A Re-Examination Of The Effect Of Job-Relevant Information On The Budgetary Participation - Job Performance Relation During An Age Of Employee Empowerment

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ABSTRACT

The current study is a substantive replication and extension of Kren's 1992 study. Using survey data from 80 executive-level, profit center managers, Kren found that budgetary participation facilitates the acquisition of job-relevant information which, in turn, is associated with improved performance. Since Kren conducted his study, the work environment has changed; budgetary participation has come to include all levels of employees. Using self-reported data from 256 employees from Chief Financial Officer to Accounts Payable Clerk, we find that participation in the budgetary process is associated with positive increases in self-reported measures of job-relevant information and self-efficacy (task-specific self-confidence) which, in turn, are associated with positive increases in individual job performance. The results provide empirical support that the benefits of participation occur at lower levels within the organization as well as traditional upper management levels.

INTRODUCTION

Budgetary participation is one of the most thoroughly researched topics in management accounting. Even so, the nomological network depicting vertical budgetary participation is far from complete (Shields and Shields 1998). Shields and Shields recommend that future research choose variables to include in an investigation of participative budgeting based on *why* participation is assumed to exist within an organization. The current study assumes that participation exists because of information asymmetry within a vertical superior-subordinate relationship and reexamines an individual-level mediating variable, job-relevant information (Kren 1992), which is chosen to explain the informational effect of participation on subordinate performance.

Theories based on economics, psychology, and sociology have been used to explain the existence of participative budgeting (Shields and Shields 1998). The cognitive mechanism suggested by the psychology literature assumes that the process of participation improves subordinate performance by increasing the quality of decisions. When a subordinate possesses better job-related information, the superior is assumed to use participative budgeting to learn more about this information in order to develop a higher quality decision in the form of a budget. This cause of participative budgeting has been called "information exchange" (Hopwood 1976; Locke and Schweiger 1979). Kren (1992) predicted that job-relevant information would mediate the relation between budgetary participation and individual job performance. Using survey data from 80 executive-level, profit-center managers, he found that budgetary participation facilitates the acquisition of job-relevant information which, in turn, is associated with improved performance. The current study is a substantive replication and extension of Kren utilizing survey data from a much larger sample of 259 managers and lower-level employees.

Kren's study looked at the budgetary participation of executive-level profit center managers from *Fortune* 500 manufacturing firms. Since Kren conducted his study, the work environment has changed; budgetary

participation has come to include all levels of employees – not just upper level executives. A 1996 survey found that 96 percent of large employers have incorporated employee involvement to some extent in their operations (WSJ, Feb.5, 1996). Anecdotal evidence indicates that the benefits of participation occur at lower levels within the organization as well as the traditional upper management levels. “Over the course of just a few years, food retailer Hannaford Brothers experienced fewer on-the-job injuries, resulting in a savings of more than \$500,000 in worker compensation costs; Miller Brewing saw a 30% reduction in labor costs...; Texas Instruments’ customer return rates fell to 0.03% from 3%” (WSJ, Feb.5, 1996). The current study replicates Kren’s study by exploring the effect of budgetary participation on job-relevant information and the resulting effect of that information on employee performance. In addition to upper-level managers, this study includes all levels of employees from Chief Financial Officer to Accounts Payable Clerk. Thus, it seeks to validate the findings of Kren’s study within today’s employee-empowered work environment.

The following paper is organized as follows. Section II discusses the relevant theoretical literature and builds an argument for including self-efficacy, as well as job-relevant information in the budgetary participation - individual job performance model. Section III outlines the research method and describes the variables included in the model. Section IV presents the analysis, results, discussion, and limitations of the current study, while Section V includes a summary of the study’s findings and concluding remarks.

BACKGROUND LITERATURE AND HYPOTHESIS DEVELOPMENT

The Mediating Effect Of Job-Relevant Information On The Budgetary Participation - Job Performance Relation

In the current study, participation is assumed to exist in order to decrease information asymmetry between a subordinate and his or her superior by increasing the exchange of job-relevant information.¹ Job-relevant information is thought to improve performance by allowing employees to more accurately predict environmental states and, as a result, to more effectively select appropriate courses of action (Kren 1992). Budgetary participation is thought to create an environment that encourages the acquisition and use of job-related information. As previously stated, Kren (1992) found that budgetary participation facilitates the acquisition of job-relevant information which, in turn, is associated with improved performance. The current study attempts to replicate this finding using a larger and more diverse sample (See Figure 1).

