

**The Role of Trust in Budgeting Processes and Managerial Performance:
An empirical study in the Local Government of Aceh, Indonesia**
*(Peranan Kepercayaan dalam Proses Belanjawan dan Prestasi Pengurusan: Satu Kajian
Empirikal dalam Kerajaan Tempatan di Aceh, Indonesia)*

Mirna Indriani
Nadirsyah Nadirsyah
Rulfah M Daud
(Faculty of Economics and Business, Syiah Kuala University)

ABSTRACT

The purpose of this study is to investigate a comprehensive model of the relationships between budget participation, procedural fairness, distributive fairness, managerial trust, goal commitment and managerial performance. The analysis using the structural equation model (SEM) is based on 347 individuals who are involved in the budgeting at Regional Apparatus Work Unit (SKPD) in Aceh Province, Indonesia. The results show that participation significantly influences procedural fairness which then managerial trust. Participation however do not influence distribution fairness. The findings also indicate that managerial trust influences budget goals commitment which subsequently enhances managerial performance. It also suggests that increased participation in budgeting fosters a sense of procedural fairness, which in turn increases managerial trust and budget goals commitment which enhances managerial performance. This study is useful in providing an input for local government to design an effective budget planning control process in which procedural fairness can be increased through participation in the process of budgeting and participation becomes a means in the process of increasing trust in management.

Keywords: Distribution fairness; procedural fairness; trust; budget goal commitment managerial performance

ABSTRAK

Tujuan penyelidikan ini adalah untuk mengkaji model komprehensif hubungan antara penyertaan belanjawan, keadilan prosedur, keadilan distributif, kepercayaan pengurusan, komitmen matlamat dan prestasi pengurusan. Analisis menggunakan permodelan persamaan struktur (SEM) berdasarkan 347 individu yang terlibat dalam belanjawan di Unit Kerja Perangkat Daerah (SKPD) di wilayah Aceh, Indonesia. Hasil kajian menunjukkan bahawa penyertaan secara signifikan mempengaruhi keadilan prosedur dan seterusnya mempunyai pengaruh yang signifikan terhadap kepercayaan pengurus. Penyertaan walau bagaimanapun tidak mempengaruhi keadilan pengagihan. Hasil kajian juga menunjukkan bahawa kepercayaan pengurusan mempengaruhi komitmen sasaran belanjawan yang seterusnya meningkatkan prestasi pengurusan. Ini juga menunjukkan bahawa peningkatan penyertaan dalam belanjawan menumbuhkan rasa keadilan prosedur, yang pada akhirnya meningkatkan kepercayaan pengurusan dan komitmen matlamat belanjawan anggaran yang meningkatkan prestasi pengurusan. Kajian ini berguna dalam memberikan input kepada pemerintah tempatan untuk merancang proses perancangan kawalan yang efektif di mana keadilan prosedur dapat ditingkatkan melalui penyertaan dalam proses belanjawan dan penyertaan menjadi usaha dalam proses meningkatkan kepercayaan terhadap pengurusan.

Kata kunci: Keadilan pengagihan; keadilan prosedur; kepercayaan; prestasi pengurusan komitmen belanjawan

INTRODUCTION

The use of psychological theory in accounting research was pioneered by (Argyris 1952). A psychology theory is a theory that can explain and predict behavior developed primarily by observing individual behavior than by studying organization. The essence of behavior research tries to find out how individuals make decisions and interact and influence other individuals, organizations, market, and society (Kutluk 2016). In studies of management accounting, psychological theory has used the contingency approach to understand and explain the use and influence of management accounting practices on mental attitudes and behavior. For example, the research by Franco-Santos, Lucianetti and Bourne (2012) uses several psychological theories to understand the influences of performance measurement systems such as information processing theories, goal setting theories and justice

theories. The studies of various researchers are not only concerned with the influence of management accounting practices on individuals but also the influences at the organizational level (Hall 2016).

At the individual level, management accounting practices, through a contingency approach, are highly dependent on the intervening variable model and/or the moderating variable model (Lau and Tan (2006)). In the intervening model, management accounting variables influence the psychological variables and then the psychological variables will influence the individual outcomes, whereas in the moderating models, many management accounting variables influence individual outcomes which are highly dependent on variable psychological conditions (Hall 2016). At the organizational level, psychological theories are used in constructing hypotheses about the influence of accounting practices on organizations in the form of departments and business units. Usually, research uses organizational performance as the dependent variable (Gerdin & Greve 2004).

Research in budgeting participation, as one of the most intensive management accounting practices, have been carried out by behavioural accounting researchers since the 70s, such as (Brownell & Hirst 1986; De Baerdemaeker & Bruggeman 2015; Kren 1992; Maiga & Jacobs 2007; Milani 1975; Sholihin et al. 2011; Wentzel 2002; Wong-On-Wing, Guo & Lui 2010). These researchers used psychological theories to explain the relationship of participation in budgeting with managerial performance. Several results from the research indicated a direct relationship between participation in budgeting and managerial performance is inconsistent and debated (Agbejule & Saarikoski 2006; Chong, Eggleton & Leong 2005; Derfuss 2015; Jermias & Yigit 2013; Leach-López, Stammerjohan & Mcnair 2007; Parker & Kyj 2006).

