



Advances in Management Accounting

Procedural Justice and Information Sharing During the Budgeting Process

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Article information:

To cite this document: Robert J. Parker James M. Kohlmeyer III Sakthi Mahenthirian Terry Sincich . "Procedural Justice and Information Sharing During the Budgeting Process" *In Advances in Management Accounting*. Published online: 08 Oct 2014; 93-112.

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<http://dx.doi.org/10.1108/S1474-787120140000023003>

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PROCEDURAL JUSTICE AND INFORMATION SHARING DURING THE BUDGETING PROCESS

Robert J. Parker, James M. Kohlmeyer III,
Sakthi Mahenthirian and Terry Sincich

ABSTRACT

Purpose – Prior studies in accounting argue that subordinates have private information about their areas of responsibility and that revelation of such information benefits the organization. This study investigates factors that encourage subordinates to share this information with their superiors during the budgeting process. According to the proposed theory, the fairness of the budgeting system, specifically its procedural justice, influences the degree of information sharing. If the subordinate believes that budgeting procedures are fair, the subordinate is more likely to disclose private information during the budgeting process.

Design/methodology/approach – We conduct an anonymous survey of supervisors and managers in four companies. Regression model is developed with information sharing as the dependent variable. Independent variables include procedural justice of budgeting system and also budget participation and organizational commitment, variables that prior studies have identified as important in information sharing.

Findings – *Results support the proposed model in general. The three independent variables (procedural justice, budget participation, commitment) interact in their effect on information sharing.*

Research limitations/implications – *Results suggest that companies that seek the private information of subordinates should consider the fairness of the budgeting system. Fair procedures encourage information exchange.*

Keywords: Budgeting; information sharing; procedural justice

INTRODUCTION

This study focuses on information sharing by subordinates in the budgeting process. Many studies in the accounting literature, drawing upon the principal–agency theory in economics, assume that subordinates know more about their area of responsibility than do their superiors, i.e., the subordinate has “private” information (e.g., Baiman & Evans, 1983; Brown, Evans, & Moser, 2009; Bushman, Indjejikian, & Penno, 2000; Chow, Cooper, & Waller, 1988; Christensen, 1982; Magee, 1980; Nouri & Parker, 1998; Penno, 1984; Shields & Young, 1993; Waller, 1988; Young, 1985). Participation in the budgeting process provides subordinates the opportunity to reveal their private information and such disclosure has beneficial consequences such as: higher quality budgets that more accurately represent likely future conditions (Magner, Welker, & Campbell, 1996); better resource allocation within the firm (Shields & Young, 1993); better coordination between managers (Kanodia, 1993); and higher job performance (Parker & Kyj, 2006).

While most accounting studies in this area have focused on the role of budget participation, Parker and Kyj (2006) argue that other variables, from the organizational behavior literature, also may contribute to understanding why and when subordinates reveal their private information during the budgeting process. They report evidence that both budget participation and organizational commitment are linked to information sharing. Individuals with high organizational commitment, those who want the organization to succeed, reveal more private information than those with low commitment.

The current study extends this stream of research model by examining not only budget participation and commitment but also, based upon

organizational justice studies, the procedural justice of the budgeting system. Accordingly, subordinates who believe that the budgeting system has fair procedures are more likely to disclose their private information during the budgeting process. Subordinates who believe that the budgeting process is unfair are less likely to disclose.

To summarize the proposed model, in the budgeting process, three variables influence information sharing by the subordinate: budget participation of subordinate; organizational commitment of subordinate; and the subordinate's perceptions of the procedural justice of the budgeting system. To examine these relations, a survey of managers and supervisors in several firms was conducted. The results of hierarchical regression suggest that both budget participation and the procedural justice of the budgeting system directly influence information sharing. Results also suggest that organizational commitment interacts with budget participation and procedural justice in its effect on information sharing.

