges and conflicts between behavioral theorists and financial specialists (Powell et al., 1976). Additionally, the lack of appropriate financial management information systems can impede the adoption of performance budgeting in the public sector (Okoroafor, 2021). Understanding these barriers is crucial for the successful adoption of new accounting systems (Pimentel et al., 2009). Adapting existing models, like Luder's, can help conceptualize factors influencing accounting change in developing countries (Upping & Oliver, 2011). Although barriers could hinder the adoption of accrual accounting, prior studies using the contingency model have shown that these barriers positively affect the adoption of accrual accounting (Ali, 2017; Burns & Scapens, 2000; Chan et al., 1996; Christensen, 2002; Harun & Robinson, 2010; Lüder, 1992; Lye et al., 2005b; Ouda, 2008, 2015; Z. Saleh & Pendlebury, 2007; Upping & Oliver, 2012). Therefore, the following hypothesis is proposed:

H3: Barriers positively influence the adoption of Performance Budgeting in Iraq’s higher education sector.

## Research Method

### Population, unit of analysis and sample

In this research, the theoretical underpinnings were anchored in the positivist paradigm, utilizing an explanatory research model to investigate causal relationships between variables, as suggested by Cooper & Schindler, (2013) and Creswell & Creswell, (2017). Primary data were gathered directly from respondents via a questionnaire designed on a five-point Likert scale, supplemented by open-ended questions allowing for elaborative feedback

(Bryman, 2016; Creswell & Creswell, 2017). The questions were derived from an extensive literature review. Given the cultural context of the Iraqi Ministry of Higher Education and Scientific Research (MOHE), a paper-based mail questionnaire was deemed more appropriate than an electronic version. The questionnaire was initially drafted in English and then translated into Arabic by two professional translators. It was subsequently back-translated into English to verify the translation's fidelity. Moreover, the instrument was piloted and refined based on inputs from eleven Iraqi finance and accounting academics within MOHE universities.

The study encompassed the entire population of MOHE employees with academic qualifications in finance and accounting, amounting to 664 individuals. As such, the research adopted a census approach, distributing questionnaires to all potential respondents within this group, which includes positions such as rectors, vice-rectors, deans, department heads, academics, and financial staff across all public universities in Iraq, excluding those in the Kurdistan region. This strategy ensured comprehensive data collection across the specified population, thereby eliminating the potential for sampling error. The survey achieved a 60 percent response rate, with 401 valid responses.

The response rate of 60 percent is notably high compared to typical outcomes in survey research within organizational contexts. (Fowler Jr, 2013) notes that survey research generally secures a response rate of 10-20% of the needed sample size, while Baruch & Holtom (2008) have documented an average response rate of 35.7% in organizational surveys. This comparative analysis underscores the effectiveness of the survey method and instrument employed in the current study.

**Variables and measurements**

In this research, three exogenous variables—Internal Pressures (IP), External Pressures (EP), and Barriers (B)—along with one endogenous variable, the Adoption of Performance Budgeting (PB), were examined using a 5-point Likert scale to measure attitudes and opinions effectively (Jamieson, 2004; Kusmaryono et al., 2022; Sullivan & Artino, 2013). Internal Pressures (IP) are defined as pressures from institutional factors and the behavior of internal stakeholders, IP influences the management and use of accounting information. Indicators for IP include the need for tighter government expenditure control, enhanced financial management due to reduced funding, and demands for advanced budgeting practices and better decision-making support. The development of the IP construct was informed by the works of Lüder (1992), Otley (1980), Christensen (2002), and Upping & Oliver (2012). Secondly, external pressures (EP) are influences from environmental factors and external stakeholders that drive changes in accounting practices. EP encompasses demands for world-class budgeting, improved efficiency, transparency, and accountability, as well as global influences like financial crises and international recommendations. Seminal works by Lüder (1992), Christensen (2002), and Upping & Oliver (2012) were instrumental in shaping this construct. Lastly, barriers identified as challenges to change include resistance from financial management staff, lack of top management commitment, insufficient knowledge among staff, and technical and financial constraints in adopting new systems. Barriers were categorized based on the framework by Kasurinen (2002), with additional insights from Burns & Scapens (2000) and Ouda (2008). Before the questionnaire was employed to collect the data, we involved eleven experts from the accounting discipline to

validate it. They were asked whether the questionnaire was easy to read and understand and whether it was demanding or confusing. Once the feedback was obtained, minor revisions were made for improvement.

**Data Analysis Method**

In this study, data were analyzed using the variant-based Partial Least Squares Structural Equation Modeling (PLS-SEM), a method well-suited for exploratory research in management and social sciences, especially when handling small sample sizes, complex models, and formative constructs (Hair et al., 2022; Lowry & Gaskin, 2014). PLS-SEM is preferred for its ability to test measurement models and structural models simultaneously (Chin et al., 2012; Hair et al., 2014), offering greater flexibility with unbalanced datasets and latent variables, and often yielding higher reliability and validity metrics compared to Covariance-Based SEM (CB-SEM) (Hair et al., 2021). PLS-SEM is particularly effective for exploratory studies as it uses a causal-predictive approach, focusing on predictions and providing causal explanations, which is different from CB-SEM's theory confirmation focus. According to Hair et al. (2022), the "10 times rule" for sample size in PLS analysis indicates that the sample size should be at least ten times the maximum number of links to any latent variable. In this case, with the maximum indicators for the latent variables External Pressures (EP) and Barriers (B) being 11, the minimum required sample size would be 110. The study's sample size of 401 comfortably exceeds this requirement, ensuring robust and reliable analysis results.

**Data Analysis Method**

In this study, the variant-based partial least squares-structural equation modelling (PLS-SEM) method was used to analyze the data and examine

the hypotheses. This method can simultaneously perform measurement model tests while testing structural models (Chin et al., 2012; Hair et al., 2014). PLS-SEM is recommended especially when dealing with small sample sizes, complex models, and formative constructs (Hair et al., 2022; Lowry & Gaskin, 2014). PLS-SEM is an increasingly popular method for exploratory research in management and social sciences (Fong & Law, 2013; Henseler et al., 2014). It offers greater flexibility in handling unbalanced datasets and latent variables (Hair et al., 2021). PLS-SEM typically yields higher composite reliability and convergent validity compared to CB-SEM, while maintaining comparable discriminant validity and beta coefficients (Jr. et al., 2017). In addition, Whereas CB-SEM is primarily used to confirm theories, PLS represents a causal–predictive approach to SEM that emphasizes prediction in estimating models, whose structures are designed to provide causal explanations (Hair et al., 2021).

According to Hair et al. (2022), the minimum sample size for PLS analysis is the "10 times rule", meaning that it should be greater than 10 times the maximum number of inner or outer model links pointing to any latent variable in the model. As both EP and B are latent variables with a maximum number of indicators pointing to it of 11 for each, the minimum sample should be 110 (10 x 11). Given that the sample collected for the study is 401, then this assumption has been fulfilled.

## Results

### Evaluation of Data Normality and Common Method Bias in SEM

The integrity of Structural Equation Modeling (SEM) in this study hinges on data normality, assessed using skewness and kurtosis in SPSS v.

29.0. Despite typical concerns for substantial non-normality with values beyond ±2 for skewness and ±7 for kurtosis (Stănculescu 2022), the larger dataset allows for more lenient thresholds (Tabachnick & Fidell 2007); Aminu et al. 2014). The study results, with skewness from -1.211 to 0.369 and kurtosis from -0.849 to 2.259, indicate a satisfactory normal distribution (George & Mallery, 2018). To address potential common method bias (CMB), which occurs when a single data collection method leads to excessive correlations among constructs (Bagozzi et al., 1991; Podsakoff & Todor, 1985), the study employed Harman's one-factor test. The analysis revealed that no single factor explained more than 20.271% of the variance, well below the 50% threshold, confirming the absence of CMB and validating the dataset for further analysis.

**Reliability and Convergent Validity in SEM**

In this study, the reliability and convergent validity of constructs were assessed using several metrics. Composite reliability (CR) values for all constructs ranged from 0.797 to 0.911, indicating acceptable internal consistency. Average Variance Extracted (AVE), which measures convergent validity by the squared loadings of items, showed values between 0.502 and 0.595 for all variables, exceeding the threshold of 0.5 and confirming sufficient explanatory power of the constructs (Hair et al., 2022), as shown in Table 3. The measurement model involved 38 reflective indicators. Based on factor loadings, several items were pruned to enhance model robustness: eight items from the Barriers construct, five from External Pressures, and one from Performance Budgeting (table 1). This refinement process, which followed guidelines by Wei & Nguyen (2020) and Hair et al., (2022), sought to ensure that each item's loading exceeded the commonly accepted threshold of 0.5,

thereby contributing positively to the construct's validity. The iterative process of refining the SEM models led to improved construct validity and model robustness, as items with weaker loadings were eliminated. This approach aligns with practices noted in the literature, where item reduction is often necessary to achieve a more valid and reliable measurement model Hair (2017); Sadidi et al. (2018); Pereira et al. (2024). Figure 1 illustrates the measurement model post-refinement, displaying the constructs after adjustments were made based on the PLS-SEM analysis. This visual representation confirms the structural integrity and validity of the refined model, ensuring that all remaining indicators robustly represent their respective constructs.