The use of the Structural Equation Model (SEM) may allow researchers to find a more complex relationship between participation in budgeting and managerial performance. Budget participation affects job performance via intervening variables: distributive fairness or procedural fairness (Maiga & Jacobs 2007; Wentzel 2002), organizational commitment (Sholihin et al. 2011), and (Awamleh 1996; Chong & Law 2016; Mowday 1998; Noor & Othman 2012; Nouri & Parker 1998; Suliman 2002; Wentzel 2002; Yahya, Ahmad & Fatima 2008), trust (Lau & Buckland 2001; Maiga & Jacobs 2005), budget goals commitment (Maiga & Jacobs 2005). There are differences in the results of the structural model proposed by researchers in describing the relationship between budget participation and functional behavior such as fairness, trust, or performance as outcomes and dysfunctional behavior such as slack. In general, researchers in line state that participation has the potential to influence the perception of fairness either distributive fairness or procedural fairness (Maiga & Jacobs 2007; Wentzel 2002). Fairness studies to employees' perception of fairness in the organization. the personal assessment and subjectively evaluated on what people believe to be right (Cropanzano, Bowen and Gilliland (2007) therefore, fairness will increase trust (Lau & Tan 2006; Maiga & Jacobs 2007; Sholihin, Pike & Link 2013). However, when trust is associated with commitment to goals, there are different results. According to Maiga & Jacobs (2007), trust has an effect on goal commitment whereas (Lau, Wong & Eggleton 2008; Sholihin et al. 2011). The inconsistencies in the findings motivate this research to be conducted due to the complex relationship between participation and performance. Further research is needed in this topic as budget participation is an important element of budgetary control. Its importance is further signified due to the fact that budgeting process is time consuming, expensive and subject to considerable manipulation (e.g. Hansen, Otley & Van der Stede 2003; Sivabalan et al. 2009).

This study is driven to replicate and integrate previous research especially research conducted by (Maiga & Jacobs 2007). Maiga & Jacobs (2007) investigated how participation influenced dysfunctional behavior, such as slack. Unlike Maiga and Jacob (2007), this study focuses on the development of individuals' strengths rather than their dysfunctions and tested in government organizations particularly on managerial performance. Managerial performance has been a central issue in the management of government budget particularly when it is viewed from the behavioral dimension. This research also sets out to prove whether the proposed model of Maiga dan Jacob (2007) can be generalized in a different organizational context of public sector especially the local government. From this notion, it is expected that the applied concepts in the private sector is equally applicable within public sector.

Within the public sector environment in Indonesia, both central and local government budgeting have been confronted with problems such as weaknesses in the internal control system, non-compliance and predominantly inefficient, inefficient and ineffective problems which have potential losses. Therefore, it is necessary to investigate the budgeting process which can provide solutions to the problems. The objectives of this study in particular are to investigate (1) whether participation in budgeting has an influence on fairness, both distributive and procedural fairness, (2) whether distributive fairness and procedural fairness influence managerial trust, (3) whether managerial trust has an influence on budget commitment, and (4) whether the budget goals commitment has an influence on managerial performance. This study contributes to the management accounting literature, specifically in the budgeting planning process as a management control system in government organizations.

Previous research were mostly conducted in the private sector, except Yuen (2007) who explored the public sector, Yahya et al. (2008) who studies about developing countries. This research is conducted in the government sector considering that several countries including Indonesia began to use the concept of new public management (NPM) that was proposed by (Hood 1991). Within the concept of NPM, reforms are urged in the government management particularly in the administrative improvements such as systems and procedures, rules and

regulations, structure of public bureaucracies, nature of the government and other aspects of public administration. The goal is for the public sector to be more flexible, responsive, effective and efficient. This concept has been initiated in the Indonesian local government since 2004 in line with the implementation of regional autonomy. These initiatives result in decentralization of authority and decision-making, employee participation in budgeting process and streamlined financial management in comparison to the private sector. Boston et al. (1996) stated that the use of NPM eliminates certain differences between public and private sector organizations. NPM focuses on achievements or outcomes and efficiency through better management of public budgets hence local governments can improve the quality of public services.

Aceh has been chosen as a research location because since 2008 Aceh has been one of the regions in Indonesia that has received special autonomy funds, apart from Papua. The special autonomy funds given to Aceh are special income provided by the central government intended to finance development, especially the development and maintenance of infrastructure, empowerment of the people's economy, poverty alleviation, as well as education, social and health funding. The receipt of special funds from the central government is quite large therefore it requires a proper budgeting process that can allocate funds fairly and gain the trust of the public. In addition, Aceh is a province that has a different political nature because it is the only province that has local parties. The existence of local parties will have an effect on public policy, especially on the budget.

The remainder of this paper is organized as follows. In the next section the relevant literature are reviewed and the hypotheses are developed. Then, the methodology and result are discussed in the third and fourth sections. The paper conclude with a discussion of the finding and suggestion for future research.

LITERATURE REVIEW

Research on budget participation is behavioral accounting research in the field of management accounting (Kutluk 2016). This field research study generally examines how budget influences individual performance through analysis of individual differences on motivation and risk aversion. Studies are also conducted to understand the variability and complexity of people about work and performance through a psychological perspective. The psychological theories that are used in budgeting studies are the cognitive theory, the motivational theory, and the social-psychology theory (Birnberg, Luft & Shields 2007). According to Birnberg et al. (2007) psychology is the science of the human mind (e.g. attitudes, cognition, motivation) and behavior (actions, communications). While psychology includes many fields, management accounting research primarily relies on theories from three subfields; cognitive, motivation, and social psychology. Cognitive psychology is the study of psychological processes that influence human thinking, including attention, knowledge, judgments, decisions, and learning. From a psychological motivational perspective. There are four psychological processes that influence behavior, namely arousal, direction, intensity, and persistence of effort. Social psychology investigates how people influence individual thoughts and behavior, and includes understanding of people (social cognition, attributions, impressions of people), social attitudes and influences, social interactions and relationships. Based on the theory described by (Birnberg et al. 2007), they summarizes that there are two effects that affect management accounting practices, namely the motivational effect and the information effect. Budget participation is a part of management accounting which can also be seen from these two aspects, namely aspects of motivation and aspects of information.

