







# “Determinants of budgetary slack and the moderating role of islamic religiosity in sharia-based public governance: Evidence from Aceh, Indonesia”

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<b>ARTICLE INFO</b>	Nourmaliza, Mirna Indriani, Ratna Mulyany, Mulia Saputra and Hafas Furqani (2026). Determinants of budgetary slack and the moderating role of islamic religiosity in sharia-based public governance: Evidence from Aceh, Indonesia. <i>Public and Municipal Finance</i> , 15(1), 101–114. doi: <a href="https://doi.org/10.21511/pmf.15(1).2026.08">10.21511/pmf.15(1).2026.08</a>
<b>DOI</b>	<a href="http://dx.doi.org/10.21511/pmf.15(1).2026.08">http://dx.doi.org/10.21511/pmf.15(1).2026.08</a>
<b>RELEASED ON</b>	Tuesday, 31 March 2026
<b>RECEIVED ON</b>	Monday, 19 January 2026
<b>ACCEPTED ON</b>	Thursday, 05 March 2026
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<b>JOURNAL</b>	"Public and Municipal Finance"
<b>ISSN PRINT</b>	2222-1867
<b>ISSN ONLINE</b>	2222-1875
<b>PUBLISHER</b>	LLC “Consulting Publishing Company “Business Perspectives”
<b>FOUNDER</b>	LLC “Consulting Publishing Company “Business Perspectives”



NUMBER OF REFERENCES

**45**



NUMBER OF FIGURES

**1**



NUMBER OF TABLES

**5**

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## BUSINESS PERSPECTIVES



LLC "CPC "Business Perspectives"  
Hryhorii Skovoroda lane, 10,  
Sumy, 40022, Ukraine  
[www.businessperspectives.org](http://www.businessperspectives.org)

**Type of the article:** Research Article

**Received on:** 19<sup>th</sup> of January, 2026

**Accepted on:** 5<sup>th</sup> of March, 2026

**Published on:** 31<sup>st</sup> of March, 2026

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**Conflict of interest statement:**

Author(s) reported no conflict of interest

Nourmaliza (Indonesia), Mirna Indriani (Indonesia), Ratna Mulyany (Indonesia), Mulia Saputra (Indonesia), Hafas Furqani (Indonesia)

# DETERMINANTS OF BUDGETARY SLACK AND THE MODERATING ROLE OF ISLAMIC RELIGIOSITY IN SHARIA-BASED PUBLIC GOVERNANCE: EVIDENCE FROM ACEH, INDONESIA

## Abstract

Budgetary slack continues to pose governance challenges in public sector budgeting, including in government systems operating under Islamic principles. This study investigates the effects of budget participation, budget emphasis, information asymmetry, and group cohesiveness on budgetary slack and examines the moderating role of Islamic religiosity within a Sharia-based public governance system in Aceh, Indonesia. Survey data were collected from 319 provincial, district, and city government officials directly involved in budget preparation and analyzed using partial least squares structural equation modeling (PLS-SEM). The findings indicate that budget participation ( $\beta = 0.187$ ;  $p = 0.004$ ), budget emphasis ( $\beta = 0.235$ ;  $p < 0.001$ ), information asymmetry ( $\beta = 0.249$ ;  $p < 0.001$ ), and group cohesiveness ( $\beta = 0.118$ ;  $p = 0.049$ ) positively and significantly influence budgetary slack, with the model explaining 54.2% of its variance ( $R^2 = 0.542$ ). Islamic religiosity also shows a positive direct effect and significantly strengthens the relationships between budget participation and budgetary slack ( $\beta = 0.161$ ;  $p = 0.003$ ) and between information asymmetry and budgetary slack ( $\beta = 0.168$ ;  $p < 0.001$ ), while it does not moderate the effects of budget emphasis or group cohesiveness. These results suggest that religiosity does not function as a structural safeguard against discretionary budgeting behavior. Instead, agency incentives and information asymmetry remain central in shaping budget outcomes. The findings highlight the importance of reinforcing transparency, accountability frameworks, and internal control systems in Islamic-based municipal and provincial governments to enhance public financial governance.

## Keywords

budgetary slack, participation, asymmetry, cohesiveness, religiosity

## JEL Classification

H61, H72, H83, Z12

## INTRODUCTION

Budgetary slack remains a persistent concern in public financial management. It refers to the intentional overestimation of expenditures or underestimation of revenues in the budgeting process to create a margin of safety against uncertainty. Although sometimes rationalized as a pragmatic response to rigid performance evaluation systems or fiscal uncertainty, budgetary slack is widely regarded as dysfunctional behavior because it distorts resource allocation, weakens fiscal discipline, and undermines accountability in the management of public funds.

