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The Role of Workplace Fairness and Information Sharing in a Budget Setting Process: An Empirical Study

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Abstract: The importance that workplace fairness and information sharing has on employees' performance has gained a significant attention from researchers and practitioners. However, no empirical evidence on the combined role of both workplace fairness and information sharing on employee performance has been found so far. Thus, the purpose of this study is to examine the effects of workplace fairness and information sharing on employees' performance in a budget setting. A set of direct and indirect hypotheses are tested using survey data collected from 108 sub-unit managers from various industries, randomly selected from Bursa Malaysia (the stock exchange of Malaysia). The findings indicate that both workplace fairness and information sharing are positively associated with improved employee performance in a participative budget setting. Furthermore, information sharing mediates the relationship between workplace fairness and employee performance. This suggests that when employees perceive the budgeting process as being fair, they would be more willing to share information, which will then lead to improved employee performance.

Key words: budget participation; distributive fairness; information sharing; performance; procedural fairness; workplace fairness

JEL classification: M10, M41

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Introduction

Workplace fairness refers to the employees' perceptions of fairness practices in organizations, based on their subjective judgment (Cropanzana et al. 2007). A number of prior studies provide empirical evidence on the role of workplace fairness in organizations, demonstrating that it enhances the cooperation and commitment of individuals to meet organizational goals (Wentzel 2002; and Maiga and Jacobs 2007), increases employee job involvement (Tang and Sarfield-Baldwin 1996) and develops greater employee satisfaction (Alexander and Ruderman 1987; and Folger and Konovsky 1989). Cropanzana et al. (2007) suggest that workplace justice (or fairness) brings everyone in the organization together and encourages them all to work effectively as a team. Furthermore, Cropanzana et al. assert that with workplace justice, employees are able to predict and control their preferred outcomes which they receive from their organizations.

The behavioral research literature suggests that maintaining workplace fairness through the employees' participation when setting a budget enables the employees to feel that management values their opinions and views, which results in more positive attitudes among the employees towards their organizational procedures and practices (Brownell 1982; Shields and Young 1993; Greenberg, Greenberg, and Nouri 1994; Shields and Shields 1998; and Hoque 2006). Similarly, Parker and Kyj (2006) highlight the importance of workplace fairness in influencing employees' behavior in the budgeting process. They suggested that fairness perceptions are important for improving information sharing when participating in setting a budget.

Information sharing refers to the exchange of information, ideas and strategies between subordinates and superiors during the budgeting process (Shields and Shields 1998; Chalos and Poon 2000; and Parker and Kyj 2006). Information can be shared through two streams of communication: the upward flow and the downward flow. The upward flow of communication facilitates the communication of job-relevant information from subordinates to superiors, while the downward flow relates to the interaction between superiors and their subordinates. While the subordinates reveal their operational needs to their superiors, the superiors' communications with their subordinates helps them to clarify their subordinates' organizational roles, duties and expected performance, which may increase their effectiveness (Parker and Kyj 2006).

In the management literature, Wentzel (2002), Maiga and Jacobs (2007) and Lau et al. (2008) provide empirical evidence on the role of fairness in organizations. While these studies offer a useful insight into the role of fairness in organizations, they lack empirical evidence as to the potential combined effect of workplace fairness and information sharing on performance.

Parker and Kyj (2006) suggest that the relationship between budget participation and information sharing would be stronger if fairness perceptions are considered. This view highlights the importance of workplace fairness in influencing employees' behavior in the budgeting process. However, the authors' literature review for the past decade revealed that this relationship has not been empirically tested thus far. Hence, this research is an attempt to test this suggestion, by proposing that

through participative budgeting, the perception of fairness can be improved and subsequently it encourages the sharing of information among employees. Furthermore, when the employees perceive the budgeting process as fair, it encourages the sharing of job-relevant information among the employees, which consequently is likely to increase their performance. Thus, the study attempts to fill this gap in the literature by examining the combined effect of workplace fairness and information sharing on employee performance.

We contribute to the behavioral management research literature by addressing the two interrelated issues in a participative budget setting. *First*, we examine the extent to which budget participation influences information sharing indirectly, via the employees' workplace fairness perceptions. *Second*, we examine the total causal effect of budget participation, workplace fairness, and information sharing on the employees' performance and compare which of these three predictors has an overall greater effect on employee performance. The prior studies cited above lack evidence on this important issue in organizations. Thus the purpose of this paper is to examine the extent to which the employees' perceive workplace fairness and whether this and information sharing influences their performance in a participative budget environment.

The remainder of this paper is organized as follows. In the next section, a review of the literature is presented, followed by the development of the hypotheses. Subsequent sections present the method employed, results, a discussion and the conclusion of the study.

Literature Review and Hypotheses Development

Workplace Fairness

Organizational justice or workplace fairness is investigated in various fields, including the legal, political and psychological ones (Lau and Lim 2002). It appears in the accounting control systems literature of the mid-1990s, where it examines the relationship between accounting controls and employees' behavior. Among the pioneers in this field are Lindquist (1995), Magner et al. (1995) and Libby (1999). Researchers have examined the effects of budget participation on workplace fairness dimensions, and the consequences for employee satisfaction (Lindquist 1995; and Lau et al. 2008), performance (Lindquist 1995; Libby 1999; Lau and Lim 2002; Wentzel 2002; and Byrne and Damon 2008), attitudes towards supervisors and organizations (Magner and Johnson 1995), trust (Lau and Tan 2006; Maiga and Jacobs 2007; Lau et al. 2008), goal and organizational commitment (Wentzel 2002; Maiga and Jacobs 2007;v and Lau et al. 2008), and job-related tensions (Lau and Tan 2006).

While there are studies that suggest three dimensions of workplace fairness (Skarlicki and Folger 1997; Cropanzana et al. 2007; and Byrne and Damon 2008), Colquitt (2001) alleged that "it is currently unclear whether organizational justice is best depicted by two or three factors" (p. 386). Moreover, Moorman (1991) claimed that interactional fairness is actually a subset of procedural fairness.

