Unveiling the Impact: How Legislature Size Moderates Budget Forecast Errors

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ABSTRACT: The Province of Aceh has recently gained attention as one of the poorest provinces in Indonesia. This situation is partly attributed to the failure to maximize the utilization of budget allocations, resulting in the loss of the intended benefits of the Regional Budget (APBD) for the public. Therefore, this research aims to investigate and analyze the influence of local revenue growth and expenditure growth on budget forecast errors, as well as the role of legislature size in moderating the relationship between local revenue growth and expenditure growth on budget forecast errors. The research employed a census method, covering the entire population, which consists of 23 regencies and cities in the Province of Aceh from 2018 to 2022. The study utilized Structural Equation Model-Partial Least Square (SEM-PLS) analysis with WarpPLS version 7.0. The findings indicate that local revenue growth has a positive impact on budget forecast errors, while expenditure growth has a negative impact. Furthermore, legislative size moderates the relationship between local revenue growth and expenditure growth concerning budget forecast errors. The study suggests that local governments should create clear and proportionate plans for regional revenue and expenditure budgets based on the region's capacity. They should also optimize and expedite budget realization to ensure the implementation of all government programs and activities. Both local government leaders and the Regional People's Representative Council (DPRD) also should establish comprehensive and transparent regional regulations regarding the DPRD's Pokir proposal mechanism, from the planning process to accountability.

KEYWORDS: Expenditure Growth; Budget Forecast Error; Legislature Size; Local Revenue Growth; SEM-PLS.

INTRODUCTION
Forecasting constitutes the essence of Local Revenue and Expenditure Budget (APBD) planning. On the other hand, the process of APBD forecasting is not easy. Jones & Pendlebury (2010) contend that the process is complex and consumes significant resources. Additionally, the literature recognizes that factors such as economic and socio-political conditions collectively contribute to the intricacy of APBD (Hariadi et al., 2010). This lengthy, complex, and intricate process can result in errors in budget forecasting (Kusuma & Sutaryo, 2015).

Budget forecast error refers to the disparity between the allocated budget and the actual figures achieved. This discrepancy can originate from either revenue or expenditure budget projections (Siregar & Susanti, 2019). A budget projection is deemed accurate when the forecasted value aligns with the realized figure, or in other words, when the error is minimized to zero (Boukari & Veiga, 2018).

Based on budget and government realization data retrieved from the Directorate General of Fiscal Balance under the Ministry of Finance, it is evident that several districts and cities within the Aceh province encountered instances of budget forecast errors spanning the years 2018 to 2022. Substantial budget forecast errors are marked by diminished realization rates within these respective districts and cities. Notably, the most significant budget forecast error in terms of local revenue transpired in the city of Sabang during 2022, yielding a mere 53.32% realization rate. Conversely, the most substantial budget forecast error concerning expenditures materialized in West Aceh District in 2018, culminating in a realization rate of only 67.58%. Such conspicuous shortfalls in realization serve as indicators of an undue overestimation in the formulation of budgetary magnitudes, which subsequently fail to align with pragmatic actualities.

The phenomenon of budget forecast errors has captured the attention of the Supreme Audit Agency (Badan Pemeriksa Keuangan or BPK) during their audit proceedings. Based on the examination of financial reports for Banda Aceh City conducted by the BPK in 2021 and 2022, the Audit Results Report (Laporan Hasil Pemeriksaan or LHP) highlighted weaknesses in the Internal Control System (Sistem Pengendalian Internal or SPI) concerning the budget planning of the Banda Aceh City Government. These shortcomings...
stemmed from a failure to align with the region's financial capacity, thereby resulting in a fiscal deficit. A comparable scenario unfolded within the administration of Sabang City. In the 2022 Audit Results Report for Sabang City, the BPK identified that the budget allocation for expenditures in Sabang City lacked support from available funds within the local treasury and the 2022 Surplus Fund (SiLPA), ultimately culminating in a debt in expenditures totaling Rp24,059,554,200.80.

The budget forecast errors that transpire within the districts/cities of Aceh Province unquestionably pose a threat to the core function of the local revenue and expenditure budget, which aims to alleviate unemployment, curtail resource squandering, and bolster economic efficiency and effectiveness (Presidential Regulation No. 12 of 2019). Based on data furnished by the Central Statistics Agency (Badan Pusat Statistik or BPS), Aceh Province occupies the top position as the poorest province in Sumatra and ranks sixth among the least affluent provinces across Indonesia.