The idea that empowerment initiatives facilitate knowledge acquisition has relatively broad-based theoretical heritage within the occupational and organizational psychology literature. Within the work design literature, for instance, neither Herzberg’s (1966) Motivation-Hygiene theory of job design nor Hackman and Oldham’s Job Characteristics Model includes knowledge as a core outcome variable. Instead, the focus of these models has been motivation, job satisfaction and performance. Even so, the idea that job enrichment and other forms of empowerment promote employee knowledge has repeatedly surfaced (Leach et.al. 2003).

Leach et. al. (2003) investigated the effect of an empowerment initiative which was introduced for operators of complex technology that produced photographic paper. The initiative included the delegation to operators of responsibility for fault management coupled with access to information and technical support. They found that empowerment promoted the acquisition of fault-management knowledge overall, but that this effect was more evident for novices (average job tenure of 2.5 years) than for experts (average job tenure of 14 years).

As such, the following set of hypotheses (stated in the alternative) will be tested :

- H1a:** The greater the level of budgetary participation, the greater the job-relevant information possessed by the employee. This relation will be stronger from employees with low experience than for employees with high experience.
- H1b:** The greater the job-relevant information possessed by the employee, the higher the level of individual performance in achieving budgeted goals.

To aid in comparison with Kren's study, the current study will also test the direct link between budgetary participation and individual performance.

Figure 1 - Research Model

The Effect Of Employee Empowerment On Self-Efficacy And Job Performance

Empowerment involves the delegation of responsibility down the hierarchy so as to give “employees increased decision-making authority in respect of the execution of their primary work tasks” (Wall, Cordery and Clegg 2002, 147). Empowerment includes such practices as job enrichment, self-managing teams, many aspects of total quality management, and various involvement schemes – such as participative budgeting (Leach et al. 2003). One of the end results of empowering work practices is that employees develop feelings of competence or confidence in their ability to perform tasks well. For example, Leach and his associates found that empowerment improved employee self-efficacy.

Self-efficacy is a key concept in Bandura's social learning or social-cognitive theory (Bandura 1986). Self-efficacy is an individual's estimate of his or her ability to attain a certain level of performance in a specific task. Self-efficacy is based on individuals' assessments of all personal factors that could affect their performance - e.g., past performance, ability, adaptability, capacity to coordinate skilled sequences of actions, and resourcefulness (Bandura 1986). An individual's level of self-efficacy is determined mainly by the skills acquired through actual performance and the individual's beliefs about his or her performance. Individuals appear to weigh, integrate, and evaluate information about their capabilities; they then regulate their choices and efforts accordingly (Bandura, Adams, Hardy and Howells 1980).

There is evidence that self-efficacy is as important as ability in the performance of tasks. Self-efficacy affects performance through such mechanisms as effort, persistence, high personal goals, and effective analytical strategies (Bandura 1986). Individuals with a strong sense of efficacy are able to remain task-oriented when confronted with challenging goals and high task demands. Lack of task orientation affects efforts directed at identifying relevant information, constructing options, and testing and revising knowledge based on the results of past actions. Individuals with a low sense of efficacy easily fall apart in the face of repeated difficulties and failures. They tend to become more self-diagnostic than task-diagnostic (Bandura and Dweck 1987). In summary, performance is affected not only by what the individual is trying to do but also by how confident he or she is of being able to do it.

