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# The Role of Compatibility, Complexity, and Perceived Behavioral Control in Shaping Attitude Towards Innovation and Adoption of Performance-Based Budgeting in Iraq

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## ABSTRACT

**The adoption of Performance-Based Budgeting (PBB) is a critical step toward enhancing transparency, efficiency, and accountability in public financial management. However, despite parliamentary support for PBB in Iraq, its implementation remains stalled. This study examines the factors influencing the intention to adopt PBB, focusing on compatibility, complexity, perceived behavioral control, and attitude toward innovation. The study integrates Diffusion of Innovation Theory (DOI) and Theory of Planned Behavior (TPB) to explore how these factors interact to shape financial officials' decision-making processes. A structural equation modeling (SEM) approach was employed using survey data from 202 financial officials in Iraq's Ministry of Finance and Ministry of Planning. The findings reveal that perceived behavioral control plays the most significant role in adoption intention, indicating that confidence in implementation capabilities is a key driver of PBB adoption. Complexity negatively influences adoption intention, suggesting that officials perceive PBB as challenging to implement, which discourages its uptake. Additionally, attitude toward innovation significantly mediates the relationships between complexity, perceived behavioral control, and PBB adoption intention, highlighting the importance of shaping positive perceptions of financial reforms. However, compatibility does not have a direct effect on adoption intention, suggesting that alignment with existing budgeting practices may not be a primary concern for financial officials. The study provides theoretical contributions by integrating behavioral and innovation adoption perspectives to explain public sector budgeting reforms. Practical implications highlight the need for capacity-building programs, institutional support, and simplified implementation guidelines to facilitate PBB adoption. The study recommends a phased rollout strategy, targeted training, and stakeholder engagement to overcome adoption barriers. Future research should explore political and organizational influences, cross-country comparisons, and longitudinal assessments to further understand the adoption dynamics of PBB. This**

**research contributes to the ongoing dialogue on financial reform in Iraq, offering a framework for policymakers to enhance budget efficiency and accountability through performance-based financial management.**

**Keywords:** Performance-Based Budgeting, Innovation Adoption, Diffusion of Innovation Theory, Theory of Planned Behavior, Public Sector Reform, Financial Management, Iraq.

## INTRODUCTION

Public sector budgeting is a critical mechanism for financial planning and resource allocation, shaping economic stability and public service delivery [1, 2]. In Iraq, the traditional budgeting model, which relies on incremental allocations and item-based expenditure tracking, has led to inefficiencies, lack of transparency, and budgetary deficits [3, 4]. This approach prioritizes spending categories over performance outcomes, making it difficult to assess whether public funds achieve their intended objectives [2]. As a result, Iraq's fiscal management system struggles with inefficiencies and an overreliance on oil revenues, leading to persistent economic vulnerabilities [5]. The Iraqi parliament has recognized these challenges and endorsed Performance-Based Budgeting (PBB) as a reformative measure to modernize public financial management. However, despite parliamentary approval in 2019, the adoption of PBB remains stagnant due to several barriers, including institutional resistance, limited awareness, and structural complexities [6].

Globally, governments have sought alternatives to traditional budgeting, with PBB emerging as an effective approach that links budget allocations to measurable performance indicators [7]. By prioritizing efficiency and outcomes, PBB enhances transparency, accountability, and fiscal discipline [8, 9]. Countries implementing PBB have reported improved cost efficiency, better alignment of public expenditures with policy priorities, and increased citizen trust in government financial management [10, 11]. Despite these advantages, transitioning from a traditional budgeting system to PBB is complex and requires a supportive institutional framework. In Iraq, the limited research on PBB adoption suggests that key factors such as awareness, innovation characteristics, and perceived behavioral control play a crucial role in shaping budget officials' willingness to implement this reform [12, 13]. Understanding these factors is essential for designing policies that facilitate a smooth transition toward PBB.

Innovation theories offer a useful framework for examining the factors that influence PBB adoption. Rogers' Diffusion of Innovation Theory (DOI) highlights the importance of innovation characteristics such as compatibility and complexity in shaping adoption decisions [14]. Compatibility refers to the extent to which PBB aligns with Iraq's existing budgeting practices and financial management norms [15]. Complexity reflects the perceived difficulty of understanding and applying PBB principles, which can serve as a barrier to adoption [6]. Additionally, Ajzen's Theory of Planned Behavior (TPB) introduces perceived behavioral control as a key determinant of individuals' ability to adopt new practices [16]. Budget officials' confidence in their capacity to implement PBB, influenced by institutional support and technical training, significantly impacts their willingness to embrace this reform [12]. Moreover, attitudes toward innovation act as a mediating factor, shaping the overall perception of PBB's feasibility and effectiveness [17].