In addition, behavioral researchers focus their investigations on only one or two dimensions of workplace fairness, but use different combinations. For instance, Lau and Lim (2002), Lau and Sholihin (2005) and Lau and Tan (2006) examined only one dimension of workplace fairness: its procedural fairness. Lindquist (1995), Libby (2001), Wentzel (2002) and Maiga and Jacobs (2007) are concerned with only two dimensions: distributive and procedural fairness. On the other hand, Libby (1999) and Byrne and Damon (2008) focused their studies on procedural and informational fairness.

Based on the goal setting theory, performance is enhanced if the set goal is fair and reasonable (Latham and Locke, 1979; and Locke and Latham, 1984). The determination of a fair and reasonable goal can be realized in the budget participation's context through the involvement of managers in the budget setting process. This process enables the determination of a fair, attainable and reasonable budget from a fair process and procedure. Thus it is suggested that budget participation increases both types of fairness: the distributive and procedural fairness, which will enhance the managers' motivation and consequently increase their performance.

As such, this study is focusing on only two dimensions of workplace fairness: distributive fairness and procedural fairness, to examine thoroughly its and their impact on organizational attitudes and behavior.

In a participative budgeting situation, the perceptions of workplace fairness evolve from a process whereby employees have the opportunity to provide input for the determination of the final budget's targets by their superiors. However, due to the scarce economic resources that organizations always encounter, not all the requests and views of the employees can be fully met (Libby 1999). Thus, in the final budget set by the management, the recipients make judgments considering the fairness of: (a) the budget's target or the allocated budget; (b) the allocation process to determine those targets or allocated budget. These concepts of fairness are known respectively as *distributive* and *procedural* fairness.

Distributive Fairness

Distributive fairness refers to the perceived fairness of the assigned budget's targets or the budget that is allocated to the employees. It relates to the actual outcome employees receive (Gilliland 1993) and it "deals with the ends achieved (what the decisions are) or the content of fairness" (Tang and Sarfield-Baldwin 1996, p.25). Cropanzana et al. (2007) add that distributive fairness is concerned with the workplace, since in reality not every member of an organization is treated alike and a different treatment is received in terms of the distribution of the outcomes.

According to researchers in the fairness literature (e.g. Alexander and Ruderman 1987; Lindquist 1995; and Cropanzana et al. 2007), initially, the study of fairness are derived from the work of Adams (1966). For instance, Cropanzana et al. (2007) cite the work of Adams (1966) as "influential equity theory of distributive justice" (p. 37). Also citing Adams' work, Lindquist (1995) suggests that people are more concerned with the fairness of the outcomes, and not with the absolute level of the outcome, such as when individuals receive a pay rise that they deserve because of their contributions to the organization,

but not because of their connection with politicians or other powerful relatives or friends who can influence top management.

The equity theory concerns the equality of the ratio of output over input (Lindquist 1995; and Maiga and Jacobs 2007). According to Lindquist (1995), distributive fairness occurs if individuals perceive their output (such as compensation, money and comfort) to be balanced with their input (such as training and effort). In the application of the equity theory in budgeting practices, the output is viewed as the outcome or the final budget that is set by management, and the input refers to the effort or views contributed by the managers to the budgeting process. If what the employees offer is what the management decide, then the ratio is balanced, which builds a fair perception of distributive fairness (Maiga and Jacobs 2007); otherwise, the employees may become resentful.

Another theory that pertains to distributive fairness is the instrumental theory, often regarded as the self-interest model (Conlon 1993; Lindquist 1995; and Wentzel 2002). The theory suggests that if the opportunity given to employees to express their opinions is perceived as indicating that they can control the decision-making process, it increases the "probability of an equitable outcome" (Lindquist 1995, p.124). As such, the perceptions of distributive fairness are enhanced because of the likelihood of favorable outcomes increases.

Procedural Fairness

Procedural fairness is concerned with the perceived fairness of decision-making procedures. It refers to the perceived fairness of the means by which outcomes are allocated (Folger and Konovsky 1989; Wentzel 2002; and Cropanzana et al. 2007). According to Tang and Sarfield-Baldwin (1996, p.25), procedural justice deals with the "means used to achieve those ends (how decisions are made) or the process of fairness." Most researchers in the procedural fairness literature (e.g. Lindquist 1995; Lau and Tan 2006; and Byrne and Damon 2008) highlight the work of Thibaut and Walker (1975) as making a significant contribution to the study of process in the fairness literature. Procedural fairness influences the perception of the organization in which the employees work, as a whole. Perceptions of unfairness impair the employees' loyalty and they are then less likely to behave in the organization's best interests (Cropanzana et al. 2007).

Procedural fairness is often viewed as indicating a 'voice' in the budgetary process (Byrne and Damon 2008). Researchers acknowledge the need to have a voice in a budget's creation (Lindquist 1995; Magner et al. 1995; Libby 1999; and Byrne and Damon 2008). Voice is the involvement of subordinates who contribute their opinions during the budget making process. According to Lindquist (1995), the instrumental theory of procedural justice (Conlon 1993) suggests that if the individuals have the opportunity to express their opinions, they will perceive that they can control their outcomes. Voice is seen as fair because it gives employees the opportunity to influence outcomes or decision processes that affect them. With a voice in the budgeting process, subordinates can express their views and this enhances their satisfaction when performing their tasks, even if the budget is unattainable or unfair (Lindquist 1995).

According to the non-instrumental theory of procedural justice (Lindquist 1995; and Lau and Tan 2006), procedural justice is viewed as involving a group identification process (Conlon 1993). As such, voice is seen as important, regardless of whether it affects the outcome. Individuals value their membership of groups and they support fair treatment within the group (Conlon 1993). When they can express their opinions, they feel valued and appreciated (Lindquist 1995), which "contributes to one's long-term relationship with the group" (Wentzel 2002, p. 251).