Self-efficacy has been shown to predict performance in various tasks including computer software training (Gist, Schwoerer, and Rosen 1989), interpersonal skills training (Gist, Stevens, and Bavetta 1993) and military training programs (Tannenbaum et al. 1991). Based on the results of thirteen studies with a total of 2,285 subjects, a

fairly large effect of self-efficacy on performance was found (weighted mean correlation = .39) (Locke and Latham 1990). While Locke and Latham investigated various types of performance, Stajkovic and Luthans (1998) examined work-related performance only. The results of a meta-analysis (114 studies, $k = 157$, $N = 21,616$) indicated a significant weighted mean correlation of .38. Thus, research has shown that self-efficacy influences all types of performance, even work-related performance. In their meta-analysis, Stajkovic and Luthans (1998) performed additional analyses comparing the results for simple versus complex tasks. They found that, for tasks performed in field settings, the average self-efficacy-performance correlation is .52 for simple tasks compared to .20 for complex tasks.²

Thus, the following hypothesis (stated in the alternative) is tested:

- H2a:** The greater the level of budgetary participation, the greater the level of self-efficacy possessed by the employee.
- H2b:** The greater the level of self-efficacy possessed by the employee, the higher the level of individual performance in achieving budgeted goals.

RESEARCH METHOD

Sample

Data for this study were collected using a questionnaire survey of employees throughout the United States with the majority coming from the northeastern region of Oklahoma. Employees were selected from a variety of industries - the only criteria being that the individuals be involved in the budgeting process. The sample was obtained through four separate mailings. In three of the four mailings, human resource directors³ were contacted; in the remaining mailing, management accountants were contacted. Lists were obtained from several sources. First, employees within a large healthcare organization located in Northwest Arkansas were contacted. Second, a list of participants of the Oklahoma Human Resources State Conference was obtained. Third, a list of 1,000 names and addresses was obtained from a commercial list broker; this list consisted of a random sample of human resource executives from across the United States. All companies with 100 or more employees were selected from the list as this size company is most likely to have formal budgeting procedures and clearly defined areas of responsibility (Dunk 1995). Fourth, the 1998-1999 members listing of the Tulsa Chapter of the Institute of Management Accountants was obtained.

This selection process yielded 1,224 employees from 878 companies. A cover letter, questionnaire, and business reply envelope were mailed to each employee⁴. A follow-up letter and another copy of the questionnaire and business reply envelope were mailed after approximately four weeks. Of the 1,224 questionnaires distributed, 259 usable responses were received (a response rate of 21 percent) from 226 companies. 171 (66%) of the usable responses were the result of the first, second, and fourth mailings to a convenience sample of regional employees. The disadvantage of a convenience sample is there is no way of knowing if those surveyed are representative of the target population. To test for potential sampling bias, the research model was run for both the regional employees (convenience sample) and the national employees. There were no statistically significant differences between the path coefficients of the two groups.

For the overall sample, the respondents' average age was 41 years and average tenure in their current positions was 4.5 years ($s.d. = 4.3$). Employees from human resources, accounting/ finance, marketing, and production were included in the final sample.

The sample is dominated by healthcare firms (23 percent) and various manufacturing firms (28 percent). Independent sample t-tests found no difference between the means of responses from manufacturing employees and those from employees of non-manufacturing firms with respect to participation, self-efficacy, and job-relevant information variables. The t-tests did indicate a statistically significant difference in the level of self-reported performance between employees in manufacturing firms and employees in non-manufacturing firms. The mean level

of performance for the 72 employees working in manufacturing was 5.358 (std. dev. = .803) on a seven-point scale compared to a mean of 5.559 (std. dev. = .794) for employees in non-manufacturing firms ($p = .074$). This result, however, does not suggest the necessity of running separate analyses for manufacturing and non-manufacturing employees.

T-tests were also conducted to determine if a bias exists within the healthcare industry. Independent sample t-tests found no difference between the means of responses from healthcare employees and those from employees of non-healthcare firms with respect to demographic and model variables.

Measures

The Appendix contains an abbreviated copy of the research questionnaire used to measure the self-reported variables in this study.

This study measures performance using Fraser's (1995) four-question instrument. Two questions ask respondents to indicate their performance against their *specific budget objectives* while the other two questions ask respondents to indicate their *overall* performance. Within each pair of questions, respondents are asked two other questions. First, they are asked to list the three main factors that their supervisors use to assess their performance and, second, they are asked to indicate their supervisors' ratings based on these factors.⁵ Using a seven-point likert scale, a rating of one indicates performance well below average, four indicates average performance, and seven indicates performance well above average. Responses to all four questions were averaged and used as a composite measure of performance (Coefficient alpha = .91).