While international research has extensively explored PBB adoption in various contexts, studies on its implementation in Iraq remain limited [18]. Existing literature often focuses on technical aspects rather than behavioral factors influencing budget reform [19]. This study addresses this gap by examining the perceptions of financial officials in Iraq's Ministry of Finance and Ministry of Planning regarding PBB adoption. By integrating DOI and TPB, the research provides insights into the innovation-related and behavioral determinants of budget reform, offering policy recommendations for enhancing Iraq's public financial management system.

## LITERATURE REVIEW

Budgeting is a fundamental aspect of public sector financial management, playing a crucial role in resource allocation, fiscal policy implementation, and government accountability [1, 2]. Among the different budgeting approaches, Performance-Based Budgeting (PBB) has gained prominence due to its emphasis on linking financial resources to measurable performance outcomes [7]. PBB has been implemented in various countries as part of broader financial reforms aimed at enhancing transparency, efficiency, and accountability in public expenditure [18]. While the potential benefits of PBB have been widely acknowledged, its adoption has been met with challenges, particularly in developing economies such as Iraq [6]. This section explores the key factors influencing the intention to adopt PBB, focusing on compatibility, complexity, and perceived behavioral control, while also examining the mediating role of attitude toward innovation in the adoption process.

The implementation of PBB is influenced by innovation characteristics, as outlined in Rogers' Diffusion of Innovation Theory (DOI) [14]. Among these characteristics, compatibility plays a crucial role in shaping adoption decisions. Compatibility refers to the extent to which an innovation aligns with existing values, practices, and infrastructure [15]. Studies have shown that government officials are more likely to adopt PBB when it aligns with established financial management practices and regulatory frameworks [13]. In Iraq, where traditional budgeting has been deeply ingrained in public financial institutions, perceived incompatibility with existing systems may hinder the transition to PBB [12]. Research from other countries suggests that successful PBB adoption requires organizational alignment and institutional readiness, reinforcing the importance of compatibility in financial reforms [18].

Complexity, another key determinant of adoption, refers to the perceived difficulty of understanding and implementing an innovation. According to DOI, the greater the complexity, the lower the likelihood of adoption [14]. Several studies highlight that PBB is often perceived as a technically complex and resource-intensive system that requires substantial administrative capacity, data management expertise, and training [6]. In developing economies, where bureaucratic inefficiencies and skills gaps persist, complexity poses a major barrier to PBB implementation [19]. The experience of other nations suggests that simplified training programs, phased implementation strategies, and digital financial tools can help mitigate complexity-related adoption barriers [3]. Without addressing these challenges, Iraqi public sector officials may perceive PBB as too complicated to implement effectively, further delaying its adoption.

Ajzen's Theory of Planned Behavior (TPB) complements DOI by introducing perceived behavioral control as a determinant of adoption intentions [20]. Perceived behavioral control


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reflects an individual's confidence in their ability to implement an innovation, influenced by available resources, institutional support, and training opportunities [16]. Studies have found that when government officials believe they have the necessary resources and authority to implement PBB, they are more likely to support its adoption [21]. However, in Iraq, limited administrative capacity, weak inter-agency coordination, and insufficient training opportunities have contributed to a lack of confidence among financial officials [22] (Tabaqchali et al., 2021). Research suggests that policy interventions aimed at strengthening institutional capacity and providing targeted training programs can significantly enhance perceived behavioral control, thereby increasing PBB adoption likelihood [5].

Another key factor influencing PBB adoption is attitude toward innovation, which acts as a mediating variable in the relationship between innovation characteristics and adoption intention. Attitude toward innovation reflects an individual's overall perception of whether an innovation is beneficial or necessary [17]. Research on public sector financial reforms suggests that officials who view PBB as a tool for enhancing accountability and performance evaluation are more inclined to support its implementation [12]. Conversely, skepticism about its feasibility, concerns about political interference, and resistance to change can negatively impact attitudes toward PBB adoption [10]. Studies from various countries have shown that awareness campaigns, pilot projects, and demonstrative success cases can positively influence attitudes toward innovation, ultimately facilitating adoption [8].