**Table 1.** Outer Loadings

| The Construct | Items | Outer loadings |
|---|---|---|
| Internal Pressures | IP1 | 0.746 |
| | IP2 | 0.696 |
| | IP3 | 0.704 |
| | IP4 | 0.722 |
| | IP5 | 0.628 |
| | IP6 | 0.681 |
| | IP7 | 0.762 |
| | IP8 | 0.783 |
| External Pressures | EP1 | Deleted |
| | EP2 | Deleted |
| | EP3 | 0.630 |
| | EP4 | 0.634 |
| | EP5 | Deleted |
| | EP6 | Deleted |
| | EP7 | Deleted |
| | EP8 | 0.761 |
| | EP9 | 0.779 |
| | EP10 | 0.741 |
| | EP11 | 0.690 |
| Barriers | B1 | Deleted |
| | B2 | Deleted |
| | B3 | Deleted |
| | B4 | Deleted |
| | B5 | Deleted |

| | | |
|---|---|---|
| | B6 | 0.829 |
| | B7 | 0.711 |
| | B8 | 0.717 |
| | B9 | Deleted |
| | B10 | Deleted |
| | B11 | Deleted |
| Performance Budgeting | PB1 | 0.752 |
| | PB2 | 0.811 |
| | PB3 | 0.799 |
| | PB4 | 0.785 |
| | PB5 | 0.770 |
| | PB6 | Deleted |
| | PB7 | 0.753 |
| | PB8 | 0.726 |

The internal consistency of a group of items is measured by Cronbach's alpha, which indicates how closely related they are to one another. The CA value range between 0.625 to 0.886 is considered valid to ensure internal consistency (Drolet & Morrison, 2001; Hair et al., 2022; Hayduk & Littvay, 2012). Figure 5 shows the modified model after removing the indicators that were below the minimum accepted threshold

Additionally, the findings regarding Variance Inflation Factor (VIF) values are presented in Table 2. All VIF values were below the critical threshold of 5, as indicated by Hair et al. (2022). This result confirms the absence of collinearity issues within the study, corroborating the methodological soundness noted in similar studies by Pereira et al. (2024) and Sarstedt et al. (2017).

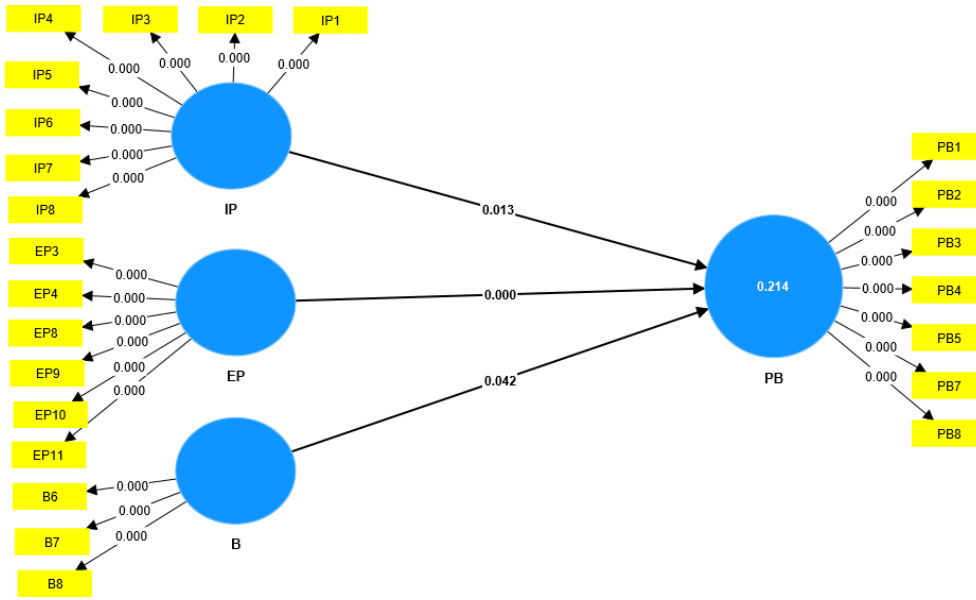
**Table 2.** Multicollinearity test (inner VIF)

| | Performance Budgeting |
|---|---|
| Barriers | 1.017 |
| External Pressures | 1.509 |
| Internal Pressures | 1.492 |
| Performance Budgeting | |

### *Assessment of Reliability and Convergent Validity*

The evaluation of construct reliability is imperative to ascertain error-minimized measures and consistent outcomes. Convergent validity is established when a construct's measure correlates positively with alternate measures of the same construct Hair et al. (2022). This study employed outer loadings to gauge indicator reliability, Cronbach's alpha (CA) and composite reliability (CR) to assess internal consistency, and average variance extracted (AVE) to evaluate convergent validity (Pereira et al., 2024). These metrics were instrumental in appraising the measurement model delineated by the research framework (Figure 5).

**Figure 5.** Structural model




As depicted in Table 3, the constructs' reliability and validity were scrutinized utilizing CR and AVE, in conjunction with CA. The CR values, reflective of internal consistency, spanned from 0.634 to 0.885 across all con-

structs, thus confirming acceptable reliability following the benchmarks posited by Cheung et al. (2023). The AVE scores, indicative of the variance captured by the latent construct from its indicators, were commendably above the 0.5 threshold, with a range from 0.511 to 0.593, thereby satisfying the criteria for adequate construct validity as prescribed by Hair et al. (2022). Furthermore, the internal consistency of the item clusters was substantiated via CA values, which varied from 0.780 to 0.911. These figures denote a robust level of reliability and are in alignment with the recognized standards (Tiep et al., 2021). The employment of these statistical measures is crucial as they validate the interrelatedness of the items encompassed within a construct.

**Table 3.** Reliability and Convergent Validity

| | **Cronbach's alpha** | **Composite reliability (rho_a)** | **Composite reliability (rho_c)** | **Average variance extracted (AVE)** |
|---|---|---|---|---|
| Barriers | 0.625 | 0.643 | 0.797 | 0.569 |
| External Pressures | 0.802 | 0.817 | 0.857 | 0.502 |
| Internal Pressures | 0.865 | 0.876 | 0.894 | 0.514 |
| Performance Budgeting | 0.886 | 0.887 | 0.911 | 0.595 |

### *Discriminant validity test results*

Discriminant validity is the extent to which one construct is truly distinct from others within a model, as evidenced by empirical data. It is crucial to demonstrate that a construct captures unique phenomena not represented by other constructs (Tilahun et al., 2023). The Heterotrait-Monotrait (HTMT) ratio is a contemporary approach to assessing discriminant validity, providing a relative comparison between inter-construct correlations (heterotrait) and

intra-construct correlations (monotrait) (Hair et al., 2022). An HTMT threshold of 0.90 is generally accepted as indicative of discriminant validity (Henseler, 2018; Roemer et al., 2021).

As delineated in Table 4, the HTMT ratios serve as a barometer for discriminant validity among the constructs. The highest recorded HTMT value in this study is 0.676, which is significantly below the conventional threshold of 0.90 or the more conservative benchmark of 0.850. This finding corroborates the distinctiveness of each construct, thereby validating the discriminant validity as per the established heuristic guidelines and affirming the reliability of the constructs within the research framework.

**Table 4.** Discriminant Validity via Heterotrait- Monotrait (HTMT)

| | B | EP | IP | PB |
|---|---|---|---|---|
| B | | | | |
| EP | 0.179 | | | |
| IP | 0.110 | 0.676 | | |
| PB | 0.185 | 0.497 | 0.409 | |

**Interpretation of Hypothesis Testing Outcomes**

The results of the hypothesis testing, as illustrated in Table 5, conform to the established criteria that a hypothesis is considered substantiated if the t-value exceeds 1.65 or if the p-value reaches significance at the 0.10 level, according to Hair et al. (2022). The path analysis confirmed that all proposed hypotheses were supported, each showing a significance level of 0.00.

**Table 5.** Summary of Direct Effects on Performance Budgeting Adoption

| | Original sample (O) | Sample mean (M) | Standard deviation (STDEV) | T statistics (\|O/STDEV\|) | P values |
|---|---|---|---|---|---|
| B -> PB | 0.088 | 0.098 | 0.044 | 2.006 | 0.045 |
| EP -> PB | 0.310 | 0.308 | 0.077 | 4.019 | 0.000 |
| IP -> PB | 0.186 | 0.197 | 0.075 | 2.495 | 0.013 |

Additional metrics, which include R-squared, f-squared, and Q-squared values, are also detailed in Table 6. Hair et al. (2022) describe the explanatory power of a model as its ability to fit the data, which is evident through the strength of associations shown in the PLS path model. The $R^2$ values, which range from 0 to 1, are indicative of this power. According to J. Cohen (1988), f-squared values classify effect sizes as follows: values from 0.00 to 0.15 denote a small effect, 0.15 to 0.35 indicate a medium effect, and values over 0.35 signify a large effect. Additionally, Q-squared values above zero demonstrate satisfactory predictive relevance in PLS-SEM models, as corroborated by studies from Chin, (1998); Hair et al., (2012); Henseler et al., (2015).

**Table 6.** R-squared, f-squared, and Q-squared value

| | **R-square** | **R-square adjusted** | **B** | **EP** | **IP** | **PB** | **SSO** | **SSE** | **$Q^2$ (=1-SSE/SSO)** |
|---|---|---|---|---|---|---|---|---|---|
| **PB** | 0.214 | 0.208 | | | | | | | |
| **Effect size ($f^2$)** | | | 0.010 | 0.081 | 0.030 | | | | |
| **PB** | | | | | | | 2807.000 | 2464.174 | 0.122 |

The table summarizes key statistical measures related to the regression analysis of the Performance Budgeting (PB) construct. The R-square value of 0.214 indicates that approximately 21.4% of the variance in the dependent variable is explained by the model, with the adjusted $R^2$ value of 0.208 slightly lower, accounting for the number of predictors in the model.

The effect sizes $F^2$ for the barriers (B), external pressures (EP), and internal pressures (IP) are 0.010, 0.081, and 0.030, respectively, suggesting that EP has the most substantial relative impact on the model, although all values indicate a small effect size. Finally, the predictive relevance ($Q^2$) value for PB is 0.122, derived from an SSO of 2807 and an SSE of 2464.174, which means the model can predict the data points it was designed to explain.