The budget-fairness literature has suggested the importance of fairness considerations in the budgetary process (Fisher et al. 2002). The budget is one of the management's control systems to accomplish organizational goals. Thus, to encourage achievement of the budget, the employees' perceptions of it are one of the motivational factors that need to be addressed.

Budget Participation and Workplace Fairness

It is argued that when employees participate in the budgeting process, it provides a platform for them to contribute some input, effort and ability to the budget. This may include obtaining and contributing relevant information to increase the effectiveness of the budget. If the resulting budget is what the employees expect it to be, then distributive fairness exists; so the budget is perceived to be attainable and fair. In other words, through participation, the expectation that the budget will be fair and attainable may increase, thus enhancing the perception of distributive fairness.

Moreover, according to the instrumental theory (Conlon 1993), when employees or subordinates are given a chance to express their opinions, there is a good opportunity for them to influence the budget. When they have some influence over the budget, their perception of distributive fairness will increase. Thus, it is proposed that when participation in the budgeting process is allowed, employees can affect the decision process, so that they can achieve the targeted goal(s). The perception of distributive fairness should increase as the tendency to have a more favorable budget increases.

While the aim of distributive fairness is to ensure the achievement of an attainable budget, procedural fairness deals with the fairness of the procedures or processes applied to determine the final budget. Based on the procedural justice theory, participation enables subordinates to have both a voice and a vote, which makes them feel that the procedures are fair (Lindquist 1995). Further, when they have both a voice and a vote, they perceive that they have a high degree of process control in their budget (Lindquist 1995). Thus, it is suggested that when the degree of process control is increased, the perception of procedural fairness will also increase. An understanding of the way the budget is distributed is influenced by participating in the process. When employees participate, they gain some control over the process (Wentzel 2002). When employees have higher process control, their perception of procedural fairness is enhanced.

The literature suggests a positive impact of participation on both distributive and procedural fairness. For instance, the studies of Wentzel (2002) and Maiga and Jacobs (2007) provide empirical evidence of the effect of budget participation on both the dimensions of workplace fairness.

Thus, the preceding discussion leads us to develop the following hypotheses:

H1: Budget participation is positively related to distributive fairness.

H2: Budget participation is positively related to procedural fairness.

Workplace Fairness and Information Sharing

The goal setting theory works on the premise that the goals that are set serve as the objectives that individuals need to achieve (Locke and Latham 1984). Specific and challenging goals result in better performance than general and easier goals (Bryan and Locke, 1967; Locke and Bryan, 1968; and Locke and Latham, 1984). Further, the fair process and procedures applied in a workplace enable the creation of a fairer outcome, thereby increasing the fairness perception of its employees (Fisher et al. 2002; and Cropanzana et al. 2007).

Based on the goal setting theory, when employees view a budget as fair, they are likely to commit to the budget, as the level of goal acceptance is increased (Locke et al. 1988; and Tosi et al. 1991). Similarly, when a budget is viewed as fair, it serves as a motivational factor to encourage the sharing of information for the purpose of achieving that budget.

Previous studies show a meaningful organizational outcome appears with favorable employee perceptions of fairness. It encourages the subordinate–superior relationship in terms of increasing trust (Alexander and Ruderman 1987; Folger and Konovsky 1989; Lau and Tan 2006; Maiga and Jacobs 2007; and Lau et al. 2008) and a better relationship between the individual and the workplace itself, for instance through enhanced organizational commitment (Folger and Konovsky 1989; Wentzel 2002; and Maiga and Jacobs 2007). All these favorable effects of the fairness impression suggest that fairness perceptions may influence employees to behave in the workplace's best interests, such as in sharing private information which is related to their work. Fairness perceptions foster the exchange of information where employees can express job-related information regarding their work, since this is directly related to the operation of the business. Moreover, superiors are able to share the organizations goals and expectations with the employees and similarly the employees can obtain information regarding their tasks and responsibilities (Tang and Sarfield-Baldwin 1996). Thus, in this study, based on the positive influence that fairness could offer, it is proposed that workplace fairness plays a significant role in upward and downward information sharing among the employees. Hence, the following hypotheses are formulated:

H3: Distributive fairness is positively related to information sharing.

H4: Procedural fairness is positively related to information sharing.

Information Sharing and Employee Performance

The sharing of information among employees through budget participation allows employees to receive adequate budgetary resources to perform their jobs efficiently and in turn increase the employees' work performance (Nouri and Parker 1998). This is because subordinates hold more information regarding their jobs' requirement needs than their superiors do. In another flow, information sharing en-

ables the management to present a clearer picture of the objective and the direction of the organization to the employees. This will help the employees to achieve the set target and improve their performance. Thus, it is further suggested that information sharing and employee performance have a positive relationship. Hence, we hypotheses:

H5: Information sharing is positively related to employee performance.

The role of the perception of fairness as a mediating variable has been proven empirically. Workplace fairness plays its role in mediating the relationship between participative budgeting and performance (Wentzel 2002), participative budgeting and organizational commitment (Lau and Tan 2005) and participative budgeting and budgeting slack (Maiga and Jacobs 2007). Parker and Kyj (2006) also suggest that the relationship between budget participation and information sharing would be stronger if perceptions of fairness are considered. Moreover, since these fairness perceptions are the key determinants of employees' work related behavior (Lau and Oger 2012), including workplace fairness in the relationship may better explain the relationship between budget participation and information sharing. Hence, we test the following hypotheses:

H6: The relationship between budget participation and information sharing is mediated by workplace fairness perceptions (distributive and procedural).