Despite the global push toward performance-driven budgeting, Iraq continues to face significant challenges in shifting from its traditional budgetary framework to PBB. Previous studies have primarily focused on technical barriers and procedural inefficiencies, with limited attention given to behavioral and perceptual factors influencing budget reform [19]. This study addresses this research gap by integrating DOI and TPB to explore the role of compatibility, complexity, and perceived behavioral control in shaping attitudes toward PBB adoption. By examining how these factors interact, the research provides a more comprehensive understanding of the barriers and drivers affecting budget reform in Iraq.

Existing literature suggests that a successful PBB transition requires more than just policy mandates-it demands a transformation in institutional culture, administrative capacities, and innovation perceptions [7]. Countries that have successfully implemented PBB, such as South Korea and Australia, have done so by integrating capacity-building initiatives, technology-driven financial management, and participatory governance models [18]. Lessons from these experiences can inform strategies for Iraq, where overcoming institutional inertia and fostering a culture of innovation remain critical to PBB adoption. By focusing on behavioral and innovation-related challenges, this study aims to offer practical insights for policymakers and financial managers seeking to modernize Iraq's budgeting system.

## CONCEPTUAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

The conceptual framework for this study integrates Rogers' Diffusion of Innovation Theory (DOI) and Ajzen's Theory of Planned Behavior (TPB) to examine the factors influencing the adoption of Performance-Based Budgeting (PBB) in Iraq. This framework provides a structured approach to understanding how innovation characteristics (compatibility and complexity) and behavioral factors (perceived behavioral control and attitude toward innovation) shape

officials' intention to adopt PBB. The relationships among these constructs are illustrated in the proposed conceptual model.

Rogers' Diffusion of Innovation Theory (DOI) explains the process by which new ideas and technologies spread within an organization. According to DOI, the adoption of an innovation is influenced by its relative advantage, compatibility, complexity, trialability, and observability [14]. This study focuses on compatibility and complexity, as these characteristics significantly impact the adoption of public sector financial reforms. Compatibility refers to the extent to which PBB aligns with the existing budgeting practices, policies, and values of financial officials. If PBB is perceived as consistent with established norms and expectations, officials are more likely to support its adoption [15]. Complexity, on the other hand, captures the perceived difficulty in understanding and implementing PBB. Innovations that are considered overly complex often face higher resistance and lower adoption rates, particularly in bureaucratic environments where institutional inertia is prevalent [6, 23].

Ajzen's Theory of Planned Behavior (TPB) complements DOI by incorporating psychological and behavioral dimensions into the adoption process. TPB suggests that an individual's behavior is shaped by three key components: attitude toward behavior, subjective norms, and perceived behavioral control [20]. This study incorporates attitude toward innovation and perceived behavioral control as determinants of PBB adoption. Attitude toward innovation reflects officials' positive or negative perceptions of PBB, influencing their willingness to adopt the reform [16]. Research has shown that when individuals perceive an innovation as beneficial and necessary, their likelihood of adoption increases [17]. Perceived behavioral control measures officials' confidence in their ability to implement PBB effectively, considering the available resources, institutional support, and technical expertise. When officials feel capable of overcoming challenges related to PBB adoption, their intention to implement the reform strengthens [12].

The conceptual model for this study (see Figure 1) proposes that compatibility, complexity, and perceived behavioral control directly influence the intention to adopt PBB. Additionally, attitude toward innovation mediates the relationships between innovation characteristics (compatibility and complexity), perceived behavioral control, and adoption intentions. This mediating role is critical because attitudes often act as a psychological filter, shaping individuals' perceptions of whether an innovation is worth pursuing [21].

The study's conceptual framework is structured based on Rogers' Diffusion of Innovation Theory (DOI) and Ajzen's Theory of Planned Behavior (TPB) to examine the determinants influencing the adoption intention of Performance-Based Budgeting (PBB). The hypothesized relationships between the key constructs are as follows:

- **H1:** Compatibility is positively associated with the intention to adopt Performance-PBB.
- **H2:** Complexity is negatively related to the intention to adopt Performance based budgeting
- **H3:** Perceived behavioral control is positively related to the intention to adopt Performance-based budgeting
- **H4:** Compatibility positively impacts attitude towards innovation.
- **H5:** Complexity negatively impacts attitude towards innovation.
- **H6:** Perceived behavioral control positively influences attitude towards innovation.


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- **H7:** Attitude towards innovation positively influences intention to adopt Performance-PBB.
- **H8:** Attitude towards innovation mediates the relationship between compatibility and intention to adopt Performance-PBB.
- **H9:** Attitude towards innovation mediates the relationship between complexity and intention to adopt Performance-PBB.
- **H10:** Attitude towards innovation mediates the relationship between perceived behavioural control and intention to adopt Performance-PBB.