In government settings, the existence of budgetary slack presents a fundamental governance dilemma. Public budgeting systems are designed to promote transparency, efficiency, and responsible stewardship. However, organizational and behavioral conditions within bu-

reaucratic structures may create incentives for opportunistic budgetary behavior. When such practices become embedded in routine administrative processes, they can normalize deviations from ethical standards while remaining formally compliant with procedural rules.

Prior studies have predominantly explained budgetary slack through structural and managerial determinants, particularly budget participation, budget emphasis, information asymmetry, and group cohesiveness. These perspectives demonstrate how incentive systems, performance pressures, and discretionary authority shape budgeting behavior. However, they largely focus on formal control mechanisms and individual-level motivations, paying limited attention to institutionalized ethical frameworks that may operate beyond managerial incentives. In particular, little empirical evidence exists on how religious norms embedded within governance systems, rather than merely held as personal values, interact with structural determinants in influencing budgetary slack.

This question becomes especially salient in institutional environments where religious principles are formally integrated into administrative and regulatory systems. In such settings, religiosity may function not only as a personal attribute but also as an institutional norm that shapes authority relations, oversight mechanisms, and accountability practices. Whether such embedded normative frameworks effectively limit budgetary opportunism remains empirically underexplored.

Aceh Province provides a distinctive context for examining this issue. As a special autonomous region within Indonesia, Aceh formally incorporates Islamic principles into its governance architecture and fiscal administration. The integration of religious norms into regulatory oversight and public financial management, combined with its special fiscal autonomy arrangements, creates an institutional environment in which ethical and administrative controls intersect. This setting offers an opportunity to assess how institutionalized religiosity interacts with structural determinants of budgetary slack in subnational governments.

Examining this interaction contributes to a more comprehensive understanding of how institutionalized normative frameworks influence fiscal discipline within decentralized public financial systems and extends agency theory by incorporating embedded moral values into the analysis of discretionary decision-making.

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## 1. LITERATURE REVIEW AND HYPOTHESES

Agency theory remains a central framework for explaining opportunistic behavior under delegated authority, in which agents may pursue self-interest when monitoring is imperfect and goals diverge (Eisenhardt, 1989; Jensen & Meckling, 1976). In the public sector, agency relationships are amplified by multiple principals, complex accountability lines, and layered hierarchies, which intensify supervision challenges and widen spaces for strategic behavior (Eckersley et al., 2025; Lane, 2005). In budgeting, these conditions are particularly salient because budgets simultaneously function as planning instruments, allocation devices, and performance evaluation tools, making them vulnerable to distortion through budgetary slack

(Dunk, 1993; Ngo et al., 2017). Taken together, these dynamics reinforce the view that budgetary slack is not merely an individual-level phenomenon but is embedded within broader governance structures (Wu & Xiao, 2025). Although budgetary slack may provide a sense of security and flexibility for managers, it can also generate adverse organizational consequences, such as resource misallocation and reduced performance accountability (Ehsan et al., 2023).

Public financial management reforms, such as audits, transparency initiatives, digitalization, and performance-based budgeting, are widely adopted to strengthen accountability and reduce opportunism (Cuadrado-Ballesteros & Bisogno, 2021; Rana et al., 2022; Volodina & Grossi, 2025). Contemporary public administration scholarship

emphasizes that formal controls can remain insufficient when compliance becomes procedural rather than value based, allowing strategic conformity and hidden opportunism to persist (Ariail et al., 2024; Mizrahi & Minchuk, 2019). This line of argument implies that institutional mechanisms should be complemented with intrinsic governance, internalized values, and moral restraints, especially in contexts where ethical frameworks are socially salient.

Within budgeting research, the determinants of slack are typically explained through structural incentives and informational conditions. Budget participation is theoretically ambivalent. On the one hand, participatory processes may improve communication, goal commitment, and perceived fairness, supporting performance when embedded in constructive control environments (Alhasnawi et al., 2023; Brownell, 1982). On the other hand, behavioral agency reasoning suggests that participation may increase the potential for slack creation, as subordinates possess superior operational knowledge and may strategically influence target setting, particularly when budget achievement is closely linked to performance evaluation, rewards, or sanctions (Al Jasimee & Blanco-Encomienda, 2024; Lukka, 1988; Namazi & Rezaei, 2023; Young, 1985).

Beyond participation, other control mechanisms such as budget emphasis may further intensify these incentives. When budget targets become the dominant basis for performance evaluation, pressure rises, and agents have stronger motivation to create attainable targets through conservative forecasting or padded costs (Chong & Strauss, 2017; Dunk, 1993). Recent work on performance regimes and target-based accountability in the public sector similarly shows that excessive emphasis on measurable targets can trigger gaming behaviors, distorted reporting, and dysfunctional responses under evaluative pressure (Fukushima & Yamada, 2024). These insights suggest that strong target focus may unintentionally shift attention from public value to metric attainment, encouraging defensive budgeting.

