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Research paper

Linking Budgetary Participation to Budgetary Slack: An Indonesia Perspective

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Abstract

This study examines how budget participation influences budget slack creation propensity through the mediation of distributive and procedural fairness, managerial trust, and budget goal commitment. The data was collected from 103 respondents holding managerial position in 49 Indonesian distribution companies. Despite its limitations, this study has both academic and practical implications. The study adds to the budgetary slack literature in an Indonesian country which has not been widely researched. The result suggests that budget participation influences distributive and procedural fairness, which interact with one another and influence managerial trust. Managerial trust and procedural fairness together influence budget goal commitment, which decreases propensity of budget slack creation. The findings presented in this study should have important implications for Indonesia companies to reduce slack creation and enhance commitment and trust, it is suggested to improve procedural fairness, one of which by implementing budget participation.

Keywords: *Budget Participation, Procedural Fairness, Distributive Fairness, Managerial Trust, Budget Goal Commitment, Budget Slack, Indonesia, Distribution Sector*

1. Introduction

Budget is a vital management tool widely used by companies across the world for planning and as a basis for allocating scarce human, physical, and financial resources.[1] It may present itself as sales target, cost and expenditure target, performance target, and so on.

However, while it is generally accepted as a core tool integral for company management, it also bear negative effects. For instance, some consider it time and cost consuming, promotes short-termism culture, and may lead to slack creation.[2] Among those dysfunctional effects, one of the widely known which has attracted the attention of numerous researchers in the past decade is budget slack.[3-5] Budget slack is typically defined as the financial and other resources allocated over the optimal amount required which caused easier accomplishment of a goal or objective.[6,3] Examples of budget slack include overstated expenses, understated revenues, and/or underestimated performance capabilities.[3]

In general, budget slack may occur with or without intention. One of the factors proposed as the cause of intentional budget slack is participative budgeting.[7] Participative budgeting is a budgeting system which involves the employees in the budget preparation process, thus allowing them to have influence on their approved budgets.[8] By some, participative budgeting is considered as a cause of budget slack.[7] However, some other literatures state that budget participation doesn't really impact budget slack creation[9] or even help to prevent budget slack creation[3]. This suggests the presence of other variables intervening the correlation between the two.

Responding to that, Maiga and Jacobs[9] did a research on the intervening variables between budget participation and propensity to create budget slack. Here, they investigated a comprehensive model of the relationships between budget participation, procedural fairness, distributive fairness, managerial trust, goal commitment and managers' propensity to create slack. However, Maiga and Jacobs[9] stated in their research that their sample only included managers in manufacturing sectors. They thus doubt that the result is generalizable to managers in sectors other than manufacturing.

The importance of non-manufacturing sector, or sometimes called the services sector, is emphasised by how its employment is expected to remain the most dynamic in term of job creation at least until 2020. During that timeframe, the private sector services and related industries are expected to employ more than a third of the global workforce which still increases over time. This is in contrast with industrial sector's employment which is expected to stabilize at slightly below 22% of total employment.[9]

Highly dynamic and rapidly changing industry calls for a heightened performance to keep up with the competition. This implies that it requires budget slack to be low. Based on Maiga and Jacobs' research limitation[9], coupled with the increasing importance of non-manufacturing sector in particular distribution service, this study attempts to test the generalisability of Maiga and Jacobs' model[9] in non-manufacturing sector especially distribution service sector. Distribution services sector include commission agent's services, wholesale trade services, retailing services, and franchising. While this sector provides the necessary link between producers and consumers, its industry is highly dynamic and rapidly changing.[10]

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2. Literature review

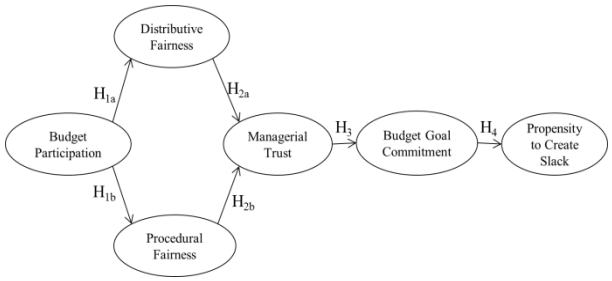


Figure 1: The Hypothesised Model

The proposed model can be seen in Figure 1, while its theoretical basis is discussed below.