The motivational effect of budget participation is not only in measuring outcomes but how budget participation affects the individual mental representation of outcomes through psychological processes such as goal setting, stress, trust, fairness beliefs. The perception of fairness in the budgeting process is a psychological aspect that has a very strong emotional response. Therefore some psychology researchers express the perception of fairness as "hot" cognition (Lind & Arndt 2016). The perception of unfair treatment becomes critically important because such judgment will result in exclusive feelings of exploitation and it can provoke strong, highly emotional reactions. On the other hand, if the company is able to maintain fair treatment then the perception of fairness can be used to resolve any conflicts (Van den Bos et al. 2014)

Some researchers in management accounting have looked at the psychological factors of trust in organizations (Brockner et al. 1997; Costa & Anderson 2011). The results showed that confidence exhibited by superiors encouraged commitment by subordinates. Allen and Meyer (1990) have stated that trust will increase the perception of group well-being for example between subordinates and superiors there will be more harmony and feelings of contentment within the work environment.

Another psychological theory that is part of the basis of this study is the theory of goal achievement. Commitment to purpose illustrates the determination of individuals in order to achieve a goal which has been established. Commitment to a budget goal is defined as the determination to work towards a budget goal and persistence in pursuing it over time (Locke et al. 1981). According to this theory commitment to goals is very important because commitment will become related to the productivity of the organization to be able to achieve its goal. Locke, Latham & Erez (1988) have stated that if there is no commitment to the goal, then the preparation

of the goal becomes futile. Some studies show that individual performance will be better if the person accepts and commits to a defined goal (Locke et al. 1988; Locke & Latham 1990).

The informational effects of management accounting practices budget participation is a means in the process of exchanging information between one section with another between a superior and his/her subordinates that can lead to participation that can improve the quality of decision-making in the process of achieving higher performance. Several examples of research looking at the effect of this information on decision making were conducted by (Chow, Cooper & Waller 1988; Dunk 1993; Eker 2009; Nguyen, Evangelista & Kieu 2019; Nouri & Parker 1998).

The results of previous empirical research indicate that the relationship between participation in budgeting and performance is inconsistent. The results of the research which states that participation has a positive influence (Brownell 1982; Merchant 1981; Odia 2013), while the results of the research which states that participation has a negative relationship are reported by (Cherrington & Cherrington 1973; Stedry 1960). Milani (1975), Brownell and Hirst (1986) and Dunk (1989) actually reported no significant relationship. The inconsistency of research results indicates a theoretical inadequacy. Therefore, budgeting participation research is an ongoing research by developing modified models.

PARTICIPATION IN BUDGETING AND DISTRIBUTIVE FAIRNESS

Distributive fairness describes the proportional concept of equity theory (Leventhal 1980). In the literature of budgeting, the concept of distributive fairness describes expectations of a fair share, whereas, in fair share organizations, it describes expectations relating to the size of resource distributions that are received by a manager compared to other managers (Maiga & Jacobs 2007). Thus, distributive justice reflects the distribution that was received in the previous period or will be received in the next period with adjustments for an increase or decrease in the overall total budget of the company. Individual perceptions of distributive fairness will arise if there is a balance between output and input.

In the participation in budgeting, the budget achievement is the output while the ability and effort to create the budget is the input. If the ability and effort are equal to the budget achievement then there will be distributive fairness. But if effort and ability are not equal to the budget achievement then distributive fairness does not exist (Maiga & Jacobs 2007; Wentzel 2002). Although participation does not provide assurance that the budget will be accepted as it was created, mainly because of limited resources, involvement in the budget preparation will help the managers understand how the budget distribution was determined. Empirically Maiga and Jacobs (2007) and Wentzel (2002) have proven that there is a positive relationship between participation in budgeting and distributive justice. Therefore this study proposes the first hypothesis viz:

H₁ Budget participation positively influences distributive justice

PARTICIPATION IN BUDGETING AND PROCEDURAL FAIRNESS

The theory of procedural fairness deals with the effects of fairness in the decision-making process on the attitudes and behaviors of the people who are involved and those who are influenced by those decisions (Leventhal 1980; Lind & Tyler 1988). Initially, the concept of fairness was developed by (Thibaut & Walker 1975; 1978). According to Thibaut and Walker (1975; 1978) to evaluate procedural fairness, there are six characteristics or rules of fairness that are used viz:

1. The Consistency rule. In this rule, the procedure should be set consistently for everyone and for every time;
2. The Bias-suppression rule. According to this rule, the procedure which is applied is not done for a particular interest or not for a particular decision.
3. The Accuracy rule. In this rule, the procedure should be based on the greatest information and the best opinion.
4. The Correctability rule. This rule emphasizes that the procedure which is made should be possible to be modified or it should be possible to correct the decisions that are made.
5. The Representativeness rule. This rule states that the entire allocation process should be able to reflect the basic concepts, values and views of group members as individuals who will be influenced by the allocation process.
6. The Ethical rule. This characteristic states that the procedure must be in accordance with moral and ethical values.

