

**Budgetary Fairness, Supervisory Trust, and the Propensity to  
Create Budgetary Slack: Testing a Social Exchange Model**

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Abstract

The general inclination of responsibility center managers to create budgetary slack has the potential to undermine the effectiveness of organizational budgeting systems. This paper develops and tests a model based on social exchange theory in which both procedural and interactional budgetary fairness reduce managers' propensity to create budgetary slack by way of enhancing managers' trust in their immediate supervisor. Latent variable structural equation analysis of questionnaire data from 1,358 U.S. Federal government managers supported the proposed model. The results suggest that both the fairness of an organization's formal budgetary procedures and the fairness of budgetary decision makers' implementation of these procedures influence managers' propensity to create budgetary slack, and that trust in the immediate supervisor plays a role in these processes.

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## **Budgetary Fairness, Supervisory Trust, and the Propensity to Create Budgetary Slack: Testing a Social Exchange Model**

### **INTRODUCTION**

Budgetary slack has been an important focus of research devoted to the design and implementation of effective organizational budgeting systems (e.g., Dunk 1993; Merchant 1985; Onsi 1973; Stevens 2002; Young 1985). Budgetary slack is a condition where budgeted costs, revenues, or production volumes are easier to attain than if the budgeted amounts had been based on unbiased estimates of future operating conditions and results (Anthony and Govindarajan 2001; Little et al. 2002; Nouri 1994). Budgetary slack has the potential to undermine the effectiveness of budgeting as an organizational planning and control tool (Nouri and Parker 1996). For example, budgetary slack may lead to a suboptimal distribution of resources during budget formulation, with units whose budget contains relatively more slack being allocated a greater share of resources than they merit. Also, because budgets serve a role as performance targets, budgets that are easy to attain may not motivate managers with budget responsibility to perform to the same level as would those based on unbiased estimates. Furthermore, managers with budget responsibility are often rewarded on the basis of budget attainment and those whose budgets contain more slack may receive more rewards than they deserve.

Organizations generally require responsibility center managers to provide estimates for use in the organization's budgetary process (Anthony and Govindarajan 2001). As such, managers have an opportunity to build slack into their unit's budget by providing biased budget estimates. In fact, the propensity to create budgetary slack seems to be a general managerial trait (Merchant 1985; Onsi 1973). This propensity is generally attributed to self-interest on the part of managers whereby they seek to improve their unit's performance relative to the budget and, to

the extent that compensation is based on budget attainment, consequently enhance their own compensation prospects (Dunk 1993; Merchant 1985; Nouri 1994; Onsi 1973).

Merchant (1985) noted that managers' propensity to create budgetary slack can be influenced by the way in which an organization's budgeting system is designed and implemented. Fairness is one general characteristic of a budgeting system that has the potential to reduce the propensity to create budgetary slack. This study tests a model, shown in Figure 1, that relates two aspects of budgetary fairness – procedural fairness and interactional fairness – to a manager's propensity to create budgetary slack. Procedural budgetary fairness addresses the extent to which the organization's formal structural budgetary procedures comply with a manager's norms of entitlement or propriety. Interactional budgetary fairness is the extent to which budgetary decision makers implement budgetary procedures in a manner that complies with the manager's norms of entitlement or propriety. More specifically, the model in Figure 1 proposes that both procedural budgetary fairness and interactional budgetary fairness reduce propensity to create budgetary slack indirectly through the enhancement of trust in the immediate supervisor. The proposed model is based on research and theory regarding organizational fairness and social exchange.

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### **PROCEDURAL AND INTERACTIONAL JUSTICE**

Procedural and interactional fairness in organizational decision making have been examined in a number of contexts, including budgeting and related settings such as pay allocation and performance appraisal (see the reviews of organizational justice literature by Brockner and Wiesenfeld 1996, Colquitt et al. 2001, and Greenberg 1990). Norms that

employees apply in assessing procedural fairness require, for example, that formal organizational decision-making procedures provide them an opportunity to voice their opinions and to appeal unfavorable decisions, that such procedures be applied consistently across persons and over time, and that the procedures ensure accurate information is incorporated into decision making (Leventhal 1980; Greenberg 1986; Barrett-Howard and Tyler 1986; Tyler 1988; Magner et al. 2000). In assessing interactional fairness, employees focus on factors such as whether decision makers treat those affected by their decisions with interpersonal sensitivity and provide clear and adequate explanations for their decisions (Bies and Moag 1986; Tyler and Bies 1990; Brockner and Wiesenfeld 1996). Procedural and interactional fairness have each been found to affect important employee attitudes and behaviors such as job satisfaction, organizational commitment, organizational citizenship behavior, supervisory evaluations, turnover intentions, and performance (see the recent meta-analytic review of organizational justice literature by Colquitt et al. 2001). Of particular relevance to the current study, Little et al. (2002) recently found that variables similar to procedural and interactional budgetary fairness were related to propensity to create budgetary slack. Social exchange theory may provide insight into the processes through which procedural and interactional budgetary fairness work to reduce managers' propensity to create budgetary slack.