Fraser (1995) developed his four-question instrument based on the overall measure of performance used in the Mahoney et al. (1963) self-rating of performance. Mahoney's scale captures a self-reported measure of performance on the following tasks: planning, investigating, coordinating, evaluation, supervising, staffing, negotiating, and representing. It also captures a self-reported measure of overall performance. Both Brownell and Dunk (1991) and Abernathy and Brownell (1992) found that a large proportion of the variance in the overall performance rating was explained by the variance in the eight separate dimensions of performance. This provides empirical support for utilizing a single overall measure. The final survey instrument utilized in the current study consisted of four pages of questions and, in an attempt to reduce non-response bias, the researchers chose to include Fraser's four-question version of the performance scale, as opposed to the lengthier Mahoney et al. scale. In addition, requiring the manager to list the three main objectives (i.e., aspects of performance) most important to the superior in assessing performance gives the respondent reference points for use in gathering measures of self-efficacy.

Some researchers have argued that self-ratings are not objective and contain a leniency bias compared to ratings obtained from a superior. This may cause problems during statistical analysis, as lenient measures tend not to be normally distributed, but rather tend to cluster around the upper-end of the performance scale. For example, the current self-reported performance measures ranged from 2.3 to 7.0 on a seven-point scale; however, 90% of these measures were between 4.50 and 6.35. Leniency bias should not create a significant problem in the current study, however, as theory predicts the same positive effect of job-relevant information and self-efficacy for all employees, not just high performing or low performing employees.

Self-efficacy is measured using a likert-scale version of Bandura's (1990) scale.⁶ Similar types of scales have been used by other researchers and their validity has been ascertained by Maurer and Pierce (1998). The results of Maurer and Pierce indicate that likert-type and traditional measures of self-efficacy have similar reliability-error variance, provide equivalent levels of prediction, and have similar factor structure and similar discriminability. The three dimensions of performance that were identified by the respondent as most important in the superior's evaluation of the respondent's overall performance were used to obtain measures of manager self-efficacy. The respondent was asked to refer to each objective he or she listed and was asked to complete the following statement, "I can state with absolute certainty (i.e., 100% confidence) that my current performance will be ...". Using a 9-point likert scale, a score of one is "20% under my goal", a score of five is "meet my goal exactly", and a score of nine is "20% over my goal". If the objective related to sales or meeting specific organizational goals (e.g., enforcing compliance to policies

and procedures) then the answer was coded as indicated by the respondent. However, if the objective related to costs, the answer given was reverse coded. In the current study, the reliability coefficient for this scale was .70.

The scale developed by Kren (1992) to measure job-relevant information was used in this study. The reliability coefficient from the Kren study was .72; the reliability coefficient for the current study is .82. In addition, responses to all three questions loaded on one factor with an eigen value greater than one. The objective of this scale is to assess the extent to which respondents perceive that information is available for effective job-related decisions. A response of one means the respondent strongly disagrees and five means strongly agrees. A score of five indicates that the respondent feels that he or she has all information which is necessary to perform the job, while a score of one indicates that the manager feels that he or she is lacking the knowledge necessary to perform the job. A score of three is considered neutral.

To determine respondents' perceptions of their degree of influence on the budget, the six-item scale developed by Milani (1975) was used. This scale has been used by prior researchers who have reported satisfactory reliability and validity for the scale (Brownell 1982a; Mia 1989). For example, the reliability coefficient of the six-item scale from the Mia study was .91; the reliability coefficient for the current study is .64. A factor analysis of the six-item scale indicates that the sixth item is loading on a separate factor. When the sixth item is removed, the items load on one factor only and the reliability coefficient of the scale increases to .69. The five-item scale is used in the subsequent statistical analysis.

