

Linking Participative Budgeting Congruence to Organization Performance

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ABSTRACT

This study proposes and tests a research framework that links the perceived need for participation (PNP) and the degree of participation allowed (DPA) to organizational consequences. We examine the extent of agreement between PNP and DPA, which is defined as the degree of participation congruence (DPC), and link DPC to organizational performance. Survey data were collected from 386 accountants across three industries. Consistent with prior research, the correlation between organizational performance indicators and DPA was weak in this study, as was the correlation between PNP and organizational outcomes. However, the correlation between the DPC and organizational performance indicators was uniformly positive and significant. Research findings suggest that participation congruence may be a critical success factor in designing an effective participative budgeting strategy.

INTRODUCTION

The body of participative budgeting research spans some 40 to 50 years. Although the volume of research in the area is quite large, study results have been diverse and generally inconclusive (Shields and Young 1993). Clinton (1999) provides a possible explanation for the equivocal nature of past research findings. He asserts that the link between participative budgeting and organizational outcomes does not depend solely on the extant level of actual participation, as has been posited and examined in many prior studies. Rather, the degree of participation congruence (DPC) between the perceived need for participation

We gratefully acknowledge the helpful comments of Michael D. Shields at Michigan State University, and participants of the 1997 AAA Annual Meeting in Dallas, the 1998 AAA Western Regional Meeting in Seattle, and the 1998 AAA/ABO Annual Meeting in Orlando on previous drafts of this paper. Data are available upon written request from the authors. Please do not quote or reproduce without permission.

(PNP) and the degree of participation allowed (DPA) serves as a critical gateway to improved individual decision-making and organizational effectiveness. While Clinton (1999) proposed the DPC as a key success factor in participative budgeting, he did not empirically test his proposition. The purpose of this study is to extend the work of Clinton (1999) by empirically examining the relationship between the DPC and organizational performance indicators.

The remainder of the paper is organized as follows. The second section provides a background for the congruence relations examined in this study and offers a central research hypothesis. The third section describes the research method, the next presents the results, and the last discusses research findings and implications.

BACKGROUND AND HYPOTHESIS

Prior Participation Congruence Research

Perhaps the most widely known and fully developed model of participative decision making, the Vroom and Jago (1988) (VJ) model, uses expert system software to suggest the appropriate degree and type of participation to employ, given certain situational characteristics. Since the VJ model is quite complex and comprehensive, it offers a rich framework for refining the concept of budgetary participation and examining the impact of participation on organizational performance—future research issues that are consistent with suggestions offered by Shields and Shields (1998).

Vroom and Jago (1988) argue that organizational effectiveness depends on understanding the requirements of a situation and assessing how much participation is essential for success. Outcome consequences of using an inappropriate amount of participation include, among others, a decrease in decision quality at all organizational levels, which can adversely impact organizational performance.

Margerison and Glube (1979) *normatively* validated the VJ model by examining organization performance variables. In their study, responses to hypothetical problems were used to divide managers of retail stores into above- and below-median level of agreement with the VJ model. Results of the study indicated that those managers with high model agreement had significantly more profitable operations and more satisfied employees. Vroom and Jago (1988, 82) explain the significance of the Margerison and Glube (1979) results:

The results are particularly impressive because three distinct relationships were required to exist: (1) the problem set must be a reasonably valid measure of leadership behavior in decision-making situations, (2) the decisions that a manager makes must impact the profitability of the organization and the satisfaction of subordinates, and (3) the [VJ] model must be valid. Each link in this chain must exist for the results to emerge as they did.

Tushman and Nadler (1978) proposed an organization-level model that included a “fit” construct, which can be viewed as a congruence factor in the design of an effective participative budgeting strategy. They suggested that uncertainty arises from several sources and produces various perceptions of information processing needs. These processing needs, or requirements, then help to shape organizational coping mechanisms (e.g., information processing capacities). Tushman and Nadler (1978) suggested that the most effective information delivery system is one that properly matches requirements with capacities.

In relating their model to the current study, Tushman and Nadler (1978) would consider PNP to comprise an information processing need or requirement, while DPA would be considered an information processing capacity.¹ Thus, the degree of participation allowed (DPA) can be viewed as an adjustment / control mechanism to help organizations effectively determine the appropriate participative budgeting strategy.