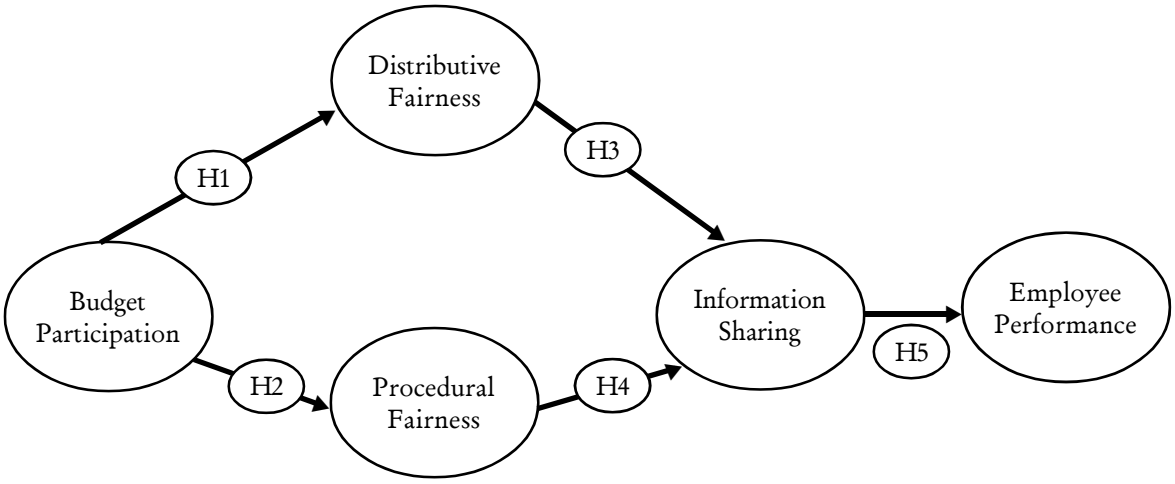
There are a number of studies that have examined the relationship between budget participation and managerial performance, however the findings are often mixed and conflicting (Derfuss 2016; Macinati et al. 2016; Brownell 1982; Brownell and McInnes 1986; Locke and Schweiger 1979; and Kenis 1979), suggesting the possibilities of an indirect relationship between participation and managerial performance (Hopwood 1976; Brownell 1982; Shields and Shields 1998; Jermias and Yigit 2013; and Lau et al. 2018).

Various studies have examined the mediating effect of attitude (Milani 1975), budget adequacy (Nouri and Parker 1998), goal and organizational commitment (Wentzel 2002; Maiga and Jacobs 2007; Nouri and Parker 1998; and Parker and Kyj 2006), fairness perception (Wentzel 2002), information sharing and role ambiguity (Parker and Kyj 2006) in the relationship between participation and performance.

Further, Wentzel (2002) proposed a model that examines the mediating effect of both fairness perceptions and goal commitment, and found that both the perceptions of fairness and goal commitment mediate the relationship between participation and performance. Lau and Tan (2005) also found that both fairness perceptions and job satisfaction play a role as mediating variables in the relationship between participation and organizational commitment. Maiga and Jacobs (2007) examine the mediating effect of workplace fairness, trust and goal commitment in the relationship between participation and budgeting slack. The results demonstrate that all the intervening variables mediate the relationship.

It is suggested that involving employees in the budgeting process enables their control and influence of the budget, thus increasing the workplace fairness perceptions. When employees believe the procedures and outcome of the budget are fair, they are more likely to share their private information (Parker et al. 2014) with their

Figure 1. **Research Framework**



superiors. These actions, in turn, increase the employees' performance.

Within the budgeting setting, fair and reasonable goals motivate employees to share information and consequently enhance the performance of the employees. As such it is expected that both workplace fairness and information sharing mediate the relationship between budget participation and employee performance.

H7: Workplace fairness and information sharing jointly mediate the relationship between budget participation and employee performance.

The purpose of this paper is to examine the extent to which employees' perceived workplace fairness and information sharing influences their performance in a participative budget environment. Based on the above discussion, the framework above has been developed, which *firstly* examines the extent to which budget participation indirectly influences information sharing via the employees' workplace fairness perceptions. *Secondly*, it examines the total causal effect of workplace fairness and information sharing in the relationship between budget participation and employee performance. Figure 1 presents the framework for this study.

Methods

The Sample

To test the hypotheses, a mail-out survey is carried out with a random sample of 300 Malaysian companies from the database of Bursa Malaysia (formerly known as the Kuala Lumpur Stock Exchange – KLSE). The unit of analysis is subunit managers who have budget responsibilities across various functional areas. The use of individual managers is consistent with the prior literature on participative budgeting, including the work of Brownell (1982), Nouri and Parker (1998), Vincent and Chong (2002), Parker and Kyj (2006) and Lau et al. (2008).

In all, 1,000 questionnaires were sent via postal services. Sixty-seven of the 1,000 questionnaires sent out in the first mailing

were returned and 41 were returned in the second mailing, resulting in 108 (10.8%) usable responses for data analysis. The existence of potential response bias was tested for using t-tests on two independent samples, as shown in Table 1. Except for information sharing, no significant differences ($p > 0.05$) in the mean scores are found in the two groups, suggesting the absence of any response bias.

The questionnaire's design is based on established measurements, developed by previous studies. Except for the employee performance variable, the responses for all the variables were based on a five-point Likert scale, scored from one (strongly disagree) to five (strongly agree). For employee performance, the response scale ranges from one (below average) to five (above average).

Measures

Budget Participation

Budget participation was measured by a six-item scale originally developed by Milani (1975) and subsequently used by several researchers (e.g. Brownell 1982; Brownell and Hirst 1986; Dunk 1989; Mia 1989; O'Connor 1995; Nouri and Parker 1998; Lau and Lim 2002; Wentzel 2002; Lau and Tan 2006; Parker and Kyj 2006; and Hoque and Brosnan 2012), with high Cronbach's alpha values ranging between 0.84 and 0.94, indicating the instrument's high internal reliability. According to Hoque and Brosnan (2012, p.136), "this seventies Milani perspective on participation is still valid today, as it captures important aspects of employee participation in organizational budgetary decisions."