2.1. Budget Participation and Distributive Fairness

Budgetary participation is defined as the level of individual influence and participation in the budget preparation process.[7] While, distributive fairness refers to the fairness evaluation of the allocation and distribution of benefits and burdens, such as income, taxes, and bonuses.[11] Budget participation involves the employees to influence the budgetary resources allocation decision. This allows a higher opportunity for a favourable resource allocation.[12] As employees perceive that the managers' allocation of resources is fair, their perceptions of distributive justice increase.[9,13] Therefore, budget participation is positively related with perception of distributive fairness.

H_{1a}: Budgetary participation has positive relationship with distributive fairness in distribution companies.

2.2. Budget Participation and Procedural Fairness

Procedural fairness refers to the fairness of a decision process which leads to a particular outcome. It is defined as the impact of decision-making procedures' fairness on the attitudes and behaviour of the people who are involved and affected by the decisions.[9,14] As procedural fairness recognizes the positive benefits of allowing employees to participate in decision making, employees' impression of the procedures become more favourable. Thus, it can be inferred that budget participation and procedural fairness perception are positively related.[12]

H_{1b}: Budgetary participation has positive relationship with procedural fairness in distribution companies.

2.3. Managerial Trust and Budget Goal Commitment

In this study, managerial trust is defined as trust in the superior/decision maker and in the other top level managers who also prepare and implement the budget.[15] When the followers trust the superior, they will voluntarily follow the superior's direction. It is thus suggested that trust is important for the superior to mobilize the followers' commitment towards the superior's vision. This argument is also supported by Bussing[16] and Perry[17] who found that trust in supervisor plays an important role in promoting organizational commitment.

H_3: Managerial trust has positive relationship with budget goal commitment in distribution companies.

2.4. Distributive Fairness and Managerial Trust

Siegel et al,[18] posited that employees may maintain their trust and commitment provided that they perceive that the procedures used to plan and implement organizational decisions are fair. The structural and interpersonal components of procedural fairness in the organisation are perceived by individuals indicating how they will be treated by the organisation. Thus, if the procedures are fair, the employees also perceive that possibility of their rights being harmed is smaller. In accordance with the definition of trust by Atkinson and Butcher,[15] where trusting is defined as having the trustor placing himself/herself in a position of personal risk in expectation that the trustee will not harm the trustor, fair procedures which allow a smaller possibility of harming the employees' and managers' rights improves their trust toward the organisation and managerial system.

H_{2a}: Distributive fairness has positive relationship with managerial trust in distribution companies.

H_{2b}: Procedural fairness has positive relationship with managerial trust in distribution companies.

2.5. Budget Goal Commitment and Propensity to Create Slack

Goal commitment refers to one's determination and persistence to reach a goal.[17] Budget goal commitment thus can be defined as the managers' and employees' determination and persistence to pursue and achieve budget goals. While budgetary slack is one of the widely known dysfunctional effects of budgeting. It is typically defined as the financial and other resources allocated over the optimal amount required, thus an easier accomplishment of goal or objective.[6,3] In this study, budgetary slack is considered to be the opposite of budget target achievability, which implies that it is budget goals which can be accomplished easily. In other word, budget goal commitment is negatively related with the propensity to create slack. This is also supported by other researchers, including Gago-Rodríguez and Naranjo-Gil,[4] Chong and Ferdiansah,[19] and Nouri and Kyj.[20]

H_4: Budget goal commitment has negative relationship with propensity to create budget slack in distribution companies.