**Discussion**

This study unequivocally supports all proposed hypotheses, elucidating the positive factors influencing the adoption of performance budgeting within the Iraqi Ministry of Higher Education (MOHE). The acceptance of Hypothesis 1 demonstrates that internal pressures significantly encourage the adoption of performance budgeting, resonating with findings from Aquino & De Castro (2021) and Kasumba (2013), who noted the role of internal pressures in fostering and maintaining new practices within organizations. This finding aligns with Christensen (2002); Lüder (1992); and Otley (1980), who emphasize that internal pressures originate from institutional demands for systemic changes and shifts in accounting routines, coupled with a proactive stance from internal stakeholders towards these transformations. Furthermore, the broader implications of performance budgeting on spending patterns and organizational prioritization, as identified by Qi & Mensah (2012), underscore the integral role of institutional environments and stakeholder demands in enhancing public sector efficiency and adopting budgeting reforms. The study highlights the importance of fiscal transparency and aligns with global movements towards sophisticated budgetary practices as discussed by (Erkutlu et al., 2017) and Shah (2007). Additionally, critiques of traditional

budgeting methods by Robinson (2003) advocate for performance budgeting systems that not only refine cost management but also improve accountability and stimulate innovation in financial governance. Overall, the findings affirm that multiple layers of internal pressures can play a role in knowledge internalization, affecting the adoption of new practices and sustain as observed in the adoption of budgetary practices (Kasumba, 2013).

Secondly, the results of this study confirm the positive influence of external pressures on the adoption of performance budgeting, as substantiated by the acceptance of Hypothesis 2. This aligns with the research conducted by Shalikhah (2014) and Friyani & Hernando (2019), who observed similar impacts of external forces on organizational accounting practices. The research delineates external pressures as comprising both environmental factors and influential individuals external to the organization that catalyze changes in accounting systems. Coercive influences from central governments, regulatory frameworks, and citizen demands, coupled with global reform initiatives, are pivotal in driving the adoption of Performance Budgeting (PB) within governmental financial management. This perspective is reinforced by Lüder (1992), who posited that innovations in governmental accounting are typically driven by a complex amalgam of contextual and behavioral factors that affect both the demand and supply of financial information. Public entities are increasingly compelled to enhance efficiency, transparency, and value in service delivery. These external demands often stem from specific groups or individuals outside the organization who advocate for transformative changes in accounting practices, thereby fostering a transition towards innovative management and budgeting methodologies.

The third objective of this study was to explore the relationship between barriers to change and the adoption of performance budgeting, confirming Hypothesis 4 through the identification of three principal barriers. These barriers include a lack of knowledge among financial management staff about Performance Budgeting processes and techniques, a deficiency in a proper blueprint for guiding the Performance Budgeting adoption process, and the inability of financial management information systems to meet Performance Budgeting requirements. These findings resonate with those of Nadolna & Beyer (2021), who reported that the most significant barriers to innovation in the public sector are organization-related, including interaction barriers, content-related barriers to innovation, and organizational culture. Specifically, a lack of organizational (development) strategy often hampers necessary training and capacity building, while an ingrained reluctance to adopt new methods and a generally hostile attitude towards change curtail staff readiness to engage with new budgeting techniques. Additionally, the absence of a clear strategic blueprint hinders the development and dissemination of effective adoption strategies, exacerbated by poor communication with external stakeholders and rigid, vertical communication structures. Moreover, technological barriers arise from outdated infrastructural setups and a lack of integration capacity, which are compounded by an organizational culture that fails to recognize or seize technological advancement opportunities. This confluence of barriers not only disrupts but can halt innovation processes within public sector organizations, necessitating robust management strategies to identify and overcome these obstacles. This study not only fills existing re-

search gaps but also sets the stage for further theoretical and empirical exploration, potentially guiding both academics and practitioners in enhancing innovative activities within public administrations.

In conclusion, the findings of this study contribute to a deeper understanding of the factors influencing the adoption of PB in the public sector. They highlight that while internal and external pressures can act as catalysts for change, recognizing and addressing the barriers is equally essential for the successful adoption of PB. This research adds to the body of evidence suggesting that the move towards performance-informed budgeting is both a strategic response to organizational pressures and a complex process that requires addressing multifaceted challenges.

## Conclusion and Practical Implications

This research elucidates the multifaceted nature of adopting Performance Budgeting (PB) within Iraq's Ministry of Higher Education and Scientific Research, presenting empirical evidence on the significant roles of internal and external pressures, and the impediments posed by various barriers.

Internal pressures, such as the drive for improved financial efficiency and the quest for modern budgeting practices, have been shown to significantly influence the movement towards PB. The practical implication of this is that ministries and similar institutions should foster an internal environment that is receptive to change and innovation, emphasizing the importance of aligning organizational goals with budgeting processes.

The impact of external pressures cannot be overstated. The need to meet stakeholder expectations and adhere to international standards for transpar-

ency and accountability appears to be a potent driver of PB adoption. Practically, this indicates that public sector entities must remain sensitive to the external environment, incorporating stakeholder feedback and global best practices into their financial management strategies.

Conversely, the study identifies barriers that can thwart efforts towards PB adoption. These include gaps in staff knowledge and deficiencies in current financial systems. To overcome these, practical steps such as targeted training programs and system upgrades are essential. Organizations should invest in capacity building and infrastructure development to mitigate these barriers.

The practical implications of this study are clear: for PB to be effectively adopted, a comprehensive approach is needed. This approach should include developing competencies among staff, reforming financial management systems, and ensuring that both internal motivations and external pressures are addressed in a balanced manner.

In sum, the adoption of PB is a strategic initiative that goes beyond mere technical adjustments. It involves a cultural shift towards performance-oriented management, requiring concerted efforts to overcome inherent barriers. This study not only contributes to the academic discourse on PB but also serves as a guide for policymakers and administrators in the public sector, underscoring the critical elements that can either facilitate or hinder the successful adoption of PB.

**Limitations and recommendations**

Apart from its positive implications, the study does of course have some limitations. First, it was only conducted in MOHE in Iraq. Hence, read-

ers should take care when concluding the research results, especially for generalization purposes. Given this point, future research should be undertaken in other ministries or involving privet HEI. It is also suggested that all the Iraq should if possible be covered to acquire better study results. Second, the research tested several determinants of PBB implementation. Further research could involve the political element, and the aspect of legitimacy as additional determinants of PBB adoption. Third, there is the possibility to study how impact of PBB adoption on HEI quality. Finally, other theoretical points of view, such as managerial hegemony, agency, and stewardship, could be considered in subsequent investigations regarding PBB adoption in HEIs.

## References

1. Abu Meisam, M. S. (2019, July 21). Performance and Program Budgeting. Assabah News Paper.
2. Adhikari, P., Kuruppu, C., & Matilal, S. (2013). Dissemination and institutionalization of public sector accounting reforms in less developed countries: A comparative study of the Nepalese and Sri Lankan central governments. Accounting Forum, 37(3), 213–230. https://doi.org/10.1016/j.accfor.2013.01.001
3. Agasisti, T., Arnaboldi, M., & Azzone, G. (2008). Strategic management accounting in universities: the Italian experience. Higher Education, 55(1), 1–15. https://doi.org/10.1007/s10734-006-9032-6
4. Aguilera, R. V., & Cazurra, A. C. (2004). Codes of Good Governance Worldwide: What is the Trigger? Organization Studies, 25(3), 415–443. https://doi.org/10.1177/0170840604040669
5. Al Saedi, A. H. J. (2020). Study and Analyze the Reality of The Deficit in The Public Budget of Iraq; The Solutions & Measures for Financing. Archaralogy Of Egypt/ Egyptogy, 17(3).
6. Alawattage, C., Hopper, T., Wickramasinghe, D., & Tambulasi, R. I. C. (2007). Who is fooling who?: New public management-oriented management accounting and political control in the Malawi's local governance. Journal of Accounting & Organizational Change, 3(3), 302–328. https://doi.org/10.1108/18325910710820319
7. Al-Baghdadi, S. S. (1998). The Budget and The Principles of Its Planning in The Service Economic Units (Non-Profit Government Organizations) [PhD]. Faculty of Administration and Economics\ Baghdad University.

8. Alebadi, D. . N. J. A., & AlSaadi, Dr. S. H. F. (2021). The Iraqi Economy: Reality, Challenges and Proposed Solutions For The Period 2003-2020. Seoul Journal of Economic, 34(1). https://doi.org/10.5281/zenodo.4769403
9. Aletaiby, A. (2018). A framework to facilitate total quality management implementation in the upstream oil industry : an Iraqi case study. https://api.semanticscholar.org/CorpusID:169574960
10. Al-Ghelaiqah, I., Ekman, B. O., Esen, F., Kulaksiz, S., Laing, A., & Stolp, S. (2014). Republic of Iraq - Public expenditure review: toward more efficient spending for better service delivery (English). A World Bank Study Washington, D.C.: World Bank Group.
11. Ali, F. (2017). The Institutionalisation of Accrual Accounting: Exploratory Evidence from the Malaysian Public Sector. University of Warwick.
12. Al-Jubouri, H., & Hussein, F. (2019, September 4). Iraq Public Budget 2020. Media Department of the Iraqi Council of Representatives.
13. Al-Khawlani, S. A. Y. (2019). The Impact of Public Spending Financing in Determining the Money Supply in Iraq. University of Baghdad, College of Administration and Economics.
14. Alkhoja, G. N., Neman, R. A., & Hariz, S. R. (2016). Social safety nets in Iraq : reform in a time of fragility, conflict, and violence. https://api.semanticscholar.org/CorpusID:157147616
15. Allahyari, A., & Ramazani, M. (2011). Studying the Factors Which Delay Management Accounting Changes (Case Study of Iranian Manufacturing Firms). International Journal of Accounting and Financial Reporting, 1(1), 176. https://doi.org/10.5296/ijafr.v1i1.820
16. Allen, R. (2009). The Challenge of Reforming Budgetary Institutions in Developing Countries. In International Monetary Fund.
17. Al-Mahaini, M. K., & Karim, H. A. (2007). The General Budget of The State Between Preparation, Implementation, control, and oversight (A field study of the budget for the Iraqi). Journal of Economic Management, 64, 92–119.
18. Almustawf, H. (2022). Reflection of Programs and Performance Budgeting on the Integrated Financial Information Management System in Iraq. Tobna Journal for Academic Scientific Studies, 5(1), 391–417.
19. Al-Mustawfi, H. A. (2022). Reflection of Programs and Performance Budgeting on the Integrated Financial Information Management System in Iraq. Academic Scientific Studies for Journal Tobna , 5(1).
20. Altundemir, M. E., & Goksu, G. G. (2017). New Trends and Issues Proceedings on Humanities and Social Sciences Performance-Based Budgeting on Strategic Planning: The Case Study in Turkish Higher Education System. New Trends and Issues Proceedings on Humanities and Social Sciences, 3, 263–270. www.prosoc.eu