Similar to the job-relevant information scale, the six questions are answered on a scale of one to five where one means the respondent strongly disagrees and five means the respondent strongly agrees. A score of five indicates that the respondent feels heavily involved in the budgeting process, while a score of one indicates that the respondent feels that his or her involvement in the process is nominal at best. A score of three is considered neutral.

ANALYSIS AND RESULTS

Test Of Response Bias

Response bias can be a problem when using surveys to gather research data, and several tests are available to detect possible response bias. A commonly-used test is the non-parametric runs test (Norusis and SPSS Inc. 1993). The non-parametric runs test indicates if a biased pattern exists for selected variables. The runs test using both the mean and the median as the cut-off point indicated somewhat of a response bias ($p < .10$) for the first and third items on the job-relevant information scale. As another test of response bias, the hypothesized model was run for both "timely" and "late" respondents (more than 21 days between date of distribution and date of receipt of the completed survey). No statistically significant differences were noted.

The first two tables provide descriptive statistics of selected variables. Table 1 provides the hypothetical range, actual range, mean and standard deviation for the measured variables⁷, while Table 2 provides a correlation matrix. The significant, zero-order correlation between participation and information is consistent with Hypothesis 1a, as is the correlation between JRI and performance (H1b). Significant zero-order correlations were also found between participation and self-efficacy (H2a) as well as self-efficacy and performance (H2b). The zero-order correlation between participation and performance is also significant and will be explained more clearly by participation's effect on job-relevant information and self-efficacy.

Descriptive Statistics

Table 1
Descriptive Statistics for Measured Variables
(n = 256)

Variable	Hypothetical Range	Actual Range	Mean	Standard Deviation
Participation	1 - 5	1.40 - 5.00	3.61	0.79
Information	1 - 5	1.00 - 5.00	3.61	0.88
Self-Efficacy	1 - 9	2.50 - 9.00	6.06	1.09
Performance	1 - 7	2.25 - 7.00	5.51	0.80
Participation:	Measured using Milani's (1975) six-question scale. A score of five indicates that the respondent feels heavily involved in the budgeting process, while a score of one indicates that the respondent feels his or her involvement is nominal. A score of three is considered neutral.			
Information:	Measured using Kren's (1992) three-question scale. A score of five indicates that the respondent feels that he has all the information necessary to perform the job, while a score of one indicates that the respondent is lacking necessary information.			
Self-efficacy:	Measured using a likert-scale version of Bandura's (1990) scale. A score of one indicates that the employee feels that he will perform at 20% under his goal, a score of five indicates that he will meet his goal exactly, and a score of nine indicates that he will perform at 20% over his goal. Lower scores indicate confidence in performing at higher levels.			
Performance:	Measured using Fraser's (1995) four-question instrument. A rating of one indicates performance well below average, four indicates average performance, and seven indicates performance well above average.			

Table 2
Correlation Matrix for Measured Variables
(n = 256)

Variables	2		3		4	
1. Performance	0.167	*	0.214	*	0.366	*
2. Participation	1.000		0.598	*	0.109	
3. Information			1.000		0.167	*
4. Self-Efficacy					1.000	

* Correlation is significant at the 0.01 level (2-tailed)

Tests Of Hypotheses

In Table 3, the standardized regression coefficients along with their t-statistics are presented. The first set of hypotheses predicts that the greater the level of participation, the greater will be the job-relevant information possessed by the employee (H1a) and that greater levels of job-relevant information will be associated with a higher level of performance in meeting budgeted performance goals (H1b). H1a is supported for the entire sample of employees. For every standard deviation increase in the participation measure, the data predicts a .598 standard deviation increase in information for the average employee.

In order to test for differences between employees with little experience compared to employees with more experience, the sample was split in two, based on mean years of experience in the current job. No statistically significant differences were found between the two groups. Next, in order to increase the power of the test, the sample was divided into three equal groups and the top and bottom thirds were compared with respect to the hypothesis. Employees with little experience in their current positions (less than 1.75 years) gained more information through the participation process ($b = .637$) than did employees with high experience (more than 4.42 years, $b = .581$).