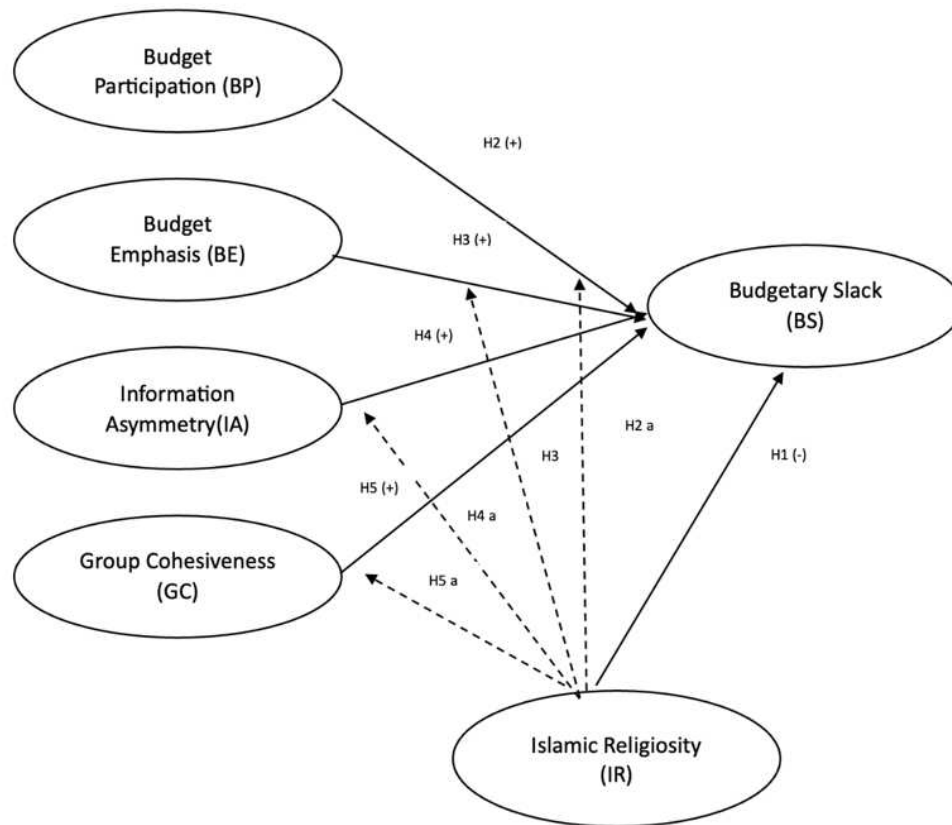
Information asymmetry is another robust driver of slack. When subordinates possess more accurate information about costs, capacity, and program realities than their superiors, imperfect monitoring

enables biased estimates and concealment of discretionary buffers (Daumosser et al., 2018). Public budgeting studies also indicate that performance-based budgeting and transparency reforms can reduce some informational gaps, yet asymmetry persists in decentralized or technically specialized environments, enabling continued strategic behavior in budget proposals and negotiations (Cuadrado-Ballesteros & Bisogno, 2021). Therefore, even in reform contexts, information advantage remains a structural opportunity for slack.

Slack can emerge not only from individual opportunism but also through collective dynamics. Group cohesiveness generally fosters cooperation, trust, and coordination, but high cohesion may generate strong internal norms of mutual protection and harmony that discourage whistleblowing and enable implicit collusion (McShane & Von Glinow, 2014). Evidence from group decision-making research indicates that coordinated actors may create more slack than isolated individuals because collective action facilitates concealment and rationalization of biased estimates (Narayanan et al., 2006). In budgeting settings, group cohesiveness may converge on “safe” targets that protect the group from workload pressure or negative evaluation, aligning collective interests against principal expectations.

Recent systematic reviews of empirical budgeting research indicate that budgetary slack remains a central theme in accounting literature, predominantly examined through structural and incentive-based explanations such as participation, performance pressure, and information asymmetry (Batt, 2025). However, the review highlights limited integration of ethical and contextual dimensions, as well as insufficient alignment with governance realities. This gap suggests the need to incorporate intrinsic governance mechanisms into agency-based explanations of budgeting behavior in public sector contexts.

While these structural and behavioral determinants explain why slack occurs, they do not fully capture the ethical and value-based dimensions emphasized in recent research agendas. Public administration and organizational behavior literature increasingly highlights that values and ethics shape how actors respond to incentives (Drechsler



Note: solid arrows: direct effects; dashes arrows; moderation effects.

Figure 1. Research model

et al., 2024; Ongaro & Tantardini, 2024). Religiosity is frequently discussed as a source of internal moral constraint that can strengthen honesty, integrity, and accountability in financial decision-making, with empirical evidence linking religiosity to improved reporting quality and reduced irregularities in broader accountability contexts (Dyregang et al., 2012; Ali, 2025) In Islamic governance environments, Islamic religiosity reflects the internalization of Islamic practice (Islam), faith (Iman), and moral excellence (Ihsan), forming an intrinsic ethical framework that guides behavior beyond procedural rule compliance (Mahudin et al., 2016). Recent ethics research further indicates that Islamic religiosity is associated with ethical intention and moral judgment in organizational contexts, supporting the view that religiosity may restrain unethical choices under performance pressure (Alqhaiwi et al., 2023; Alshehri et al., 2021).