## **SOCIAL EXCHANGE, TRUST, AND THE ROLE OF ORGANIZATIONAL FAIRNESS**

Employees develop social exchange relationships with their organization and organizational authorities in which each party makes contributions to the relationship with the expectation of receiving comparable future benefits (Masterson et al. 2000). Employees seek both material (e.g., pay raises) and psychological (e.g., self-esteem) benefits from these ongoing organizational relationships (Brockner et al. 1997). In social exchange relationships, the exact

nature of each party's obligations is unspecified and the basis for measuring contributions is unclear (Blau 1964; the following discussion of social exchange theory is based largely on Blau, pp. 88-97). Social exchange is in contrast to economic exchange, where the exact nature of each party's obligations is specified in advance, often in terms of a single quantitative medium of exchange. The benefits that employees receive from the organization and organizational authorities in social exchange relationships obligate them to reciprocate in order to keep receiving the benefits. A primary way in which employees reciprocate, and therefore preserve the social exchange relationship, is through behavior that furthers the goals of the organization (Masterson et al. 2000).

While each party makes contributions to a social exchange relationship with a general expectation of some return, the exact nature of the return is left to the discretion of the one who will make it. There is no way to ensure an appropriate return for a contribution in a social exchange relationship, and, in the short-run, people are likely to perceive asymmetries between their contributions and the benefits they have received (Konovsky and Pugh 1994). Therefore, the preservation of social exchange relationships requires that each party trust the other party to adequately discharge their obligations over the long run (Konovsky and Pugh 1994; Blau 1964). Trust is the willingness of one party to be vulnerable to the actions of another party based on the expectation that the other will perform actions important to trustor (Mayer et al. 1995, 712).

Research indicates that procedural and interactional fairness are important sources of employees' trust in their organization and organizational authorities (Brockner et al. 1997; Konovsky and Pugh 1994; Mayer et al. 1995). Brockner and Siegel (1996) attributed this phenomenon to information that procedural and interactional fairness provide to employees regarding the extent to which they can expect to receive valued benefits from the organization

and organizational authorities in the future. Fair formal organizational decision-making procedures provide not only material benefits to employees, but also psychological benefits in that such procedures signify to employees that the organization views them as valued members of the collective, thereby enhancing the employees' self-esteem and self-identity. Brockner and Siegel argue that because formal procedures are structural in nature, employees will tend to view them as stable over time. Therefore, procedural fairness provides information about the extent to which employees can expect to receive valued material and psychological benefits from the organization over the long-run; the greater the procedural fairness, the more employees may expect to benefit over the long-run. As a consequence, employees will allow themselves to be more vulnerable to the actions of the organization and its agents when procedural fairness is relatively high.

The interactional fairness associated with how organizational authorities implement procedures is also a source of information about expected future benefits. Based on the fundamental attribution bias (e.g., Heider 1958), Brockner and Siegel (1996) contend that employees are likely to attribute authorities' level of interactional fairness to the authorities' disposition, which, like the organizational forces that influence the structure of decision making, will also be viewed as stable over time. Thus the authorities' level of interactional fairness provides information to employees about the extent to which employees may expect to receive valued material and psychological benefits from the organization over the long-run. The greater the interactional fairness, the more employees may expect to benefit over the long-run, in which case they will allow themselves to be more vulnerable to the actions of the authorities.

In summary, the literature indicates that procedural and interactional fairness each play an important role in preserving employees' social exchange relationships with their organization

and organizational authorities. To the extent that employees perceive the organization's formal decision-making procedures and authorities' implementation of those procedures to be fair, they will have greater trust in the organization's and the authorities' motivation and ability to provide them with valued benefits over the long-run. The employees will then reciprocate in ways that further the organization's goals. One viable way in which managers might reciprocate for procedural and interactional fairness in budgeting is by reducing their propensity to create budgetary slack. Providing biased budget estimates, a behavior intended to manipulate the organization's budgetary process so as to further one's own self-interests, is inconsistent with a desire to return the favor to the organization and organizational authorities for the design and implementation of fair budgetary procedures.