21. Alvarez, R., Benavente, J. M., & Crespi, G. (2010). Economic crisis and organisational change in developing countries: evidence from Chile. International Journal of Technological Learning, Innovation and Development, 3(1), 67. https://doi.org/10.1504/IJTLID.2010.031054
22. Aminu, I. M., Noor, M., & Shariff, M. (2014). Strategic Orientation, Access to Finance, Business Environment and SMEs Performance in Nigeria: Data Screening and Preliminary Analysis. In European Journal of Business and Management www.iiste.org ISSN (Vol. 6, Issue 35). Online. www.iiste.org
23. Anderson, W. S., & Lanen, N. W. (1999). The international diffusion of new management accounting practice: the case of India. Journal of International Accounting, Auditing and Taxation, 1(1), 85–109.
24. Andrews, M. (2006). Beyond "best practice" and "basics first" in adopting performance budgeting reform. Public Administration and Development, 26(2), 147–161. https://doi.org/10.1002/pad.401
25. Andrews, M. (2012). The Logical Limits of Best Practice Administrative Solutions in Developing Countries. Public Administration and Development, 32(2), 137–153. https://doi.org/10.1002/pad.622
26. Anessi-Pessina, E., Nasi, G., & Steccolini, I. (2010). Accounting innovations: A contingent view on italian local governments. Journal of Public Budgeting, Accounting & Financial Management, 22(2), 250–271. https://doi.org/10.1108/jpbafm-22-02-2010-b005
27. Appelbaum, S. H., Cameron, A., Ensink, F., Hazarika, J., Attir, R., Ezzedine, R., & Shekhar, V. (2017). Factors that impact the success of an organizational change: a case study analysis. Industrial and Commercial Training, 49(5), 213–230. https://doi.org/10.1108/ICT-02-2017-0006
28. Aquino, H., & De Castro, J. M. (2021). The role of institutional pressure in knowledge internalisation: a longitudinal case. International Journal of Management Practice, 14(5), 561. https://doi.org/10.1504/IJMP.2021.10038971
29. Bagozzi, R. P., Yi, Y., & Phillips, L. W. (1991). Assessing Construct Validity in Organizational Research. Administrative Science Quarterly, 36(3), 421. https://doi.org/10.2307/2393203
30. Baird, K. (2007). Adoption of activity management practices in public sector organizations. Accounting & Finance, 47(4), 551–569. https://doi.org/10.1111/j.1467-629X.2007.00225.x
31. Baird, K., Harrison, G., & Reeve, R. (2007). Success of activity management practices: The influence of organizational and cultural factors. Accounting and Finance, 47(1), 47–67. https://doi.org/10.1111/j.1467-629X.2006.00195.x
32. Baruch, Y., & Holtom, B. C. (2008). Survey response rate levels and trends in organizational research. Human Relations, 61(8), 1139–1160. https://doi.org/10.1177/0018726708094863

33. Basheer, M. F., Abdulmuhsin, Amir. A., & Abdullah, H. A. (2022). How Workplace Bullying influences Knowledge Management processes: A developing country perspective. International Journal of Business and Systems Research, 1(1), 1. https://doi.org/10.1504/IJBSR.2022.10033934
34. Bastida, F., & Benito, B. (2007). Central Government Budget Practices and Transparency: An International Comparison. In Public Administration (Vol. 85, Issue 3).
35. Batrancea, L., Nichita, A., Olsen, J., Kogler, C., Kirchler, E., Hoelzl, E., ... & Zukauskas, S. (2019). Trust and power as determinants of tax compliance across 44 nations. Journal of Economic Psychology, 74, 102191.
36. Batrancea, L. M., Nichita, A., De Agostini, R., Batista Narcizo, F., Forte, D., de Paiva Neves Mamede, S., ... & Budak, T. (2022). A self-employed taxpayer experimental study on trust, power, and tax compliance in eleven countries. Financial Innovation, 8(1), 96.
37. Becker, S. D., Mahlendorf, M. D., Schäffer, U., & Thaten, M. (2016). Budgeting in Times of Economic Crisis. Contemporary Accounting Research, 33(4), 1489–1517. https://doi.org/10.1111/1911-3846.12222
38. Beckett-Camarata, J. (2003). An examination of the relationship between the municipal strategic plan and the capital budget and its effect on financial performance. Journal of Public Budgeting, Accounting & Financial Management, 15(1), 23–40. https://doi.org/10.1108/JPBAFM-15-01-2003-B002
39. Belhassan, K. (2023). The Role of Performance Budgeting in Developing Management Control in Universities: Evidence from Morocco. American Journal of Economics and Business Innovation, 2(3), 172–178. https://doi.org/10.54536/ajebi.v2i3.2133
40. BOSTON, J. (1987). TRANSFORMING NEW ZEALAND'S PUBLIC SECTOR: LABOUR'S QUEST FOR IMPROVED EFFICIENCY AND ACCOUNTABILITY. Public Administration, 65(4), 423–442. https://doi.org/10.1111/j.1467-9299.1987.tb00673.x
41. Bourdeaux, C. (2006). Legislative Influences on Performance-Based Budgeting Reform. https://api.semanticscholar.org/CorpusID:157708164
42. Bourne, M., Neely, A., Mills, J., & Platts, K. (2003). Why some performance measurement initiatives fail: lessons from the change management literature. International Journal of Business Performance Management, 5(2/3), 245. https://doi.org/10.1504/IJBPM.2003.003250
43. Bourne, M., Neely, A., Platts, K., & Mills, J. (2002). The success and failure of performance measurement initiatives: Perceptions of participating managers. International Journal of Operations & Production Management, 22(11), 1288–1310. https://doi.org/10.1108/01443570210450329

44. Brignall, S., & Modell, S. (2000). An institutional perspective on performance measurement and management in the 'new public sector.' Management Accounting Research, 11(3), 281–306. https://doi.org/10.1006/mare.2000.0136
45. Broom, C. A. (1995). Performance-Based Government Models: Building A Track Record. Public Budgeting & Finance, 15(4), 3–17. https://doi.org/10.1111/1540-5850.01050
46. Brown, D. A., Booth, P., & Giacobbe, F. (2004). Published by Blackwell Publishing 44 3 Original Article D. In Accounting and Finance (Vol. 44).
47. Bryman, A. (2016). Social Research Method (5th ed.). Oxford University Press.
48. Budding, T., Faber, B., & Schoute, M. (2022). Integrating non-financial performance indicators in budget documents: the continuing search of Dutch municipalities. Journal of Public Budgeting, Accounting and Financial Management, 34(1), 52–66. https://doi.org/10.1108/JPBAFM-02-2020-0009
49. Burns, J., & Scapens, R. W. (2000). Conceptualizing management accounting change: an institutional framework. Management Accounting Research, 11(1), 3–25. https://doi.org/10.1006/mare.1999.0119
50. Burrows, G., & Cobbin, P. E. (2011). Budgetary and financial discontinuities: Iraq 1920–32. Accounting History Review, 21(3), 247–262. https://doi.org/10.1080/21552851.2011.616716
51. Canning, J., & Found, P. A. (2015). The effect of resistance in organizational change programmes: A study of a lean transformation. International Journal of Quality and Service Sciences, 7(2–3), 274–295. https://doi.org/10.1108/IJQSS-02-2015-0018
52. Chan, J. L., Jones, R. H., & Lüder, K. G. (1996). Modeling governmental accounting innovations. Research in Governmental and Nonprofit Accounting, 9, 1–19.
53. Chenhall, R. H. (2003). Management control systems design within its organizational context: findings from contingency-based research and directions for the future. Accounting, Organizations and Society, 28(2–3), 127–168. https://doi.org/10.1016/S0361-3682(01)00027-7
54. Cheung, G. W., Cooper-Thomas, H. D., Lau, R. S., & Wang, L. C. (2023). Reporting reliability, convergent and discriminant validity with structural equation modeling: A review and best-practice recommendations. Asia Pacific Journal of Management. https://doi.org/10.1007/s10490-023-09871-y
55. Chin, W. W. (1998). The Partial Least Squares Approach to Structural Equation Modeling. Advances in Hospitality and Leisure. https://www.researchgate.net/publication/311766005
56. Chin, W. W., Thatcher, J. B., & Wright, R. T. (2012). Assessing Common Method Bias: Problems with the ULMC Technique. In Source: MIS Quarterly (Vol. 36, Issue 3).
57. Chohan, U. W. (2016). The idea of legislative budgeting in Iraq. International Journal of Contemporary Iraqi Studies, 10(1–2), 89–103. https://doi.org/10.1386/ijcis.10.1-2.89_1