Studies conducted in Muslim-majority settings also link Islamic values and work ethics to professional conduct and reduced opportunism, sug-

gesting relevance for public sector budgeting environments where discretion and performance pressures coexist (Lakasse et al., 2021; Sulaiman et al., 2021). Recent studies in Islamic accounting and governance contexts further suggest that religiosity strengthens moral identity internalization and enhances resistance to pressure-driven distortions in financial decision-making (Ahsan et al., 2024), reinforcing its potential role as an intrinsic governance mechanism within public financial management systems. Accordingly, Islamic religiosity is expected to operate in two ways in the budgeting domain. First, it may directly reduce slack by discouraging deliberate distortion of public resource estimates. Second, it may moderate the impact of structural determinants such as budget participations, budget emphasis, information asymmetry, and group cohesiveness by weakening opportunistic responses to incentive pressure and informational advantage, particularly within Sharia-compliant governance environments where moral accountability is institutionally and socially salient. These arguments position Islamic

religiosity as an intrinsic governance mechanism that complements structural controls in public budgeting systems.

In summary, prior studies show that incentive structures, participation, budget emphasis, information asymmetry, and group cohesiveness increase the likelihood of budgetary slack in public organizations, while reforms and formal controls do not always eliminate strategic behavior. However, research integrating intrinsic moral governance, specifically Islamic religiosity, into agency-based explanations of public budgeting behavior remains comparatively limited.

The purpose of this study is to examine the influence of budget participation, budget emphasis, information asymmetry, and group cohesiveness on budgetary slack, and to investigate the moderating role of Islamic religiosity within a Sharia-based public governance.

The conceptual framework is shown in Figure 1. Direct effect hypotheses are:

- H1: Islamic religiosity has a negative effect on budgetary slack.*
- H2: Budget participation has a positive effect on budgetary slack.*
- H3: Budget emphasis has a positive effect on budgetary slack.*
- H4: Information asymmetry has a positive effect on budgetary slack.*
- H5: Group cohesiveness has a positive effect on budgetary slack.*

Moderating effect hypotheses are:

- H2a: Islamic religiosity reduces the positive effect of budgetary participation on budgetary slack.*
- H3a: Islamic religiosity reduces the positive effect of budget emphasis on budgetary slack.*
- H4a: Islamic religiosity reduces the positive effect of information asymmetry on budgetary slack.*

*H5a: Islamic religiosity reduces the positive effect of group cohesiveness on budgetary slack.*

## 2. METHOD

This study employed a quantitative, cross-sectional survey design to examine the effects of budgetary participation, budgetary emphasis, information asymmetry, and group cohesiveness on budgetary slack, with Islamic religiosity as a moderating variable. The empirical setting was the public sector in Aceh Province, Indonesia, a region that formally implements a Sharia-based governance framework. The unit of analysis was individual public officials directly involved in budget preparation and implementation at the provincial and district/city government levels. The population comprised public officials engaged in budgeting activities across the Aceh Provincial Government and 23 district/city governments. Because budgeting authority and discretion vary across managerial levels, proportional stratified sampling was applied to ensure representation across hierarchical positions. Respondents were drawn from three managerial levels: lower-level managers (section heads), middle-level managers (division heads), and upper-level managers (agency heads).

Data were collected from May to July 2024 using a structured online questionnaire administered via Google Forms to accommodate geographically dispersed government units. A total of 450 questionnaires were distributed through designated liaison officers in each government unit to ensure appropriate distribution to public officials who met the study's inclusion criteria. Of these, 332 responses were returned, and 319 were deemed usable after data screening, resulting in a response rate of 70.9%. Periodic follow-up reminders were conducted through official communication channels within two weeks to enhance participation. Participation was voluntary, no material incentives were offered, and respondents completed the questionnaire independently without supervisory involvement to minimize social desirability bias.

The final sample size exceeded the minimum requirement for partial least squares structural equation modeling (PLS-SEM). Following the "10-times rule" of Hair et al. (2021), the minimum

suggested sample size was 50, while recommendations for detecting medium effects typically exceed 100–150 cases. Therefore, the final sample ( $n = 319$ ) was considered adequate for estimating the structural model and testing moderation effects.

This study received ethical approval from the Ethics Committee of the Faculty of Economics and Business, Syiah Kuala University (No. 124/UN11.F1.SAF/2025). Before participating, respondents received an information sheet explaining the study's purpose, procedures, potential risks and benefits, confidentiality assurances, and their right to withdraw at any time without consequences. No personal identifiers were collected, responses were analyzed in aggregate form, and the data were used solely for academic purposes.