### **HYPOTHESES**

This study proposes that when budgetary decision makers implement budgetary procedures in a fair manner, managers will have greater trust in their immediate supervisor. Managers are likely to view their immediate supervisor as playing a primary role in the implementation of formal budgetary procedures. Interactional budgetary fairness will suggest to a manager that he or she can expect to receive valued material benefits (e.g., favorable budgets and consequent pay raises) and psychological benefits (e.g., self-esteem stemming from the respect that fair implementation of budgetary procedures signifies) from the supervisor over the long-run. Therefore, the manager will be more willing to be vulnerable to the actions of the supervisor in important areas such as budgeting. This study further proposes that greater trust in the supervisor will, in turn, reduce the manager's propensity to create budgetary slack. To the extent that the manager trusts the supervisor to provide valued material and psychological

benefits over the long-run, the manager will reciprocate by exhibiting less propensity to submit biased budget estimates.

Taken together, the proposed linkages from interactional budgetary fairness to trust in supervisor and from trust in supervisor to propensity to create budgetary slack lead to the first hypothesis:

**H1:** Interactional budgetary fairness has an indirect and negative effect on propensity to create budgetary slack, whereby interactional budgetary fairness has a direct and positive effect on trust in supervisor, and trust in supervisor has a direct and negative effect on propensity to create budgetary slack.

In addition, this study proposes that when an organization's formal budgetary procedures are fair, a manager will also have greater trust in the immediate supervisor. Although a supervisor has some discretion in how formal budgetary procedures are implemented, his or her budgetary behavior is still constrained by the structure of the formal budgetary procedures. To the extent that the formal budgetary procedures are fair, the manager will perceive a greater likelihood that the supervisor can provide him or her with material and psychological benefits over the long-run and will therefore be more willing to be vulnerable to the actions of the supervisor. Magner and his colleagues (Magner and Welker 1994; Magner and Johnson 1995) have provided empirical support for a positive relationship between procedural budgetary fairness and trust in supervisor. As argued above, this greater trust in supervisor will, in turn, result in a lower propensity to create budgetary slack on the part of the manager. The second hypothesis follows from these proposed linkages from procedural budgetary fairness to trust in supervisor and from trust in supervisor to propensity to create budgetary slack:

**H2:** Procedural budgetary fairness has an indirect and negative effect on propensity to create budgetary slack, whereby procedural budgetary fairness has a direct and positive effect on trust in supervisor, and trust in supervisor has a direct and negative effect on propensity to create budgetary slack.

## METHOD

### Subjects and Procedures

A questionnaire was completed by U.S. Federal government managers with budget responsibility. The questionnaire was sent to all 9,643 members of the “Executive/Command” mailing list of Federal executives maintained by *Government Executive Magazine*. A total of 1,487 questionnaires were returned by mail to the first author. Respondents who indicated they were not a Federal executive or who did not provide valid responses to all the questionnaire items used to measure variables in the study were eliminated from the sample, resulting in 1,358 usable questionnaires (a 14.1 percent response rate).

Most (87.6 percent) of the respondents were male. The mean age of the respondents was 49.9 years. Most (83.2 percent) of the respondents were in a civilian job series, with 13.4 percent of these individuals being part of the Senior Executive Service; the remaining respondents were part of a military job series. A plurality (32.7 percent) of the respondents had a career GS-15 as their immediate supervisor, 21.4 percent had a career Senior Executive Service member as their immediate supervisor, 16.7 percent had a political appointee as their immediate supervisor, and the remainder had another type of career superior as their immediate supervisor. As some respondents did not complete one or more of the demographic items on the questionnaire, these statistics are based on only the total number of respondents who completed the relevant item.

## Measures

Procedural budgetary fairness was measured with seven items adapted from those developed by Moorman (1991). Representative items are “Budget decision makers used formal procedures designed to collect accurate information necessary for making decisions on my budget,” “Budget decision makers used formal procedures designed to bring out the concerns of all those affected by the decisions on my budget,” and “Budget decision makers used formal procedures designed to provide opportunities to appeal or challenge the decision on my budget.” Respondents rated each item in the context of “the most recent annual budget established for your unit.” Each item had a seven-point Likert response scale with the endpoints “Disagree” (1) and “Agree” (7), and the responses to the items were averaged. Moorman’s procedural fairness measure has been used in a number of previous organizational justice studies (e.g., Goldman 2001; Niehoff and Moorman 1993).