This conceptual model integrates innovation characteristics and behavioral factors to provide a comprehensive understanding of how financial officials in Iraq perceive and decide on the adoption intention of PBB. By assessing compatibility, complexity, and perceived behavioral control, this model highlights the critical role of attitudes toward innovation in facilitating or hindering financial reform adoption [14, 20].

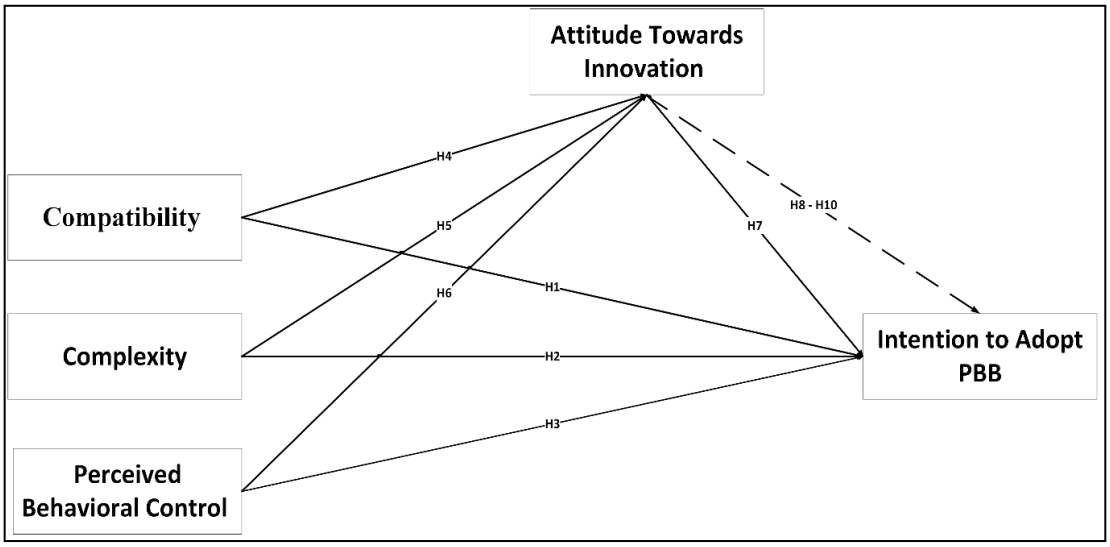


**Figure 1: Conceptual Framework**

## METHODOLOGY

The study employs a quantitative research design to examine the factors influencing the intention to adopt Performance-Based Budgeting (PBB) in Iraq. A cross-sectional survey method is used to collect data from financial officials in Iraq's Ministry of Finance and Ministry of Planning, ensuring a structured and systematic analysis of perceptions regarding PBB adoption. The research design is guided by Rogers' Diffusion of Innovation Theory (DOI) and Ajzen's Theory of Planned Behavior (TPB) to evaluate how compatibility, complexity, perceived behavioral control, and attitude toward innovation influence adoption intention [14, 16]. These theories provide a comprehensive framework for understanding the behavioral and innovation-related factors affecting decision-making in public sector reforms.

The population for this study consists of government officials and financial administrators responsible for budget planning and execution in Iraq. A stratified random sampling technique is employed to ensure representation across different departments within the ministries. The sample size is determined using Cohen's statistical power analysis, ensuring an adequate

number of respondents to achieve statistical significance [24]. Previous research suggests that sampling budgeting officials provides reliable insights into public financial management reforms, making them the ideal respondents for this study [12, 25].

Data is collected through structured questionnaires, which are designed based on validated scales from prior research on budgeting reforms, innovation adoption, and behavioral intentions [2, 6]. The survey is distributed manually to increase participation and minimize geographical constraints. Each questionnaire consists of multiple-choice and Likert-scale items measuring respondents' perceptions of compatibility, complexity, perceived behavioral control, attitude toward innovation, and intention to adopt PBB [17]. Pretesting is conducted with a small group of financial officers to ensure clarity and relevance of survey items, improving reliability before large-scale distribution [15, 26].

The measurement of variables is based on existing validated scales. Compatibility is measured using a six-item scale assessing the extent to which PBB aligns with existing budgeting practices and organizational values [13]. Complexity is assessed through a six-item scale evaluating perceptions of PBB's difficulty in implementation, requiring specialized knowledge and technical adjustments [19]. Perceived behavioral control is measured using a six-item scale that gauges officials' confidence in their ability to implement PBB, influenced by available training and institutional support [16]. Attitude toward innovation is examined using a six-item scale capturing respondents' positive or negative perceptions of PBB as a budgeting tool [12]. Lastly, intention to adopt PBB is measured with a six-item scale, reflecting the likelihood of implementing PBB in budgeting processes based on perceived benefits and organizational readiness [21].