These characteristics of fairness which have been put forward can be realized through participation. Participation allows subordinates to have a voice and to vote against existing procedures. Having a voice and a vote allows them to participate in the budgeting process (Lindquist 1995). Thus, as the level of control increases, which is done through participation, then the procedural fairness perceptions will also increase and if it does not,

the employee could react negatively (Lau & Tan 2006; Libby 1999; Magner & Johnson 1995; Maiga & Jacobs 2007; Wentzel 2002; Zainuddin & Isa 2011), have found a positive relationship between participation in the budgeting processes and procedural fairness. Therefore, the second hypothesis which is proposed in this study is as follows below:

H₂ Participation in budgeting has a positive influence on procedural fairness

DISTRIBUTIVE FAIRNESS, PROCEDURAL FAIRNESS AND MANAGERIAL TRUST

Many researchers have made studies of trust in various forms. For example, managerial trust Maiga and Jacobs (2007), trust in a superior(s) (Maiga & Jacobs 2007; Yu Ni et al. 2005), trust in the organization (Maiga & Jacobs 2007), interpersonal trust and/or intrapersonal trust (Sholihin et al. 2011). Studies by accounting researchers into fairness of distribution are always linked to procedural fairness. The results from studies show that both of the latter positively influence trust (Alexander & Ruderman 1987; Folger & Konovsky 1989; Lau & Tan 2006; Lau et al. 2008; Lau & Sholihin 2005; Lind & Tyler 1988; Magner & Welker 1994; Maiga & Jacobs 2007; Staley & Magner 2006). However the research of Sholihin et al. (2011) only examined the influence of procedural fairness on trust.

Some researchers examined the relationship between the two concepts in different situations, such as Magner and Welker (1994) who tested it in government organizations, Lau and Sholihin (2005) and Lau and Tan (2006) with manufacturing companies, Hartmann and Slapničar (2009) in commercial banks and Sholihin et al. (2011) with financial services companies. Therefore the third and fourth hypotheses which are proposed in this study are:

H₃ Distributive Fairness has a positive influence on managerial trust

H₄ Procedural Fairness has a positive Influence on managerial trust

TRUST AND BUDGET GOAL COMMITMENT

Trust is necessary for superiors to mobilize the commitment of subordinates in order to follow their vision (Bass 1985). Trust can be described as the fulfilment of a person's positive expectations concerning the out-come of a certain event or action (e.g. Baldvinsdottir 2009; Das & Teng 2004; Fukuyama 1996; Mayer, Davis & Schoorman 1995). So it is highly unlikely that superiors who are not trusted by their subordinates can succeed in achieving a commitment to their vision because antipathy towards the superior will reduce the want to understand the vision. Trust in an organization can be created and can be maintained (Davis et al. 2000; Dirks & Ferrin 2001). In a management accounting system, trust can be called the basis of knowledge, as Tomkins (2001) says, trust is an interactive basis for learning and experience. Trust will also emerge in the circumstances of the budgeting process (Su Leen Tan & Woodward 2005). This argument was supported by Achrol (1991) and also by Moorman, Zaltman and Deshpande (1992) who have all argued that trust is the main determinant of commitment. Liou (1995), Brockner et al. (1997), Maiga and Jacobs (2007) and Locke et al. (1988). found that trust in superiors could increase organizational commitment. Their study results were also similar to those which were later found by Costa and Anderson (2011) namely that development of trust will create employee engagement within the organization. Based on the arguments of those researchers, the development of trust will be able to increase budget goal commitment so that the fifth hypothesis proposed in this study is:

H₅ Trust in management influences budget goals commitment

BUDGET GOALS COMMITMENT INFLUENCES THE PERFORMANCE OF MANAGERS

The performance of a manager is the result of work done in managerial activities such as planning, investigation, co-ordination, supervision, staffing, negotiation and representation (Wong-On-Wing et al. 2010). Managerial performance also indicates the working ability of a manager performing the functions of management in every activity that becomes the responsibility of that individual (Anthony & Govindarajan 2001).

Several previous accounting studies have found that organizational commitment affects performance (Chong & Eggleton 2007; Nouri & Parker 1996; Quirin, Berry & O'Brien 2000; Subramaniam & Mía 2003). Furthermore, Chong and Eggleton (2007) stated that employees who have a strong commitment believe that their performance will be related to the overall organizational performance. Accordingly, the sixth hypothesis which is proposed in this study is:

H₆ Budget goals commitment influences the managerial performance

The relationship between all these variables can be seen in Figure 1 which follows below:

