Support for Transformational Leadership through Fairness and Accountability in the Implementation of Performance-Based Budgeting for Indonesian Private Universities

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Abstract. This study examines in depth the role of transformational leadership support in implementing performance-based budgeting. Used a questionnaire compiled using the dimensions for transformational leadership, and the guidelines of the Indonesian National Governance Committee to measure fairness and accountability. Data analysis with structural equation modeling (SEM) with smartPLS 3.0. The results showed positive transformational leadership support for implementing performance-based budgeting with a T-value of $1.967 \geq 1.96$, support for fairness resulted in a T-value of 9.289 in a positive direction. The results of testing the direct effect of fairness produce a statistical T-value of 6.858. Next is the mediating relationship between fairness and accountability variables between transformational leadership and performance-based budgeting. The results of the statistical T-value support are 5.420 for the significant transformational leadership effect on performance-based budgeting through fairness. On the other hand, the results are not significant, with a statistical T-value of 0.111 to explain the mediation relationship between accountability and transformational leadership and performance-based budgeting. The results of the overall research model are indicated by the R^2 value obtained of 0.560; thus, all variables affect the implementation of the performance-based budget of private universities in Indonesia by 56%.

1   Background

As a quasi-public institution, the management of private universities in Indonesia follows several government regulations, one of which is that financial management must be carried out with the principles of New Public Management (NPM), including information disclosure (transparency), accountability, responsibility/responsibility, independence, and reasonableness [14], [20].

One of the provisions on the financial management of government organizations and public organizations in Indonesia is regulated by Law no. 17 of 2003 concerning State Finance, No. 1 of 2004 concerning the State Treasury, and Law no. 15 of 2004 concerning Examination of the Management and Accountability of State Finances which then underlies the reform of the financial sector in Indonesia.

One focus of the financial reform of public institutions in Indonesia is reforming the budgeting system [16] and implementing Performance-Based Budgeting. Performance-based budgeting in Law no. 17 of 2003 is a budget and work plan prepared based on work performance to be achieved or based on performance.

Furthermore, the implementation of performance-based budgeting is adopted in the financial management of private universities to increase the efficiency and effectiveness of achieving the performance in private universities [29], [23]

The change in the budgeting system from traditional to performance-based requires a joint movement of the entire academic community under the coordination of the campus leadership. Leaders needed in the change movement can make their subordinates aware of the interests and values in their work and can persuade their subordinates not to put their interests first [6]. The transformational leadership style involves other people, motivates, and enhances the role of subordinates to achieve the university's vision and mission. Transformational leadership in higher education encourages institutions to continue to survive and grow by encouraging increased competence [25], thus, the academic community focuses on goals using the available budget.

Transformational leadership has been proven to improve financial performance [13], [28] improving organizational performance [1], [27]. Research related to the role of transformational leadership in the implementation of performance-based budgeting adopted in the financial management of private universities is still limited, so this

research needs to be done to complete the study of performance-based budgeting for universities in Indonesia [29], [23], [20].

Completing a study on the principles of New Public Management (NPM) in university financial management [14], [20], this study examines the role of fairness and accountability as antecedents of performance-based budgeting and also as a mediator between transformational leadership to the implementation of performance-based budgeting.

Literature Review

Performance-Based Budgeting (PBB)

Performance-based budgeting methods are results-oriented or organizational performance [7]. For higher education performance, it refers to the assessment standards of higher education institutions which in Indonesia are set by the National Accreditation Board. This method calculates the budget availability of each unit based on the need to achieve the targets set for the unit [7]. The purpose of performance-based budgeting, in general, is budget management for more efficient and effective activity costs that are oriented to the interests of the community [20]. In line with the goal of higher education to achieve quality education that is useful for the development of a nation, the focus of using finance should be aimed at improving that quality [5].

Technically, in a performance-based budget, the nominal amount of the prepared budget is calculated together with the work program and target results to be achieved, implementation period, and evaluation [15]. Previous performance-based research shows the challenges of implementing performance factor budgets are not only infrastructure but organizational culture [20] and perceptions of budget actors [24], and there is still limited research that examines the antecedent factors of performance-based budgeting.