THEORY DEVELOPMENT

Organizational justice involves the perceptions of organizational members regarding the fairness of organizational decisions. A long stream of research in applied psychology and management has examined organizational justice and its impact on employee attitudes and behaviors (see meta-analyses by: Cohen-Charesh & Spector, 2001; Colquitt, Conlon, Wesson, Porter, & Ng, 2001). Among the different types of justice, procedural justice is the most relevant in the current study. As defined in Folger and Greenberg (1985), procedural justice is "the perceived fairness of the procedures used in decision making" (p. 143). Researchers of this concept have focused on organizational decisions that involve the allocation of organizational resources such as determining pay raises. Leventhal (1980), in a seminal study, identified six "fairness rules" that individuals use in assessing the fairness of the allocation process: (1) decisions should be consistent across persons and time; (2) decision-makers should be unbiased; (3) decisions should be based upon accurate information; (4) decisions should be correctible with a right of appeal; (5) the decision process should be representative meaning that the opinions of all groups affected by the decision are acknowledged; (6) decisions should conform to the prevailing ethical standards within the organization.

A large body of studies report significant links between procedural justice and a number of positive employee outcomes such as high organizational commitment, job satisfaction, trust, job performance, and low turnover (see meta-analyses: by Cohen-Charesh & Spector, 2001; Colquitt et al., 2001). While the evidence that procedural justice is associated with employee outcomes appears incontrovertible, how procedural justice influences employees has been debated. Two explanations have appeared in the literature (see Colquitt & Greenberg, 2003 for an overview of the debate). The instrumental model proposes that individuals seek procedural justice to protect their self-interest in decision outcomes. The relational model proposes that work represents an important social group for the individual and that fair treatment of the individual signals that the individual is a valued member of the group.

In a paper that is particularly relevant to the current study, Kim and Mauborgne (1998) investigate how procedural justice influences information sharing by senior managers in planning company strategy. Based upon their interviews with senior managers, they report that when managers believe that the procedures of the planning process are fair, managers are more willing to share their personal knowledge and ideas regarding strategy. Kim and Mauborgne (1998) argue that neither the instrumental nor the relational models fully explain the motivation of managers to share information. An important factor that influences managers is emotional and intellectual recognition. Accordingly, managers “seek recognition of their value not as ‘labor’, ‘personnel’, or ‘human resources’, but as human beings who are treated with full respect and dignity and appreciated for their individual worth” (Kim & Mauborgne, 1998, p. 333). Fair procedures in the strategic decision-making process signal respect for the manager and motivate the manager to share personal insights with the company. Conversely, unfair procedures signal disrespect and discourage information sharing.

Akgun, Keskin, and Byrne (2010) propose that the theoretical arguments of Kim and Mauborgne (1998) are relevant to new product development teams. Accordingly, when the procedural justice climate of the team is high, this conveys recognition of individual value; in such cases, team members are more likely to share information (Akgun et al., 2010).

Extending Kim and Mauborgne (1998), the current study proposes that the procedural justice (i.e., fairness) of the budgeting system influences information sharing by subordinates during the budgeting process. The procedural justice of the budgeting system involves employee perceptions of the fairness of how budget decisions are made (Magner & Johnson, 1995;

Staley, Dastoor, Magner, & Stolp, 2003; Wentzel, 2002). As argued in prior studies (Magner & Johnson, 1995; Wentzel, 2002), employees use Leventhal's (1980) criteria to assess budgetary fairness. For example, are budget decisions consistent across individuals and time? Does favoritism seem to occur? The current study proposes that when managers believe that budgeting procedures are fair, they will believe that their rights and interests are protected in budgeting decisions; consequently, they are more likely to share their private information in the budget process. Conversely, when the budgeting system is unfair, managers feel disrespected and are inclined not to share information. The following hypothesis summarizes the argument:

H1. Procedural justice of budgeting system and information sharing (during the budget process) have a positive relation.

Prior research has identified other factors that may influence information sharing by subordinates in the budgeting process. Budget participation involves the extent to which the individual is involved in setting the budget for the individual's area of responsibility (Brownell, 1982). As noted in Milani (1975) and Parker and Kyj (2006), with high participation, superior and subordinate interact frequently in the budgeting process. This provides the subordinate with greater opportunities to disclose private information (Parker & Kyj, 2006). The related hypothesis appears below:

H2. Budget participation and information sharing (during the budget process) have a positive relation.

Prior research also has identified a link between organizational commitment and information sharing. Attitudinal organizational commitment is "the strength of an employee's emotional attachment to an organisation and acceptance of the organisation's goals and values" (Brett, Cron, & Slocum, 1995, p. 263). As Parker and Kyj (2006) argue, prior research suggests that individuals with high commitment want the organization to succeed even if the individual does not directly benefit from the success. Highly committed managers may share their private information in the budgeting process so that the organization benefits. Parker and Kyj (2006) report evidence that high commitment is associated with information sharing. The related hypothesis appears below:

H3. Organizational commitment and information sharing (during the budget process) have a positive relation.