All constructs were measured using validated instruments adapted from prior studies. Budgetary slack was measured using six items adapted from Chong and Johnson (2007) and Dunk (1993); budgetary participation used six items from Milani (1975); budgetary emphasis and information asymmetry used six items each from Dunk (1993); group cohesiveness used six items from Mudrack (1989) and Wech et al. (1998); and Islamic religiosity used eleven items from Mahudin et al. (2016). All items were assessed using a five-point Likert scale (1 = strongly disagree; 5 = strongly agree). The questionnaire (Appendix A) was translated into 'Bahasa Indonesia' using a back-translation procedure to ensure semantic equivalence and was contextually adjusted for the public sector environment in Aceh. A pilot test involving 30 public officials was conducted to ensure clarity and appropriateness of the instrument. To assess potential common method bias, Harman's single-factor test was performed, and the first factor accounted for less than 50% of the total variance, suggesting that common method bias was not a serious concern.

Partial least squares structural equation modeling (PLS-SEM) using SmartPLS 4.0 was employed for data analysis in this study. PLS-SEM was selected due to its strong predictive capability, particularly for complex models involving multiple latent constructs, as well as its ability to estimate interaction (moderating) effects without requiring strict as-

sumptions of multivariate normality (Hair et al., 2021). The analysis consists of two stages. First, the measurement model is evaluated to assess its reliability and validity. Second, the structural model is examined by assessing the path coefficients and the coefficient of determination ( $R^2$ ).

### 3. RESULTS AND DISCUSSION

The questionnaire was distributed to government officials involved in the budgeting process in all districts and cities in Aceh Province from May to the end of July 2024. Respondent characteristics are presented in Table 1.

**Table 1.** Respondents' characteristics

Characteristic	Category	Frequency	Percentage (%)
Gender	Male	173	54.23
	Female	146	45.77
	Total	319	100
Education	Senior High School	21	6.58
	Diploma (D3)	10	3.13
	Bachelor's Degree (S1)	207	64.89
	Master's Degree (S2)	72	22.57
	Doctorate (S3)	9	2.83
	Total	319	100
Years of Service	< 5 years	92	28.80
	5-10 years	72	22.57
	10-15 years	93	29.15
	15-20 years	36	11.39
	> 20 years	26	8.15
	Total	319	100
Position	Head of Department	16	5.02
	Secretary	13	4.08
	Head of Division	22	6.90
	Head of Sub-Division	43	13.48
	Head of Section	20	6.27
	Staff	205	64.26
	Total	319	100

Table 2 reports the descriptive statistics for the study variables based on 319 observations measured on a five-point Likert scale. The mean scores indicate relatively high levels of budgetary slack ( $M = 3.78$ ), budget emphasis ( $M = 3.82$ ), and group cohesiveness ( $M = 3.76$ ). Information asymmetry shows a moderate level ( $M = 3.41$ ), while Islamic

**Table 2.** Descriptive statistics

Variable	N	Minimum	Maximum	Average	Standard Deviation
Budget Participation (BP)	319	1	5	3.78	1.123
Budget Emphasis (BE)	319	1	5	3.82	1.170
Information Asymmetry (IA)	319	1	5	3.41	1.220
Group Cohesiveness (GC)	319	1	5	3.76	1.113
Islamic Religiosity (IR)	319	1	5	3.56	1.351
Budget Slack (BS)	319	1	5	3.10	1.232

religiosity is also reported at a relatively high level ( $M = 3.56$ ). Budgetary slack has the lowest mean ( $M = 3.10$ ), indicating a moderate tendency toward slack creation. The standard deviations, ranging from 1.113 to 1.351, suggest adequate variability across the constructs.

The results of the measurement model evaluation test showed that all indicators had factor loading values above 0.80, except for R11, which was 0.782. All indicator loadings exceeded the recommended threshold of 0.70. These results indicate that each indicator is able to represent the latent construct being measured robustly and accurately. In addition, the average variance extracted (AVE) values ranged from 0.70 to 0.80 for all constructs, exceeding the recommended threshold of 0.50.

Thus, the construct was able to be explained by each indicator, thus meeting the convergent validity criteria. Furthermore, the composite reliability (CR) value for each construct was above 0.90, above the recommended threshold of 0.70 (Hair et al., 2022; Nunnally & Bernstein, 1994). The values obtained from the processing results indicate that the research instrument has high internal consistency for each indicator within each construct. Therefore, all constructs in this study have met the validity and reliability criteria, so that data analysis can be continued.