In light of this, it is both essential and intriguing to delve into and conduct a more comprehensive analysis of the factors contributing to and influencing budget forecast errors. Drawing from the conducted literature survey, several factors have been identified as significantly impacting budget forecast errors, namely local revenue growth (Angi et al., 2022; Brogan, 2012; Kusuma & Sutaryo, 2015; Putri, 2018; Siregar & Susanti, 2019; Solikin & Primadika, 2022) and expenditure growth (Benito et al., 2015; Brogan, 2012; Bruck & Stephan, 2006; Couture & Imbeau, 2009; Frankel, 2011; Galiński, 2013; Kusuma & Sutaryo, 2015).

Local revenue growth refers to the progression of local revenue compared to the previous year. Local revenue growth can exhibit both positive and negative trends (Marsudi et al., 2019). Inefficiently projected revenue growth tends to introduce uncertainty regarding the investment capacity of public entities (Baldissera et al., 2019). Putri’s (2018) study unearthed that local revenue growth positively influences budget forecast errors. With positive local revenue growth, regions gain increased flexibility in allocating received revenue for subsequent budgets, potentially resulting in an overestimation of revenue and expenditure budgets. The findings of this study are in alignment with Kusuma & Sutaryo’s (2015) discovery of a positive correlation between local revenue growth and budget forecast errors. They advocate for local governments to enact changes and adjustments to budgets that correspond to their fiscal capabilities.

However, the outcomes of the research conducted by Solikin & Primadika (2022) diverge from preceding studies, which found that local revenue growth yields a negative impact on budget forecast errors. Solikin & Primadika (2022) posit that this discrepancy arises due to the prevalent fiscal dependence of numerous regions in Java Island, impeding their capacity to fully harness local revenue for expenditures. The research results of Lee & Kwak (2020), congruent with Solikin & Primadika's (2022) findings, assert that the negative impact suggests that governments tend to primarily rely on preceding year's information regarding revenue changes when forecasting revenue.

The second factor suspected to influence budget forecast errors is expenditure growth. Expenditure growth is the rate of current year’s expenditure realization compared to the previous year's expenditure realization (Mahmudi, 2010:162). In light of the conflicts of interest arising during budgeting between the executive and legislative branches, issues in budget allocation for expenditures arise (Halim & Abdullah, 2006). The executive branch uses favorable information from the previous year as the basis for budget determination in the subsequent year (Abdullah & Junita, 2016). Meanwhile, the legislative branch tends to overestimate or underestimate expenditure predictions to serve their interests (Sugiyarso et al., 2006). Consequently, with expenditure growth, the workload to be managed within a fiscal year also increases.

Solikin & Primadika (2022) conducted a study on the influence of expenditure growth on budget forecast errors. They argue that this phenomenon occurs because the principle of expenditure budgeting is based on the maximal principle, which involves establishing the allocation of expenditures as the maximum limit of resources that units of work/local governments can use. This demonstrates that when expenditures increase, it becomes more challenging for agencies to determine program priorities and expenditures, ultimately leading to budget forecast errors. However, the results of the research conducted by Angi et al. (2022) contradict the findings of previous studies. The researchers found that regional expenditure growth does not have an impact on budget forecast errors. They argue that this outcome occurs due to the high allocation of expenditures being balanced by significant local revenue receipts, resulting in the need to implement the work plan for that year, thereby avoiding budget forecast errors.

Budget forecast errors can also arise due to legislative size factors. In practice, the legislative branch possesses both budgetary and oversight functions. The legislative body engages in discussions with the executive branch concerning the regional budget through the Budget Committee (Banggar) (Kamaludin et al., 2022). The number of legislative members varies across regions, and each council member holds distinct preferences (Junita & Abdullah, 2017). Consequently, during budget allocation, it is necessary to accommodate
various "DPRD's Pokir" until they receive approval (Lienert, 2005; Wehner, 2006). The presence of each council member wields substantial influence in determining budgetary allocations for both revenue and expenditure.

Despite various perspectives covered by existing studies on the topic of budget forecast errors, there are several limitations to be noted. Firstly, there is a notable absence of systematic research into how legislature size moderates the accuracy of budget estimates. While many current studies focus on macroeconomic indicators, local revenue, expenditures, and political periods when considering budget forecast errors, the pivotal role of the legislative branch in determining budget allocations is often overlooked. Secondly, certain research related to budget forecast errors carried out in Indonesia is constrained by single-year data, in contrast to this study which draws from a five-year dataset. Thirdly, a majority of preceding research employ a naive approach (Brogan, 2012) for quantifying budget forecast errors, whereas this study adopts the Mean Percentage Forecast Error (MPFE) methodology (Boukari & Veiga, 2018).