RESEARCH METHOD

Sample Selection

The authors asked the Deans of their business schools to identify firms with strong school affiliations that might be willing to participate in a survey. Four companies were identified including a utility, a manufacturer of lift trucks, and two pharmaceutical companies. The firms are located in United States. Executives at the four companies were informed of the research objectives and given a sample questionnaire. They were asked to distribute the surveys to supervisors and managers with budget responsibilities. There were 103 surveys distributed within the companies. Of these, 77 were completed for a response rate of 75% (77/103). Regarding the respondents, the median age is 51 years and, on average, the respondent has 19 employees below them in the organizational hierarchy. The survey was anonymous. Respondents were instructed not to identify themselves and to mail the completed surveys directly to the researchers using the envelopes provided to them.

Measures

There are four variables in the study: budget participation, procedural justice of budgeting system, organizational commitment, and the dependent variable, information sharing during the budgeting process. Measures for the variables appear in [Appendix A](#). For budget participation, the six-item scale developed by [Milani \(1975\)](#) was used. This measure assesses the involvement and influence that an employee has in the budgeting process. Responses range from one (very little) to seven (very much). Accounting studies that report satisfactory reliability and/or validity for this scale include: [Agbejule and Saarikoski \(2006\)](#), [Brownell and Hirst \(1986\)](#), [Chong and Johnson \(2007\)](#), [Lau and Buckland \(2000\)](#), [Lau and Eggleton \(2003\)](#), [Lau and Lim \(2002\)](#), [Mia \(1988\)](#), [Nouri and Parker \(1998\)](#), and [Wentzel \(2002\)](#).

The remaining measures in the study (procedural justice, organizational commitment, and information sharing) use a seven-point response scale that ranges from one (strongly disagree) to seven (strongly agree). The procedural justice of the budgetary system was measured using an eight-item scale that examines employee perceptions of the fairness of budgeting procedures. [Magner and Johnson \(1995\)](#) initially developed the measure which [Wentzel \(2002\)](#) subsequently modified. [Wentzel \(2002\)](#) reports satisfactory

reliability and construct validity for it. To measure organizational commitment, the current study used a six-item scale from Meyer, Allen, and Smith (1993). Prior studies that report strong reliability and construct validity for this measure include: Allen and Meyer (1990), Allen and Meyer (1996), Dunham, Grube, and Castaneda (1994), and Hackett, Bycio, and Hausdorf (1994). To measure information sharing during budgeting, the current study uses a five-item scale that asks subordinates about the extent to which they share their insights about their responsibility area with superiors during the budgeting process. A shortened version of the scale (two items) was reported in Parker and Kyj (2006) who report satisfactory reliability and construct validity for it.

To examine the construct validity of the measures, factor analysis was performed using the principal factor method followed by an oblique rotation. Several items on the scales cross-loaded as their standardized factor loadings exceeded 0.40 for more than one factor. These items were deleted in the study. (None of the items for information sharing, the dependent variable in the model, cross-loaded.) The items for the revised measures load on the appropriate factors (see Appendix B) and the Cronbach alpha for each revised measure exceeds 0.70 (see Table 1).

RESULTS

Descriptive statistics for the measures appear in Table 1 while correlations appear in Table 2. To examine the hypotheses and test for potential interactions, we use a hierarchical regression approach. Two models are examined: Model 1 which includes the proposed predictor variables and no interactions; Model 2 which includes the proposed predictor variables and all possible interactions between them. In Model 1, information sharing

Table 1. Descriptive Statistics.

	Mean	SD	Observed Range	Theoretical Range	Cronbach Alpha
Procedural justice of budgeting	29.883	7.605	10–42	6–42	0.92
Budget participation	19.013	4.517	8–27	4–28	0.81
Organizational commitment	22.779	3.831	11–28	4–28	0.71
Information sharing during budgeting	28.026	4.718	12–35	5–35	0.90

during budgeting (IS) is regressed on the three hypothesized predictor variables: procedural justice of budgeting (PJB, H1); budget participation (BP, H2); and organizational commitment (OC, H3). **Model 1** assumes that the effect of each predictor variable on information sharing is independent of the other predictor variables, i.e., the predictor variables do not interact.

$$IS = \beta_0 + \beta_1 (PJB) + \beta_2 (BP) + \beta_3 (OC) + \varepsilon \quad (\text{Model 1})$$

The results for **Model 1** appear in **Table 3**. The *F*-test for overall model adequacy is statistically significant ($p < 0.001$) and, as the adjusted R^2 indicates, the model explains 49% of the sample variation in the dependent variable. As the table shows, the proposed relation between procedural

Table 2. Correlations.