Transformational Leadership (TL)

Changes in the budget system based on performance achievements require a change movement. Leadership is essential in moving the entire academic community to change this system. Transformational leadership style is a leadership style that involves other people, motivates, and increases the participation of subordinates to realize the interests of the university's vision and mission. Transformational leadership makes subordinates prioritize common interests over personal interests [6], [30]. *Transformational leadership* in higher education encourages institutions to continue to survive and grow by encouraging increased competence [25]. Transformational leadership eliminates being leader-oriented and performs many delegations of responsibilities with continuous monitoring [3]. The transformational leadership style is well applied in higher education institutions because this leadership focuses on joint efforts and shared accountability.

Fairness and Accountability

In the performance-based budgeting process, financial management must be carried out with the principles of *New Public Management* (NPM), including information disclosure (transparency), accountability, responsibility/responsibility, independence, and fairness [14], [29], [20]. Being part of the principles of financial governance, the principle of fairness, according to [14], universities must provide justice in serving the interests of stakeholders based on fairness and equality. Higher education leaders must provide opportunities for stakeholders to provide opinions and input to achieve the performance set according to their respective roles.

Meanwhile, the principle of accountability is associated with accountability for performance transparently and fairly. Management of higher education, especially finance, must be appropriately managed, measurably, and following stakeholders' interests. The principles of fairness and accountability increase satisfaction and affect the financial performance of higher education institutions [23], [12]. Research related to the principles of fairness and *accountability* in the implementation of performance-based budgeting is still limited, primarily related to the role of leadership, so we formulate the following hypothesis:

H-1: Fairness positively affects the implementation of higher education performance-based budgeting.

H-2: Transformational Leadership has a positive effect on Fairness.

H-3: Transformational Leadership has a positive effect on implementing higher education performance-based budgeting.

H-4: Transformational Leadership has a positive effect on Accountability.

H-5: Accountability has a positive effect on implementing higher education performance-based budgeting.

H-6: Transformational leadership positively affects the implementation of higher education performance-based budgeting through fairness.

H-7: Transformational leadership positively affects of the implementation performance-based budgeting of higher education through accountability.

Research Methodology

The study used a survey method with questionnaires built from the underlying theory, using validation and pilot tests before dissemination. The performance-based budget implementation variable is built from the theory of intent to use the technology acceptance model [4]. The transformational leadership question item is built on [2] theory, while fairness and accountability are built on the Indonesian government's good university governance guidelines [14]. The target respondents are budget actors for private universities in Indonesia, consisting of university financial management leaders, faculties, and staff involved in implementing performance-based budgeting. The expected number of respondents meets the analytical tools with guidelines ten times the number of indicators [26], therefore, the target data required is 250 respondents.

Data processing uses a Structural Equation Model (SEM) approach with the help of SmartPLS software. The data processing process is divided into several steps: 1). Measurement Model with Confirmatory Factor Analysis (CFA) looks at the loading factor value. This value is obtained from the convergent validity procedure by correlating the item score (component score) with the construct score. In general, the loading factor value is considered good if it is more than 0.70 [8], but many researchers use a loading factor reference number above 0.6cand this study.

After the validity test, a reliability test was carried out using Cronbach's alpha value and composite reliability with a limit of 0.7 [10]. 2). Next, reviewing the Goodness of fit model by looking at the value of R^2, Q^2, and the value of SMRS in testing the SMARPLS algorithm. This test is used to validate the model as a whole using references by [8] and [10] namely three categories of R^2 0.1 (weak), 0.25 (medium), and 0.36 (strong). While the value of Q^2 must be greater than 0 and SMRS must be less than 0.10. 3) The third stage is to test the significance of the p-value and T-value through a bootstrap procedure to decide the results of hypothesis testing. The p-value $\leq$ 0.05 and T-value $\geq$ 1.96 means that the results are significant and the hypothesis can be accepted [26].

Results and Discussion

Data Collection Results

After going through the tabulation and reduction process, 252 ready-to-process data were obtained. The data was obtained from questionnaires distributed to budget actors from (seven) universities implementing performance-based budgeting. As the research target, the questionnaires consist of the head of the monetary unit, the manager of the monetary unit and the head of the office of each unit, and related lecturer staff involved in performance-based budgeting.