In order to address the existing limitations in the literature, the researcher expressed interest in conducting further research to comprehend the factors contributing to budget forecast errors. This study seeks to empirically establish how the growth of local revenue and expenditure influences budget forecast errors. More precisely, the research endeavors to explore the moderating role of legislative size in the relationship between the growth of local revenue and expenditure and budget forecast errors. Based on the aforementioned discussion, this research was conducted to thoroughly investigate the factors contributing to budget forecast errors. Through this study, it is expected to provide constructive insights for local governments, both in the current and future periods, concerning issues related to budget planning and execution, as highlighted by the findings of the BPK. The findings of this study also aim to offer guidance to the government on the accuracy of regional budget forecasting in relation to the number of legislative members, providing valuable input for policymaking regarding the addition of legislative members. Furthermore, the results of this research are anticipated to offer recommendations for both central and regional governments in formulating policies that support the acceleration of budget realization and the development of rational budgeting.

THEORETICAL BASE

AGENCY THEORY

According to Jensen & Meckling (1976), agency theory represents a contract between management (agents) and owners (principals). They depict agency theory as a principal-agent relationship between the public and local government. In this relationship, a contract is established by the public as the principal and society as the agent to provide services (Kusuma & Sutaryo, 2015). Halim & Abdullah (2006) point out that there are two parties involved in the agency relationship, namely the delegator of authority or power and the recipient of authority.

In practice, the authority granted by the principal to the agent often leads to challenges due to the misalignment of the agent's goals with those of the principal (Solikin & Primadika, 2022). This situation empowers the agent to act solely for their own benefit, overlooking the rights and interests of the principal. This information asymmetry arises from the varying information possessed by both parties.

Accurate information is essential in the budgeting process, which engages numerous stakeholders with differing interests and priorities (Junita & Abdullah, 2017). The formulation of revenue and expenditure budgets introduces issues between the agent (local government head) and the principal (the public represented by the legislative council), creating an information gap. Coate & Knight (2011) suggest that the information gap between the legislative and executive branches complicates the attainment of budget decisions, potentially contributing to budget forecast errors.

BUDGET FORECAST ERROR

According to Brogan (2012), budget forecast error is defined as the level of inaccuracy in projecting budgets. Budget forecast errors can arise from various sources, including model specification errors and incorrect assumptions about the future values of estimated variables (Deus & Mendonça, 2017). Even under correct model specification and assumptions, forecasts can deviate from actual values. Budget estimation errors are typically assumed to be drawn from a zero-mean value, such as white noise. However, theory informs us that the probability of the zero-mean equilibrium outcome of the process itself is zero.

Brogan (2012) also points out that annual revenue and expenditure budget forecasts tend to be influenced by political factors, while long-term forecasts are influenced by financial factors, including realized revenues and expenditures. Therefore, the process of
developing revenue and expenditure budget forecasts functions as a political tool employed by incumbents seeking voter support (Blanchard & Leigh, 2013), particularly during election cycles (Bruck & Stephan, 2006), to reflect positive performance. Based on the aforementioned understanding, budget forecast error can be seen as both an art and a science for predicting future events by leveraging historical data and projecting it into the future using various forms of mathematical models to identify errors in budgeting.

**LOCAL REVENUE GROWTH**

The local revenue constitutes the regional government's entitlement, recognized as a contributor to the wealth within the corresponding fiscal year. PAD is obtained through local taxes, fees, the management of separated regional assets, and other legitimate forms of local revenue in accordance with prevailing legislation (Law No. 1 of 2022).

The objective of PAD is to empower regional governments in funding the execution of regional autonomy, aligned with the potential of the respective region as an embodiment of decentralization (Nasir, 2019). To enhance the PAD, local authorities have been granted the mandate to carry out the collection of local taxes and fees, as regulated by Law Number 28 of 2009 regarding Local Taxes and Fees.

The growth of PAD represents the development of regional income from year to year. It serves as a variable to assess how total government revenue evolves over a specific period. The growth of local revenue can exhibit either positive or negative trends (Marsudi et al., 2019). Analyzing the growth of local revenue is valuable in determining whether, during a given fiscal year or budget period, the financial performance of APBD experiences positive or negative growth (Saputra & Fernando, 2017).

The growth of PAD signifies the local government's ability to maintain and improve its success in collecting PAD achieved from one period to the next (Mahmudi, 2010:139). Ideally, this revenue growth should be positive and exhibit an increasing trend. Conversely, negative growth signifies a decline in revenue performance, prompting an examination of the causes. These causes may be related to macroeconomic factors beyond the regional government's control or inadequate regional financial management (Mahmudi, 2010:137). The growth of PAD can be measured by comparing the difference in total local revenue between a specific period and the previous period.