Interactional budgetary fairness was measured with five items adapted from those developed by Moorman (1991). Representative items are “Budget decision makers treated me with kindness and consideration,” “Budget decision makers showed concern for my rights as a Federal manager,” and “Budget decision makers provided me with timely feedback about decisions on my budget and their implications.” Respondents rated each item in the context of “the most recent annual budget established for your unit.” Each item had a seven-point Likert response scale with the endpoints “Disagree” (1) and “Agree” (7), and the responses to the items were averaged. Moorman’s interactional fairness measure has been used in several previous organizational justice studies (e.g., Skarlicki & Folger, 1997; Niehoff and Moorman 1993). As recommended by Colquitt (2001; Colquitt et al. 2001), both the procedural budgetary fairness

and interactional budgetary fairness measures were indirect measures in which each item addresses a specific fairness criterion.

Trust in the immediate supervisor was measured with three items from Roberts and O'Reilly's (1974) interpersonal trust scale. Representative items are "How free do you feel to discuss with your immediate superior the problems and difficulties you have in your job without jeopardizing your position or having it held against you later?" and "Immediate superiors at times must make decisions which seem to be against the interest of subordinates. When this happens to you, how much trust do you have that your immediate superior's decision was justified by other considerations?" Each item had a seven-point Likert response scale with the endpoints (depending upon the item) "Very Cautious"/"Feel Very Distrustful"/"Have Little Confidence and Trust" (1) and "Completely Free"/"Trust Completely"/"Have Complete Confidence and Trust" (7), and the responses to the items were averaged. This measure has been used previously in both organizational justice (e.g., Folger and Konovsky 1989) and budgeting (e.g., Magner et al. 1995) studies.

Propensity to create budgetary slack was measured with four items developed by Onsi (1973). Representative items are "To protect himself (herself), a Federal manager must submit a budget that he (she) can easily stay within" and "Slack in the budget is good to do things that cannot be officially approved." Each item had a seven-point Likert response scale with the endpoints "Disagree" (1) and "Agree" (7), and the responses to the items were averaged. This measure has been used frequently in prior budgeting research (e.g., Govindarajan 1986; Merchant 1985; Nouri 1994).

## ANALYSIS AND RESULTS

### Means, Standard Deviations, Correlations, and Reliabilities

Table 1 shows the means, standard deviations, correlations, and internal reliabilities for the variables of the study. All correlations were statistically significant ( $p < .05$ ). The measures had high internal reliabilities, with the exception of the propensity to create budgetary slack measure, which had an alpha coefficient (.67) that is marginally below the .70 level recommended by Nunnally (1978).

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### Primary Analysis

The model in Figure 1 was tested with latent variable structural equation analysis using the AMOS (Arbuckle 2003) computer program. The analysis combined the proposed structural model specifying relationships between the variables of interest with a measurement model that specifies relationships between the variables and the questionnaire items used to measure them. This approach adjusts the coefficients of the paths between the variables in the structural model for the effects of random measurement error, which is beneficial since the internal reliability of the propensity to create budgetary slack measure was marginal. Structural equation modeling also provides indices for assessing the overall fit of the model to the data.

Figure 2 presents standardized coefficients for the hypothesized direct paths between the variables in the proposed structural model, standardized factor loadings for the items measuring each variable, and the correlation between procedural budgetary fairness and interactional budgetary fairness, which were exogenous variables in the structural model. All factor loadings were at least .50, with the exception of item 1 of the propensity to create budgetary slack scale.

Of primary concern, the coefficients for the hypothesized direct paths between the variables in the proposed structural model were all significant at  $p < .001$  and in the expected direction.

Hypothesis 1, which proposes that interactional budgetary fairness has an indirect and negative effect on propensity to create budgetary slack by way of enhancing trust in supervisor, was supported by the positive and significant direct path between interactional budgetary fairness and trust in supervisor combined with the negative and significant direct path between trust in supervisor and propensity to create budgetary slack. Hypothesis 2, which proposes that procedural budgetary fairness has an indirect and negative effect on propensity to create budgetary slack by way of enhancing trust in supervisor, was supported by the positive and significant direct path between procedural budgetary fairness and trust in supervisor combined with the negative and significant direct path between trust in supervisor and propensity to create budgetary slack.