Not only is budgetary participation expected to increase the amount of information possessed by the employee, but also greater levels of participation should be associated with higher levels of employee self-efficacy (H2a). This hypothesis is supported for the total sample of employees and the sample of low-experience employees, but not for the sample of high-experience employees.

Hypothesis 1b predicts that higher amounts of job-relevant information will be positively associated with higher self-reported levels of performance. When this hypothesis is tested using Kren's model which includes a direct effect of participation on performance (See Equation 3, Table 3), strong support for the mediating effect of job-relevant information is found for the entire sample and the low experience group. However, the relation between information and performance is only weakly significant for the high-experience sample ($p = .060$). It is possible that this result is at least partially explained by the effect of self-efficacy on performance.

To test for this possibility, a fourth regression was run which included participation, job-relevant information, and self-efficacy. The direct effect of participation on performance was not statistically significant while the links between information and performance as well as between self-efficacy and performance were significant. In addition, the association between self-efficacy and performance was large ($B = .337$), more than two and one-half times the size of the effect of job-relevant information on performance ($B = .126$). When comparing the low and high experience groups, one notes that the regression coefficient for the self-efficacy variable of the low experience group was almost twice as large as that of the high experience group (.417 compared to .234).

Path analysis is used to decompose the total relation between performance and participation into direct and indirect effects through job-relevant information and self-efficacy. The total relationship can be measured with the zero-order correlation coefficient between participation and performance as reported in Table 2. The path coefficient for participation from Equation 4 provides an estimate of the direct effect (i.e., the effect through the unobserved intervening variables of job relevant information and self-efficacy). The effect of the intervening variables can be estimated using the path coefficients from Equation 4 and the zero-order correlations. The decomposition of the linkages in the model is shown in Table 4.

Table 3
Additional Testing / Results of Path Analysis

Dependent Variable/ Link to...	Total Sample (n = 256)			High Experience (n = 87)			Low Experience (n = 85)		
	Standardized Coefficient	t-statistic		Standardized Estimate	t-statistic		Standardized Estimate	t-statistic	
Equation 1: H1a									
Information/ Participation	0.598	11.891	*	0.581	6.586	*	0.637	7.527	*
Equation 2: H2a									
Self-efficacy/ Participation	0.109	1.752	**	0.003	0.030		0.188	1.741	**
Equation 3: H1b									
Performance/ Information	0.181	2.370	*	0.205	1.567	***	0.292	2.124	**
Performance/ Participation	0.059	0.766		0.024	0.185		-0.012	-0.085	
Equation 4: H1b, H2b									
Performance/ Participation	0.055	0.763		0.046	0.356		-0.024	-0.189	
Performance/ Information	0.126	1.732	**	0.167	1.294	***	0.188	1.468	***
Performance/ Self-efficacy	0.337	5.745	*	0.234	2.233	**	0.417	4.151	*
Note:									
For the first equation, dependent variable = Job-relevant information			total sample, R-square = .190, F=59.941 (sig = .000) high experience, R-square = .184, F=19.119 (sig = .000) low experience, R-square = .208, F=21.801 (sig = .000)						
For the second equation, dependent variable = Self-efficacy			total sample, R-square = .016, F=4.187 (sig = .042) high experience, R-square = .008, F=.670 (sig = .415) low experience, R-square=.069, F=6.181 (sig =.015)						
For the third equation, dependent variable = Performance			total sample, R-square = .063, F=8.526 (sig = .000) high experience, R-square = .066, F=2.956 (sig = .057) low experience, R-square=.115, F=5.317 (sig = .007)						
For the fourth equation, dependent variable = Performance			total sample, R-square = .177, F=18.182 (sig = .000) high experience, R-square = .113, F=3.510 (sig = .019) low experience, R-square = .263, F=9.630 (sig = .000)						

***Significant at p<0.10 (one-tailed test)

** Significant at p<0.05 (one-tailed test)

* Significant at p<0.01 (one-tailed test)