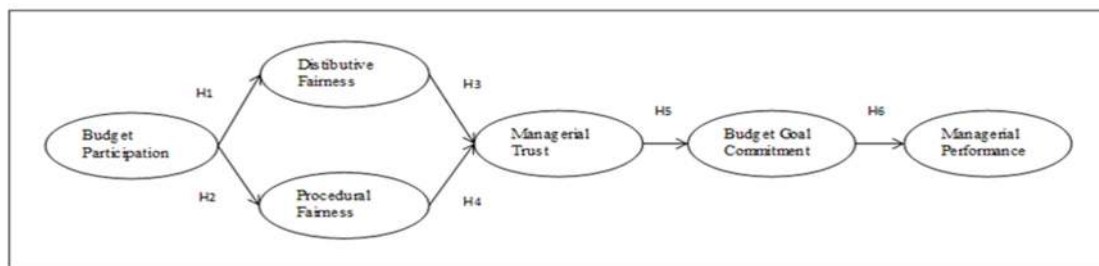


FIGURE 1. The conceptual model

METHODOLOGY

RESEARCH SAMPLE AND DATA COLLECTION METHODS

This study was aimed to investigate what influence participation in budgeting had on the performance of managers with the presence of distributive fairness, procedural fairness, trust, and budget goals commitment. The units of analysis are the individuals who involving in the budgeting at 24 Regional Apparatus Work Unit (Commonly abbreviated as SKPD) at local government (Provincial and Regency/City) unit in Indonesia SKPD¹ includes the Regional Secretariat, Expert Staff, Service, Agencies, Regional Inspectorate, other regional institution that are directly responsible to the regional Head, Sub-districts (or other unit at the same level), and *Kelurahan /Desa* (or other units at the same level). This research was conducted on Services (*Dinas*) considering that the Service is an organizational unit within the regional government that is domiciled as the implementing element of the regional government. Number of Services are varied across the districts depending upon the needs. For all districts / cities and provinces there are 679 Services. The sample size is derived based on data adequacy for the purpose of analysis using SEM. According to Hair et al. (2010: 662) for a model that has a construct of less than 7 with moderate communalities of 0.5, and no constructs are not identified, the minimum sample size is 150.

The respondents consist of Heads of Departments, Heads of Divisions, and Heads of Sections. Data was collected using questionnaires which was carried out from early November to the end of December 2017. The questionnaires were delivered directly to the work sites/offices where that was efficient; for distant areas, the questionnaires were sent by post. Delivery was done to the address of each respondent and the delivery was repeated if, after four weeks, the first questionnaire had not been returned. This was done to enhance the return rate of the questionnaires (the response rate).

In the first stage, 465 questionnaires were distributed. Then after four weeks, 135 more questionnaires were sent out hence the total number of questionnaires sent out was 600. After 9 weeks, 365 questionnaires were returned or 59%. from 600 or 78% from 465 There were 18 incomplete questionnaires that couldnot be used so that 347 were useable and the return rate was 58% from 600 or 75% from 465 questionnaires.

MEASUREMENT OF VARIABLES AND ANALYSIS OF DATA

The variables used to test the hypotheses are set out in Table 1 that follows overleaf:

TABLE 1. Measurement of variables

No.	Variables	Measurement	Scale
1	Managerial Performance	Mahoney, Jerdee and Carroll 1965 (Frucot & White 2006; Leach-López et al. 2015; Soobaroyen & Poorundersing 2008)	Likert Scale 1 (highly disagree) until 7 (highly agree)
2	Participation in Budgeting	Milani 1975; (Etemadi et al. 2009; Frucot & White 2006; Leach-López et al. 2015; Stearns 2016)	Likert Scale 1 (highly disagree) until 7 (highly agree)
3	Distributive Fairness	Magner and Johnson (1995); Leventhal (1980); Wentzel (2002)	Likert Scale 1 (highly disagree) until 7 (highly agree)
4	Procedural Fairness	Magner and Johnson (1995); Leventhal (1980); Wentzel (2002); Zainuddin & Isa (2011)	Likert Scale 1 (highly disagree) until 7 (highly agree)

5	Budget goal commitment	Latham and Steele (1983); Erez and Arad (1986)	Likert Scale 1 (highly disagree) until 7 (very agree)
6	Managerial Trust	Maiga and Jacobs (2007)	Likert Scale 1 (highly disagree) until 7 (highly agree)

The data analysis was done by using the Structural Equation Model (SEM). The measurement model was divided into two sections: 1) model measurement for exogenous variables and model measurement for endogenous variables and 2) structural models (Hair et al. 2010). Data processing was done using LISREL 8.8 (Jöreskog & Sörbom 1999).

RESULTS

DESCRIPTIVE STATISTICS

The characteristics of the respondents can be seen in Table 2 below:

TABLE 2. Demographic characteristics of respondents

Characteristics	Frequency	%
Gender		
Male	235	68
Female	112	32
Age		
31-40	17	5
41-50	56	16
51-60	151	44
>60	143	35
Education		
Diploma-3,	17	5
S1 Bachelor	191	55
S2 Masters	133	38
S3 Doctor	6	2
Title		
<i>Kadis</i> (Head of	68	20
Department)	132	38
<i>Kabid</i> (Head of Division)	111	32
<i>Kasubbid/Kasie</i> (Head of	56	10
Section)		
Others		
Note: N = 347		

Table 3 presents the descriptive results of the variables that were studied including average results, minimum values, maximum values both theoretical and actual and standard deviation values. Based on Table 3, it can be seen that managerial performance was high, 5.90; budget goals commitment was also high, 5.16; distribution fairness was fairly high 5.02; while procedural fairness was slightly lower 4.82; managerial trust was medium 4.59; as was participation at 4.42 which was the lowest.