58. Chohan, U. W. (2022). Budget Policy and Reconstruction in Iraq. In Global Encyclopedia of Public Administration, Public Policy, and Governance (pp. 875–879). Springer International Publishing. https://doi.org/10.1007/978-3-030-66252-3_3462
59. Christensen, M. (2002). Accrual accounting in the public sector: The case of the New South Wales government. Accounting History, 7(2), 93–124. https://doi.org/10.1177/103237320200700205
60. Christensen, M., & Yoshimi, H. (2003). Public Sector Performance Reporting: New Public Management and Contingency Theory Insights. Government Auditing Review, 10, 271–289.
61. Chu, A., & Westerheijden, D. F. (2018). Between quality and control: what can we learn from higher education quality assurance policy in the Netherlands. Quality in Higher Education, 24(3), 260–270. https://doi.org/10.1080/13538322.2018.1559513
62. Clarke, P., & Lapsley, I. (2004). Management accounting in the new public sector. Management Accounting Research, 15(3), 243–245. https://doi.org/10.1016/j.mar.2004.06.002
63. Cobb, I., Helliar, C., & Innes, J. (1995). Management accounting change in a bank. Management Accounting Research, 6(2), 155–175. https://doi.org/10.1006/mare.1995.1009
64. Cohen, J. (1988). Statistical Power Analysis for the Behavioral Sciences (2nd ed.). LAWRENCE ERLBAUM ASSOCIATES, PUBLISHERS . https://doi.org/10.1016/C2013-0-10517-X
65. Cohen, S. , K. E., & Zorgios, Y. (2007). Assessing it as a key success factor for accrual accounting implementation in Greek municipalities. Financial Accountability & Management, 23(1), 91–111.
66. Cooper, D., & Schindler, P. (2013). Business Research Methods (12th ed.). McGraw Hill International Edition.
67. Crain, W. M., & O'Roark, J. B. (2004). The impact of performance-based budgeting on state fiscal performance. Economics of Governance, 5(2), 167–186. https://doi.org/10.1007/s10101-003-0062-6
68. Creswell, J. W., & Creswell, J. D. (2017). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (5th ed.). Sage.
69. Curristine, T. (2006). Performance Information in the Budget Process: Results of the OECD 2005 Questionnaire. OECD Journal on Budgeting, 5(2), 87–131. https://doi.org/10.1787/budget-v5-art13-en
70. Curristine, T. (2009). Performance Budgeting (PB) in OECD Countries. OECD Publications.
71. Curristine, T., Lonti, Z., & Joumard, I. (2007). Improving Public Sector Efficiency: Challenges and Opportunities by. In OECD Journal on Budgeting (Vol. 7, Issue 1).

72. Daeem, S. S., & Khalif, M. A.-H. (2023). Mechanism for Transitioning from Line-Item Budgeting to Program and Performance Budgeting: A Proposed Model for Sumer University. Al Kut Journal of Economics and Administrative Sciences (KJEAS), 15(49).
73. Dana, L. P., Salamzadeh, A., Ramadani, V., & Palalic, R. (Eds.). (2022). Understanding contexts of business in Western Asia: Land of bazaars and high-tech booms (Vol. 4). World Scientific.
74. Das, P., & Mukherjee, S. (2017). Improvement in higher education quality of the North-East University of India. Total Quality Management & Business Excellence, 28(7–8), 765–781. https://doi.org/10.1080/14783363.2015.1123614
75. Dean, P. N. (1987). Performance Budgeting in India. Public Finance, 42(2), 181–192. https://api.semanticscholar.org/CorpusID:153295105
76. Demir, I., & Aktan, C. C. (2016). Resistance to Change in Government: Actors and Factors that Hinder Reform in Government. International Journal of Social Sciences and Humanity Studies, 8(2), 226–242.
77. Diamond, J. (2002). Performance Budgeting-Is Accrual Accounting Required. International Monetary Fund, 1–31.
78. Diamond, J. (2003). Performance Budgeting: Managing the Reform Process. International Monetary Fund, 1–30.
79. Djamhuri, A., & Siti-Nabiha, A. K. (2019). ADOPTION OF PERFORMANCE MANAGEMENT SYSTEM: EXTERNAL COMPLIANCE VERSUS INTERNAL CAPABILITIES. https://api.semanticscholar.org/CorpusID:201147730
80. Doorgakunt, L. D. B., Omoteso, K., Mirosea, N., & Boolaky, P. K. (2022). Revisiting International Public Sector Accounting Standards Adoption in Developing Countries. International Journal of Public Administration, 45(13), 948–963. https://doi.org/10.1080/01900692.2021.1925692
81. Douglas, S., & Meijer, A. (2016). Transparency and Public Value—Analyzing the Transparency Practices and Value Creation of Public Utilities. International Journal of Public Administration, 39(12), 940–951. https://doi.org/10.1080/01900692.2015.1064133
82. Drolet, A. L., & Morrison, D. G. (2001). Do We Really Need Multiple-Item Measures in Service Research? Journal of Service Research, 3(3), 196–204. https://doi.org/10.1177/109467050133001
83. Ehsein, A. L. I. J. (2014). Factors Influencing the Readiness to Adopt Performance Based Budgeting System (PBBS) Among Libyan Institutions of Higher Learning. University of Malaya.
84. Erkutlu, H. V., Tanç, Ş. G., & Koçyiğit, S. Ç. (2017). The Factors Used to Create Performance-Based Budgeting: A Research on Turkey. In Accounting and Corporate Reporting - Today and Tomorrow. InTech. https://doi.org/10.5772/intechopen.68920

85. Evelyn, E. (2019). Capital Budgeting and Strategic Planning: A Literature Review. In International Journal of Business Management and Commerce (Vol. 4, Issue 3). www.ijbmcnet.com
86. Fernandez, D., & Aman, A. (2018). Impacts of Robotic Process Automation on Global Accounting Services. Asian Journal of Accounting and Governance, 9, 123–132. https://doi.org/10.17576/ajag-2018-09-11
87. Fitz Verploegh, R., Budding, T., & Wassenaar, M. (2022). Policy control as an alternative approach to performance-based budgeting (PBB) to strengthen the link between policy and financial means. Public Money and Management. https://doi.org/10.1080/09540962.2022.2062162
88. Fong, L. H. N., & Law, R. (2013). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). European Journal of Tourism Research, 6, 211. https://api.semanticscholar.org/CorpusID:141629929
89. Fowler Jr, F. J. (2013). Survey research methods. Sage publications.
90. Friyani, R., & Hernando, R. (2019). Determinants of the effectiveness of implementation performance-based budgeting and budget absorption in local governments (study on Jambi city government). Sriwijaya International Journal Of Dynamic Economics And Business , 3(3), 213. https://doi.org/10.29259/sijdeb.v3i3.213-226
91. Fuhr, H. (2001). Constructive Pressures And Incentives To Reform: Globalization and its impact on public sector performance and governance in developing countries. Public Management Review, 3(3), 419–443. https://doi.org/10.1080/14616670110050011
92. George, D., & Mallery, P. (2018). IBM SPSS Statistics 25 Step by Step. Routledge. https://doi.org/10.4324/9781351033909
93. Godfrey, A. D., Devlin, P. J., & Merrouche, C. (1996). Governmental Accounting in Kenya, Tanzania, and Uganda. Research in Governmental and Nonprofit Accounting, 19, 93–208.
94. Godfrey, A. D., Devlin, P. J., & Merrouche, M. C. (2001). A Diffusion-Contingency Model for Government Accounting Innovations. In International Comparative Issues in Government Accounting (pp. 279–296). Springer US. https://doi.org/10.1007/978-1-4757-5563-3_17
95. Grossi, G., Mauro, S. G., & Vakkuri, J. (2018). Converging and diverging pressures in PBB development: the experiences of Finland and Sweden. Public Management Review, 20, 1836–1857. https://api.semanticscholar.org/CorpusID:53372273
96. Gulden, M., Saltanat, K., Raigul, D., Dauren, T., & Assel, A. (2020). Quality management of higher education: Innovation approach from perspectives of institutionalism. An exploratory literature review. Cogent Business & Management, 7(1), 1749217. https://doi.org/10.1080/23311975.2020.1749217
97. Guler, I., Guillén, M. F., & Macpherson, J. M. (2002). Global Competition, Institutions, and the Diffusion of Organizational Practices: The International Spread of ISO 9000 Quality Certificates.

In Source: Administrative Science Quarterly (Vol. 47, Issue 2). http://www.jstor.orgURL:http://www.jstor.org/stable/3094804

98. Hagood, L. P. (2019). The Financial Benefits and Burdens of Performance Funding in Higher Education. Educational Evaluation and Policy Analysis, 41(2), 189–213. http://www.jstor.org/stable/45221672
99. Haines, M. N., & Goodhue, D. L. (2000). ERP Implementations: The Role of Implementation Partners and Knowledge Transfer. IDEA GROUP PUBLISHING. http://www.idea-group.com
100. Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). A primer on partial least squares structural equation modeling (PLS-SEM) (3nd ed.) (3rd ed.). SAGE Publications.
101. Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). An Introduction to Structural Equation Modeling (pp. 1–29). https://doi.org/10.1007/978-3-030-80519-7_1
102. Hair, J. F., Sarstedt, M., Hopkins, L., & G. Kuppelwieser, V. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. European Business Review, 26(2), 106–121. https://doi.org/10.1108/EBR-10-2013-0128
103. Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. Journal of the Academy of Marketing Science, 40(3), 414–433. https://doi.org/10.1007/s11747-011-0261-6
104. Haldma, T., & Lääts, K. (2002). Contingencies influencing the management accounting practices of Estonian manufacturing companies. Management Accounting Research, 13(4), 379–400. https://doi.org/10.1006/mare.2002.0197
105. Hamid, K. A. (2019). The Development of The General Expenses and Their Structure in Iraq. Ahl Al-Bayt Journal, 15, 7–26.
106. Harun, H., An, Y., & Kahar, A. (2013). Implementation and challenges of introducing NPM and accrual accounting in Indonesian local government. Public Money & Management, 33(5), 383–388. https://doi.org/10.1080/09540962.2013.817131
107. Harun, H., & Robinson, P. (2010). The adoption of accrual accounting in the Indonesian public sector. Research in Accounting in Emerging Economies, 10, 233–250. https://doi.org/10.1108/s1479-3563(2010)0000010014
108. Hayduk, L. A., & Littvay, L. (2012). Should researchers use single indicators, best indicators, or multiple indicators in structural equation models? BMC Medical Research Methodology, 12. https://doi.org/10.1186/1471-2288-12-159
109. Henseler, J. (2018). Partial least squares path modeling: Quo vadis? Quality & Quantity, 52(1), 1–8. https://doi.org/10.1007/s11135-018-0689-6