**EXPENDITURE GROWTH**

Local expenditure encompasses all disbursements from the Regional General Cash Account that deplete the Budget Surplus within the corresponding fiscal year, with no prospect of reimbursement by the government (Government Regulation No. 71 of 2010). Generally, expenditures display a tendency to escalate (Patih et al., 2022). The rationale behind expenditure increase is typically associated with adjustments for inflation, shifts in the Indonesian rupiah exchange rate, modifications in the extent of service coverage, and adaptations to macroeconomic factors. However, in the context of the new paradigm of regional autonomy, local governments are mandated to exercise control over local expenditures, institute expenditure efficiency measures, and implement budgetary savings.

The growth of local expenditures is defined as the change or increase in local expenditures in the current year compared to the previous year (Kusuma & Sutaryo, 2015). Analyzing expenditure growth aims to assess the magnitude of growth in each spending category and determine its rationality and justification (Mahmudi, 2010). It is essential that expenditure growth is accompanied by balanced revenue growth. The lack of balance can disrupt the region's fiscal sustainability and long-term financial health (Patih et al., 2022). Expenditure growth is calculated by determining the rate of current-year expenditure realization, subtracting the previous year's expenditure realization, and dividing it by the previous year.

**LEGISLATURE SIZE**

The legislative institution or legislators are bodies that function as advisors and are tasked with creating, amending, or revoking laws, distinguishing them from the executive and judicial branches (Abdullah & Junita, 2016). An active legislature plays a critical role in governance and holds significant importance for democratic accountability. The primary roles of the legislature encompass legislation, oversight, and representation. Indeed, the legislature assumes a pivotal position in upholding effective governance (Ríos et al., 2018). However, an excessively dominant legislature is seen as potentially impeding proper bureaucratic functioning, including within regional budgeting processes (Junita & Abdullah, 2016).

Legislative bodies hold significant influence in policy-making, including resource allocation in budgets (Abdullah, 2012). Information asymmetry between the legislature and the executive regarding program and activity plans in budget allocation leads to differing preferences between the legislative and executive branches (Junita et al., 2018). Coate & Knight (2011) argue that these
preference disparities between the legislature and executive can make reaching budget decisions challenging. Legislative preferences often prioritize on maximizing budgetary allocations for constituents, potentially resulting in a deficit bias in public budgeting.

Lewis (2019) asserts that an increase in the number of legislators can exacerbate decision-making challenges between mayors and councils. Elected council members and mayors harbor divergent preferences regarding expenditures and service provision decisions. Consequently, an elevated number of legislators may curtail timely decision-making processes.

**RESEARCH METHODS**

The population in this study encompasses all district/city governments in the Province of Aceh. The observation period spans from 2018 to 2022. The analytical unit in this study is the financial reports of the district/city governments in the Province of Aceh, totaling 23 administrations comprising 18 district governments and 5 city governments. The sample selection technique was executed through a census method. Data sources for this research entail secondary data from budget realization reports (LRA), accessible via the website https://djpk.kemenkeu.go.id/. Meanwhile, the data collection method employed in this study is documentation. Structural Equation Model-Partial Least Squares (SEM-PLS) analysis using WarpPLS version 7.0 is employed for this research.

![Figure 1. Research Framework](image)

Based on Figure 1, there are independent, dependent, and moderating variables. The measurement for each variable is detailed in Table 1.

**Table 1. Operational Variable Definition**

<table>
<thead>
<tr>
<th>Definition</th>
<th>Measurement</th>
<th>Scale</th>
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<tbody>
<tr>
<td>Local revenue growth represents the change in regional revenue from the</td>
<td>Local Revenue Growth = (PAD&lt;sub&gt;t&lt;/sub&gt; - PAD&lt;sub&gt;(t-1)&lt;/sub&gt;) / PAD&lt;sub&gt;(t-1)&lt;/sub&gt; x 100% (Mahmudi, 2010:139)</td>
<td>Ratio</td>
</tr>
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<td>current year compared to the previous year (Kusuma and Sutaryo, 2015).</td>
<td>(Mahmudi, 2010:139)</td>
<td></td>
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<tr>
<td>The growth of regional expenditures is the development of regional</td>
<td>Expenditure Growth = (Expenditure&lt;sub&gt;t&lt;/sub&gt; - Expenditure&lt;sub&gt;(t-1)&lt;/sub&gt;) / Expenditure&lt;sub&gt;(t-1)&lt;/sub&gt; x 100% (Mahmudi, 2010:162)</td>
<td>Ratio</td>
</tr>
<tr>
<td>spending from the previous year (Mahmudi, 2010:162).</td>
<td>(Mahmudi, 2010:162)</td>
<td></td>
</tr>
<tr>
<td>Legislature size refers to the number of members in the Regional People's</td>
<td>The number of members in the Regional People's Representative Council (DPRD) at the district/city level.</td>
<td>Ratio</td>
</tr>
<tr>
<td>Representative Council (DPRD), which has implications for decision-</td>
<td>(Junita &amp; Abdullah, 2016).</td>
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Budget Forecast Error is the level of error in projecting the budget (Brogan, 2012).