Table 4
Decomposition of Path Analysis Model Relationships

Total Sample (n = 256)				High Experience (n = 87)				Low Experience (n=85)			
Total Effect	Direct Effect	Indirect Effect	Spurious Effect	Total Effect	Direct Effect	Indirect Effect	Spurious Effect	Total Effect	Direct Effect	Indirect Effect	Spurious Effect
0.167	0.055	0.168	-0.056	0.143	0.046	0.124	-0.027	0.174	-0.024	0.268	-0.070
0.214	0.126		0.088	0.212	0.167		0.045	0.284	0.188		0.096
0.366	0.337		0.029	0.260	0.234		0.026	0.463	0.417		0.046

The prediction of hypotheses H1 and H2 together was that most of the effect of participation on performance would be indirect (through job-relevant information and self-efficacy) with little direct effect. The results support this prediction. Specifically, the direct effect of participation on performance (.055) is small relative to the indirect effect through the mediating variables (.168). For every standard deviation increase in participation, job-relevant information increases .598 standard deviation, and for every standard deviation increase in job-relevant information, performance increases by .126 standard deviation. Similarly, for every standard deviation increase in participation, self-efficacy increases .109 standard deviation, and for every standard deviation increase in self-efficacy, performance increases by .337 standard deviation. In total, for every standard deviation increase in participation, performance increases by .168 standard deviation. In addition, only a small portion of the relationship between the mediating variables and performance is spurious (-.088, .029) relative to the direct effects. Overall, the results indicate that job-relevant information and self-efficacy completely mediate the relationship between budgetary participation and individual job performance.

Limitations

While the current study attempts to add to the nomological network describing the budgetary participation paradigm, the research design of the current study limits its contributions. First, the current study assumes that information asymmetry is the reason for the presence of budgetary participation within the firms. This assumption was not verified by the respondents and, as such, our understanding of possible antecedents is neither confirmed nor enhanced. Second, the current study relies upon the written, mail survey approach to gather its data. Common method bias from self-reported data may lead to overestimates of model relationships, particularly between the job-relevant information and participation measures (Kren 1992). Third, the current study examined statistical associations at one point in time. As such, statements about the direction of relationships can only be made in terms of the consistency of the results with the effects proposed in the theoretical discussion. Future research would benefit from a longitudinal field study approach. Fourth, there are problems with several of the measures employed in the study. The current study did not utilize Mahoney et al.'s (1963) measure of performance; as such, comparison with other budgetary participation studies is made more difficult. Also, the current study employed too general a measure of participation. Separate measures of involvement and influence of participation would have been more appropriate for use in testing the research questions. And finally, the measure of self-efficacy utilized in this study did not measure the competence aspect of self-efficacy, but rather only the contingency aspect. While the measure utilized in the current study captures a major component of self-efficacy, more complete measures are available for use in research.

SUMMARY AND CONCLUSIONS

The current study investigated the indirect effect of participation in the budgeting process on individual job performance. Specifically, it examined the mediating effects of job-relevant information and self-efficacy. The first group of hypotheses dealt with the effect of participation on information. The hypotheses in this group asserted that the more managers perceived that they were allowed to participate in the budgeting process, the greater would be the job-relevant information possessed by the managers. In turn, greater levels of job-relevant information would be associated with greater levels of performance in achieving budgeted goals. The second group of hypotheses proposed the same effect for self-efficacy (i.e., greater participation would be associated with higher levels of self-efficacy which, in turn, would be associated with higher levels of performance).

The results indicate that perceived levels of participation are positively associated with perceived levels of job-relevant information and that job-relevant information is positively associated with self-reported job performance. In addition, perceived levels of participation are positively associated with employee self-efficacy and that self-efficacy is positively associated with job performance. A decomposition of the path analysis model relationships suggest that job-relevant information and self-efficacy mediate the relationship between participation and job performance. As such, the results provide empirical evidence that the benefits of participation occur at levels within the organization as well as the traditional upper management levels.