In the context of budgetary participation, Brownell (1982a) suggested that role specifications could be modified to suit the personalities of the role occupants. He further indicated that, when role “matching” of this nature is not possible, one must consider the negative consequences that might occur, such as substandard performance and job dissatisfaction.

Other participation congruence studies have examined individual-level variables in the context of matching the perceived need for participation with actual participation levels (e.g., Alutto and Belasco 1972; Doll and Torkzadeh 1989, 1991). Such studies report a positive link between congruence and individual outcomes. Doll and Torkzadeh (1991) suggest that when affected parties receive a lower level of actual participation than they believe is necessary under the circumstances, a state of deprivation exists. Deprivation often leads to frustration and dissatisfaction with the decision process, as well as incomplete information sets from which to make decisions. As a result, deprivation can adversely impact decision quality and desired performance. Conversely, a state of saturation exists when affected parties receive more actual participation than they believe is necessary under the circumstances. Saturation can lower individual performance, as the organization is making inefficient use of human resources by expending an excessive amount of time and energy on participative decision-making activities. In addition, saturation can negatively impact decision quality, as frustration and dissatisfaction with the decision process are elevated in this state. Thus, it appears

¹ Tushman and Nadler (1978) present the term “information processing capacity” in their model as a general term to describe type of coordination and control mechanisms available to an organization. The degree and form of participation in the budget process is presumed among them.

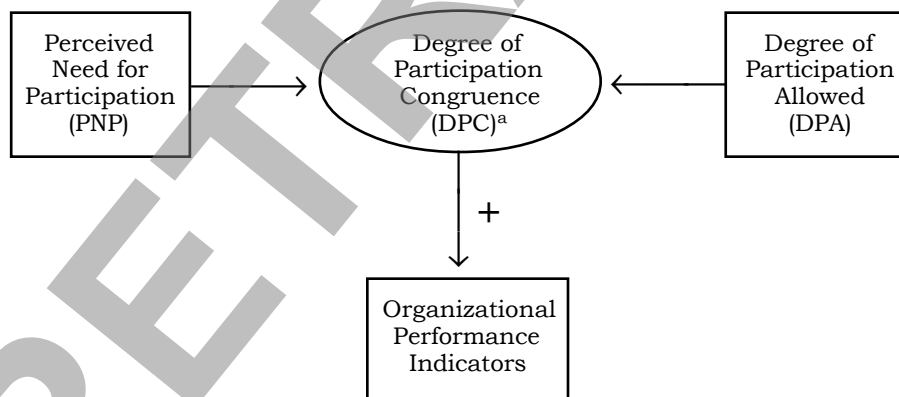
as though participation deprivation reduces the effectiveness of decision making and participation saturation lowers the efficiency of decision making across the organization.

The studies cited above suggest that the quality of individual decision making can be adversely impacted when the PNP and DPA are incongruent. Furthermore, Vroom and Jago (1988), Margerison and Glube (1979), Tushman and Nadler (1978), and Brownell (1982a, 1982b) indicate that the net impact of micro-level decision-making effectiveness and efficiency throughout the entire organization will likely become manifest at the macro level. That is, to the extent that PNP and DPA do not *match*, one might expect less than optimal organizational performance.

Research Hypothesis

The participative budgeting congruence model developed for the current study is presented in Figure 1. The PNP construct represents the extent to which participative budgeting should take place within the organization, as perceived by the organization's members. The PNP construct does not suggest the members' desire to participate, but rather their perception regarding the need for organizational members

FIGURE 1
Research Framework Linking Participation Consequences to Organizational Outcomes



^a Greater participation congruence is indicated as the DPC measure (i.e., difference between DPA and PNP) approaches 0. Therefore, a negative correlation would indicate statistically a positive association between the participation congruence construct and performance.

to participate. The PNP construct as defined here should not be misconstrued as indicating a static normative level of participation. Rather, the PNP reflects a participation level that is contextually derived and based on the perceptions of organization members. Clinton (1999) empirically demonstrated that individuals are accurate at assessing the PNP under differing organizational circumstances. In his experiment, participants appropriately assessed the amount of participation needed, as prescribed by the VJ model, thus confirming the model's descriptive validity and the ability of individuals to judge the PNP. The DPA construct reflects the extent to which organization members at various levels perceive that they actually engage in participative budgeting activities. The DPC represents the "fit" or extent to which the PNP and the DPA are aligned. As shown in the model, the DPC is expected to positively impact organizational performance.