	PJB	BP	OC	ISB
Procedural justice of budgeting (PJB)	1.00			
Budget participation (BP)	0.49	1.00		
Organizational ommitment (OC)	0.53	0.32	1.00	
Information sharing during budgeting (IS)	0.60	0.63	0.38	1.00

Pearson correlation coefficients.

All coefficients have a *p*-value of less than 0.01.

Table 3. Hierarchical Regression Results.

Variable	Model 1		Model 2	
	β	<i>p</i> -value	β	<i>p</i> -value
Intercept	11.13	0.001	149.11	0.001
Procedural justice of budgeting (PJB)	0.22	0.001	-4.20	0.001
Budget participation (BP)	0.46	0.001	-6.81	0.001
Organizational commitment (OC)	0.07	0.558	-6.82	0.001
PJB*BP			0.22	0.001
PJB*OC			0.22	0.001
BP*OC			0.37	0.001
PJB*BP*OC			-0.01	0.001
Global <i>F</i>	25.40	($p < 0.001$)	22.02	($p < 0.001$)
Adjusted R^2	0.49		0.66	

*The regression coefficient values are not standardized.

justice and information sharing (H1) is supported ($b_1 = 0.22, p = 0.001$) as is the hypothesized relation between budget participation and information sharing (H2, $b_2 = 0.46, p = 0.001$). Results do not support H3 which theorizes a relation between organizational commitment and information sharing ($b_3 = 0.07, p = 0.558$).

In **Model 2**, information sharing during budgeting (IS) is regressed on the three predictor variables (PJB, BP, OC) and all possible interactions between them; hence, **Model 2** is a moderated regression model:

$$\begin{aligned} \text{IS} = & \beta_0 + \beta_1(\text{PJB}) + \beta_2(\text{BP}) + \beta_3(\text{OC}) + \beta_4(\text{PJB}*\text{BP}) + \beta_5(\text{PJB}*\text{OC}) \\ & + \beta_6(\text{BP}*\text{OC}) + \beta_7(\text{PJB}*\text{BP}*\text{OC}) + \varepsilon \end{aligned} \quad (\text{Model 2})$$

The results for **Model 2** appear in **Table 3**. The *F*-test for overall model adequacy is statistically significant ($p < 0.001$). As the adjusted R^2 shows, the model explains 66% of the sample variation in the dependent variable, which represents a 17% increase over **Model 1**. As **Models 1** and **2** are nested, the increase in the R^2 values can be assessed using partial *F*-test. The *p*-value for this test (not shown in **Table 3**) is less than 0.001 which suggests that the increase in R^2 is significant; thus **Model 2** fits the data better than **Model 1**.

As **Table 3** indicates, the three-way interaction (PJB*BP*OC) in **Model 2** is significant ($p = 0.001$). This result suggests that the effect of each predictor variable on information sharing is moderated by both of the other predictor variables. For example, the effect of procedural justice on information sharing depends upon the values of both budget participation and organizational commitment. Likewise, the effect of budget participation on information sharing is conditional upon the values for both procedural justice and organizational commitment. Finally, the effect of organizational commitment on information sharing depends upon the values for both procedural justice and budget participation.

To gain insight into the moderated relations, the effect of each predictor variable on information sharing is examined while holding the other predictor variables constant at a meaningful value such as their mean.¹ To examine the effect of procedural justice on information sharing, while holding budget participation and organizational commitment constant at their mean, we first estimate the coefficient values in **Model 2** using the sample data. Then we substitute the mean values for budget participation (19, rounded) and organizational commitment (23, rounded) into **Model 2**:

$$IS = \beta_0 + \beta_1(PJB) + \beta_2(19) + \beta_3(23) + \beta_4(PJB*19) + \beta_5(PJB*23) + \beta_6(19*23) + \beta_7(PJB*19*23) + \varepsilon$$

Re-arranging and simplifying terms yields the following straight-line equation relating IS to PJB:

$$IS = [\beta_0 + \beta_2(19) + \beta_3(23) + \beta_6(437)] + [\beta_1 + \beta_4(19) + \beta_5(23) + \beta_7(437)]*(PJB) + \varepsilon$$

The slope of the line, $[\beta_1 + \beta_4(19) + \beta_5(23) + \beta_7(437)]$, represents the change in information sharing associated with a one unit increase in procedural justice. As Table 4(a) shows, the estimated slope is 0.18 ($p = 0.002$) which suggests that a one unit increase in the procedural justice measure

Table 4. Effects of Predictor Variables on Information Sharing.