The current study examined participation as experienced by employees at different levels within different organizations. This increases the generalizability of the findings, yet decreases the internal validity of the study. It is not clear whether the respondents were involved in a typical vertical participation between a superior and a subordinate or rather they were involved in a type of horizontal participation involving team members. Horizontal participation has become a common practice in the workplace. Although self-managed teamwork generally improves productivity and quality of work life (Cohen 1994), ineffectual self-managing groups are not uncommon. Evidence suggests that perceived collective efficacy may be a key mechanism governing successful self-managed teamwork (Bandura 1986, 448). Future research within the budgetary participation paradigm will want to examine perceived collective efficacy

Endnotes

1. Shields and Shields (1998) surveyed managers and found that sharing of information and coordinating interdependence were the two most important reasons for the existence of participative budgeting at the firms where the managers were employed.
2. All of the major variables, except for responses to the second and third statements on the self-efficacy scale, show signs of skewness and kurtosis. When all 259 responses are included, Performance (skew = -1.022; kurtosis = 2.330) shows the greatest signs of non-normality. Two outliers, identified by Mahalanobis distance, were removed from the sample.
3. Wood (1986) set forth the criteria for task complexity. A task is judged complex if performance on the task is not increased just through effort or persistence; instead increased performance also requires ability through the use of effective task strategies. Task difficulty has also been defined in terms of the ability to specify input/output relations. The easier and more objective the specification, the lower is the task difficulty (Brownell and Dunk 1991).
4. Human resource directors were targeted as they are intimately involved in the performance evaluation process and know which employees are best suited to participate in the study.
5. In the mailing to participants of the Oklahoma Human Resources State Conference, three copies of the questionnaire were included. The HR directors were asked to complete one survey and to distribute the others to appropriate managers within their organizations.
6. Steel and Ovalle (1984) found that the correlation with supervisory ratings "improved somewhat" when respondents were asked to report how they thought their supervisors would evaluate their performance.
7. The typical self-efficacy scale as developed by Bandura (1990) measures self-efficacy magnitude and strength. It requires the participant to (a) answer yes or no to a question of whether or not he or she will be able to perform a specific task at a certain level (assessing magnitude) and (b) give his or her percent confidence in that answer (assessing strength). These responses are then combined to determine a self-efficacy score.

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APPENDIX

Abbreviated Research Questionnaire

Performance:

Response anchors: 1=well below average, 4=average, 7=well above average

- Q1 List the three most important objectives that your supervisor uses to assess your performance at meeting your specific business unit/functional objectives. Consider only current performance objectives and not overall performance. With these factors in mind, what performance rating would your supervisor give to you in achieving these objectives?
- Q2 How would you rate your own performance in achieving these objectives?
- Q3 List the three most important objectives that your supervisor uses to assess your overall performance. Overall performance includes not only your performance in meeting the business unit/functional goals but also any other work-related performance issues including overall work habits and disciplinary actions. With these factors in mind, what performance rating would your supervisor give you in achieving these objectives?
- Q4 How would you rate your own current performance in achieving these objectives?

Self-efficacy:

Response anchors: 1=20% under my goal, 5=meet my goal exactly, 9=20% over my goal

- Q1 The following question is in reference to the objective that you listed on line 1, Q1. I can state with absolute certainty (i.e., 100% confidence) that my current performance will be:
- Q2 The following question is in reference to the objective that you listed on line 2, Q1. I can state with absolute certainty (i.e., 100% confidence) that my current performance will be:
- Q3 The following question is in reference to the objective that you listed on line 3, Q3. I can state with absolute certainty (i.e., 100% confidence) that my current performance will be:

Participation:

Response anchors: 1= strongly disagree, 3=no opinion, 5=strongly agree

- Q1 I am involved in setting all portions of my performance goal.
- Q2 My supervisor provides extensive reasoning to me when my performance goal is revised.
- Q3 I frequently initiate performance goal discussions with my supervisor.
- Q4 My performance goal is not final until I am satisfied with it.
- Q5 My opinion is an important factor in setting my performance goal.
- Q6 My supervisor initiates all discussion when performance goals are being set.

Job-Relevant Information:

Response anchors: 1= strongly disagree, 3=no opinion, 5=strongly agree

- Q1 I am always clear about what is necessary to perform well on my job.
- Q2 I have adequate knowledge to make optimal decisions to accomplish my performance objectives.
- Q3 I am able to obtain the strategic information necessary to evaluate important decision alternatives.