The study employs Structural Equation Modeling (SEM) as the primary data analysis technique, utilizing Partial Least Squares (PLS-SEM) due to its robustness in handling complex relationships and latent constructs [27, 28]. SEM allows for testing both direct and mediating effects, providing a more nuanced understanding of how attitude toward innovation influences the relationship between innovation characteristics and intention to adopt PBB [18]. Descriptive statistics, correlation analysis, and hypothesis testing are also performed to validate relationships among variables [8]. Confirmatory Factor Analysis (CFA) is conducted to ensure the validity of measurement items, while multicollinearity tests are applied to avoid biased estimations [29].

To establish reliability and validity, Cronbach's alpha and composite reliability (CR) are used to assess internal consistency, with an acceptable threshold of 0.7 and above [27, 30, 31]. Convergent validity is evaluated using Average Variance Extracted (AVE), ensuring that each construct explains at least 50% of its variance [16]. Discriminant validity is checked using the Fornell-Larcker criterion, verifying that each construct is distinct from others [29, 32, 33].

Ethical considerations are strictly adhered to in line with institutional research ethics guidelines. Informed consent is obtained from all respondents, ensuring voluntary participation and confidentiality [17]. The data collection process ensures anonymity and compliance with data protection policies, preventing unauthorized access or misuse of information [22]. Respondents are given the right to withdraw at any stage without consequences, reinforcing ethical integrity in research practices [6]. The study also adheres to


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academic integrity standards, ensuring that findings contribute to the body of knowledge on public financial management reforms and PBB adoption in Iraq [10].

By employing a rigorous methodological approach, this study ensures the validity and reliability of findings, offering valuable insights into the factors influencing PBB adoption in Iraq's public sector. The integration of DOI and TPB frameworks provides a structured approach to understanding the behavioral and innovation-related barriers to budgetary reforms, offering practical recommendations for policymakers and financial administrators.

## DATA ANALYSIS AND FINDINGS

The data analysis section presents descriptive statistics and correlation analysis to examine the relationships between compatibility (COM), complexity (COMP), perceived behavioral control (PBC), and attention to adopt PBB (ADP). Statistical findings provide insights into the distribution, central tendencies, and associations between key variables in the study.

### Descriptive Statistics

Table 1 presents the descriptive statistics for the study variables, including mean, standard deviation, skewness, kurtosis, and the range (minimum and maximum values). The mean values indicate respondents' overall perception of each variable, while standard deviation highlights the variability in responses.

**Table 1: Descriptive Statistics**

| Variable | N | Mean | Std. Deviation | Skewness | Kurtosis |
|---|---|---|---|---|---|
| Compatibility | 202 | 4.09 | 0.733 | -0.573 | -0.118 |
| Complexity | 202 | 3.62 | 0.938 | -0.450 | -0.654 |
| Perceived Behavioral Control | 202 | 4.16 | 0.723 | -0.575 | 0.340 |
| Attention to Adopt PBB | 202 | 4.45 | 0.622 | 1.070 | 0.569 |

The mean values for compatibility (M = 4.09) and perceived behavioral control (M = 4.16) indicate that respondents generally perceive Performance-Based Budgeting (PBB) as compatible with existing budgeting practices and feel some level of control over its adoption. This suggests that financial officials believe PBB aligns well with their current systems and that they have the necessary skills and resources to implement it effectively. The mean for complexity (M = 3.62) suggests a moderate perceived difficulty in understanding or implementing PBB, indicating that while some officials find the transition manageable, others may require additional training and support. The highest mean value (M = 4.45) is for attention to adopt PBB, implying a strong inclination among officials to consider implementing PBB in their financial practices. This result highlights a generally positive outlook on PBB adoption. Additionally, the skewness and kurtosis values suggest that the data follows a fairly normal distribution, with attention to adopt PBB (ADP) exhibiting a slightly left-skewed distribution. This indicates that most respondents reported higher attention toward adopting PBB, further reinforcing the notion that financial officials in Iraq see PBB as a viable and beneficial reform.

### Correlation Analysis

The correlation analysis examines the strength and direction of relationships between key study variables. Pearson correlation coefficients (r) are computed to assess the degree of

association among compatibility, complexity, perceived behavioral control, and attention to adopt PBB.