3. Research methodology

The population of this study comprise of Indonesian distribution companies' managers, specifically in East Java, Bali, and West Nusa Tenggara area. Since neither the population size nor the population list of this study is known, this study adopts nonprobability purposive sampling technique. For the responses to be included in the analysis, this study requires the respondent to have budget responsibility in his/her area and having at least one year tenure. To collect the data, this study distributes questionnaires to the respective managers. The total number of questionnaires which were filled and returned was 137, from which the ones which fulfilled the criteria were 106. Out of this, 3 were removed as they were incompletely filled, leaving 103 questionnaires originating from 49 companies to be analysed. The obtained data are then analysed with Structural Equation Modelling (SEM). All of the variables are measured in 7-levels Likert scale.

4. Results and discussion

To be considered valid and significant, the indicator's item loading has to be at least around 0.7. Otherwise, it is considered invalid and may be removed (Waluyo, 2011). Since indicator BS1 and BS5's item loadings are significantly less than 0.7 (0.234 and 0.181 respectively), these two indicators are removed from further analysis. The construct's reliability is assessed using Composite Reliability (CR), which values can be seen in Appendix 1. As the CR of all constructs are higher than 0.7, the constructs' reliability are acceptable.

For the validity evaluation, convergent validity is fulfilled when Average Variance Extracted (AVE) > 0.5, while discriminant validity is fulfilled when Maximum Shared Variance (MSV) < AVE, and √AVE > inter-construct correlations. As depicted from Table 1 and Table 2, all the validity criteria are fulfilled. The model thus has no validity issues.

Table 1.: AVE and MSV of the Variables

Variable	AVE	MSV
Managerial Trust (MT)	0,770	0,604
Budget Participation (BP)	0,752	0,570
Distributive Fairness (DF)	0,656	0,557
Procedural Fairness (PF)	0,725	0,604
Goal Commitment (GC)	0,625	0,406
Slack Propensity (BS)	0,830	0,211

Table 2: Square Root of AVE and Inter-construct Correlations

Variable	MT	BP	DF	PF	GC	BS
MT	**0,877**					
BP	0,604	**0,867**				
DF	0,702	0,704	**0,810**			
PF	0,777	0,755	0,746	**0,851**		
GC	0,550	0,437	0,466	0,637	**0,790**	
BS	-0,445	-0,384	-0,375	-0,420	-0,459	**0,911**

*) Bold numbers signify square root of AVE, regular numbers signify inter-construct correlations.

4.1. Structural model evaluation

Several goodness-of-fit indices that will be used to evaluate the model fit in this study include Chi-square/degrees of freedom (x^2/df), p-value (90% confidence level), Goodness of Fit Index (GFI), Tucker Lewis Index (TLI), Comparative Fit Index (CFI), and Root Mean Square Error of Approximation (RMSEA). The hypothesised model's fit indices values, along with the cut-off value for each of those indices, are shown in Table 3. Among these indices, it can be seen that the hypothesised model doesn't achieve the cut-off value of several indices. It is thus inferred that the hypothesised model's fit is still inadequate.

Table 3. Model Fit of the Hypothesised Model

Model Fit Indices	Before Modification	After Modification	Standard Cut-Off
p-value	0,003	0,100	≥ 0,10
x^2/df	2,737	1,669	≤ 2,00
GFI	0,93	0,96	≥ 0,90
TLI	0,937	0,976	≥ 0,95
CFI	0,962	0,987	≥ 0,95
RMSEA	0,13	0,081	≤ 0,08

As its model fit is still inadequate, the hypothesised model is subject to modification. Following the suggestion from AMOS' modification indices, the hypothesised model is modified by covarying the error terms of distributive fairness and procedural fairness. With this, all the cut-off values required by the indices are achieved, except for RMSEA which only a slight off the mark (0.081 instead of at most 0.08). The model fit of the modified hypothesised model is therefore concluded to be adequate.