Budget Participation (BP)	Organizational Commitment (OC)	Estimated Slope	p-Value for Positive Slope
(a) Effects of Procedural Justice of Budgeting System on Information Sharing			
Mean (19)	Mean (23)	0.18	0.0020
High (24)	High (27)	-0.20	>0.10
High (24)	Low (19)	0.20	0.0497
Low (15)	High (27)	0.52	0.0001
Low (15)	Low (19)	0.11	0.0534
Organizational Commitment (OC)	Procedural Justice (PJB)	Estimated Slope	p-Value for Positive Slope
(b) Effects of Budget Participation on Information Sharing			
Mean (23)	Mean (30)	0.57	0.0001
High (27)	High (38)	0.05	>0.10
High (27)	Low (22)	0.1.33	0.0001
Low (19)	High (38)	0.52	0.0067
Low (19)	Low (22)	0.37	0.0010
Budget Participation (BP)	Procedural Justice (PJB)	Estimated Slope	p-Value for Positive Slope
(c) Effects of Organizational Commitment on Information Sharing			
Mean (19)	Mean (30)	0.33	0.0017
High (24)	High (38)	0.08	>0.10
High (24)	Low (22)	0.88	0.0004
Low (15)	High (38)	0.62	0.0011
Low (15)	Low (22)	-0.20	>0.10

corresponds to a 0.18 unit increase in the information sharing measure (while holding budget participation and organizational commitment at their means).

The effect of procedural justice on information sharing also can be examined at high and low levels of budget participation and organizational commitment. We follow a traditional approach and define high/low values for the moderators (budget participation and organizational commitment) as one standard deviation above/below their mean. Table 4(a) reveals the association between procedural justice and information sharing for various combinations of high/low moderator values. Procedural justice has a positive and significant effect ($p < 0.05$) on information sharing in all cases but two. With regard to the exceptions, when both budget participation and organizational commitment are low, the relation between procedural justice and information sharing is marginally significant (slope = 0.11, $p = 0.053$). Also, with regard to the exceptions, when budget participation and organizational justice are both high, the association between procedural justice and information sharing is not significant ($p > 0.10$). This may reflect a ceiling effect for increases in information sharing as both high budget participation and high organization commitment are associated with high information sharing; in this situation, increasing procedural justice may not increase information sharing any further.

Fig. 1 graphically illustrates the relation between procedural justice and information sharing at different levels of the moderators (budget participation and organizational commitment). In the plot of procedural justice and information sharing, the slopes of the lines are positive except for HH (high BP, high OC) which has a negative slope. (This negative slope is not statistically significant). All positive slopes are significant ($p < 0.05$) except the slope for LL (low BP, low OC) which is marginally significant ($p = 0.053$).

A similar approach is used to examine the effect of budget participation on information sharing at different levels of the moderators (procedural justice and organizational commitment). The association between budget participation and information sharing is positive and significant ($p < 0.01$) in every case with one exception (see Table 4(b)). Regarding the exception, when both procedural justice and organizational commitment are high, the association of budget participation with information sharing is not significant. Again, this result may reflect a ceiling effect for increases in information sharing as high procedural justice and high commitment are associated with high information sharing; increasing budget participation may not lead to more information sharing. Fig. 2 illustrates the results.