Based on prior research findings, individuals have demonstrated keen abilities to recognize when participation is or is not needed in accordance with criteria specified in the VJ model; thus, the model exhibits a degree of descriptive validity. In addition, studies (e.g., Pasewark and Strawser 1994; Field 1982; Margerison and Glube 1979) have demonstrated the VJ model has normative validity, as decision quality is maximized and objective measures of organization performance are enhanced when model criteria are met. Hence, the Vroom and Jago (1988) model supports the expectation that individuals are able to correctly perceive the type of and degree to which participation is needed under varied circumstances. Additionally, the model supports the expectation that individuals will achieve high-quality outcomes when the needed type and degree of participation is allowed. This sequence thus lends support to the expectation that when PNP is matched with DPA, the DPC-performance relation will be maximized. This leads us to our central research hypothesis (alternate form):

H: As the degree of fit between the perceived need for participation (PNP) and the degree of participation allowed (DPA) increases, i.e., as the degree of participation congruence (DPC) measure approaches 0 (PNP-DPA), organizational performance will increase.

METHOD

Sample

Data were gathered from 386 accounting personnel representing the publishing, paper manufacturing, and chemical products industries. Respondents completed a questionnaire at an annual accounting and financial executives conference held in the northeastern United States. Total attendance was estimated at approximately 1,710, resulting in a response rate of about 22.5 percent. Each respondent

represented a different business organization.² All organizations were publicly traded on national stock exchanges.³ Sample characteristics are shown on Table 1.

Accounting personnel, the vast majority of whom were at a level of accounting manager or higher (89 percent), were chosen as respondents

² The researchers requested that only one participant per company complete the survey. Participants signed in prior to beginning the session, indicating their business affiliation. The sign-in sheet was not linked to the specific survey responses, rather it was used as a means to send summary results of the study to each participant. Participants were assured that their responses were confidential and that only summary measures would be presented. The researchers reviewed the sign-in sheet to ensure that each business organization was represented only once. Moreover, since only one respondent per organization was allowed to participate, the reported response rate (22.5 percent) may be understated since this percentage was obtained by calculating number of respondents as a percent of total *individuals* in attendance vs. total organizations represented. Although we are unaware of the number of organizations represented by the population, the likelihood that multiple individuals attended from the same organization is high.

³ Due to the sensitive nature of the survey inquiry, the researchers were not allowed to match respondents with their organizations; hence, it was not possible to use archival data analysis to examine organizational performance.

TABLE 1
Sample Characteristics

Number of Respondents (percentage) by Industry		
Publishing	167	(43)
Paper Manufacturing	102	(26)
Chemical Products	117	(31)
Age		
Mean (Std. Dev.) [Range = 23 to 62 years]	42	(11.2)
Number of Respondents (percentage) by Gender		
Male	263	(68)
Female	123	(32)
Number of Respondents (percentage) by Job Position		
Junior Accountant	20	(5)
Senior Accountant	22	(6)
Accounting Manager	89	(23)
Assistant Controller	36	(9)
Controller	134	(35)
Assistant CFO	50	(13)
CFO	35	(9)
Number of Respondents (percentage) by Reporting Level		
Directly to CEO	49	(13)
One level from the CEO	150	(39)
Two levels from the CEO	54	(14)
Three levels from the CEO	85	(22)
Four levels from the CEO	37	(9)
Five levels from the CEO	11	(3)
Organization Size		
Mean (Std. Dev.) Number of Employees [Range = 200 to 2,920 employees]	889	(639)
Mean (Std. Dev.) Annual Revenue in Millions [Range = \$8 Million to \$198 Million]	\$48.9	(\$36)
Reliability Estimate ($r = 0.967$)		

to the questionnaire for reasons similar to those presented by Shields and Young (1993, 271):

Controllers were chosen because they: (1) play a key role in designing the information and control system of a firm and are thus likely to appreciate the overall picture of the budgeting system (probably more so than the average manager), (2) have direct and frequent access to top management to discuss issues relating to control system design and operation, and (3) provide a perspective on the role of participative budgeting that has been missing from the literature.

To provide further assurance of the representativeness of our sample, we compared responses of the managers and nonmanagers (11 percent) in the sample and found no significant differences.