$$\text{Budget Forecast Error} = \frac{(A_{xt} - F_{xt}) \times 100}{A_{xt}}$$

(Boukari & Veiga, 2018; Johansson & Siverbo, 2014; Wirasedana et al., 2018)

The regression model equation is as follows:

$$Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3M + \beta_4X_1*M + \beta_5X_2*M + e$$

RESULT AND DISCUSSION

The test result output is presented in Table 2 Based on the regression test outcomes, it can be concluded that local revenue growth and expenditure growth significantly influence budget forecast errors. Moreover, the moderation effect is identified as quasi-moderation, with legislature size serving as the moderating variable that moderates the relationship between local revenue growth, expenditure growth, and budget forecast errors. The values from Table 2 can be formulated using the regression equation as follows:

$$Y = 0.321X_1 - 0.130X_2 + 0.160M - 0.216X_1*M + 0.209X_2*M + e$$

Table 2. Results of Hypothesis Testing

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path Coefficients</th>
<th>P-value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1 -&gt; Y</td>
<td>0.321</td>
<td>&lt;0.001</td>
<td>Accepted</td>
</tr>
<tr>
<td>X2 -&gt; Y</td>
<td>-0.130</td>
<td>0.038</td>
<td>Accepted</td>
</tr>
<tr>
<td>M -&gt; Y</td>
<td>0.160</td>
<td>0.014</td>
<td>Accepted</td>
</tr>
<tr>
<td>X1*M -&gt; Y</td>
<td>-0.216</td>
<td>0.002</td>
<td>Accepted</td>
</tr>
<tr>
<td>X2*M -&gt; Y</td>
<td>0.209</td>
<td>0.002</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Table 2 shows that the growth of local revenue has a positive influence on the budget forecast error. These results support the first hypothesis (H1) and indicate that the local revenue growth variable significantly affects the occurrence of budget forecast errors in the regencies and cities of Aceh Province during the years 2018-2022. This suggests that the budget forecast error can be determined and caused by the magnitude of local revenue growth in the regencies and cities of Aceh Province. The positive effect of local revenue growth on the budget forecast error indicates that the higher the growth rate of local revenue in a regency or city, the greater the likelihood of a budget forecast error occurring, and vice versa. This finding is in line with the studies by Angi et al. (2022), Boukari & Veiga (2018), Kusuma & Sutaryo (2015), Siregar & Susanti (2019), and Mikesell & Ross (2014).

The increasing growth of local revenue in a regency or city can lead to an increase in the budget forecast error that may occur in that regency or city. This supports the agency theory, which suggests that conflicts arise due to asymmetric information between principals (the public) and agents (local governments). This occurs because agents have access to information regarding revenue and, therefore, they attempt to showcase their performance by maximizing the benefits of local revenue. Local governments tend to rely on the previous year's information regarding revenue changes in revenue forecasting. Overall, these results indicate that local governments do not make revenue predictions based on long-term and systematic data about their tax cycle behavior but instead use a simple 'naive' forecasting method (Mikesell & Ross, 2014). In other words, revenue estimates are gradually made based on short-term and fragmented information about the changes in revenue from the previous year.
Additionally, the study conducted by Solikin & Primadika (2022) differs from the present research in finding that local revenue growth has a negative impact on budget forecast errors. Solikin & Primadika (2022) posit that this phenomenon is attributed to the prevalent high fiscal dependency of many regions in Java Island, which restricts their ability to fully leverage Own-Source Revenue (PAD) for expenditures. The results from the study by Lee & Kwak (2020), consistent with Solikin & Primadika (2022), underscore a significant negative effect, implying that governments tend to rely primarily on previous-year revenue information when forecasting future revenue. An increase in the growth of previous-year revenue leads to higher estimations for the current year's revenue, ultimately diminishing budget accuracy (Lee & Kwak, 2020).