**Table 2: Correlation Matrix**

| Variable | COM | COMP | PBC | ADP |
|---|---|---|---|---|
| Compatibility | 1 | | | |
| Complexity | -0.362** | 1 | | |
| Perceived Behavioral Control | 0.483** | -0.412** | 1 | |
| Attention to Adopt PBB | 0.529** | -0.316** | 0.572** | 1 |

Note: $p < 0.01$ (two-tailed), ** indicates statistical significance.

The correlation analysis (see Table 2) reveals several significant relationships among the study variables, providing insights into the factors influencing the adoption of Performance-Based Budgeting (PBB). Compatibility (COM) has a strong positive correlation with attention to adopt PBB (ADP) ($r = 0.529$, $p < 0.01$), indicating that a greater alignment of PBB with current financial practices increases officials' intention to adopt it. This suggests that when PBB is perceived as fitting well with existing budgeting frameworks, adoption likelihood improves. Conversely, complexity (COMP) is negatively correlated with ADP ($r = -0.316$, $p < 0.01$), meaning that a higher perceived difficulty in understanding or implementing PBB reduces the likelihood of adoption. If PBB is seen as overly complex, financial officials may be less inclined to support its implementation.

Among all relationships, perceived behavioral control (PBC) demonstrates the strongest correlation with ADP ($r = 0.572$, $p < 0.01$), emphasizing the critical role of confidence and institutional support in influencing adoption decisions. Officials who feel they have the necessary resources and authority to implement PBB are significantly more likely to support its adoption. Additionally, a significant negative relationship is observed between complexity and compatibility ($r = -0.362$, $p < 0.01$), suggesting that when PBB is perceived as complex, it is also seen as less compatible with existing budgeting systems. This aligns with prior research indicating that complexity often acts as a barrier to institutional change. Similarly, perceived behavioral control is negatively associated with complexity ($r = -0.412$, $p < 0.01$), implying that greater difficulty in understanding PBB reduces officials' confidence in their ability to implement it successfully.

## Structural Equation Modeling (SEM) Analysis

The Structural Equation Modeling (SEM) approach was employed to analyze the relationships among the study variables and to assess the theoretical framework's validity. SEM is a powerful statistical technique that integrates factor analysis and multiple regression analysis, allowing for the examination of both direct and indirect relationships among variables [27, 34, 35]. This method is particularly suitable for testing complex models with multiple predictors, mediators, and dependent variables, as it provides insights into both measurement and structural models. The SEM analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM) due to its robustness in handling non-normal data distributions and small sample sizes.

The assessment of the structural model involves multiple key steps, including collinearity testing, path coefficient significance, coefficient of determination ($R^2$), effect size ($f^2$), and


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predictive relevance ($Q^2$) [27, 36-38]. The bootstrapping technique was applied with 5000 resamples to determine the statistical significance of path coefficients. Bootstrapping is a widely recommended approach as it enhances the accuracy of standard errors, t-values, and confidence intervals, ensuring more reliable conclusions regarding hypotheses testing.

**Assessment of Structural Model:**

The structural model evaluates the causal relationships between independent and dependent variables, ensuring that the theoretical assumptions hold true. The predictive power of the model is assessed using the coefficient of determination ($R^2$), which measures the proportion of variance explained by independent variables. The effect size ($f^2$) helps determine the impact of individual predictors on dependent variables, while predictive relevance ($Q^2$) evaluates the model's ability to predict future outcomes [27, 39, 40]. The bootstrapping method was applied to test the statistical significance of the hypothesized relationships.

**Collinearity Testing:**

Multicollinearity occurs when predictor variables are highly correlated, potentially inflating standard errors and distorting regression coefficients. To assess collinearity, Variance Inflation Factor (VIF) values were examined for each relationship within the model. As shown in Table 3, the VIF values range from 1.130 to 3.324, all of which fall below the critical threshold of 5, indicating that multicollinearity is not a significant issue in this study [27, 41, 42]. The highest VIF value of 3.324 was observed in the relationship between compatibility (COM) and intention to adopt PBB (ADP), suggesting moderate collinearity but still within an acceptable range. Similarly, perceived behavioral control (PBC) to ADP (VIF = 3.012) and compatibility (COM) to attitude toward innovation (ATT) (VIF = 3.211) also show acceptable levels of collinearity. The lowest VIF values were recorded for complexity (COMP) to attitude toward innovation (ATT) (VIF = 1.130) and complexity (COMP) to adopt PBB (ADP) (VIF = 1.135), further confirming that multicollinearity is not a concern.