110. Henseler, J., Dijkstra, T. K., Sarstedt, M., Ringle, C. M., Diamantopoulos, A., Straub, D. W., Ketchen, D. J., Hair, J. F., Hult, G. T. M., & Calantone, R. J. (2014). Common Beliefs and Reality About PLS. Organizational Research Methods, 17(2), 182–209. https://doi.org/10.1177/1094428114526928
111. Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. Journal of the Academy of Marketing Science, 43(1), 115–135. https://doi.org/10.1007/s11747-014-0403-8
112. Hepworth, N. (2015). Debate: Implementing advanced public financial management reform in developing countries. Public Money & Management, 35(4), 251–253. https://doi.org/10.1080/09540962.2015.1047261
113. Hood, C. (1995). The "new public management" in the 1980s: Variations on a theme. Accounting, Organizations and Society, 20(2–3), 93–109. https://doi.org/10.1016/0361-3682(93)E0001-W
114. Hopwood, A. G. (1990). Accounting and Organisation Change. Accounting, Auditing & Accountability Journal, 3(1). https://doi.org/10.1108/09513579010145073
115. IBRD. (2021). Iraq Economic Monitor : The Slippery Road to Economic Recovery (English). In Washington, D.C. : World Bank Group. http://documents.worldbank.org/curated/en/981071637593726857/Iraq-Economic-Monitor-The-Slippery-Road-to-Economic-Recovery
116. Innes, J., & Mitchell, F. (1990). The process of change in management accounting: some field study evidence. Management Accounting Research, 1(1), 3–19. https://doi.org/10.1016/S1044-5005(90)70042-X
117. Jackson, A., & Lapsley, I. (2003). The diffusion of accounting practices in the new "managerial" public sector. International Journal of Public Sector Management, 16(4–5), 359–372. https://doi.org/10.1108/09513550310489304
118. Jamieson, S. (2004). Likert scales: how to (ab)use them. Medical Education, 38(12), 1217–1218. https://doi.org/10.1111/j.1365-2929.2004.02012.x
119. Jang, S., Park, S.-J., & Eger III, R. J. (2021). Practice and Theory: The Diffusion of State Legislative Budget Reform. Journal of Public and Nonprofit Affairs, 7(3), 307–323. https://doi.org/10.20899/jpna.7.3.307-323
120. Jasim, A. N., Khudhair, A. H., & Kadhim, H. H. (2024). The Imperative of Modern Budgeting Trends Restructuring Iraq's Public Finances. Accounting and Financial Sciences Journal, 14, 221–244.
121. Ji-yu, C. (2008). Reform Practice of Performance Budgeting Management——Based on an Analysis Frame of International Comparison. Journal of Shanxi Finance and Economics University. https://api.semanticscholar.org/CorpusID:167469900

122. Jong, M. de. (2011). Managing Public Performance Through Budgetary Incentives: Appropriate Regardless the Consequences? https://api.semanticscholar.org/CorpusID:56052406
123. Jongbloed, B., & Vossensteyn, H. (2001). Keeping up Performances: An international survey of performance-based funding in higher education. Journal of Higher Education Policy and Management, 23(2), 127–145. https://doi.org/10.1080/13600800120088625
124. Jongbloed, B. W. A. (2011). Funding Through Contracts: European and Institutional Perspectives. In J. Enders, H. F. de Boer, & D. F. Westerheijden (Eds.), Reform of Higher Education in Europe. SENSE PUBLISHERS. https://api.semanticscholar.org/CorpusID:159309496
125. Joyce, P., & Sieg, S. E. (2000). Using Performance Information for Budgeting: Clarifying the Framework and Investigating Recent State Experience. https://api.semanticscholar.org/CorpusID:43177209
126. Jr., J. F. H., Matthews, L. M., Matthews, R. L., & Sarstedt, M. (2017). PLS-SEM or CB-SEM: updated guidelines on which method to use. International Journal of Multivariate Data Analysis, 1(2), 107. https://doi.org/10.1504/IJMDA.2017.087624
127. Judge, W., Li, S., & Pinsker, R. (2010). National Adoption of International Accounting Standards: An Institutional Perspective. Corporate Governance: An International Review, 18(3), 161–174. https://doi.org/10.1111/j.1467-8683.2010.00798.x
128. Kanyi, E. N., & Minja, D. (2019). Compliance of Budgeting Practices to Budgeting Norms by Government Entities in Kenya: A Case of the Legislature. International Journal of Current Aspects, 3(III), 122–134. https://doi.org/10.35942/ijcab.v3iIII.35
129. Karkatsoulis, P. (2010). The Crisis Effect on Performance Based Budgeting. Public Administration Quarterly, 34(4), 449–478.
130. Kasumba, S. (2013). A new dimension to neo-institutional sociology: Some evidence from the adoption of new budgetary practices in local governments in Uganda. African Journal of Economic and Management Studies, 4(1), 122–143. https://doi.org/10.1108/20400701311303195
131. Kasurinen, T. (2002). Exploring management accounting change: The case of balanced scorecard implementation. Management Accounting Research, 13(3), 323–343. https://doi.org/10.1006/mare.2002.0191
132. Kattan, F., Pike, R., & Tayles, M. (2007). Reliance on management accounting under environmental uncertainty. Journal of Accounting & Organizational Change, 3(3), 227–249. https://doi.org/10.1108/18325910710820283
133. Khaghaany, L. M. (2022). ROLE OF PUBLIC BUDGETING APPROACHES IN IMPROVING THE EFFECTIVENESS OF PUBLIC SECTOR UNITS IN IRAQ. Akkad Journal Of Contemporary Accounting Studies, 1(2), 94–111. https://doi.org/10.55202/ajcas.v1i2.11

134. Khairullah, Bilal. N. (2023). Measuring the Impact of Structural Imbalances on Managing Government Spending in Iraq During the Period (2005-2020). International Academic Journal of Accounting and Financial Management, 10(1), 128–136. https://doi.org/10.9756/IAJAFM/V10I1/IAJAFM1014
135. Khudhair, A. H., & Al-Zubaidi, A. N. J. (2024, April 24). Integrating Performance-Based Budgeting through Iraq's Government Program: Advancing Labor Market Responsiveness. Scientific Research Is a Basic Pillar for Achieving Labor Market Requirements.
136. Küçükaycan, D., & Goksu, G. G. (2021). The Effects of Globalization on Turkish Public Financial Management and Budget Process. In Handbook of Research on Institutional, Economic, and Social Impacts of Globalization and Liberalization (pp. 273–286). IGI Global. https://doi.org/10.4018/978-1-7998-4459-4.ch015
137. Kuntadi, C., & Velayati, E. (2022). Factors Affecting the Implementation of Performance-Based Budget. Eduvest-Journal of Universal Studies, 2(9), 1931–1942. http://eduvest.greenvest.co.id
138. Kusmaryono, I., Wijayanti, D., & Maharani, H. R. (2022). Number of Response Options, Reliability, Validity, and Potential Bias in the Use of the Likert Scale Education and Social Science Research: A Literature Review. International Journal of Educational Methodology, 8(4), 625–637. https://doi.org/10.12973/ijem.8.4.625
139. Lapsley, I., & Wright, E. (2004). The diffusion of management accounting innovations in the public sector: a research agenda. Management Accounting Research, 15(3), 355–374. https://doi.org/10.1016/j.mar.2003.12.007
140. Lorenz, C. (2012). The Impact of Performance Budgeting on Public Spending in Germany's Laender. Springer Fachmedien Wiesbaden GmbH.
141. Lowry, P. B., & Gaskin, J. (2014). Partial Least Squares (PLS) Structural Equation Modeling (SEM) for Building and Testing Behavioral Causal Theory: When to Choose It and How to Use It. IEEE Transactions on Professional Communication, 57(2), 123–146. https://doi.org/10.1109/TPC.2014.2312452
142. Lüder, K. G. (1992). A Contingency Model of Governmental Accounting Innovations in The Political Administrative Environment. In J. L. Chan & J. M. Patton (Eds.), Research in Governmental and Nonprofit Accounting (Vol. 7, pp. 99–127). JAI P.
143. Lye, J., Perera, H., & Rahman, A. (2005a). The evolution of accruals-based Crown (government) financial statements in New Zealand. Accounting, Auditing & Accountability Journal, 18(6), 784–815. https://doi.org/10.1108/09513570510627711
144. Lye, J., Perera, H., & Rahman, A. (2005b). The evolution of accruals-based Crown (government) financial statements in New Zealand. Accounting, Auditing & Accountability Journal, 18(6), 784–815. https://doi.org/10.1108/09513570510627711

145. Mahaini, M. K., & Salloum, H. A. K. (2007). Implementing the public budget and its relationship with the government accounting system. Journal of Management and Economics, 65.
146. Mah'd, O. A. (2014). Allocating Resources in Higher Education: Evidence from Private Jordanian Universities. International Journal of Business and Management, 9(5). https://doi.org/10.5539/ijbm.v9n5p169
147. Mahmud, S. F. (2013). The Higher Education In Iraq Challenges And Recommendations. Journal of Advanced Social Research, 3(9), 255–264.
148. Maina Waweru, N., Hoque, Z., & Uliana, E. (2004). Management accounting change in South Africa: Case studies from retail services. Accounting, Auditing & Accountability Journal, 17(5), 675–704. https://doi.org/10.1108/09513570410567773
149. Mansour, W., Maseeh, A., & Celiku, B. (2019). Iraq Economic Monitor: Turning the Corner: Sustaining Growth and Creating Opportunities for Iraq's Youth With a Special Focus on Transforming Agriculture for Economic Diversification and Job Creation. The World Bank. 10.1596/978-1-4648-1637-6
150. Martí, C. (2013). Performance budgeting and accrual budgeting. Public Performance and Management Review, 37(1), 33–58. https://doi.org/10.2753/PMR1530-9576370102
151. Mcgill, R. (2001). Performance budgeting. In The International Journal of Public Sector Management (Vol. 14, Issue 5). # MCB University Press. http://www.emerald-library.com/ft
152. McGill, R. (2006). Achieving Results: Performance Budgeting in the Least Developed Countries. https://api.semanticscholar.org/CorpusID:152885232
153. McNab, R. M., & Melese, F. (2001). Implementing GPRA: Examining The Prospects For Performance Budgeting In The Federal Government. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.275171
154. Mohammadipour, R. (2014). A study on the effect of performance based budgeting using activity based cost method. Management Science Letters, 4(1), 145–148. https://doi.org/10.5267/j.msl.2013.11.021
155. Mohammed, M. (2015). Electronic Information Sharing Between Public Universities and Ministry of Higher Education and Scientific Research: A Pilot Study. N Journal of Theoretical and Applied Information Technology, 77(1).
156. Mohsin, T. (2017). The Role of Monitoring the Stages of The Budget and Its Impact in Enhancing Accountability Procedures According to Performance Indicators. Post- Graduate Institute for Accounting and Financial Studies, University of Baghdad .
157. MOP. (2018). National Development Plan Republic of Iraq 2018-2022. Ministry of Planning, Republic of Iraq.