Furthermore, Table 2 reveals that expenditure growth significantly affects budget forecast errors. These findings support the second hypothesis (H2) of the researchers, indicating that the variable of expenditure growth has a substantial impact on the occurrence of budget forecast errors in the districts and cities of Aceh Province during the years 2018-2022. This suggests that budget forecast errors can be determined and caused by the magnitude of expenditure growth in the districts and cities of Aceh Province. The negative influence of expenditure growth on budget forecast errors suggests that the smaller the rate of expenditure growth in a district or city, the greater the likelihood of budget forecast errors occurring, and vice versa. Therefore, negative expenditure growth in districts or cities can increase the budget forecast error in the districts and cities of Aceh Province during the years 2018-2022.

Results from this study align with findings from previous research by Boukari & Veiga (2018), Kusuma & Sutaryo (2015), Putri (2018), Siregar & Susanti (2019), and Solikin & Primadika (2022), all of which indicate that expenditure growth significantly influences the occurrence of budget forecast errors. Kusuma and Sutaryo (2015) have noted that spending has an impact on budget projection errors when associated with Gross Regional Domestic Product (GRDP), one of the components used in their budget forecast error calculations. The escalation of local expenditures is often undertaken to showcase exemplary performance through the execution of substantial projects, despite the potential for budgetary inaccuracies. These endeavors are pursued with the objective of securing re-election in subsequent terms. Siregar & Susanti’s study (2019) also suggests that regional autonomy, which entrusts government functions to local governments, often leads to an increase in local government spending over time to support these functions. However, a significant overestimation of expenditures may increase the likelihood of budget forecast errors.

The results of this study are consistent with the agency theory, which is employed to elucidate the relationship between expenditure growth and budget forecast errors. According to agency theory, conflicts emerge due to conflicting interests between principals and agents, a scenario evident during the initial phases of budgeting, particularly during the formulation of the Regional Government Work Plan (RKPD). The agent, representing the local government, strives to showcase its performance to the public. In pursuit of demonstrating commendable performance, ambitious work plans are devised, necessitating substantial financial resources that can introduce errors in budget projections (Solikin & Primadika, 2022). The RKPD encompasses both work plans and associated funding, prompting the formulation of expenditure budgets before revenue expectations are determined. Crafting an expenditure budget with excessive estimations, detached from the local government’s actual capabilities, can give rise to pronounced budget forecast errors. The impact of expenditure growth on budget forecast errors becomes more pronounced when a region experiences lower expenditure growth.

Furthermore, there are contrasting studies to the findings of this research, conducted by Angi et al. (2022), Safitri (2020), and Widyastuti (2017). These researchers have found that local expenditure growth does not have an impact on budget forecast errors. Angi et al. (2022) argue that this outcome arises due to the high allocation of expenditures being balanced by elevated local revenue receipts, leading to the necessity of executing the corresponding year’s work plan and consequently averting the occurrence of budget forecast errors. Safitri (2020) also concludes that the low allocation of expenditures in local governments does not necessarily indicate the presence of budget forecast errors. This is attributed to the low revenue receipts in the corresponding year, resulting in minimal work plan activities and directly contributing to lower expenditure allocations for that year, thereby indicating the absence of budget forecast errors.

Table 2 also indicates that the size of the legislature moderates the impact of local revenue growth on budget forecast errors. These findings support the third hypothesis (H3) proposed by the researchers, revealing that the size of the legislature moderates the relationship between local revenue growth and budget forecast errors in the districts/cities of Aceh Province during the years 2018-2022. This suggests that when the variable of local revenue growth is moderated, it has a negative association with budget forecast errors. In essence, a larger legislature seems to attenuate the connection between local revenue growth and budget forecast errors.
The size of the legislature, whether large or small, is determined by the population of a given region (Law No. 7 of 2017). A lower population results in reduced transfer income received by a regional government. This is due to the fact that population size is one of the components used to calculate the amount of transfer income from the central government (Government Regulation No. 55 of 2005). Limited transfer income compels the principal (Regional People's Representative Council or DPRD) to overestimate local revenue to boost expenditure (Cangiano & Pathak, 2019). Consequently, the DPRD's Program and Budget Work Plan (DPRD's Pokir) can be included in the regional government's budget. It's important to note that DPRD's Pokir is not in violation of the law. According to Government Regulation No. 12 of 2018 regarding Guidelines for the Preparation of Regional Regulations, it explicitly states that the Regional Budgetary Committee (Banggar DPRD) has the responsibility and authority to offer suggestions and opinions, including the core ideas of the DPRD, to the regional head when preparing the Regional Budget Draft. Nevertheless, each region must establish comprehensive and transparent local regulations outlining the process for proposing DPRD's Pokir, from planning to accountability (Abdullah, 2022).