Chi-square, the comparative fit index (CFI), and the root mean square of approximation (RMSEA) were used to assess the overall fit of the model to the data. The chi-square ( $\chi^2$  [41] = 1,029.23,  $p < .001$ ) was significant, suggesting that model fit was not acceptable. However, when sample size is large, as in the current study, non-significant chi-squares are difficult to obtain even for structural equation models that have a good fit to the data from a practical standpoint (Bagozzi and Heatherton 1994). Therefore, alternative measures of fit have been developed, of which Gerbing and Anderson (1993) concluded the CFI is the best. The CFI in the current study was .95, which met the .95 lower bound that Hu and Bentler (1999) recommended for good model fit. The RMSEA, which was .07, is below the .08 upper bound that Brown and Cudeck (1993) suggested represents reasonable model fit. On the whole, the fit indices indicate that the model had an acceptable fit to the data from a practical standpoint.

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## **DISCUSSION**

The results of this study indicate that both the fairness of an organization's formal budgetary procedures and the fairness of budgetary decision makers' implementation of these procedures are antecedents of managers' propensity to build slack into budgets. Furthermore, managers' trust in their immediate supervisor mediates the effects of both types of budgetary fairness on propensity to create budgetary slack. These findings, which support both hypotheses of the study, buttress a social exchange model of propensity to create budgetary slack. This model theorizes that managers develop social exchange relationships with both their organization and organizational authorities in which they make contributions with the expectation of receiving comparable future benefits. Procedural and interactional budgetary fairness enhance managers' trust in the supervisor because budgetary fairness signifies to managers that the supervisor will provide them with material (e.g., pay) and psychological (e.g., self-esteem) benefits over the long-run. To preserve their social exchange relationships with the supervisor, and thus receive these projected material and psychological benefits, managers will reciprocate for budgetary fairness and the resulting trust that it engenders by reducing their propensity to submit biased budget estimates.

The current study contributes to the established literature addressing factors that influence manager's propensity to create budgetary slack (Merchant 1985; Onsi 1973; Nouri 1994; Nouri and Parker 1996) as well as to the growing body of literature indicating that budgetary fairness influences employee attitudes and behaviors (e.g., Libby 1999, 2001; Lindquist 1995; Wentzel 2002). It also provides insight into the specific processes by which

budgetary fairness works—namely, by enhancing trust in supervisor. Future research should examine the model supported in this study with respect to other potential ways (beyond a reduced propensity to create budgetary slack) that managers might choose to reciprocate for budgetary fairness and the trust that it fosters. These ways might include both budget-referenced reactions such as higher budget motivation and improved budgetary performance as well as more general reactions such as enhanced organizational citizenship behavior (e.g., conscientiousness, altruism, courtesy), greater organizational commitment, and lower turnover intentions. Future studies should also investigate the specific reasons that procedural and interactional budgetary fairness enhance managers' trust in their immediate supervisor. On the basis of prior research, we attributed these effects to information that the two forms of budgetary fairness convey to managers regarding the extent to which they can expect to receive long-run material and psychological benefits from the supervisor. However, the study was not designed to test this proposition. Evidence that budgetary fairness increases trust in supervisor at least in part due to managers' concerns with psychological benefits such as self-esteem rather than just material benefits such as pay would support Luft's (1997) argument that economic self-interest models, in which individuals are assumed to make choices only to maximize their material wealth, may not adequately explain all observed management accounting practice.

From a practical standpoint, the current findings suggest that budgets may reflect less bias, and thus generally be more useful for planning and control purposes, if organizations and their officials take steps to ensure that procedural and interactional fairness are present in the budgetary system. The individual items comprising the indirect measures for these two fairness constructs, all of which had standardized factor loadings greater than .70 in the current study, suggest ways to enhance budgetary fairness in organizations. For example, senior-level officials

should design formal budgetary procedures that collect accurate budgetary information and ensure that budget decisions are made in a consistent fashion; that allow managers to voice their concerns regarding budget decisions and to appeal those decisions; and that give managers adequate feedback regarding budget decisions and allow them to request clarification about the decisions. When implementing budgetary procedures, budgetary decision makers should treat responsibility center managers with kindness, show regard for their rights as employees, deal with them in a truthful manner, suppress personal biases, give consideration to the managers' views and opinions, and provide timely feedback about budget decisions and their implications.