The result of hypothesis testing indicate that all antecedent variables have a significant direct effect on budgetary slack (Table 4), budget participation ( $\beta = 0.187$ ;  $p = 0.004$ ), budget emphasis

**Table 3.** Summary of the measurement model

Variable	Indicator	Loading Factor	Composite Reliability (CR)	Average Variance Extracted (AVE)
Budget Participation (BP)	BP1	0.874	0.951	0.814
	BP2	0.891		
	BP3	0.866		
	BP4	0.864		
	BP5	0.883		
	BP6	0.871		
Budget Emphasis (BE)	BE1	0.869	0.968	0.818
	BE2	0.913		
	BE3	0.932		
	BE4	0.925		
	BE5	0.912		
	BE6	0.925		
Information Asymmetry (IA)	IA1	0.874	0.960	0.798
	IA2	0.909		
	IA3	0.909		
	IA4	0.881		
	IA5	0.886		
	IA6	0.905		
Group Cohesiveness (GC)	GC1	0.846	0.945	0.786
	GC2	0.853		
	GC3	0.856		
	GC4	0.864		
	GC5	0.879		
	GC6	0.864		

**Table 3 (cont.).** Summary of the measurement model

Variable	Indicator	Loading Factor	Composite Reliability (CR)	Average Variance Extracted (AVE)
Islamic Religiosity (IR)	IR1	0.823	0.964	0.836
	IR2	0.816		
	IR3	0.859		
	IR4	0.880		
	IR5	0.889		
	IR6	0.899		
	IR7	0.891		
	IR8	0.803		
	IR9	0.816		
	IR10	0.815		
	IR11	0.782		
Budget Slack (BS)	BS1	0.915	0.956	0.809
	BS2	0.919		
	BS3	0.883		
	BS4	0.892		
	BS5	0.863		
	BS6	0.841		

( $\beta = 0.235$ ;  $p < 0.001$ ), information asymmetry ( $\beta = 0.249$ ;  $p < 0.001$ ), and group cohesiveness ( $\beta = 0.118$ ;  $p = 0.049$ ) were found to positively influence budgetary slack. Therefore, H2, H3, H4, and H5 are supported in this study.

These findings suggest that higher levels of participation, budget emphasis, information asymmetry, and group cohesiveness are associated with greater budgetary slack. In addition, Islamic religiosity has a significant direct effect on budgetary slack ( $\beta = 0.289$ ;  $p = 0.010$ ); however, the positive coefficient is contrary to the hypothesized negative relationship, indicating that H1 is not supported. In addition, Islamic religiosity has a significant direct effect on budgetary slack ( $\beta = 0.289$ ,  $p = 0.010$ ). However, the direction of the relationship is positive, contrary to the hypothesized negative effect. Therefore, H1 is not supported.

The moderation test results reveal a differential pattern of interaction effects. Islamic religiosity significantly moderates the relationship between budget participation and budgetary slack ( $BP \times IR \rightarrow BS$ ;  $\beta = 0.161$ ;  $p = 0.003$ ) and between information asymmetry and budgetary slack ( $IA \times IR \rightarrow BS$ ;  $\beta = 0.168$ ;  $p < 0.001$ ). The positive interaction coefficients indicate that higher levels of Islamic religiosity strengthen the positive effects of budget participation and information asymmetry on budgetary slack. Therefore, although the interaction effects are statistically significant, their directions are contrary to the hypothesized negative moderation. Accordingly, the moderation hypotheses for budget participations and information asymmetry (H2a and H4a) are not supported due to the inconsistency in the expected direction.

**Table 4.** Results of hypothesis testing

Hypothesis	Path	Expected Sign	Original Sample ( $\beta$ )	T Statistics	P Values	Conclusions
H1	IR $\rightarrow$ BS	-	0.289	4.545	0.010	Not supported
H2	BP $\rightarrow$ BS	+	0.187	2.915	0.004	Supported
H3	BE $\rightarrow$ BS	+	0.235	3.943	0.000	Supported
H4	IA $\rightarrow$ BS	+	0.249	4.215	0.000	Supported
H5	GC $\rightarrow$ BS	+	0.118	1.972	0.049	Supported
H2a	BP $\times$ IR $\rightarrow$ BS (M1)	-	0.161	3.015	0.003	Not supported
H3a	BE $\times$ IR $\rightarrow$ BS (M2)	-	-0.028	0.581	0.561	Not supported
H3a	IAF $\times$ IR $\rightarrow$ BS (M3)	-	0.168	3.505	0.000	Not supported
H4a	GC $\times$ IR $\rightarrow$ BS (M4)	-	-0.033	0.744	0.457	Not supported

Note: Sample size (N) = 319;  $R^2$  for Budget Slack = 0.59. BP = Budget Participation; BE = Budget Emphasis; IA = Information Asymmetry; GC = Group Cohesiveness; IR = Islamic Religiosity; BS = Budget Slack.