In the context of agency theory, agents (local governments) tend to set local revenue (PAD) budgets based on what's easily attainable (Langevin & Mendoza, 2013). This gives rise to agency conflicts between agents (local governments) and principals (Regional People's Representative Council or DPRD) due to differing preferences in determining PAD, which can subsequently lead to budget forecast errors. Conversely, a large legislative size can weaken the relationship between the growth of local revenue and budget forecast errors. This occurs because a larger legislative body signifies a greater amount of transfer income, reducing the need for the DPRD to make unreasonable overestimations that could result in budget forecast errors (Cangiano & Pathak, 2019).

The research conducted by Boukari & Veiga (2018) indicates that budget forecast errors are more prominent in Portuguese cities compared to those in France. This discrepancy is attributed to the fact that the former possess smaller legislative bodies engaged in the budget forecasting process. Posner & Park (2007) further highlight that many legislative entities operate with limited staff and insufficient institutional understanding required to effectively engage with the executive branch. Additionally, executives often exhibit reluctance in sharing critical information developed during the somewhat discreet budgeting process. The constrained time available for scrutinizing governmental budgetary documents and plans exacerbates legislative challenges. The formal time limitations, combined to a certain extent with substantial non-formal consultations and negotiations within the budgeting process, can overwhelm regions with fewer legislative members (Posner & Park, 2007). Consequently, a larger legislature size can potentially weaken the connection between local revenue growth and budget forecast errors.

The type of moderation in the third hypothesis is quasi-moderation, given the significant values of both β3 and β4. Thus, it can be posited that the legislature size variable serves not only as an independent variable directly impacting budget forecast errors, but also as a moderating variable that interacts with the growth of local revenue, subsequently influencing budget forecast errors. This finding is congruent with the research conducted by Höhmann (2017), as his study suggests that an increase in the number of legislative members correlates with higher budget forecast errors. He contends that when the number of council members becomes excessively large, budget deliberations become excessively intricate, impeding the attainment of unanimous consensus.

The findings of this study are at odds with the research conducted by Cassidy et al. (1989), who argued that there is no systematic relationship between the number of legislators and the accuracy of budget revenue forecasting. The study's examination of error rates in revenue forecasting across 23 U.S. states, as presented in this research, indicates a relatively minor margin of error. It posits that this might be attributed to heightened political opposition's access to alternative budget forecasts, aimed at preserving more precise state revenue estimations compared to the past. Nevertheless, it is plausible that historical state revenue estimates were subject to bias which has since been rectified. Additionally, the study highlights the possibility of forecast accuracy diminishing when a dominant political party or ideology takes precedence within a nation.

Referring to the results presented in Table 2, we also obtained results indicating that legislative size moderates the influence of expenditure growth on budget forecast errors. These findings support the fourth hypothesis (H4) and demonstrate that legislative size moderates the relationship between expenditure growth and budget forecast errors in the regencies/cities of Aceh Province from 2018 to 2022. This indicates that the variable of expenditure growth, when moderated by legislative size, has a positive relationship with budget forecast errors. This suggests that larger legislative bodies strengthen the relationship between expenditure growth and budget forecast errors.

Based on agency theory, legislative members essentially act as intermediaries for the public, representing the aspirations of their constituents. As representatives of the voters, they make political decisions within the local government. Program and Activity Plan
The research by Lewis (2019) specifically found that each addition of five legislators in the DPRD resulted in a reduction of total local government expenditures between 17% and 21%, as well as a decrease in capital spending by 22% to 41%. This implies that an increase in the number of legislative members correlates with an elevated budget forecast error. Thus, in theory, a smaller council size would incentivize local governments to allocate more funds, particularly towards capital projects, with the expectation of enhancing service accessibility for citizens. This aligns with the outcomes of a similar study conducted by Pettersson-Lidbom (2012), which explored the effects of legislature size in Finland and Sweden. The research revealed that local governments with larger legislative bodies tend to underestimate, counter to the expectation that an enlarged council would result in a substantial reduction in budget forecast error. The projected effect of introducing an additional council member is a reduction of approximately 0.5% in expenditure growth.

Lewis (2019) further contends that governments may consider diminishing the number of local council members (or at the very least, refraining from increasing them as done prior to the 2009 elections). Nonetheless, the researcher acknowledges the implementation of such a policy is challenging due to significant political interests linked to maintaining power at the local level. If such a strategy is not implemented, the average size of legislative bodies will continue to expand in tandem with population growth, ultimately leading to declining service quality and fiscal outcomes.