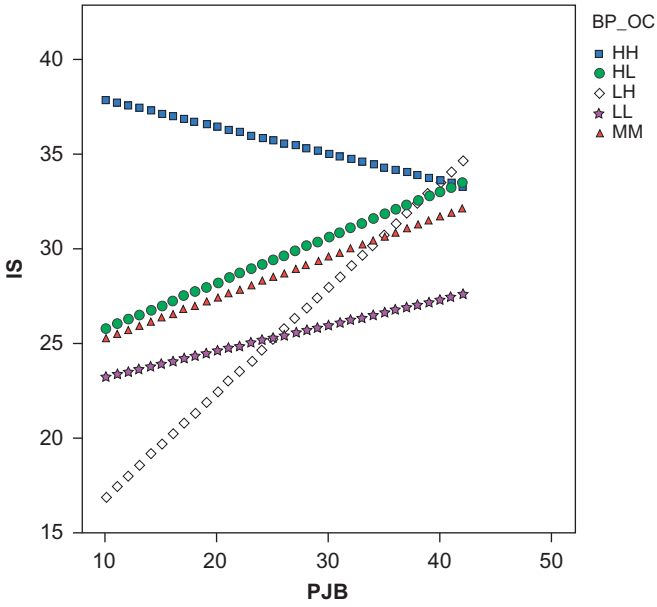


Fig. 1. Effect of Procedural Justice (PJB) on Information Sharing.

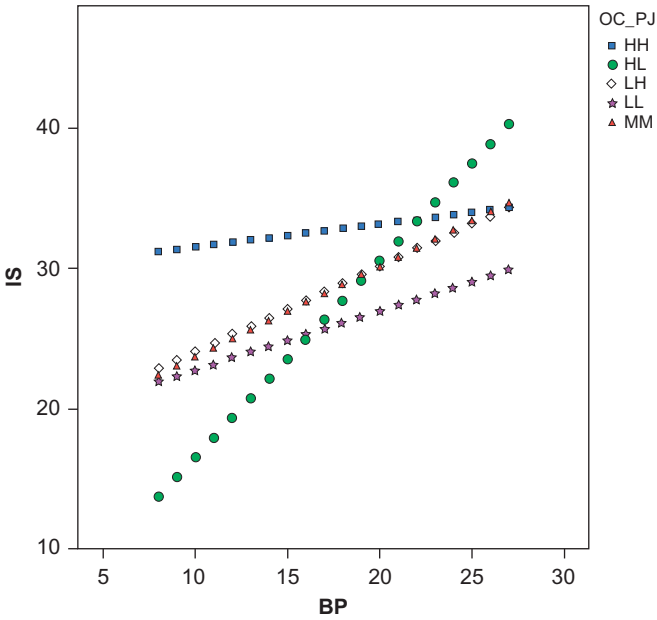


Fig. 2. Effect of Budget Participation (BP) on Information Sharing.

Lastly, Table 4(c) shows the analysis of the relation between organizational commitment and information sharing. The effect of organizational commitment on information sharing is positive and significant ($p < 0.01$) except in two cases: high budget participation/high procedural justice; low budget participation/low procedural justice. Fig. 3 illustrates these results.

In summary, the results of the moderated regression support the hypotheses which propose that each predictor variable (PJB, BP, OC) has a positive effect on information sharing; however, there is a caveat as the effects are moderated to some extent. As Table 4 shows, the statistical significance of the relation between each predictor variable and information sharing is dependent upon the values of the other predictor variables.

Perhaps the most important moderation is the ceiling effect that occurs when two of the three predictor variables have high values. In this case, an increase in the remaining predictor variable is not associated with higher information sharing.

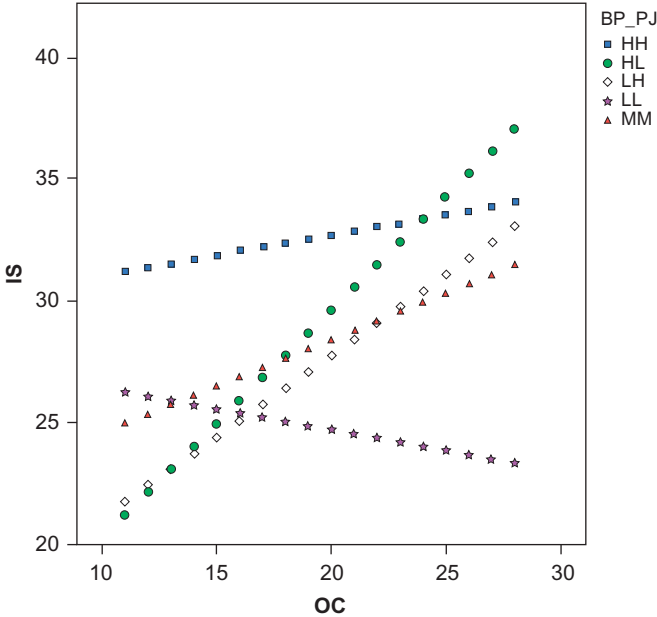


Fig. 3. Effect of Organizational Commitment (OC) on Information Sharing.