158. Morakul, S., & wu, F. H. (2001). Cultural influences on the ABC implementation in Thailand's environment. Journal of Managerial Psychology, 16(2), 142–158. https://doi.org/10.1108/02683940110380960
159. Moullin, M. (2004). Eight essentials of performance measurement. International Journal of Health Care Quality Assurance, 17(3), 110–112. https://doi.org/10.1108/09526860410532748
160. Moynihan, D., & Beazley, I. (2016). Toward next-generation performance budgeting : lessons from the experiences of seven reforming countries (English). http://documents.worldbank.org/curated/en/356081478497402740/Toward-next-generation-performance-budgeting-lessons-from-the-experiences-of-seven-reforming-countries
161. Muhammad, M. S. (1996). The implications of the use of zero-base budgeting in service departments in Iraq (pp. 1–295).
162. Muhammad, M. T., Juma, A. R. O., & Salim, K. K. (2019). The Importance of Transformation from Budgeting Items to Programs and Performance Budgeting to Treat the Public Budgeting Deficit in Iraq. Anbar University Journal of Economic and Administrative Sciences, 11(24), 1–24.
163. Murphy, P., Cook, K., Johnson, H., & Weston, M. (2014). Higher Education in California: Performance Budgeting. www.ppic.org
164. Muteb, H. L., Abd, H. A., & Mashkoor, S. J. (2018). The Use of Program and Performance Budgeting as a Tool for Planning and Control in Government Units. The Muthanna Journal of Administrative and Economics Sciences, 8(2). https://doi.org/10.52113/6/2018-8-3/171-203
165. Mwiya, B., Siachinji, B., Bwalya, J., Sikombe, S., Chawala, M., Chanda, H., Kayekesi, M., Sakala, E., Muyenga, A., & Kaulungombe, B. (2019). Are there study mode differences in perceptions of university education service quality? Evidence from Zambia. Cogent Business & Management, 6(1). https://doi.org/10.1080/23311975.2019.1579414
166. Nadolna, K. K., & Beyer, K. (2021). Barriers to innovative activity in the sustainable development of public sector organizations. Procedia Computer Science, 192, 4376–4385. https://doi.org/10.1016/j.procs.2021.09.214
167. Nickson, A., & Franceys, R. (2003). Taking Account of Capacity. In Tapping the Market (pp. 153–180). Palgrave Macmillan UK. https://doi.org/10.1057/9781403990129_8
168. Niu, M., Ho, A., & Ma, J. (2005). Perormance-Based Budgeting In China: A Case Study Of Guangdong. Network of Asia-Pacific Schools and Institutes of Public Administration and Governance (NAPSIPAG) Annual Conference .
169. Noutomi, I., & Nakanishi, M. (2007). Net results of the Japanese NPM movement at local governments since the mid-1990s: Performance Budgeting, Total Quality Management and Target

Based Budgeting. International Journal of Public Administration, 30(12–14), 1393–1433. https://doi.org/10.1080/01900690701229574

170. Oh, Y.-C., & Lee, J.-W. (1995). Managerial Discretion and Accountability for Performance in Budgeting -Evolution of Spending Authority, Results Oriented Management, Performance Measurement, and Policy Program Evaluation-. The Korean Journal of Policy Studies, 10(0), 1–20. https://doi.org/10.52372/kjps10001
171. Ojra, J., Opute, A. P., & Alsolmi, M. M. (2021). Strategic management accounting and performance implications: a literature review and research agenda. Future Business Journal, 7(1). https://doi.org/10.1186/s43093-021-00109-1
172. Okoroafor, E. N. (2021). Study of Challenges Ahead for Institutional Implementation of Performance-Based Budgeting in the Nigerian Public Sector. In New Innovations in Economics, Business and Management Vol. 2 (pp. 98–109). Book Publisher International (a part of SCIENCEDOMAIN International). https://doi.org/10.9734/bpi/niebm/v2/14184D
173. Otley, D. T. (1980). THE CONTINGENCY THEORY OF MANAGEMENT ACCOUNTING: ACHIEVEMENT AND PROGNOSIS*. In Organizations and Society (Vol. 5, Issue 4). Pergamon Press.
174. Ouda, H. (2008). Transition barriers of accrual accounting in the public sector of developed and developing countries: statistical analyses with special focus on The Netherlands and Egypt. In Implementing reforms in public sector accounting (pp. 111–137). Imprensa da Universidade de Coimbra. https://doi.org/10.14195/978-989-26-0422-0_5
175. Ouda, H. (2013). Suggested Framework for Implementation of Performance Budgeting in the Public Sector of Developing Countries With a special focus on Egypt Accounting. International Journal of Governmental Financial Management, 13(1). https://www.researchgate.net/publication/303390355
176. Ouda, H. (2015). Technical Challenges Facing the Implementation of Performance Budgeting and Accrual budgeting. The International Journal on Governmental Financial Management (IJGFM). https://www.researchgate.net/publication/310793406
177. Pangaribuan, B., Pangaribuan, H., & Siagian, H. (2024). THE EFFORTS TO IMPROVE FINANCIAL PERFORMANCE AND MANAGERIAL PERFORMANCE THROUGH PARTICIPATIVE BUDGETING AND BUDGETARY CONTROL. Distribusi - Journal of Management and Business, 12(1), 103–116. https://doi.org/10.29303/distribusi.v12i1.470
178. Parr, A. N., Shanks, G., & Darke, P. (1999). Identification of Necessary Factors for Successful Implementation of ERP Systems (pp. 99–119). https://doi.org/10.1007/978-0-387-35566-5_8
179. Paulsson, G. (2006). Accrual Accounting in The Public Sector: Experiences From The Central Government in Sweden. Financial Accountability & Management, 22(1), 47–62.

180. Pedersen, J., & Rendtorff, J. D. (2004). Value-based management in local public organizations: A Danish experience. Cross Cultural Management: An International Journal, 11(2), 71–94. https://doi.org/10.1108/13527600410797800
181. PEFA. (2017). IRAQ Public Expenditure and Financial Accountability (PEFA) Performance Assessment Report, 2016 Framework.
182. Pereira, L. M., Sanchez Rodrigues, V., & Freires, F. G. M. (2024). Use of Partial Least Squares Structural Equation Modeling (PLS-SEM) to Improve Plastic Waste Management. Applied Sciences, 14(2), 628. https://doi.org/10.3390/app14020628
183. Pimentel, L., Major, M., & Major, M. J. (2009). Management accounting change: a case study of Balanced Scorecard implementation in a Portuguese service company. Portuguese Journal of Accounting and Management, 89–109. https://www.researchgate.net/publication/229048629
184. Podsakoff, P. M., & Todor, W. D. (1985). Relationships Between Leader Reward and Punishment Behavior and Group Processes and Productivity. Journal of Management, 11(1), 55–73. https://doi.org/10.1177/014920638501100106
185. Pollitt, C. (2018). Performance management 40 years on: a review. Some key decisions and consequences. Public Money & Management, 38(3), 167–174. https://doi.org/10.1080/09540962.2017.1407129
186. Powell, J. D., Sciullo, H. A., & Mattson, G. (1976). Human Resource Accounting: Why The Delay? Journal of Management, 2(2), 25–31. https://doi.org/10.1177/014920637600200204
187. Pratolo, S., Sofyani, H., & Anwar, M. (2020). Performance-based budgeting implementation in higher education institutions: Determinants and impact on quality. Cogent Business and Management, 7(1). https://doi.org/10.1080/23311975.2020.1786315
188. Pulakanam, V., & Suraweera, T. (2010). Implementing Accounting Software in Small Businesses in New Zealand: An Exploratory Investigation. In Accountancy Business and the Public Interest (Vol. 9).
189. Qi, Y., & Mensah, Y. M. (2012). An Empirical Analysis of the Effects of Performance-Based Budgeting on State Government Expenditures. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.1970079
190. Rahi, M. A., Maelah, R., Hamzah, N., & Kasim, K. N. (2024). Unveiling the Challenges and Processes of Implementing Program and Performance Budget for Government Universities in Iraq. International Journal of Religion, 5(8), 942–954. https://doi.org/10.61707/dvsm8e94
191. Raudla, R., & Bur, S. (2022). Austerity and the use of performance information in the budget process. Public Money & Management, 43(6), 627–634. https://doi.org/10.1080/09540962.2021.2020976