TABLE 3. Descriptive statistics of research variables

Variables	Theoretical Score		Actual Score		Average	SD
	Min	Max	Min	Max		
Participation	1.00	7.00	1.83	7.00	4.42	0.94
Distributive Fairness	1.00	7.00	1.75	7.00	5.02	0.99
Procedural Fairness	1.00	7.00	1.00	7.00	4.82	1.12
Trust	1.00	7.00	1.00	7.00	4.59	1.21
Budget goal commitment	1.00	7.00	1.00	7.00	5.16	1.32
Managerial Performance	1.00	7.00	2.13	6.88	5.90	1.49

ANALYSIS OF THE MEASUREMENT MODEL

The measurement model was evaluated through analysis of confirmatory factors which relate to all the items or to latent variables. In this study, there is an exogenous latent variable (participation) and several latent endogenous variables (distributive fairness, procedural fairness, managerial trust, budget goals commitment and managerial performance). The loading factors value of each item shows the instrument validity value. According to Hair et al. (2010) the loading factor value must be above 0.5 and an ideal value is above 0.7. Table 4 shows the loading factor values for each variable. In the variable of participation, there are only three items having loading factor value which are above 0.50. The loading factors values which are below 0.5 show that these indicators cannot be used to measure participation. Therefore, these items were eliminated in the subsequent processing. The loading factor value for distributive fairness was above 0.5, thus all the items for distributive justice have good validity. The loading factor value for the variables of procedural fairness, distributive fairness, managerial trust, commitment to goals and managerial performance were all above 0.5 thus these indicators all have a good level of validity. Composite reliability or construct reliability was used to measure the internal consistency of the construct indicators, similar to the Cronbach alpha coefficient (Fornell & Larcker 1984). Table 4 shows the value of the Composite reliability for participation in the budgeting was 0.86, distributive fairness was 0.90, then procedural fairness was 0.91, managerial trust was 0.82, budget goals commitment was 0.75 and managerial performance was 0.95. All indicators represent acceptable reliability values that were above 0.70 (Nunnally 1967). Consistency can also be seen from the value of AVE (average variance extracted) which was above 0.50.

TABLE 4. Characteristics of variables measurement

Variables	Loading Factor	Composite Reliability	Variance Extracted Estimation
Participation			
1. Influence on the established budget	0.68	0.86	0.67
2. Contribution/input to the budget	0.85		
3. Asked to give opinions on the budget	0.66		
Distributive Fairness			
1. Your section receives a reasonable budget	0.74	0.90	0.65
2. Budget which is allocated is according to your needs	0.86		
3. Budget for your section is in accordance with expectations	0.74		
4. According to you whether the budget for your section is fair	0.71		
5. Your superior has expressed concerns when discussing the limitations of the budget that is your responsibility	0.55		
Procedural Fairness			
1. Budget procedures are set consistently for all sections.	0.76	0.91	0.58
2. Budget procedures are set consistently for the same period.	0.78		
3. The budget which is set for my section is made based on accurate information and the best opinions.	0.77		
4. Current budget procedures include provisions that allow me to submit a budgets in my respective field.	0.65		
5. Current budget procedures are in accordance with the ethical and moral standards that I believe in	0.66		
6. Budget decision-makers struggle to disadvantage certain sections over others.	0.55		
7. Current budget procedures have adequately defined the focus of all fields within the organization	0.57		
8. Budget decision makers explain how budget allocations are determined for all fields	0.59		
Managerial trust			
1. I believe in my superiors	0.60	0.82	0.54
2. I and my superiors are always open to expressing differences and dissatisfactions and satisfactions	0.64		
3. I share relevant information with others.	0.56		
4. The results that my section achieve can be accepted with mutual trust by other sections	0.76		

Budget goals commitment			
1. Your commitment to the budget achievement becomes your responsibility	0.52		
2. It is important that the budget goal of the section which is my responsibility can be achieved	0.66	0.75	0.51
3. I work hard to achieve the budget that is my responsibility	0.67		
Managerial performance			
1. Planning	0.80		
2. Investigating	0.83		
3. Coordinating	0.80		
4. Evaluating	0.79	0.95	0.71
5. Supervising	0.72		
6. Staffing	0.75		
7. Negotiating	0.69		
8. Representing	0.73		

ANALYSIS OF STRUCTURAL MODELS

The answers to the hypotheses that were proposed can be seen from the results of the structural models. Table 5 shows that the standardized parameter estimate between budget participation and procedural fairness is positive and significant ($z = 0.11$; t -value = 1.73), thus, H_2 was supported. Next, the standardized parameter estimate between procedural fairness and managerial trust was positive and significant ($z = 0.56$; t -value= 7.35), supporting H_4 . Furthermore, the standardized parameter estimate between managerial trust and budget goals commitment was positive and statistically significant ($z = 0.225$, $p < 0.001$), supporting H_5 . Budget goal commitment was positive and had a significant impact on managerial performance ($z = .80$; t -value 6.37). Thus, H_6 was supported. In this research only H_1 and H_3 were not supported i.e. were rejected, because budget participation did not have a significant impact on distribution fairness ($z = 0.04$; t -value = 0.065) and distribution fairness did not have a significant impact on managerial trust ($z = 0.00$; t -value = 0.02).

The multiple correlation squared value (R^2) (see Table 5) for budget participation explains a small amount of the variance in both distributive fairness and procedural fairness ($R^2= 0.17\%$ and 1.12% respectively) while both distributive fairness and procedural fairness explain variance in managerial trust (32.0%). Managerial trust, distribution and procedural fairness explain 43.0% of the variance in budget goal commitment, which in turn, explains 56.% of the variance in managerial performance.