DISCUSSION

This study examines the disclosure of private information by subordinates during the budgeting process. Prior accounting research has noted the importance of such disclosure as it is theorized to provide benefits such as: better resource allocation within the firm; better coordination between managers; higher quality budgets; and higher job performance (e.g., Kanodia, 1993; Magner et al., 1996; Parker & Kyj, 2006; Shields & Young, 1993).

Results of the current study suggest that, in the budgeting process, information sharing by subordinates is influenced by: budget participation; organizational commitment; and beliefs about the procedural justice of the budgeting system. Regarding participation, results suggest that the higher the participation, the greater the disclosure of private information. This finding is congruent with Parker and Kyj (2006). Regarding organizational commitment, the results are more complex. The effect of commitment on information sharing is dependent upon budget participation and procedural justice. Parker and Kyj (2006) report a direct relation between commitment and information sharing; however, as their study did not include procedural justice, they could not assess the interactions examined in the current study.

Results in the current study also suggest that the procedural justice of the budgeting system influences information sharing. Subordinates who believe that the budgeting process is fair are more willing to share their private information. As theorized in the current paper, a fair process signals respect for the rights and interests of the employee which encourage openness regarding information sharing. An unfair process, such as a process with favoritism, de-motives employees to share information.

The results involving budgeting fairness suggest that organizations should review their budgeting process to determine employee perceptions about the fairness of the process. For example, do employees believe that budgeting procedures are consistent over time and across budget units? Do organizational decision-makers explain budget allocations to the satisfaction of the employees? Favorable answers to these questions may lead to the disclosure of private information held by subordinates which, in turn, may lead to positive consequences for the organization and the individual.

The current study is subject to the limitations of cross-sectional survey research. Causal direction between variables cannot be proved. Important omitted variables may exist. Results may be sample-specific.

NOTE

1. For a more detailed explanation of this approach, see Mendenhall and Sincich (2012, Chapters 4 and 5) or Hayes (2005, Chapter 16).

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APPENDIX A: SURVEY QUESTIONS

Budget Participation (BP)

1. The importance of your contribution to the budget.
2. The frequency of budget related discussions initiated by your superior when budgets are being set.*
3. The amount of influence you feel you have on the final budget.
4. The frequency of budget related discussions with superiors initiated by you.
5. The portion of the budget you are involved in setting.
6. The amount of reasoning provided to you by a superior when the budget is revised.*

Procedural Justice of Budgeting (PJB)

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

Organizational Commitment (OC)

1. I feel a strong sense of belonging to my organization.*
2. This organization has a great deal of personal meaning for me.*
3. I really feel as if this organization's problems are my own.

4. I feel emotionally attached to this organization.
5. I would be happy to spend the rest of my career with this organization.
6. I do not feel like “part of the family” at this organization (reverse wording)

*Deleted from study as factor analysis indicates cross-loadings (using criterion of 0.40).

Information Sharing During Budgeting (ISB)

1. During the budgeting process, I disclose my personal insights to my superiors about opportunities and problems in my area of responsibility.
2. In the budgeting process, I communicate information to my superiors about opportunities and problems facing the organization.
3. The budget process enables me to communicate information to my superiors about the opportunities and challenges in my area of responsibility.
4. Through the budgeting process, I share my insights with superiors about the situation in my area of responsibility.
5. I use the budgeting process to share my knowledge about my area of responsibility with my superiors.

APPENDIX B: STANDARDIZED FACTOR LOADINGS

Variable	Standardized Loadings
<i>Procedural Justice of Budgeting</i>	
PJB1	0.67
PJB2	0.89
PJB3	0.89
PJB4	0.74
PJB5	0.84
PJB6	0.71
<i>Budget Participation</i>	
BP1	0.77
BP3	0.71
BP4	0.42
BP5	0.91
<i>Organizational Commitment</i>	
OC3	0.68
OC4	0.80
OC5	0.48
OC6	0.77
<i>Information Sharing during Budgeting</i>	
ISB1	0.80
ISB2	0.82
ISB3	0.94
ISB4	0.81
ISB5	0.56

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