**Table 3: Results of Collinearity Assessment**

| Construct | VIF |
|---|---|
| ATT -> ADP | 2.154 |
| COM -> ADP | 3.288 |
| COM -> ATT | 3.211 |
| COMP -> ADP | 1.135 |
| COMP -> ATT | 1.130 |
| PBC -> ADP | 3.012 |
| PBC -> ATT | 2.918 |

These results confirm that multicollinearity is not a significant concern, ensuring that the regression analysis provides valid and reliable estimates of the relationships between variables. The next section will focus on hypothesis testing using path coefficient analysis to evaluate the direct and indirect effects of compatibility, complexity, perceived behavioral control, and attitude toward innovation on the intention to adopt PBB.

**Hypothesis Testing**

The structural model analysis evaluates the direct and mediating relationships between compatibility (COM), complexity (COMP), perceived behavioral control (PBC), attitude toward

innovation (ATT), and attention to adopt PBB (ADP). The results provide insights into which factors significantly influence the adoption of Performance-Based Budgeting (PBB) in Iraq's public sector. Table 4 presents the direct relationship testing results, highlighting the significance of each path in the structural model. The findings reveal mixed outcomes regarding the direct influence of compatibility, complexity, and perceived behavioral control on the intention to adopt PBB. The results indicate that compatibility (COM) does not significantly influence ADP (β = 0.043, p = 0.485), leading to the rejection of H1. This suggests that while compatibility may be relevant in an innovation adoption context, its direct effect on PBB adoption intention is not statistically significant. Conversely, complexity (COMP) exhibits a significant negative impact on ADP (β = -0.159, p = 0.000), confirming H2. This result implies that the higher the perceived difficulty of PBB, the lower the likelihood of its adoption.

Perceived behavioral control (PBC) shows the strongest positive effect on ADP (β = 0.431, p = 0.000), supporting H3. This finding highlights that financial officials who feel they have control over PBB implementation, including access to necessary resources and institutional support, are significantly more likely to adopt it. Regarding the influence on attitude toward innovation (ATT), compatibility (COM) (β = 0.414, p = 0.000), complexity (COMP) (β = 0.126, p = 0.022), and perceived behavioral control (PBC) (β = 0.210, p = 0.010) all have significant positive effects, confirming H4, H5, and H6, respectively. This indicates that these factors play a crucial role in shaping officials' attitudes toward innovation, which, in turn, may influence their intention to adopt PBB. Finally, attitude toward innovation (ATT) has a strong positive effect on ADP (β = 0.427, p = 0.000), supporting H7. This suggests that financial officials with a more favorable perception of innovation are significantly inclined to adopt PBB, reinforcing the role of attitudes in decision-making processes.

**Table 4: Direct Relationship Testing Results**

| HY | Construct | Std Beta | St. Error | T- value | P- value | Result |
|---|---|---|---|---|---|---|
| H1 | COM -> ADP | 0.043 | 0.062 | 0.699 | 0.485 | Rejected |
| H2 | COMP -> ADP | -0.159 | 0.045 | 3.531 | 0.000 | Accepted |
| H3 | PBC -> ADP | 0.431 | 0.070 | 6.156 | 0.000 | Accepted |
| H4 | COM -> ATT | 0.414 | 0.061 | 6.726 | 0.000 | Accepted |
| H5 | COMP -> ATT | 0.126 | 0.055 | 2.298 | 0.022 | Accepted |
| H6 | PBC -> ATT | 0.210 | 0.081 | 2.571 | 0.010 | Accepted |
| H7 | ATT -> ADP | 0.427 | 0.071 | 5.975 | 0.000 | Accepted |

Keywords: ADP: Attention to adopt PBB; ATT: Attitude towards innovation; COMP: Complexity; COM: Compatibility; PBC: Perceived behavioural control.

The study also examines whether attitude toward innovation mediates the relationship between compatibility, complexity, perceived behavioral control, and attention to adopt PBB. The results, presented in Table 5, indicate that the mediating role of ATT varies depending on the predictor variable. The findings show that attitude toward innovation does not mediate the relationship between compatibility (COM) and attention to adopt PBB (ADP) (β = 0.067, p = 0.365), leading to the rejection of H8. This suggests that while compatibility influences attitude, it does not significantly translate into a stronger intention to adopt PBB. However, attitude toward innovation significantly mediates the relationship between complexity (COMP) and ADP (β = -0.402, p = 0.000), confirming H9. This result implies that complexity negatively influences ADP indirectly through ATT, meaning that officials who perceive PBB as highly


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complex are less likely to develop a positive attitude toward innovation, which in turn reduces adoption intention. Similarly, perceived behavioral control (PBC) has a significant indirect effect on ADP through ATT (β = 0.089, p = 0.036), supporting H10. This finding underscores the importance of confidence and institutional support in fostering a positive attitude toward innovation, which enhances the likelihood of adopting PBB.