Table 1. **Analysis of the Early and Late Responses**

	Early Responses (n=67)		Late Responses (n=41)		t	p
	Mean	Std. Deviation	Mean	Std. Deviation		
BP	3.5025	0.803	3.7276	0.842	-1.372	0.174
DF	3.4448	0.844	3.6341	0.823	-1.149	0.254
PF	3.4944	0.792	3.6433	0.646	-1.065	0.290
IS	3.6642	1.031	4.0732	0.618	-2.577	0.011
MPERF	3.7220	0.573	3.7317	0.586	-0.084	0.933

BP: Budget Participation; DF: Distributive Fairness; PF: Procedural Fairness; IS: Information Sharing; EMPERF: Employee Performance

This instrument measures the extent of the managers' involvement in setting the budget, superiors' explanations for any budget revisions, the frequency of budget discussions with superiors, the managers' influence on the final budget, the importance of the managers' contributions, and the superiors' initiatives for frequent budget discussion while preparing the budget.

Workplace Fairness

Workplace fairness is viewed in terms of both distributive fairness and procedural fairness. Distributive fairness relates to the fairness of the outcome of the allocated budget. This instrument was measured using Wentzel's (2002) five-item scale, originally developed from Greenberg (1993). Procedural fairness measures the fairness of the procedures employed to determine the budget's outcome. It is measured using an eight-item instrument previously used in Wentzel's (2002) study, where it was adapted from Magner and Johnson (1995) and Leventhal (1980).

Information Sharing

Information sharing is operationalized using a two-item scale previously developed by Parker and Kyj (2006). The instrument comprises of the extent to which subordinates share information with their superiors about their local conditions and the opportunities and problems facing the organization.

Employee Performance

Employee performance is measured using a self-rated, nine-item scale developed by Mahoney et al. (1965), which has been used in several prior studies (e.g. Brownell 1985; Brownell and McInnes 1986; Frucot and Shearon 1991; Gul and Chia 1994; Govindarajan 1986; Vincent and Chong 2002; and Lau and Lim 2002). This scale consists of eight performance dimensions: (1) planning, (2) investigating, (3) coordinating, (4) evaluating, (5) supervising, (6) staffing, (7) negotiating, (8) representing and also (9) a single overall performance rating. In order to validate the single overall rating of performance (item 9), Brownell (1985) and Brownell and Hirst (1986) suggested that the overall performance rating should be regressed on the eight performance dimensions (items 1-8). The regression should explain about 55 percent of the variance in the overall performance rating, while the remaining 45 percent is related to job-specific factors (Brownell and Hirst 1986; and Brownell 1985). This study successfully achieves a coefficient of determination (R^2) of 71 percent. However, for the purpose of data analysis, the hypotheses' tests are based on the eight performance dimensions.

Data Analysis and Results

Profile of the Respondents

Table 2 presents the profiles of the responding firms. As shown in Panel A of Table 2, the demographic data shows somewhat equal responses from male and female respondents. The average age of the respondents is 36 years and more than 80 percent of the respondents are educated at the tertiary level. Almost 50 percent of the respondents have at least 5 years work experience and the respondents are employed in several functional areas including finance, human resource, production, and marketing.

As can be seen from Table 2 (Panel B), the responses were obtained from a variety of manufacturing and services sec-

Table 2. **Profile of the Sample**

PANEL A: Demographic Profile of Respondents			
Demographic	**Category**	**Frequency**	**Percentage (%)**
Gender	Male	52	48.1
	Female	56	51.9
Age	Below 30	14	13.0
	31 to 40	54	50.0
	41 to 50	30	27.8
	51 and above	10	9.2
Education	Diploma	11	10.2
	Bachelor degree	62	57.4
	Master or above	18	16.7
	Professional	15	13.9
	Others	2	1.8
Work Experience	Below 5 years	58	53.7
	5 to 10 years	39	36.1
	Above 10 years	11	10.2
Department	Production	10	9.2
	Quality Assurance/Logistics	5	4.7
	Finance	46	42.6
	Selling/Marketing	9	8.3
	Human Resources/Administration	20	18.5
	Others	18	16.7
PANEL B: Demographic Profile of Firms			
Type of Industry	Manufacturing	52	48.1
	Service industry	56	51.9
Number of Employees	0 - 100	13	12.0
	101 - 250	25	23.1
	251 - 500	25	23.1
	Above 500	45	41.7
Total Assets	Less than RM25 million	9	8.3
	RM25 - RM50 million	25	23.1
	RM51- RM100 million	14	13.0
	Above RM100 million	60	55.6

tors. The manufacturing sector firms include those in the chemical, gas and petroleum industries, electrical and electronics, transport and automotive and food and beverage industries. The service sector firms include telecommunication, construction, plantation, and consumer goods. More than 50 percent of the firms have more than 250 employees, with total assets worth more than RM50 million (equivalent to US$16 million).

Descriptive Statistics

Table 3 presents the descriptive statistics of the research variables used in this study. The mean values show that the respondents' perceptions are moderately high for all the variables. The highest mean is recorded for information sharing and the lowest value is recorded for distributive fairness.

Measurement models, Reliability, and Validity

For hypothesis testing, the Partial Least Squares (PLS) technique, a component-based method of structural equation modelling, is used. PLS is chosen because it enables the simultaneous computation of all the paths, including the measurement and the structural model (Hsu et al. 2006).

Appendices 2 and 3 display the measurement models of the main variables. The measurement model of the data is assessed by examining its internal consistency reliability, convergent validity and discriminant validity (Henseler et al. 2009). Appendix 1 shows the loadings of individual items for the respective construct. It is evident that almost all the items are loaded more than 0.7. According to Hulland (1999), if an indicator's loading is less than 0.5, it should be omitted from the analysis.