In contrast, Islamic religiosity does not significantly moderate the relationship between budget emphasis and budgetary slack ( $BE \times IR \rightarrow BS$ ;  $\beta = -0.028$ ;  $p = 0.561$ ) nor the relationship between group cohesiveness and budgetary slack ( $GC \times IR \rightarrow BS$ ;  $\beta = -0.033$ ;  $p = 0.457$ ). Thus, the moderation hypotheses related to budget emphasis and group cohesiveness (*H3a* and *H5a*) are not supported, as the interaction effects are statistically insignificant. Overall, the structural model demonstrates substantial explanatory power for budget slack, with an  $R^2$  value of 0.597, indicating that 59.7% of the variance in budgetary slack is explained by the constructs included in the model.

Overall, these findings highlight the complex role of Islamic religiosity in the budgeting framework. Although the structural model confirmed significant direct and interaction effects, some relationships emerged in directions contrary to the initial hypotheses. These unexpected patterns warrant further theoretical reflection.

The findings provide strong support for agency theory in explaining budgetary slack behavior within the public-sector context. Budget participation, budget emphasis, information asymmetry, and group cohesiveness are found to positively influence budgetary slack, highlighting both structural and behavioral mechanisms underlying slack formation. The positive effect of budget participations is consistent with agency-based arguments suggesting that participative budgeting increases opportunities for agents to influence target setting in their favor (Al Jasimee & Blanco-Encomienda, 2024). Their findings suggest that goal orientation and job-relevant information can mediate the relationship between participation and slack, highlighting the behavioral complexity of budgeting processes. Although participation is often associated with transparency and alignment, prior research indicates that when performance evaluations create self-protective incentives, participation may instead facilitate slack creation. This finding supports studies showing that participative mechanisms do not automatically reduce opportunism and may even increase budget manipulation under certain incentive structures (Daumoser et al., 2018). In a similar vein, the positive association between budget emphasis and budgetary slack supports evidence that stringent perfor-

mance evaluation systems intensify defensive budgeting responses, including deliberate buffer creation (Ngo et al., 2017). This aligns with broader behavioral research suggesting that strong target pressures may trigger rationalized dysfunctional behavior under performance stress (Fukushima & Yamada, 2024). While performance emphasis is designed to strengthen accountability, excessive pressure may unintentionally promote conservative target setting as a risk-avoidance strategy.

The significant positive effect of information asymmetry reinforces classic agency predictions that informational advantages enable subordinates to bias budget proposals in ways that are difficult for superiors to verify (Dunk, 1993; Munawaroh et al., 2024). This finding suggests that slack is not merely a reaction to performance pressure but also a structural consequence of unequal information distribution. In complex public-sector environments, informational disparities may expand discretionary space, making slack formation more feasible. Meanwhile, the positive association between group cohesiveness and budgetary slack suggests that strong within-group solidarity may normalize slack as a collective protective mechanism. Although cohesion enhances coordination and trust, it may also strengthen compliance with internal norms that tolerate biased budgeting practices, illustrating the dual nature of group dynamics.

Contrary to expectations, Islamic religiosity demonstrates a positive direct relationship with slack, contrasting with studies suggesting that religiosity constrains unethical behavior (Dyrenge et al., 2012). However, prior literature also emphasizes that the influence of religiosity depends on institutional incentives and governance structures. From an ethical decision-making perspective, slack represents a morally embedded choice shaped by system pressures, discretionary opportunities, and rationalization processes (Douglas & Wier, 2000). Thus, religiosity may not automatically eliminate opportunistic tendencies but may influence how budgeting behavior is interpreted and justified. In certain contexts, slack may be framed as prudential budgeting or performance protection rather than misconduct.

The interaction results further complicate this picture. Islamic religiosity strengthens the influence of budget participations and information asymme-

try on budgetary slack, contrary to the expectation that Islamic religiosity would weaken opportunistic tendencies. Unlike studies positioning religiosity as a universal moral safeguard, these findings suggest that religiosity may interact with discretionary structures in ways that amplify slack formation when opportunities are present. In the context of the Aceh Provincial Government, where Islamic principles are institutionally embedded, Islamic religiosity may function as a source of social legitimacy and expand discretionary space. When participation and informational authority increase autonomy, slack may be rationalized as a precautionary buffer against uncertainty. This interpretation is consistent with evidence suggesting that Islamic religiosity may be associated with conservatism, secrecy, and formal compliance orientations (Ahsan et al., 2024), which may indirectly encourage buffer formation.

In contrast, Islamic religiosity does not moderate the effects of budget emphasis on budget slack, suggesting that under intense performance pressure or established collective norms, structural and group dynamics outweigh personal religious

values in shaping budgeting behavior. This supports prior findings indicating that religiosity does not universally counterbalance dysfunctional behavior.

While experimental research demonstrates that moral judgment and positive affect can reduce budgetary slack under conditions of honest peer influence (Geng et al., 2025), our findings suggest that Islamic religiosity does not automatically function as a structural deterrent against discretionary budgeting behavior within a real-world public governance context.