The results of the current study should be interpreted in light of several potential weaknesses. First, while the study followed the lead of most prior budgeting research in using a behavioral intention as the criterion variable, it is the actual amount of slack created by managers that is the variable of primary interest. Second, while the structural equation analytic methods allowed the model's path coefficients to be adjusted for random measurement error and provided criteria such as the CFI and RMSEA to assess the overall fit of the model to the data, the assumed direction of causality between the variables in the model cannot be proved because the data from each respondent were all gathered at a single point in time. Third, although the response rate to our questionnaire was similar to that of several previous studies involving Federal government employees (e.g., Julnes and Holzer 2001; Yasin et al. 2001), the people who did not return a questionnaire may, on whole, differ in important ways from the respondents, which would undermine the extent to which the results pertain to our target population of Federal government managers. Furthermore, the environment in which Federal government budgeting is conducted may differ in important ways from budgeting in other types of organizations, which would limit the extent to which the current results generalize beyond the focal group of

managers. These limitations notwithstanding, this study is the first to introduce social exchange theory to the budgeting literature, and it provides evidence that budgetary fairness and trust are concerns of managers when forming their intentions to build slack into the budget.

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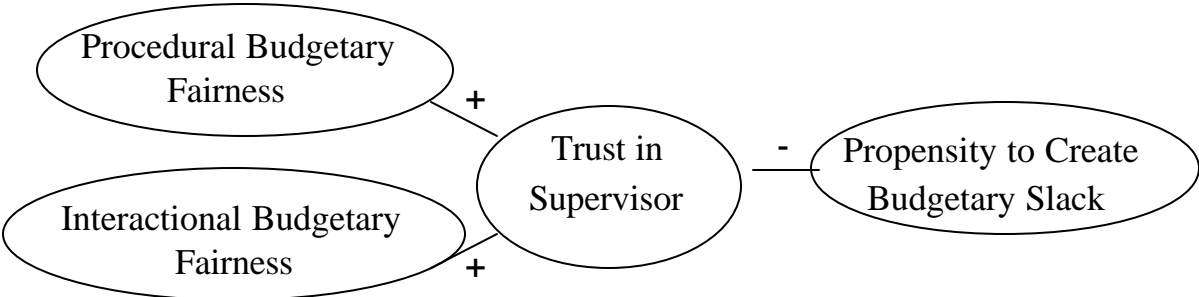
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**FIGURE 1**

**Proposed Model Linking Budgetary Fairness to Propensity to Create Budgetary Slack  
By Way of Enhancing Trust in Supervisor**



**TABLE 1**  
**Means, Standard Deviations, Correlations, and Reliabilities<sup>a</sup>**

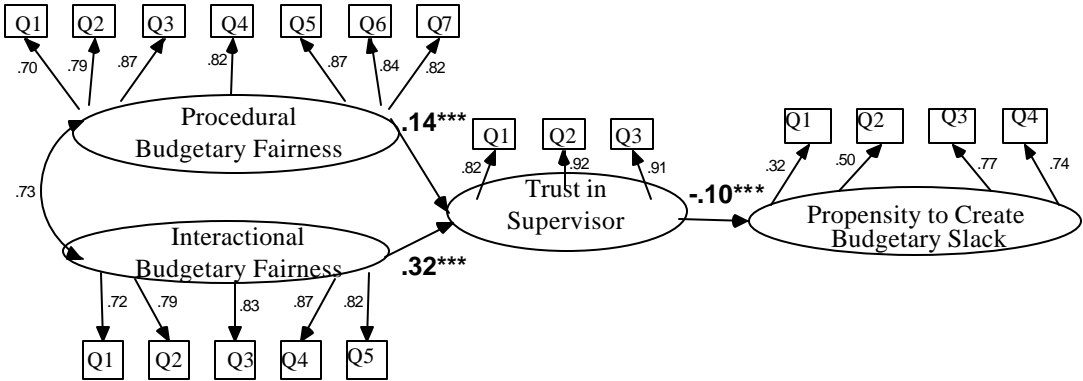
Variable	Mean	SD	1	2	3	4
1. Procedural Budgetary Fairness	3.85	1.53	(.94)			
2. Interactional Budgetary Fairness	4.15	1.58	.76**	(.92)		
3. Trust in Supervisor	5.14	1.63	.40**	.44**	(.91)	
4. Propensity to Create Budgetary Slack	3.73	1.26	-.07*	-.07*	-.11**	(.67)

\*, \*\* Significant at the .05 and .01 levels, respectively.

<sup>a</sup> N = 1,358. Alpha reliability coefficients are in parentheses on the diagonal.

FIGURE 2

Results of the Structural Equation Analysis of the Proposed Model



\*\*\* Significant at the .001 level.