Table 3. **Descriptive Statistics for Variables (N = 108)**

Variable	Mean	Median	Std. Deviation	Actual Range		Theoretical Range	
				Min	Max	Min	Max
BP	3.59	4	0.82	1.00	5.00	1	5
WF:							
DF	3.52	4	0.84	1.60	5.00	1	5
PF	3.55	4	0.74	1.50	5.00	1	5
Overall WF	3.54	4	0.72	1.69	5.00	1	5
IS	3.82	4	0.92	1.00	5.00	1	5
EMPERF	3.73	4	0.58	1.88	5.00	1	5

BP: Budget Participation; DF: Distributive Fairness; PF: Procedural Fairness; WF: Workplace Fairness; IS: Information Sharing; EMPERF: Employee Performance

The value of Cronbach's alpha (Appendix 3) also shows that all the constructs are satisfactorily reliable, with Cronbach's alpha being greater than 0.8. Similarly, by examining the composite reliability value, all the constructs are greater than 0.8, signifying that all the constructs have internal consistency reliability (Fornell and Larcker 1981). An examination of the Average Variance Extracted (AVE) (Appendix 2) further reveals that all the constructs satisfy the convergent validity requirement, with their values being above 0.5 (Fornell and Larcker 1981).

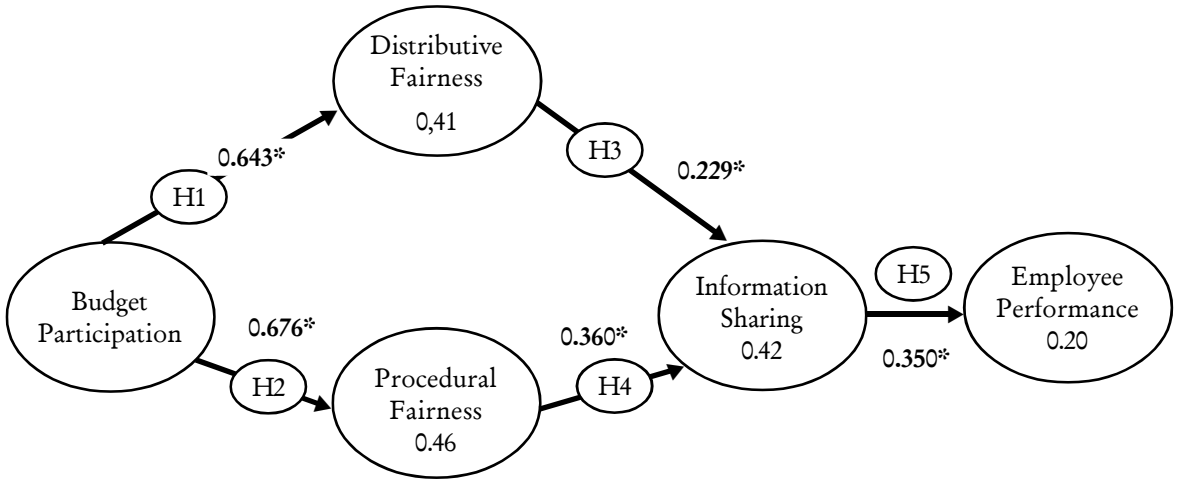
Regarding the discriminant validity, the loadings of each indicator onto their corresponding construct are higher than the cross-loading to other constructs, as shown in Appendix 3 (Chin 1998). Additionally, Appendix 3 also demonstrates that the square roots of the AVE are greater than the correlations among the different constructs, indicating that more variance is shared between each latent variable and its manifest variable than with the other latent variables in the same model (Fornell and Larcker 1981; and Chin 1998). Appendices 2 and 3 also indicate that all the constructs meet the requirements for internal reliability and validity.

We have also conducted a test to examine the common method variance, based on Harman's one-factor test. Common Method Variance (CMV) occurs when the responses are systematically distorted while using the common scaling approach for measuring variables used in a study, particularly those from a single data source (Fuller et al. 2016). The most popular post-hoc statistical technique used by business researchers to detect CMV is *Harman's one-factor test,* which indicates a problematic CMV if an Exploratory Factor Analysis (EFA) with all the study variables produces eigenvalues of the first factor for more than 50 percent of the variance among the variables (Podsakoff and Organ 1986). In this study, the first factor explains 38.73 percent of the total variance of 73.49 percent, which confirms no major issue of CMV exists in this study.

Main Effects Structural Model – Hypotheses Testing

The main effects of the PLS structural model are shown in Figure 2. The results show that budget participation explains 41 percent and 46 percent of the variance in distributive fairness and procedural fairness, respectively and is significantly related to both fairness perceptions with a path coefficient (b) of 0.643 ($p < 0.01$) for distributive fairness and b of 0.676 ($p < 0.01$) for procedural fairness. Both types of workplace fairness also have a positive direct relationship with information sharing, with $b = 0.229$ ($p < 0.01$) for the relationship between distributive fairness and information sharing, and $b = 0.360$ ($p < 0.01$) for the relationship between procedural fairness and information sharing. Information sharing also has a significant positive relationship with employee performance ($b = 0.350$; $p < 0.01$). More variances are explained by workplace fairness in information sharing (42%), compared with the explanation of employee performance (20%). Figure 2 shows support for H1, H2, H3, H4 and H5.