Measurement of Variables

Participants responded to survey items via personal computers. Survey items were fully randomized for each individual to preclude an order effect. Only one survey item at a time appeared on the computer screen. Once respondents answered survey items, they were precluded from reviewing prior items and responses. At the field site, data from each respondent were collected on a diskette. Data from all 386 diskettes were subsequently transferred to a single computer file using a computer program. Descriptive statistics and reliability estimates for all variables in the research model are shown in Table 2. In addition, a correlation matrix of variables examined is presented in Table 3.

The PNP and DPA variables were examined in a manner patterned after Bruns and Waterhouse (1975). They identified three separate dimensions of participative budgeting: (1) participation in planning, (2) participation in budgeting, and (3) interaction with superiors regarding budget issues. Two items were selected to represent each dimension in the current study. Choice of the two items was based on the degree to which they loaded high, using factor analysis, on the named construct in the Bruns and Waterhouse (1975) study, and on each question's applicability to respondents in the current study.⁴

⁴ Since respondents to the questionnaire were composed of individuals of diverse reporting levels, questions—although worded after the manner of Bruns and Waterhouse (1975)—were adapted to reflect a response that would not be indicative of any particular reporting level. Also, it was desired that responses regarding the perceived need for participation not necessarily be restricted to respondent desires or preferences, but rather that they encompass a broader participation construct (i.e., they inquire about perceptions of the behaviors and attitudes of others in the organization as well as those of the respondents themselves). For example, in measuring the construct *interaction with superior*, one of the Bruns and Waterhouse (1975) questions reads "I work with my superior in preparing the budget for my unit." The adapted version reads, "Superiors and subordinates work together in preparing the budget." Accordingly, the Bruns and Waterhouse (1975) instrument was chosen because it reflects more than the degree to which a given decision maker has influence over his or her own budget and extends to participative budgeting as an administrative process and element of the organization's structure.

TABLE 2
Descriptive Statistics for Model Variables

	Mean	Std. Dev.	Reliability Estimate
Perceived Need for Participation (sum of six items: 6 = Low, 42 = High)	22.5	(7.9)	$\alpha = 0.881$
Degree of Participation Allowed (sum of six items: 6 = Low, 42 = High)	23.5	(7.7)	$\alpha = 0.841$
Degree of Participation Congruence Difference between DPA and PNP [Range -27 to 28]	0.9	(10.7)	NA
Absolute value of difference between DPA and PNP [Range 0 to 28]	8.9	(6.0)	NA
Organizational Performance Mean (Std. Dev.)			
Percent Change in Net Income	0.030	(0.197)	NA
Mean (Std. Dev.)			
Percent Change in Stock Price	0.013	(0.213)	NA
Mean (Std. Dev.)			
Percent Change in Return on Investment	0.019	(0.188)	NA
Mean (Std. Dev.) Self-Reported Performance (1 = Low, 7 = High)	4.020	(1.900)	NA
Reliability Estimate (Standardized Cronbach's alpha)			$\alpha = 0.867$

Using seven-point, bipolar, fully anchored scales (1 = Not at all often, 7 = Very often) the DPA and PNP constructs, respectively, were assessed using two sub-questions per questionnaire item: (1) "How often does this take place?" and (2) "How often should this take place?" The same procedure was used by Bruns and Waterhouse (1975) to determine frequency and normativeness. Related items were summed and collapsed into two separate indices.

The DPC was determined by calculating the difference between PNP and DPA. The absolute value of this difference was used to examine the correlation between DPC and performance measures. That is, the absolute difference between PNP and DPA, regardless of direction, reflects the degree of participation congruence. Hence, as the DPC approaches 0, the measure indicates greater congruence. No difference between PNP and DPA would reflect perfect participation congruence.

Although not hypothesized, directional effects were also examined. Preliminary test results did not evidence significant differences in directional effects (i.e., a negative vs. positive DPC) on the performance variable; however, the situations created by each of these effects are

TABLE 3
Correlation Matrix of Variables

	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
1. Perceived Need for Participation	.088 (.084)	-.183 (.003)	-.005 (.927)	-.034 (.504)	-.058 (.252)	.102 (.045)
2. Degree of Participation Allowed		.030 (.562)	.015 (.765)	.029 (.571)	.036 (.484)	.014 (.780)
3. Degree of Participation Congruence ^a			-.151 (.001)	-.187 (.001)	-.181 (.001)	-.209 (.001)
4. Percent Change in Net Income				.905 (.001)	.898 (.001)	.369 (.001)
5. Percent Change in Stock Price					.872 (.001)	.343 (.001)
6. Percent Change in Return on Investment						.334 (.001)
7. Perceived Firm Performance Compared to Industry Peers						