TABLE 5. Coefficients and conclusions

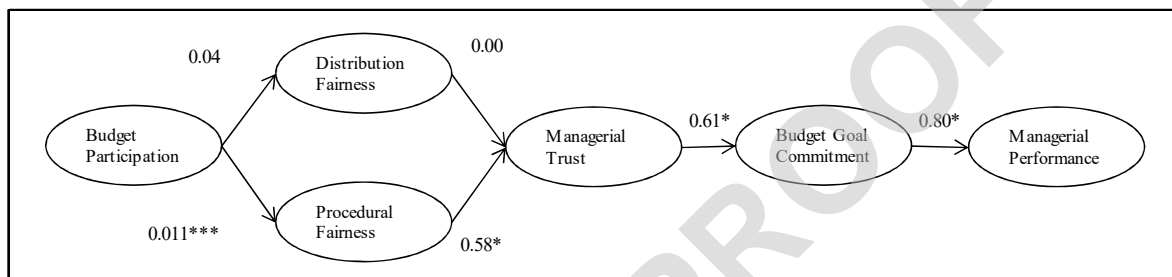
	Coefficient	t-value	Conclusion
H_1 : Budget Participation-Distribution Fairness	0.04	0.65	H_1 Rejected
H_2 : Budget Participation-Procedural Fairness	0.11***	1.73	H_2 Supported
H_3 : Distribution Fairness-Managerial Trust	0.00	0.02	H_3 Rejected
H_4 =Procedural Fairness-Managerial Trust	0.56*	7.35	H_4 Supported
H_5 =Managerial Trust-Budget Goal Commitment	0.61*	7.67	H_5 Supported
H_6 =Budget Goal Commitment-Managerial Performance	0.80*	6.37	H_6 Supported
R^2 = For Distributive Fairness	0.0017		
R^2 = For Procedural Fairness	0.012		
R^2 = For Managerial Trust	0.32		
R^2 = For Budget Goal Commitment	0.43		
R^2 = For Managerial Performance	0.56		

* $p < 0.01$, ; ** $p < 0.05$, *** $p < 0.10$

To see if the model that was built was supported by the data or as it is known, the fit model, there were some indicators that were used. According to (Maruyama (1998) there is no consensus on one or more benchmarks that can be used to see whether a model is fit or not. The results show (Table 6) that some indicators support a fit model, i.e. when it is viewed from the value of p-value of 0.00 which is below 0.05 and the RMSEA value of 0.068 is below 0.08, but if it is viewed from the value of chi-square/df of 2.42 which is greater than 0.02, then the terms for a fit model are not fulfilled.

TABLE 6. Results

	Result	Standard of received value	
The Basics of Goodness of Fit			
Chi-Square	1153.08	N/A	
Df	428		
P-value	0.00	< 0.05	
Chi-Square/df	2.69	< 2.0	Fit
Absolute Fit Indices			
Root Mean Square Error of Approximation (RMSEA)	0.07	< 0.08	Fit
Goodness of Fit Index (GFI)	0.82	0 -1	Fit
Standardized Root Mean Residual (SRMR)	0.14	0.1	Fit
Incremental Fit Indices			
Normed Fit Index (NFI)	0,95	0 -1	Fit
Comparative Fit Index (CFI)		0.92	Fit
Parsimony Fit Index			
Adjusted Goodness of Fit Index (AGFI)	0.79	< GFI	Fit
Parsimony Goodness of Fit Index (PGFI)	0.71	0.6	Fit



*p<0.001; **p<0.05; ***p<0.10

FIGURE 2. Coefficient of research model

Based on theory, budget participation provides an opportunity for every employee who is involved in the budget preparation process (Brownell & McInnes 1986; Chong & Chong 2002). This is possible because participation is a means of communication for employees in the organization during the budget preparation process (Andersen 2001; Winata & Mia 2005).

The results of this study are slightly different from the results of previous studies (see Figure 2). In previous research, the researchers stated that participation has an influence on fairness, both distribution fairness and procedural fairness (Wentzel 2002; Maiga & Jacobs 2007), but in this study, participation only affects procedural fairness while distribution fairness has no effect.

The failure to participate in voicing out the distribution fairness in the budget process indicates that the involving budget makers fail to provide input in making decisions about the budget. This contradicts the opinion of Lau and Tan (2006) which states that participation represents involvement in the process thus involving them in the decision making process allows them to provide input. According to Argyris (1952), the cause of unsuccessful participation in enhancing functional behavior is due to participation is pseudo participation. Nevertheless this finding can be interpreted differently, because participation can still affect procedural fairness. The possibility of participation cannot affect distribution fairness because Aceh has a different political climate. Aceh has local political parties that can influence political policy in Aceh and have consequences on the budget. Pressure on the power of local political parties greatly affects the allocation of budget distribution. This is in contrast with previous studies who took the setting of private sector whereby within private sector, the aspect of budgeting such as arousal, direction, intensity, and effort persistence are not significantly influenced by external factors as otherwise found in the public sector. Meanwhile, if we relate the results of this study to the context of the Indonesian government as a whole, the results could be different because of the uniqueness of the Aceh province which is different from the situation in other provinces in Indonesia. Nevertheless by providing the evidence from the unique context of Aceh, this study contributes to the implementation of new public management in Indonesia in capturing the psychological patterns of apparatus participating in budgeting.