Figure 2. **PLS Model (Direct Effect)**



*significant at 0.01

Table 4. **PLS Regression Results: Direct, Indirect and Total Effects**

Independent Variable	Dependent Variable	Direct Effects	Indirect Effects	Total Effects
BP	DF	0.643**	-	0.643**
BP	PF	0.676**	-	0.676**
BP	IS	0.127	**0.390**	0.517**
BP	EMPERF	0.144	**0.181**	0.325**
DF	IS	0.229**	-	0.229*
PF	IS	0.360**	-	0.360**
IS	EMPERF	0.350**	-	0.350**

BP: Budget Participation; DF: Distributive Fairness; PF: Procedural Fairness; IS: Information Sharing; EMPERF: Employee Performance

** significant at 0.01

*significant at 0.05

Table 5. **Analysis of Indirect Effect among Variables**

Hypothesis	Variable Path	Path Coefficient	Indirect Effects
H6	BP-DF-IS	0.643 x 0.229	0.147
	BP-PF-IS	0.676 x 0.360	0.243
	Total Indirect Effect		**0.390**
H7	BP-IS-EMPERF	0.127 x 0.350	0.044
	BP-DF-IS-EMPERF	0.643 x 0.229 x 0.350	0.052
	BP-PF-IS-EMPERF	0.676 x 0.360 x 0.350	0.085
	Total Indirect Effect		**0.181**

Mediating Effects and Total Effects of Each Variable

As can be seen from the results presented in Table 4, the direct relationship between budget participation and employee performance is not significant (β = 0.144; $p > 0.1$); we also find no significant association between budget participation and information sharing (β = 0.127; $p > 0.1$). These results provide support for H6 and H7. We find a significant and positive association between budget participation and information sharing via both types of workplace fairness; distributive fairness (coefficient = 0.147, $p < 0.05$) and procedural fairness (coefficient = 0.243, $p < 0.01$) (Table 5). Table 4 also indicates that the total indirect effect between budget participation and information sharing is 0.390 out of the total effect of 0.517 ($p < 0.01$). The direct effect is only 0.127, thus providing support for H6. Our H7 is also supported by a significant and positive association between budget participation and employee performance via workplace fairness and information sharing (coefficient = 0.325, $p < 0.01$). Table 4 shows the indirect effect between budget participation and employee performance of 0.181 out of the total effect of 0.325 ($p < 0.01$), thus H7 gains support.

Discussion and Conclusions

This study provides empirical evidence of the significant positive effects of the relationship between budget participation and both distributive and procedural fairness. These results are consistent with previous studies that found a positive influence of budget participation on fairness perceptions (e.g. Wentzel 2002; and Lau and Sholihin 2005; Lau and Tan 2006; Maiga and Jacobs 2007; and Sholihin et al. 2011). Our study suggests that participating in setting a budget serves as one of the important modes that increase the fairness perceptions about managers in organizations. With the involvement of employees in preparing the budget, not only does the

perceived fairness of the budget's outcome increase, but the perceptions of the process and procedures used to determine the outcome are enhanced. This study also shows that, as a whole, both types of workplace fairness perceptions (distributive and procedural) have a significant positive relationship with information sharing. This suggests that employees' perceived fairness in the budget's outcome and in the procedures employed to determine the outcome directly affect their motivation to share their job-relevant information. The results also show the direct relationship between information sharing and the employees' performance. This suggests that when more information is shared within the participative budgeting setting, the subordinates are performing tasks based on the goals and direction of the top management, while the management will provide adequate budgetary support for the subordinates to accomplish their tasks. This consequently increases the employees' performance.

Thus far, no other study in the behavioral management field examines the relationship between both distributive and procedural fairness and information sharing within a single setting. Many empirical findings are reported about the effect of distributive fairness on employee satisfaction. Folger and Konovsky (1989) and Tang and Sarfield-Baldwin (1996) provide empirical evidence of the favorable effect of distributive fairness on pay and promotion satisfaction, and an effect is also reported on job satisfaction (Lau et al. 2008). A positive effect of procedural fairness is found on job involvement (Tang and Sarfield-Baldwin 1996), job tension (Lau and Tan 2006), trust (Lau et al. 2008), and goal commitment (Folger and Konovsky 1989; and Maiga and Jacobs 2007).

This study indicates that participation in the budget setting process increases employee perceptions of workplace fairness, in turn increasing the sharing of information among employees, and consequently increases their performance. We also suggest the importance of both distributive and procedural fairness, and information sharing. Both workplace fairness perceptions are important mediating variables in influencing the direct relationship between budget participation and information sharing. When employees participate in the preparation of the budget, they perceive the process and procedure used in determining the budget and the budgeted outcome as fair. This increases their willingness to share important information regarding their work. It shows the importance of the perception of workplace fairness in the organization. Furthermore, information sharing also plays a role as the mediating variable in the relationship between the perceptions of fairness and employees' performance. This study suggests that the perception of workplace fairness encourages the sharing of information among employees and improves their performance.

The findings of this research provide valuable practical implications to organizations. The findings suggest that organizations should ensure the process of budgeting involves the fair participation of employees. In this situation, they will have a greater tendency to share information, which will then lead to the improved performance of the employees. As a budget serves as part of the accounting control system in an organization, participating in the budgeting affairs may make the employ-

ees feel that they are appreciated (Lau and Tan 2006) and this can boost their self-esteem. Lindquist (1995) suggested that in order to introduce fairness into the budgetary process, high levels of participation are needed. The more individuals there are that participate in the budgetary process, the higher the level of workplace fairness is perceived to be.

When the perceptions of fairness are great, it influences the employees to behave in the workplace's best interests, such as in sharing their private information which relates to their work. The fairness of the budgeting system encourages revelations about the employees' areas of responsibility and information is shared among the employees, which benefits the workplace (Parker et al., 2014). Moreover, the willingness of the employees to exchange information, as a result of their positive fairness perceptions, may also increase the performance of the managers. Cropanzana et al. (2007) also added that organizational fairness affects everyone in the organization, as it encourages all the members to work effectively as a team. They claim that with fairness, the employees can predict and control the preferable outcomes received from the workplace, including fostering the sharing of information and consequently improving the employees' performance.

The results of this study however are subject to several limitations. Firstly, the relationship between budget participation and information sharing may be far more complex than the one investigated in this study. It is shown in this study that the moderate explanatory power of the independent variables in predicting the dependent variables is based on the coefficient of determination (R^2) figure. According to Chin (1998), the R^2 value provides the explanatory power of a structural model, which can be described as substantial, moderate or weak if the values show 0.67, 0.33 and 0.19 respectively. It may be due to the dependent variable, which may be explained by other variables that are not examined in this study. Secondly, in a cross-sectional survey, it usually does not provide evidence on the causal relationships between variables. For instance, this study has hypothesized that budget participation affects the workplace fairness perception. However, Lau and Lim (2002) argued that budget participation is affected by the workplace fairness perceptions. Thus, other methods of research may offer some explanations over the causal ordering of the variables.