^a Greater participation congruence is indicated as the DPC measure (i.e., difference between DPA and PNP) approaches 0. Therefore, a negative correlation here indicates a positive association between participation congruence and performance, as hypothesized.

presumed to be different, and perhaps important, on other dimensions. For example, using the language of the Tushman and Nadler (1978) model, greater PNP than DPA implies that a degree of uncertainty still remains that has not been addressed adequately by organization capacities. Alternatively, more DPA than PNP implies an inefficient participative budgeting strategy (i.e., an unnecessary amount of participation is being allowed).

Organizational performance was measured by obtaining responses to four items used by Shields and Young (1993). These included (1) percentage change in net income, (2) percentage change in stock price, and (3) percentage change in return on investment for the most recent reporting year, and (4) a self-reported rating of overall performance as compared to peer organizations (1 = Very low, 7 = Very high).

RESULTS

Preliminary Testing of Sample Characteristics

MANOVA was used to assess the extent to which participant responses were influenced by sample characteristics shown in Table 1 (i.e., industry, age, gender, position title, or reporting level from CEO). Organization size was not included in testing of sample characteristics since it is included in the research framework. All variables shown

in the research framework (Figure 1) were tested as a unified set of dependent variables. Independent variable categories were classified as shown on Table 1, except for age. Cluster analysis (K-means) was used to group respondents into two age categories to facilitate MANOVA calculations. The first cluster ($n = 206$) had a mean/standard deviation of 50.9/6.0 years and the mean/standard deviation of the second cluster ($n = 180$) was 31.8/5.8. The MANOVA model was significant ($F\text{-ratio} = 126.43$, $p\text{-value} < 0.01$). The two independent variables with $p\text{-values} \leq 0.10$ were age and position title. Therefore, we ran separate ANOVA models to isolate which dependent variables were significantly different based on either age or position title. In all, 14 separate ANOVA calculations (7 dependent variables \times 2 independent variables) were performed. ANOVA models with overall $p\text{-values} \leq 0.10$ were further investigated.

The ANOVA models revealed that mean DPA significantly differed based on position title (ANOVA $p\text{-value} = 0.05$). There were seven position levels recorded. Hence, Scheffe's multiple pairwise comparison test was used to determine which means were significantly different from one another ($p\text{-value} = 0.05$). Only one pairwise comparison revealed significantly different means. As one might expect, junior accountants recorded the lowest mean level of degree of participation allowed (18.8) and CFOs recorded the highest mean level (25.6). All other means fell within that range and were not significantly different from any other mean. There were no other statistically significant differences based on either age or position title. In summary, there did not appear to be a systematic pattern of variable responses based on demographic data that would affect hypothesized results of the study.

Hypothesis Testing

The central hypothesis, tested using correlation analysis, posits that organizational performance is positively associated with the DPC construct (i.e., negatively correlated with the DPC variable since it is reverse-scaled). Results can be observed in the Table 3 matrix of correlations. The reader should note that greater congruence is indicated as the DPC measure approaches 0; consequently, the negative correlation between the DPC and organizational performance is directionally consistent with the hypothesis. All four of the performance indicators are significantly associated with the DPC. Based on the results of correlation analysis, the central hypothesis is supported.

Post Hoc Testing

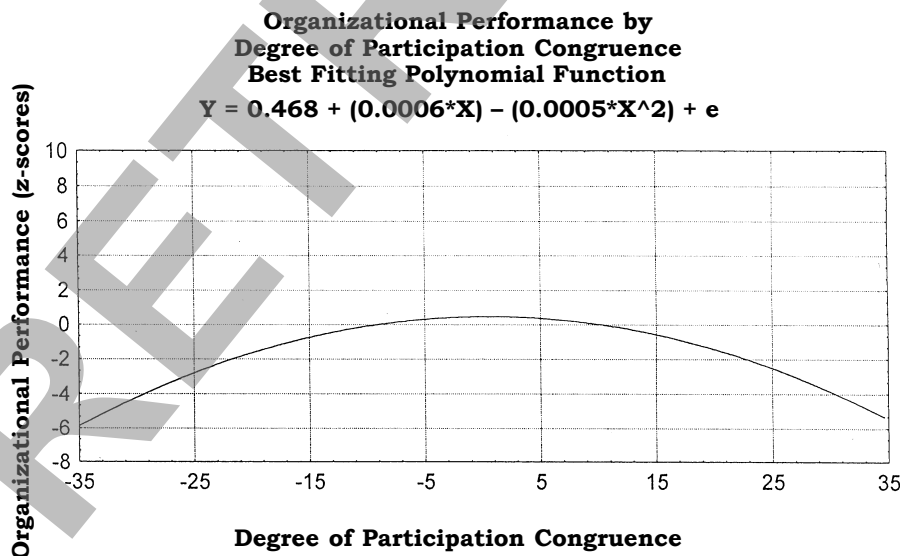
The premise behind the DPC is that as the difference between the DPA and the PNP nears 0, measures of performance will increase correspondingly. At or near the zero point (i.e., perfect congruence), the performance measures should peak. In order to examine this issue further, we mathematically modeled the "best fitting" function of DPC