Aside from the theoretical model, this study evaluates 8 other equivalent models. Compared with the modified theoretical model, Model 1 added causal path from budget participation to managerial trust. Model 2 added causal path from budget participation to budget goal commitment. Following AMOS modification indices, Model 2 is also modified by adding a correlation between procedural fairness and budget goal commitment. Model 3 added causal path from budget participation to propensity to create budget slack. Model 4 added causal path from distributive fairness to budget goal commitment. Model 5 added causal path from distributive fairness to propensity to create budget slack. Model 6 added causal path from procedural fairness to budget goal commitment. Model 7 added causal path from procedural fairness to propensity to create budget slack. Lastly, Model 8 added causal path from managerial trust to propensity to create budget slack. These models' goodness-of-fit indices' comparison can be seen in Table 4.

Table 4: Model Comparison

No	Models	x^2	df	P	x^2/df	GFI	TLI	CFI	RMSEA	AIC
1	**Theoretical Model**	24.634	9	0.003	2.737	0.930	0.937	0.962	0.130	48.634
2	**Modified Theoretical Model**	13.351	8	0.100	1.669	0.960	0.976	0.987	0.081	39.351
3	**Model 1**	12.007	7	0.100	1.715	0.963	0.974	0.988	0.084	40.007
4	**Model 2**	12.136	7	0.096	1.734	0.963	0.973	0.988	0.085	40.136
5	**Modified Model 2**	6.086	6	0.414	1.014	0.981	0.999	1.000	0.012	36.086
6	**Model 3**	10.439	7	0.165	1.491	0.968	0.982	0.992	0.069	38.439
7	**Model 4**	13.040	7	0.071	1.863	0.960	0.969	0.985	0.092	41.040
8	**Model 5**	11.405	7	0.122	1.629	0.966	0.977	0.989	0.079	39.405
9	**Model 6**	**5.853**	**7**	**0.557**	**0.836**	**0.982**	**1.006**	**1.000**	**0.000**	**33.853**
10	**Model 7**	11.914	7	0.103	1.702	0.964	0.974	0.988	0.083	39.914
11	**Model 8**	10.589	7	0.158	1.513	0.968	0.981	0.991	0.071	38.589

Since Model 6 yields the smallest AIC value (33.853) and has better model fit compared to the other models, Model 6 is concluded to be the best fitting model compared to the other examined models. Further analysis will be conducted by using Model 6. This model's relationships' significance, standardised parameter estimates (β), and explained variance (R^2) are summarised in Table 5 and Table 6.

Based on this result, all the hypothesised paths are statistically significant and thus accepted. In addition to that, Model 6 presents two additional significant non-hypothesised relationships: positive relationships between procedural fairness and goal commitment and between procedural fairness and distributive fairness.

Table 5: Standardised Estimates of the Paths

Relationship				Standardised Estimate (β)	Critical Ratio	p-value (p)
H_{1a}	BP	→	DF	0.748	11.398	< 0.001
H_{1b}	BP	→	PF	0.794	13.178	< 0.001
H_{2a}	DF	→	MT	0.271	3.474	< 0.001
H_{2b}	PF	→	MT	0.623	7.996	< 0.001
*	PF	→	GC	0.349	2.789	0.005
H_3	MT	→	GC	0.373	2.98	0.003
H_4	GC	→	BS	-0.534	-6.372	< 0.001
*	PF	↔	DF	0.324	3.109	0.002

* Non-hypothesised relationship

Table 6: Variables' Explained Variance

Variable	R^2
Procedural Fairness (PF)	0.630
Distributive Fairness (DF)	0.560
Managerial Trust (MT)	0.706
Goal Commitment (GC)	0.474
Propensity to Create Slack (BS)	0.285

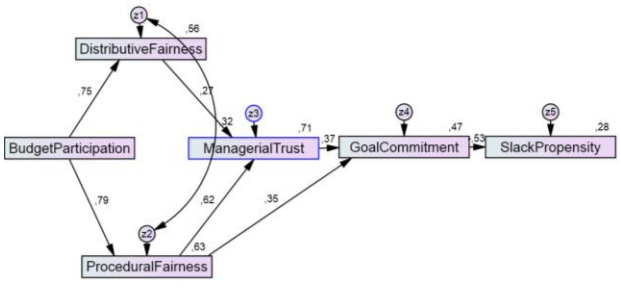


Figure 2: The Final Model (Model 6)

To account for the possible different attitudes or responses from different characteristic groups toward the variables and thus budgeting system, a one-way ANOVA test was done on all variables based on groupings of gender, education, company's number of employee, and department. The result of this test suggests that in general there are no statistically significant differences among the different groupings except in the perceived distributive fairness score between sales and marketing department and operational department.