The results of this study support previous research which states that procedural fairness has an effect on trust as research conducted by (Hartmann & Slapničar 2009; Lau & Tan 2006; Lau et al. 2008; Lau & Sholihin 2005; Magner & Welker 1994; McFarlin & Sweeney 1992; Staley & Magner 2006). Which states that procedural fairness may be more important than distributive fairness in predicting the extent of the subordinates' trust in their superiors (Magner & Johnson 1995). If procedures are perceived as fair, employees will feel respected and valued by the organization and the enacting authority, and consequently will trust this authority and their long-term

relationship with him (Tyler & Lind 1992). findings show that trust can increase commitment (Locke et al. 1988; Maiga & Jacobs 2007). Trust describes the subordinates' belief in superiors. When employee trust is built, commitment is higher, because trust according to Bass (1985) can mobilize commitment.

This study also supports the results of previous studies which state that commitment to budgeting can improve performance (Chong & Eggleton 2007; Nouri & Parker 1996; Quirin et al. 2000; Subramaniam & Mia 2003). Furthermore, Chong & Eggleton (2007) subordinates who are strongly committed will give more effort in their work than subordinates with a lower level of commitment as described in the accounting or non-accounting literature.

MANAGERIAL IMPLICATION

The results of this empirical research can be used as a guide for policy makers in the budget preparation process of local governments especially regarding participation in budget preparation within the unique setting of Aceh Province. The results of this study indicate that participation in the budgeting process cannot play a strategic role in determining budget allocations which has an impact on non-compliance, inefficient and ineffective budgeting of local government as a major issue that occurs in the budgeting process in almost every region in Indonesia. These results can provide input for designing a less rigid participation roles in budgeting determination. Participation as described earlier is a management control tool that must be considered, so that the budget preparation of the local government can be met in accordance with the aspirations and needs of the community. Participation is a strategic plan that can affect the success of an organization. This result also suggests the importance of maintaining fairness in the management control system in the organization. Participation in the budgeting process makes members of the organization feel appreciated Lau and Tan (2006) the more people participate the higher the people's perception of justice. Many researchers of psychological aspects argue the absence of fairness in the work environment, thus increasing retaliation (Skarlicki & Folger 1997), and other negative employee behaviors Cropanzano et al. (2007). Although the research did not succeed in proving that participation has an effect on another aspect of a fairness that is fairness distribution, as a theoretical recommendation, yet the results of this research can be a warning to policy makers why this happens. Serious investigation into this needs to be continuously conducted as an effort to correct the policy. The further examination is even more needed considering the fact that Aceh province has a different political climate from other provinces in Indonesia due to the issue of allocation distribution.

CONCLUSION

This study was done to find out the influence of participation on managerial performance through the role of distributive fairness, procedural fairness, managerial trust and budget goals commitment. By using a sample of 347 persons responsible for compiling local government budgets in districts and cities in Aceh Province, Indonesia. it was found that participation had a positive relation to procedural fairness and managerial trust. The further result from this study indicates that managerial trust has an influence on the budget goals commitment which commitment can improve managerial performance. These study results are similar to results from other previous studies, particularly those done by Maiga and Jacobs (2007); Sholihin et al. (2011) and Wentzel (2002) which were done in different situations. These study results indicate that participation in budgeting influences procedural fairness and managerial trust similar to Maiga and Jacobs (2007) and Sholihin et al. (2011), but this study, did not prove that participation influences distribution fairness and managerial trust as the results of other previous research have done. These study results clearly show that managerial trust influences the commitment to budget objectives and that such commitment can improve managerial performance.

The practical usefulness of these study results can be used as a practical guide in the process of designing performance evaluation systems in which procedural fairness can be increased through participation in the process of budgeting and participation becomes a means in the process of increasing trust in management. If the trust in management increases then commitment becomes higher and this will positively influence the performance of management. The study results provide clear evidence that some psychological theories such as the theory of goal setting and trust can be proven to influence the attitudes and behavior of individuals within an organization. From the theoretical perspective, the results of this study capture that there are communication and other psychological aspects that are not well developed in the participation process hence the concepts that have been tested in the prior setting are not fully applicable to this research setting. Therefore it can be said that the results of this study enrich the applicability of theory in the context of the public sector, especially local government.

This study is subject to various limitations. First, the inherent limitations of survey research. In survey research using questionnaires, there are systematic biases such as the halo effect, social desirability bias and so on. Second, this study only investigates the consequences of budget participation and does not observe the

antecedents that have an effect on budget participation. By observing the antecedent variables of budgetary participation, it provides a more comprehensive solution related to the control process in budgeting. Another limitation of this study is that it was only conducted in Aceh Province. As previously explained, Aceh has the characteristics of a unique political situation so that the results of the research cannot be generalized to the conditions of Indonesia as a whole. Therefore, further research is suggested to look at some of the antecedent variables that cause the effectiveness of participation in budgeting and using other areas in Indonesia with different settings and with a bigger sample sizes so that the generalization process of the proposed concept can become more acceptable. Other theory may also be utilized to enrich the perspectives in the future research.

END NOTE

¹ Especially for Aceh, SKPD is called SKPK for Regency/City and SKPA for Provincial.

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Mirna Indriani (corresponding author)
Department of Accounting
Faculty of Economics and Business
Syiah Kuala University
23111 Banda Aceh, INDONESIA.
E-Mail: mirna_indriani@unsyiah.ac.id

Nadirsyah Nadirsyah
Department of Accounting
Faculty of Economics and Business
Syiah Kuala University
23111 Banda Aceh, INDONESIA.
E-Mail: nadirsyah@unsyiah.ac.id

Rulfah M Daud
Department of Accounting
Faculty of Economics and Business
Syiah Kuala University
23111 Banda Aceh, INDONESIA.
E-Mail: rulfahm.daud@unsyiah.ac.id

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