Future research may address other dimensions of organizational fairness, such as interactional fairness. Previous studies, for instance those by Libby (1999) and Byrne and Damon (2008), have examined the influence of interactional fairness on performance. Thus, future research could consider this dimension of fairness, to observe whether the same prominent effect is demonstrated. Furthermore, to increase the explanatory power of the independent variables, other potential mediating variables such as psychological empowerment, organizational citizenship behavior, role clarity and role ambiguity may also be considered. This may give further insights that may increase the sharing of information among employees in a participative budgeting environment. Finally, the use of longitudinal analysis in future research may provide some views on the causal ordering issues. This may be helpful to systematically investigate the causal relationships examined in this study.

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APPENDIX 1

Survey Instrument

Budget Participation (1 = strongly disagree, 5 = strongly agree)

1. I am involved in setting my entire department's budget.
2. My superior clearly explains budget revisions /adjustments.
3. I have frequent budget-related discussions with my superior.
4. I have a great deal of influence on my department's final budget.
5. My contribution/inputs to the budget are very important.
6. My superior initiates frequent budget discussions when the budget is being prepared.

Distributive Fairness (1 = strongly disagree, 5 = strongly agree)

1. My area of responsibility received the budget that it deserved.
2. The budget allocated to my area of responsibility adequately reflects my needs.
3. My area of responsibility's budget was what I expected it to be.
4. I consider my area of responsibility's budget to be fair.
5. My supervisor expresses concern and sensitivity when discussing budget restrictions placed on my area of responsibility.

Procedural Fairness (1 = strongly disagree, 5 = strongly agree)

1. Budgeting procedures are applied consistently across all areas of responsibility.
2. Budgeting procedures are applied consistently across time.
3. Budgetary decisions for my area of responsibility are based on accurate information and well-informed opinions.
4. The current budgeting procedures contain provisions that allow me to appeal/negotiate the budget set for my area of responsibility.
5. The current budgeting procedures conform to my own standards of ethics and morality.
6. Budgetary decision makers try hard not to favour one area of responsibility over another.
7. The current budgeting procedures adequately represent the concerns of all the areas of responsibility.
8. Budgetary decision makers adequately explain how budget allocations for my area of responsibility are determined.

Information Sharing (1 = strongly disagree, 5 = strongly agree)

1. Through the budgeting process, I share my insights with my superior about the situation in my area of responsibility.
2. In the budgeting process, I communicate information to my superiors about opportunities and problems facing the organisation.

Employee Performance (1 = below average, 5 = above average)

1. Planning; 2. Investigating; 3. Coordinating; 4. Evaluating; 5. Supervising; 6. Staffing; 7. Negotiating; 8. Representing; 9. Your overall performance

APPENDIX 2

Factor Loadings from PLS Measurement Model

Variable	BP	DF	PF	IS	EMPERF
BP1	**0.774**	0.421	0.412	0.312	0.244
BP2	**0.820**	0.578	0.654	0.501	0.270
BP3	**0.784**	0.512	0.485	0.344	0.237
BP4	**0.779**	0.461	0.487	0.336	0.317
BP5	**0.819**	0.569	0.562	0.452	0.282
BP6	**0.637**	0.393	0.476	0.412	0.139
DF1	0.591	**0.881**	0.648	0.516	0.386
DF2	0.539	**0.878**	0.674	0.475	0.315
DF3	0.459	**0.896**	0.589	0.426	0.418
DF4	0.543	**0.883**	0.633	0.495	0.422
DF5	0.559	**0.677**	0.474	0.473	0.264
PF1	0.545	0.535	**0.742**	0.369	0.300
PF2	0.445	0.399	**0.637**	0.284	0.350
PF3	0.524	0.578	**0.807**	0.507	0.300
PF4	0.623	0.599	**0.788**	0.525	0.364
PF5	0.521	0.650	**0.784**	0.406	0.350
PF6	0.358	0.351	**0.649**	0.443	0.176
PF7	0.418	0.566	**0.765**	0.461	0.219
PF8	0.529	0.537	**0.747**	0.570	0.303
IS1	0.537	0.593	0.642	**0.973**	0.451
IS2	0.457	0.499	0.528	**0.960**	0.362
EMP1	0.172	0.291	0.223	0.279	**0.687**
EMP2	0.158	0.129	0.184	0.216	**0.626**
EMP3	0.246	0.343	0.275	0.336	**0.810**
EMP4	0.268	0.449	0.414	0.348	**0.763**
EMP5	0.274	0.309	0.265	0.305	**0.747**
EMP6	0.144	0.262	0.256	0.260	**0.749**
EMP7	0.288	0.345	0.311	0.343	**0.765**
EMP8	0.315	0.341	0.387	0.388	**0.797**

APPENDIX 3

Reliability, Average Variance Extrated (AVE) and Correlations

	AVE	Composite Reliability	Cronbach's Alpha	Correlations				
				BP	DF	PF	IS	EMPERF
BP	0.595	0.898	0.862	**0.771**				
DF	0.717	0.926	0.898	0.643	**0.847**			
PF	0.551	0.907	0.883	0.676	0.718	**0.742**		
IS	0.934	0.966	0.931	0.518	0.569	0.610	**0.966**	
EMPERF	0.555	0.908	0.885	0.325	0.428	0.400	0.424	**0.745**

Diagonal elements are the square roots of the AVE (bold).

BP: Budget Participation; DF: Distributive Fairness; PF: Procedural Fairness; IS: Information Sharing; EMPERF: Employee Performance