4.2. The non-hypothesised paths

The two non-hypothesised paths are moderate positive relationship between procedural fairness with budget goal commitment and between distributive fairness with procedural fairness. The first non-hypothesised relationship is the positive relationship between procedural fairness and goal commitment. This finding is found consistent with the findings of Kohlmeyer, Mahenthiran, Parker, and Sincich,[12] Maiga and Jacobs,[9] and Jiang[21]. Significant positive relationship among procedural fairness, managerial trust, and budget goal commitment found in this study, together create a partial mediation relationship. Managerial trust thus partially mediates the relationship between procedural fairness and goal commitment. This means that while budget goal commitment can be improved by increasing procedural fairness, the budget goal commitment can be further enhanced and strengthened by increasing managerial trust. In other words, to increase employees' commitment toward the goal, efforts can be put into improving procedural fairness and/or managerial trust.

The second non-hypothesised relationship is the covariance between distributive fairness and procedural fairness. The interaction between distributive fairness and procedural fairness has been discussed in a number of studies, one of which is from Jiang[21]. There have been found at least three patterns of interaction between procedural and distributive fairness: procedural fairness reducing the effect of distributive fairness on the outcome, high procedural fairness enhancing the relationship between distributive fairness and the outcome, and the interaction between procedural fairness and distributive fairness failing to predict the outcome. With moderate positive correlation between the two variables, as depicted by Figure 3 and the positive standardised parameter estimate (β=0.324, p=<.005), the finding of this study reflects the second pattern, where high procedural fairness enhances the relationship between distributive fairness and the outcome. This may suggest that as the employees perceive higher procedural fairness, they become more aware and care about the fairness of distribution, thus strengthening the relationship between distributive fairness and the other variable. It is also possible that as the employees perceive more procedural fairness, they start to relate it with the earned outcome in trusting the other managerial roles. However, the consistency of this result still can't be guaranteed, as the other studies still suggest a number of various patterns in the relationship between procedural and distributive fairness with no clear consistent red string been pulled yet.[21]

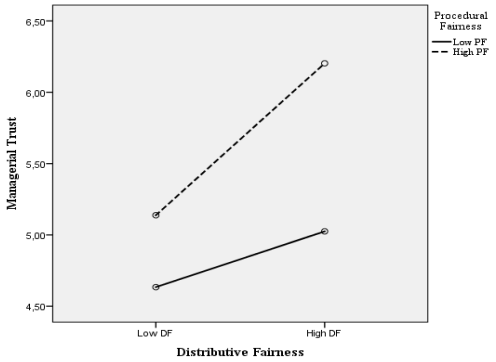


Figure 3: Interaction of Distributive Fairness and Procedural Fairness on Managerial Trust

4.3. Conclusion, recommendation and PRACTICAL IMPLICATION

Results of this study suggests that budget participation impacts the propensity to create budget slack through the mediation of procedural and distributive fairness perception, managerial trust, and goal commitment. All in all, the findings are consistent with other prior research's findings. All of the hypotheses regarding the relationships are accepted and two additional non-hypothesised relationships are found significant. It can be inferred from the sample's plausible values distribution that 76% of the sampled managers participated in establishing the budget for their responsibility areas and 93% of the sampled managers don't find their assigned budget providing them slack. The low perceived slack creation is supported by the relatively high rate for budget participation, fairness perception, managerial trust, and budget goal commitment. However, it can't be said that these are the only factors causing the low budget slack.