**Table 5: Mediation Testing Results**

| HY | **Construct** | **Std Beta** | **St. Error** | **T- value** | **P-value** | **Result** |
|---|---|---|---|---|---|---|
| H8 | COM -> ATT -> ADP | 0.067 | 0.073 | 0.907 | 0.365 | **Rejected** |
| H9 | COMP -> ATT -> ADP | -0.402 | 0.064 | 6.336 | 0.000 | Accepted |
| H10 | PBC -> ATT -> ADP | 0.089 | 0.043 | 2.094 | 0.036 | Accepted |

Keywords: ADP: Attention to adopt PBB; ATT: Attitude towards innovation; COMP: Complexity; COM: Compatibility; PBC: Perceived behavioural control

The results of the direct relationships confirm that compatibility does not have a direct effect on PBB adoption, whereas complexity negatively influences adoption intention, and perceived behavioral control has the strongest positive effect. Additionally, attitude toward innovation plays a critical role in explaining adoption intention, acting as a significant mediator between complexity, perceived behavioral control, and PBB adoption. These findings highlight that financial officials' perception of complexity remains a major challenge in adopting PBB, and efforts to simplify the transition process through training, capacity-building, and supportive policies are essential. Furthermore, enhancing perceived behavioral control through institutional support and resource availability can significantly improve adoption rates. The study underscores the importance of attitude formation in fostering innovation adoption in the public sector, emphasizing the need for strategies that promote a positive perception of financial reforms such as PBB.

## DISCUSSION

The findings of this study provide empirical insights into the factors influencing the adoption of Performance-Based Budgeting (PBB) in Iraq's public sector. The results reveal that compatibility (COM) does not have a significant direct impact on the intention to adopt PBB (ADP), contradicting previous studies that emphasize the importance of an innovation aligning with existing practices for successful adoption [14]. This suggests that financial officials in Iraq may not prioritize compatibility as a primary determinant of adoption but rather focus on other factors such as complexity and control over implementation. Conversely, complexity (COMP) negatively influences ADP, supporting prior research indicating that perceived difficulty and technical barriers can hinder the adoption of budgeting innovations [19]. The significant negative indirect effect of complexity through attitude toward innovation (ATT) further confirms that complexity acts as a major barrier, reinforcing findings from studies on public sector financial reforms that emphasize the need for simplifying budgeting processes to encourage adoption [8].

Among all predictors, perceived behavioral control (PBC) exhibits the strongest positive effect on ADP, demonstrating that officials who feel more confident in their ability to implement PBB are significantly more likely to support its adoption. This finding aligns with Ajzen's Theory of Planned Behavior (TPB), which suggests that individuals' perceptions of control over a behavior enhance their likelihood of engaging in that behavior [20]. Moreover, PBC's positive

indirect effect through ATT highlights the importance of institutional support and training in shaping officials' attitudes toward adopting financial innovations [16].

The study also confirms that attitude toward innovation (ATT) significantly mediates the relationship between complexity, perceived behavioral control, and adoption intention, reinforcing the role of attitudes in shaping decision-making processes [17]. This finding is consistent with studies on innovation diffusion in the public sector, which argue that positive attitudes toward change enhance the likelihood of adopting new budgeting frameworks [21].

## CONCLUSION

This study explored the factors influencing the adoption of Performance-Based Budgeting (PBB) in Iraq's public sector, focusing on compatibility, complexity, perceived behavioral control, and attitude toward innovation. The findings revealed that perceived behavioral control plays the most significant role in shaping adoption intention, indicating that financial officials are more likely to adopt PBB if they feel confident in their ability to implement it effectively. Complexity was identified as a major barrier, as higher perceived difficulty in understanding and using PBB reduced the likelihood of adoption. Additionally, attitude toward innovation was found to mediate the relationships between complexity, perceived behavioral control, and adoption intention, highlighting the importance of shaping positive perceptions of financial reforms. While compatibility was expected to play a key role in adoption, the findings showed that it did not have a significant direct impact. This suggests that officials may prioritize implementation challenges and resource availability over alignment with existing practices when considering financial reform. The results emphasize the need for policy interventions, institutional support, and capacity-building efforts to facilitate the transition to PBB in Iraq.

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