192. Robinson, M. (2003). Tightening the Results/Funding Link in Performance Budgeting Systems (147). https://www.researchgate.net/publication/24120118
193. Robinson, M., & Brumby, J. (2005). Does Performance Budgeting Work? An Analytical Review of the Empirical Literature. IMF Working Papers, 05(210), 1. https://doi.org/10.5089/9781451862294.001
194. Roemer, E., Schuberth, F., & Henseler, J. (2021). HTMT2–an improved criterion for assessing discriminant validity in structural equation modeling. Industrial Management and Data Systems, 121(12), 2637–2650. https://doi.org/10.1108/IMDS-02-2021-0082
195. Rokhman, M. T. N. (2017). Improving Managerial Performance through Participation Role of Budget Preparation: a Theoretical and Empirical Overview. IOSR Journal of Economics and Finance, 08(01), 39–43. https://doi.org/10.9790/5933-0801013943
196. Rubakula, G. (2017). Public Sector Reform: Facing Challenges on Results-Based Management. LAP LAMBERT Academic Publishing. https://api.semanticscholar.org/CorpusID:158671930
197. S. Cosimato, C. Torre, & O. Troisi. (2015). How to Innovate Management Accounting for Public Sector: An Italian Case Study. Journal of US-China Public Administration, 12(9). https://doi.org/10.17265/1548-6591/2015.09.004
198. Sadidi, M., Khalilifar, O., Amiri, M., & Moradi, R. (2018). Use of Partial Least Squares - Structural Equation Modeling for Identifying the Most Important Variables via Application of Data Envelopment Analysis. Journal of Archives in Military Medicine, 6(1). https://doi.org/10.5812/jamm.67114
199. Salamzadeh, A., Farsi, J. Y., & Salamzadeh, Y. (2013). Entrepreneurial universities in Iran: a system dynamics model. International Journal of Entrepreneurship and Small Business, 20(4), 420-445.
200. Salamzadeh, A., Ahmadi, A., & Safar Kamel, A. (2022). The Context for Business in Iraq. Understanding Contexts of Business in Western Asia: Land of Bazaars and High-Tech Booms, 331-345.
201. Saleh, E. said, Azeez, K. I., & Muneer, A. S. (2019). The Impact of Budget in The Public Dept in Iraq for The Period 1990-2016. Revista Aus Journal.
202. Saleh, Z., Isa, C. R., & Abu Hasan, H. (2012). Accrual Accounting: Change And Managing Change. IPN Journal of Research and Practice in Public Sector Accounting and Management, 02(01), 41–52. https://doi.org/10.58458/ipnj.v02.01.04.0024
203. Saleh, Z., & Pendlebury, M. W. (2007). Accruals Accounting in Government – Developments in Malaysia. In Management in South-East Asia (1st ed.). Routledge.

204. Salih, D. R. (2024). THE DILEMMA OF FALTERING SUSTAINABLE DEVELOPMENT IN IRAQI SOCIETY. American Journal Of Social Sciences And Humanity Research, 4(4), 96–117. https://doi.org/10.37547/ajsshr/Volume04Issue04-15
205. Saner, R. (2001). Globalization and its Impact on Leadership Qualification in Public Administration. International Review of Administrative Sciences, 67(4), 649–661. https://doi.org/10.1177/0020852301674004
206. Sarstedt, M., Ringle, C. M., & Hair, J. F. (2017). Partial Least Squares Structural Equation Modeling. In Handbook of Market Research (pp. 1–40). Springer International Publishing. https://doi.org/10.1007/978-3-319-05542-8_15-1
207. Savage, J. D. (2013). Reconstructing Iraq's Budgetary Institutions: Coalition State Building after Saddam. Cambridge: Cambridge University Press. https://doi.org/10.1086/687302
208. Schick, A. (2010). Crisis Budgeting. OECD Journal on Budgeting, 9(3), 1–14. https://doi.org/10.1787/budget-9-5kmhhk9qf2zn
209. Schwarze, F., Wuellenweber, K., & Hackethal, A. (2007). Drivers and Barriers to Management Accounting Change. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.1003371
210. Sellami, Y. M., & Gafsi, Y. (2019). Institutional and Economic Factors Affecting the Adoption of International Public Sector Accounting Standards. International Journal of Public Administration, 42(2), 119–131. https://doi.org/10.1080/01900692.2017.1405444
211. Shah, A. (2007). Budgeting and Budgetary Institutions (A. Shah, Ed.). The World Bank. https://doi.org/10.1596/978-0-8213-6939-5
212. Shah, A., & Shen, C. (2007). A Primer on Performance Budgeting. In Budgeting and budgetary. institutions. World Bank.
213. Shalikhah, L. (2014). Analysis of Factors Affecting Budget Performance on Salatiga City Government. Accounting Study Program FEB-UKSW.
214. Shin, J.-C., Shim, H.-K., Kim, S.-J., & Lee, P.-G. (2023). A Systematic Review of the Impact of Performance-Based Funding in the US. Higher Education Policy. https://doi.org/10.1057/s41307-023-00309-0
215. Shoukry, F. M. (1990). The Public Budget - Its Past, Present, and Future in Theory and Practice (Vol. 1). University Foundation for Studies, Publishing and Distribution.
216. Stănculescu, E. (2022). Fear of COVID-19 in Romania: Validation of the Romanian Version of the Fear of COVID-19 Scale Using Graded Response Model Analysis. International Journal of Mental Health and Addiction, 20(2), 1094–1109. https://doi.org/10.1007/s11469-020-00428-4
217. Sullivan, G. M., & Artino, A. R. (2013). Analyzing and Interpreting Data From Likert-Type Scales. Journal of Graduate Medical Education, 5(4), 541–542. https://doi.org/10.4300/JGME-5-4-18

218. Surianti, M., & Dalimunthe, A. R. (2015). The Implementation of Performance Based Budgeting In Public Sector (Indonesia Case: A Literature Review). In Research Journal of Finance and Accounting www.iiste.org ISSN (Vol. 6, Issue 12). Online. www.transparency.org
219. Tandberg, E. (2008). Budgeting of Public Investments. In Public Investment and Public-Private Partnerships (pp. 61–76). Palgrave Macmillan UK. https://doi.org/10.1057/9780230593992_5
220. Tarter, C. J., & Hoy, W. K. (1998). Toward a contingency theory of decision making. Journal of Educational Administration, 36(3), 212–228. https://doi.org/10.1108/09578239810214687
221. Thomas, A. P. (1991). Towards a Contingency Theory of Corporate Financial Reporting Systems. Accounting, Auditing & Accountability Journal, 4(4), 40–57. https://doi.org/10.1108/EUM0000000001933
222. Thong, J. Y. L., Yap, C. S., & Raman, K. S. (1996). Top Management Support, External Expertise and Information Systems Implementation in Small Businesses. Information Systems Research, 7(2), 248–267. https://doi.org/10.1287/isre.7.2.248
223. Tiep, N. C., Wang, M., Mohsin, M., Kamran, H. W., & Yazdi, F. A. (2021). An assessment of power sector reforms and utility performance to strengthen consumer self-confidence towards private investment. Economic Analysis and Policy, 69, 676–689. https://doi.org/10.1016/j.eap.2021.01.005
224. Tilahun, M., Berhan, E., & Tesfaye, G. (2023). Determinants of consumers' purchase intention on digital business model platform: evidence from Ethiopia using partial least square structural equation model (PLS-SEM) technique. Journal of Innovation and Entrepreneurship, 12(1). https://doi.org/10.1186/s13731-023-00323-x
225. Trader-Leigh, K. E. (2002). Case study: Identifying resistance in managing change. Journal of Organizational Change Management, 15(2), 138–155. https://doi.org/10.1108/09534810210423044
226. Upping, P., & Oliver, J. (2012). Thai public universities: Modernisation of accounting practices. Journal of Accounting and Organizational Change, 8(3), 403–430. https://doi.org/10.1108/18325911211258362
227. Venieris, G., & Cohen, S. (2004). Accounting Reform in Greek Universities: A Slow Moving Process. Financial Accountability & Management, 20(2), 183–204. https://doi.org/10.1111/j.1468-0408.2004.00192.x
228. Waddell, D., & Sohal, A. S. (1998). Resistance: A constructive tool for change management. Management Decision, 36(8), 543–548. https://doi.org/10.1108/00251749810232628
229. Wang, E. T. G., & Chen, J. H. F. (2006). Effects of internal support and consultant quality on the consulting process and ERP system quality. Decision Support Systems, 42(2), 1029–1041. https://doi.org/10.1016/j.dss.2005.08.005

230. Wang, X. (2000). Performance Measurement in Budgeting: A Study of County Governments. Public Budgeting & Finance, 20(3), 102–118. https://doi.org/10.1111/0275-1100.00022
231. Ward, J., & Ost, B. (2021). The Effect of Large-scale Performance-Based Funding in Higher Education. Education Finance and Policy, 16(1), 92–124. https://doi.org/10.1162/edfp_a_00300
232. Wei, Z., & Nguyen, Q. T. K. (2020). Local responsiveness strategy of foreign subsidiaries of Chinese multinationals: The impacts of relational-assets, market-seeking FDI, and host country institutional environments. Asia Pacific Journal of Management, 37(3), 661–692. https://doi.org/10.1007/s10490-019-09655-3
233. White, E. (2007). Institutional Effectiveness : the Integration of Program Review, Strategic Planning, and Budgeting Processes in Two California Community Colleges. Andrews University.
234. Willoughby, K. G. (2004). Performance Measurement and Budget Balancing: State Government Perspective. Public Budgeting & Finance, 24(2), 21–39. https://doi.org/10.1111/j.0275-1100.2004.02402002.x
235. Woods, M. (2009). A contingency theory perspective on the risk management control system within Birmingham City Council. Management Accounting Research, 20(1), 69–81. https://doi.org/10.1016/j.mar.2008.10.003
236. Yamamoto, K. (1999). Accounting System Reform in Japanese Local Governments. Financial Accountability & Management, 15(3-4), 291–307. https://doi.org/10.1111/1468-0408.00086
237. Ziad Tariq Hussein. (2005). Moving From Traditional Budget to Programs and Performance Budgeting, and Try to Integrate Gender Issues Into The Budget Federal General. Statistical Training and Research Center - Iraqi Ministry of Planning.