Step 1: Outer Model

The outer model results from the loading factor value obtained that 2 question items have a value below 0.6. Therefore, according to [10] and [8] guidelines, both items were excluded. Furthermore, the reliability test by looking at the average variance extract (AVE) value obtained above 0.5 for all variables, Cronbach's alpha value for all variables was above 0.7 and similarly for the composite reliability value. Therefore, data processing can be continued to the next stage, namely the goodness of fit test or model feasibility test. The following are the complete results of the outer model test, as shown in table 3.1. The following:

Table 3.1. Validity and Reliability Test

Variables/Indicators	Outer Loading Running 1[a]	Outer Loading Running 2[a]	AVE[b]	Composite Reliability [c]	Cronbach Alpha [d]
PBB Implementation-Intention to use [4]			**0.778**	**0.913**	**0.857**
Agreement (PBB1)	0.673	0.672			
The hope of success (PBB2)	0.842	0.842			
Statement of support (PBB3	0.879	0.880			
Statement of willingness to take part (PBB4)	0.782	0.783			
Fairness ([22] ; [14])			**0, 601**	**0.913**	**0.889**
Clear goals (F1)	0.783	0.777			
Fair division of tasks and performance targets (F2)	0.735	0.759			

			AVE	CR	CA
Fairness of calculating the budget ceiling (F3)	0.806	0.831			
Responsive in service and problems (F4)	0.797	0.818			
The budget ceiling pays attention to the workload aspect (F5)	0.788	0.776			
Performance measurement (F6)	0.756	0.734			
Clear cost standards to be used as a common guideline (F7)	0.596	Rejected			
Commonly decided cost standard (F8)	0.731	0.727			
Transformational Leadership [2]			**0.680**	**0.934**	**0.917**
The formulation of a shared vision and mission (TL1)	0.789	0.789			
Consistent example (TL2)	0.860	0.861			
Giving motivation (TL3)	0.861	0.863			
M provide feedback to employees (TL4)	0.879	0.879			
Award for achievement (TL5)	0.821	0.821			
Responsive leadership in overcoming problems (TL6)	0.772	0.771			
Always have solutions to solve problems (TL7)	0.737	0.735			
Accountability ([14])			**0.680**	**0.914**	**0.884**
Reports on the use of funds can be accessed in real-time (Ac1)	0.821	0.851			
Standard Operational Procedures (SOP) for financial management can be clearly understood (Ac2)	0.818	0.862			
Budget planning uses a meeting mechanism that has been determined by official regulations (Ac3)	0.801	0.836			
All financial use activities are audited transparently (Ac4)	0.812	0.854			
A routine financial internal audit (Ac5)	0.763	0.720			
Ac6)	0.538	rejected			

AVE: Extracted Average Variance
Loading Factor is considered to meet; if the value is above 0, 7
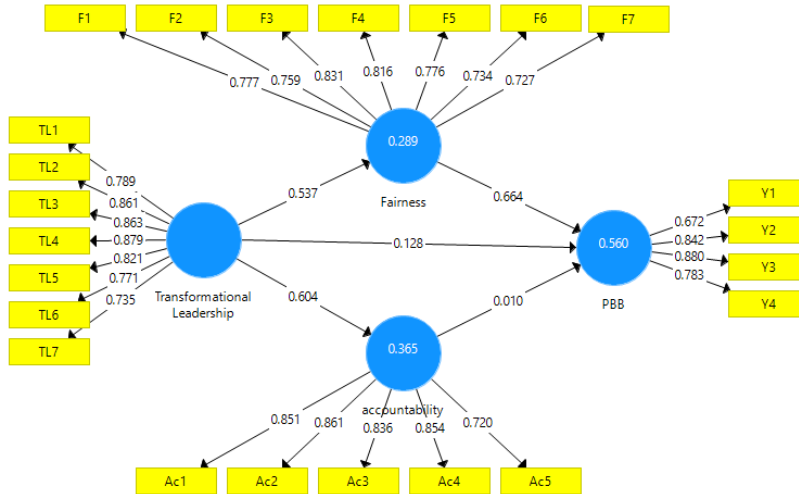*AVE meets if the value is above 0.5*
Composite Reliability meets if the value is above 0.7
Cronbach's Alpha fulfills if the value is above 0.7
[10]

Furthermore, the complete research structural model is presented in the following figure :

Figure 3.1.The Structural Model

Second step: Model Fit Test

The results of the model fit test meet the overall model validation, where the value of R^2 obtained is 0.560, the value of Q^2 output blindfolding is 0.335> 0, and the SMRS value of the algorithm output is 0.086<0.10 [10] Thus data processing can be continued to the third stage, namely hypothesis testing.