Overall, these results indicate that budgetary slack in public organizations emerges from the interaction of structural opportunities, performance pressures, group dynamics, and personal values embedded within specific institutional settings. Rather than serving as a uniform ethical constraint, religiosity operates contextually, interacting with governance incentives in ways that may either constrain or coexist with opportunistic budgeting behavior.

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## CONCLUSION

This study aims to examine the influence of budget participation, budget emphasis, Islamic religiosity, and group cohesiveness on budget slack, as well as the moderating role of Islamic religiosity in the public sector. The findings show that all antecedent variables have a positive and significant direct effect on budget slack. Islamic religiosity also has a positive direct effect on budget slack and strengthens the relationship between budget participation and budget slack, but it does not moderate the effects of budget emphasis and group cohesiveness on budget slack. These results indicate that religiosity does not automatically constrain opportunistic budgeting behavior and may even reinforce slack when discretion and information asymmetry are present. Therefore, controlling budget slack in public sector organizations requires strengthening internal control mechanisms, enhancing transparency, and setting realistic budget targets rather than relying solely on individual religious values.

## AUTHOR CONTRIBUTIONS

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## ACKNOWLEDGMENT

This study was supported by a Doctoral Dissertation Research Grant (Penelitian Disertasi Doktor) for Fiscal Year 2024 from the Indonesian Ministry of Education, Culture, Research, and Technology (Kemendikbudristek), under Contract No. 600/UN11.2.1/PG.01.03/SPK/DRTPM/2024.

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## APPENDIX A

**Table A1.** Research questionnaire

Item	1	2	3	4	5
<b>A. Budgetary Slack</b>					
1. The standards set in the budget encourage high productivity in my area of responsibility					
2. The budget set for my area of responsibility can be achieved easily					
3. I must be careful in managing costs in my area of responsibility due to budget limitations					
4. The budget for my area of responsibility is not very demanding					
5. Budget targets do not require me to specifically improve efficiency in my area of responsibility					
6. The targets included in the budget are difficult to achieve					
<b>B. Budget Participation</b>					
1. When preparing the budget for my unit, I am involved by my superior in planning the budget targets I propose					
2. When I provide budget-related information, my superior clearly explains the priority scale during the formal budget approval process					
3. During budget preparation, my superior often invites me to discuss and exchange information for organizational improvement					
4. When preparing the budget, I have influence in determining the finalization of the proposed budget					
5. My contribution to the budget preparation process in my area of responsibility is considered important					
6. I communicate all budget-related information I know to my superior, even if it may lead to debate					
<b>C. Budget Emphasis</b>					
1. The extent to which meeting budget targets is emphasized in evaluating my performance					
2. The extent to which achieving budget targets affects performance appraisal in my unit					
3. The extent to which superiors place pressure on subordinates to meet budget targets					
4. The extent to which deviations from the budget are subject to strict evaluation					
5. The importance placed on achieving budget targets in my performance review					
6. The extent to which failure to meet budget targets negatively affects performance evaluation					
<b>D. Information Asymmetry</b>					
1. Compared to your supervisor, who has better information about activities performed in your area of responsibility?					
2. Compared to your supervisor, who better understands the operational processes in your area of responsibility?					
3. Compared to your supervisor, who is more knowledgeable about factors affecting performance in your area of responsibility?					
4. Compared to your supervisor, who has better technical knowledge regarding your job responsibilities?					
5. Compared to your supervisor, who has better knowledge regarding budget implementation in your unit?					
6. Compared to your supervisor, who better understands the constraints affecting budget performance?					
<b>E. Group Cohesiveness</b>					
1. I often motivate and support my workgroup in achieving common goals					
2. I respect differences in background among colleagues within my work unit					
3. My colleagues and I always work according to established procedures and work regulations					
4. I often help colleagues solve work-related problems within my unit					
5. My colleagues and I share a strong sense of moral responsibility toward one another					
6. My colleagues and I help each other in achieving shared objectives					
<b>F. Islamic Religiosity</b>					
1. When preparing a budget, I believe it is related to my worship relationship with Allah					
2. I comply with budgeting provisions that are in accordance with Islamic principles					
3. Preparing a budget that does not reflect the true provisions is an act of violating Sharia					
4. Preparing a budget honestly, trustworthily, transparently, based on need, and in an accountable manner is a form of worship to Allah SWT in carrying out my work					
5. I avoid deviant behavior in the budgeting process because it may lead to punishment in the hereafter					
6. I strive to follow my reason rather than my desires when preparing the budget					
7. I believe that my actions in the budgeting process are monitored by Allah SWT					
8. I feel it is irresponsible to commit irregularities in the budgeting process even if I know others do so					
9. I tend to express my disagreement with budgeting irregularities because I fear Allah SWT					
10. Budget preparation is closely related to the public good (maslahah)					
11. Budget inefficiency is a form of dishonesty that is not in accordance with my conscience					