While the relationships in this model explain more than half of the variance in procedural fairness, distributive fairness, and managerial trust, they only explain 47.4% of the variance in goal commitment and 28.5% of the variance in propensity to create budget slack. These two explained variance value are not high, but it is a common and expected occurrence in fields attempting to predict human behaviour. It also implies that there exist factors other than those proposed in this model affecting budget goal commitment and propensity to create budget slack.

On the other hand, the result of the ANOVA test suggests that in general there are no statistically significant differences among different groups of gender, education, company's number of employees and department. The only statistically significant difference found was only in the perceived distributive fairness score between sales and marketing department (5.78) and operational department (6.45). While they are remarked as statistically different by the ANOVA test, both of the departments still score positively in distributive fairness. This might be because sales and marketing department are expected to directly interact with customers, where they need to woo and attract new customers, respond to customers' requests and inquiry, while keeping tabs on their budgets and goals altogether. This is less predictable compared to operational job, thus putting relatively higher pressure on sales and marketing department's budget.

In spite of that, however, the findings of this study can still be utilised and adapted into budgetary procedure design in organisations. For instance, if an organisation aims to enhance the employees' commitment toward budgetary goal, it is suggested that efforts can be put into increasing the perceived procedural fairness and managerial trust. One of the ways to improve managerial trust is through increasing procedural fairness. Higher procedural fairness can be achieved by establishing and implementing a fair budget procedure, either written or unwritten. Improvements in these areas are expected to suppress employees' propensity to create budget slack.

Aside from the procedural fairness, another key point in this study's model is managerial trust. Managerial trust partially mediates the relationship between procedural fairness and budget goal commitment, and connects distributive fairness to the commitment. A high managerial trust will ensure a smooth relation among distributive fairness, procedural fairness, and budget goal commitment, which finally affect propensity to create slack. Thus, it is important to improve and keep the managerial trust level to be high. Within the scope of this study, improving managerial trust can be done by properly implementing fair procedure and obtaining fair outcomes for all related parties.

References

[1] R. N. Anthony, V. Govindarajan, Management Control Systems, 12 (2007).
[2] A. Neely, M. Bourne, C. Adams, Measuring Business Excellence, 7, 3 (2003).
[3] M. Schoute, E. Wiersma, Advances in Management Accounting, 19 (2011).
[4] S. Gago-Rodríguez, D. Naranjo-Gil, Management Decision, 54, 8 (2016).
[5] M. Elmassri, E. Harris, Journal of Applied Accounting Research, 12, 3, (2011).
[6] K. A. Merchant, Accounting, Organizations and Society, 10, 2 (1985).
[7] J. Avis, CIMA Publishing (2009)
[8] J.F. Shields, M.D. Shields, Accounting, Organizations, and Society, 23 (1998)
[9] A. S. Maiga, F.A. Jacobs, Journal of Applied Management Accounting Research, 5, 1 (2007).
[10] World Trade Organization, Services - Sector-by-sector information, (2017).
[11] K. Törnblom, R. Vermunt, Ashgate Publishing (2013).
[12] J. I. Kohlmeyer, S. Mahenthiran, R. J. Parker, T. Sincich, Advances in Accounting Behavioral Research, 17 (2014).
[13] S. H. Kim, G. Laffranchini, M. F. Wagstaff, W. Jeung, Journal of Managerial Psychology, 32, 1 (2017).
[14] A. Shaw, K. Olson, Journal of Experimental Child Psychology, 119 (2014).
[15] S. Atkinson, D. Butcher, Journal of Managerial Psychology, 18, 4 (2003).
[16] A. Bussing, SA Journal of Industrial Psychology, 28, 4, (2002).
[17] R. W. Perry, Review of Public Personnel Administration, 24, 2, (2004).
[18] P.A Siegel, C. Post, J. Brockner, A.Y, Fishman, C, Garden, Journal of Applied Psychology, 90, 1 (2005).
[19] V.K. Chong, I. Ferdiansah, Advances in Management Accounting, 19 (2011)
[20] H. Nouri, L. Kyj, Advances in Management Accounting, 22 (2014).
[21] Z. Jiang, Z. Asia-Pacific Journal of Business Administration, 7, 1 (2015).