The following table shows the results of the R^2, Q^2, and SRMS test results:

Table 3.2 R2, Q2, and SRMR value

Variable	R^2	Q^2	SRMR
UN Implementation	**0.560**	**0.335**	**0.086**

R^2 : above 0.36 = strong category
Q^2 : accepted
SRMS: accepted

Third step: Test results and hypotheses

The significance test was conducted by bootstrapping procedure on smart pls to see the p-value and T-value. Reference values, according to [8] are the p-value $\leq$ 0.05 and the T value $\geq$ 1.96 for significant conclusions. The statistical test results data are presented in table 3.3. The following:

Table 3.3. Result of T Value and P-Value

Hypothesis	Connection	Original Sample	T Statistics	P-value	Results
1	Fairness ➔PBB	0.6 64	6.858	0 000	Accepted
2	TL ➔Fairness	0.537	9.289	0.000	Accepted
3	TL➔ PBB	0.128	1.967	0.050	Accepted
4	TL ➔Accountability	0.604	12.603	0.000	Accepted
5	Accountability➔ PBB	0.010	0.112	0.112	Rejected
6	TL ➔Fairness➔ PBB	0.357	5.420	0.000	Accepted
7	TL ➔ Accountability➔ PBB	0.006	0.111	0.912	Rejected

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Discussion

The results of hypothesis testing consist of five tests of direct influence and two tests of mediating influence. The H-1 test is to see the effect of fairness on implementing a performance-based budget showing a p-value of 0.000 and a statistical T-value of 6.858 with a positive direction so that the hypothesis is accepted. In line with the research results by [18], fairness positively affects the implementation of higher education performance-based budgets. Fairness is interpreted as having a clear vision and mission that is mutually agreed upon and achieved with the entire academic community of higher education, a fair division of tasks and performance, and the distribution of the budget ceiling to achieve the performance. Furthermore, in implementing a performance-based budget system, work unit expenditures refer to guidelines, clear standart operational procedures with complete cost standards, and consider the input of all work units. They tested the second hypothesis to see the effect of transformational leadership on fairness and obtained a p-value of 0.000 and T-value of 9.289 in a positive direction. These results conclude that transformational leadership has a significant positive effect on fairness in the implementation of performance-based budgets for private universities in Indonesia. Testing the third hypothesis examines the effect of transformational leadership on the implementation of performance-based budgets for private universities in Indonesia with significant positive results. The results of the p-value of 0.05 were concluded to be significant by the researcher with a statistical T-value of $0.967 \geq 0.96$. Thus the third hypothesis is accepted. These results support previous similar studies [21], [11], [19]. By testing the effect of transformational leadership on accountability in implementing higher education performance-based budgets, the fourth hypothesis is accepted with a p-value of 0.000 and a statistical T-value of $12.603 \geq 1.96$. Different results were obtained from the results of testing the fifth hypothesis, which tested the effect of accountability on implementing a performance-based budget with a p-value and a T-value under the provisions.

Next is the mediating relationship between fairness and accountability variables between transformational leadership and performance-based budgeting. The support results for the sixth hypothesis were obtained from the p-value of 0.000 and the statistical T-value of 5.420. This result translates that transformational leadership affects performance-based budgeting through fairness. The opposite result does not occur in the accountability variable with a p-value of 0.912 and a statistical T-value of 0.111. Therefore, the last hypothesis that transformational leadership has a significant effect on implementing performance-based budgets for private universities in Indonesia is rejected. The results of the entire research model are indicated by the R^2 value obtained of 0.560; thus, all variables affect the implementation of the performance-based budget of private universities in Indonesia by 56% [8], [10].

Conclusion

The study concludes the significant role of transformational leadership in supporting the implementation of performance-based budgeting in private universities in Indonesia. In several other studies, transformational leadership has significantly affected financial performance [28], [1], [27]. Thus, performance-based budgeting to produce higher performance improvements is strongly supported by leaders who can motivate, be fair, and provide opportunities for subordinates to develop, be respected, and followed.

Limitations and Recommendations

Research results need to be reviewed on a broader scale, such as the success of performance-based budgeting by measuring university performance indicators and budget efficiency. This research is still limited to population representatives, given the limited data on private universities in Indonesia that have implemented performance-based budgeting.

Acknowledgment

Reference

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