The type of moderation in the fourth hypothesis is quasi-moderation, supported by the significance of both β3 and β5. Hence, it can be stated that the legislature size variable functions not only as an independent variable directly influencing budget forecast error but also as a moderating variable interacting with the growth of local revenue and subsequently impacting budget forecast error. This aligns with the research by De Benedetto (2018), which found that an increased number of legislative members affected budget forecast error. The underlying concept within this agency issue is that elected legislators cannot make all policy decisions due to time constraints; thus, they must delegate some decisions to administrative bodies. However, the meta-analysis conducted by Freire et al. (2023) indicates that there is no strong evidence that an increase in legislature size significantly impacts government budgets. The electoral system influences the relationship between legislature size and government spending, but the results cannot be generalized across all estimations. They found that a unicameral system of government supports the influence of legislature size on government budgets. These findings are also in line with the research by Ariotti (2021), which concluded that there is no relationship between legislature size and budget forecast error in African countries. Ariotti argues that government composition affects government spending due to how parties and party coalitions internalize the electoral costs of increased expenditure. A party represents a coalition of interests within the population. When a single party is in government, it is accountable to its constituents for all spending decisions it makes, similar to those made by the government. However, when multiple parties are in government together, it becomes more challenging for political actors to directly attribute spending decisions to each party.

CONCLUSION

The research findings highlight that local revenue growth and expenditure have distinct effects on budget forecast errors. In the regencies and cities of Aceh Province from 2018 to 2022, local revenue growth was found to have a positive influence on budget forecast errors, with higher revenue growth corresponding to increased errors, stemming from adjustments in local government revenue budgets that often fail to match the region's capacity. Conversely, expenditure growth demonstrated a negative impact, with lower expenditure growth leading to more significant budget forecast errors. This was attributed to local governments' tendencies to overestimate their expenditure budgets in an effort to showcase strong performance to their constituents.

Furthermore, the test results indicate that legislative size plays a role in weakening the influence of local revenue growth on budget forecast errors. A larger legislative size in a region corresponds directly with the amount of transfer income for that area, which, in turn, discourages local governments from overestimating local revenue, thus reducing the likelihood of budget forecast errors. Legislative size also strengthens the impact of expenditure growth on budget forecast errors. A larger legislative size correlates directly with the number of its constituents, prompting the legislature to tend towards overestimating expenditure to advocate for the interests...
they represent. This may lead to budget forecast errors because the expenditure budget does not align with the region's capacity for implementation.

Hence, in the future, the local government of the districts and cities, including the head of the region and the Regional People's Representative Council (DPRD), must establish comprehensive and clear local regulations concerning the mechanism for proposing DPRD's ideas and aspirations (known as "DPRD's Pokir"). This is essential because existing national regulations, such as Government Regulation No. 12 of 2018 on Guidelines for the Preparation of DPRD House Rules and Ministry of Home Affairs Regulation No. 86 of 2017 on Procedures for Planning, Controlling, and Evaluating Regional Development, as well as the Procedures for Evaluating Regional Regulations on RPJPD and RPJMD, and Procedures for Amendments to RPJPD, RPJMD, and RKP, only provide an overview of how to plan, execute, and oversee the management of DPRD's Pokir. A number of districts and cities in Indonesia, such as Padang City and Bantul District, have enacted Regional Head Regulations pertaining to DPRD's Pokir. Additionally, legislative bodies are urged to enhance their budgeting processes by performing more effective oversight at each stage of the APBD implementation.

Furthermore, based on the findings of this research, the government should recognize that as annual income and expenditure increase, budget forecasting becomes more complex. It is advisable for local governments in Indonesia to establish effective policies that support the acceleration of regional revenue and expenditure budget realization, including expediting the settlement of bills, simplifying contract mechanisms, and other measures. Regional governments should also make proportional decisions in budget forecasting to minimize the complexity that arises as annual income and expenditure increase.

This study has several limitations that should be considered by future researchers. Firstly, the scope of the research was confined to the municipalities and cities within Aceh Province during the period of 2018-2022. Consequently, the generalizability of the findings to all municipalities and cities across Indonesia is limited. Additionally, this study adopted a singular institutional perspective, focusing solely on the legislative body. However, it's important to note that there are two pivotal institutions involved in budgeting and executing the Regional Budget (APBD): the legislative body (DPRD) responsible for oversight, and the executive body (Pemda) responsible for implementation. Consequently, future research could benefit from broadening the perspective to encompass both of these institutions. It is recommended that upcoming studies either introduce or substitute other independent variables influencing budget forecast error, as well as other moderating variables that could potentially amplify or diminish the relationship between independent and dependent variables. Such variables might encompass factors like the duration of budget deliberations, coalitions between political parties in the executive and legislative branches, the type of local government, and political cycles. Furthermore, embracing a mixed methods approach in future research could yield a more comprehensive understanding of the multifaceted factors influencing budget forecast error.

REFERENCES