on organizational performance and derived a polynomial curve from the underlying data.

Figure 2 represents the organizational performance curve (n = 386). The reverse-scaled raw DPC score (not the absolute value of the DPC) is graphed on the X-axis, as it better illustrates the relationship between the DPC and performance. The Y-axis represents the summed z-score index of all four performance-measure responses used to form a single organizational performance index. The curve shown on the graph represents the best fitting polynomial function, as determined by the statistical analysis software package *Statistica*. The graph reveals a maximum point where the DPC approaches 0. Specifically, when Y reaches its maximum point of 0.413, X = 0.105. Statistical testing (t-test) on the maximum value (0.413) and the performance mean when the DPC = 0 (Y = 0.468) reveals no significant difference (p-value = 0.9340).

When the PNP exceeds the DPA, the resulting DPC reflects a state of perceived actual participation that is lower than deemed appropriate by respondents (deprivation). When the DPA exceeds the PNP, the DPC measure reflects a state of perceived participation that is higher than deemed appropriate (saturation). We conducted additional correlation analyses to examine whether either of these states are differentially associated with organizational performance. In our sample, 187 respondents indicated that participation levels were lower than

FIGURE 2
Frequency Scatter Plot



perceived appropriate and 199 indicated that participation levels were higher than perceived appropriate. The correlation (p-value) between the DPC and summed organizational performance index for respondents in the *too little* participation category was 0.2232 (≤ 0.0001); the correlation (p-value) between the DPC and performance for subjects in the *too much* participation category was -0.2173 (≤ 0.0001). A nondirectional test of significance (t-test) between the two correlation statistics (0.2232 and -0.2173) reveals no significant difference (p-value = 0.9898). Therefore, we find no differential relationship between organizational performance and either the *too little* or the *too much* participation states.⁵

DISCUSSION

The purpose of this study was to examine the influence of participative budgeting congruence on organizational performance indicators. The degree of participation congruence (DPC) was conceptualized as the difference between the perceived need for participation (PNP) and the perceived degree of participation allowed (DPA). Use of this congruence measure is suggested as a key component of a successful participative budgeting strategy.

Prior studies of participation have examined associations between the extant degree of participation allowed (DPA) and performance, yielding somewhat mixed results. Had we used the DPA measure in this study as the independent variable, our results also would have been inconclusive since correlations between the DPA and organizational performance indicators were nonsignificant. In addition, correlations between the PNP and performance indicators were nonsignificant, except for “perceived firm performance compared to industry peers.” Hence, using the PNP as a predictor of organizational performance would have been problematic as well.

Considering the set of all possible associations in the framework with organizational performance, the relationship between the DPC and performance was most clear. Organizational performance peaked as congruence was maximized. It did not matter whether respondents reported an extant state of actual participation that was perceived to be higher or lower than appropriate; organizational performance peaked when the difference between the DPA and the PNP approached 0. These results build on theoretical suggestions of Brownell (1982a, 1982b) and the empirical results of Shields and Shields (1998), Shields and Young (1993), and Clinton (1999) regarding antecedent-consequence relations in participative budgeting.

⁵ Statistical tests were also performed to determine the extent to which the “too little” and “too much” DPC groups differed on any of the sample characteristics shown on Table 1. No significant differences were found. Hence, if the two groups are systematically different, such differences reside along dimensions that were not measured in the current study.

Also of interest is the fact that more than half of the respondents indicated that participation levels were too high. This may suggest that our sample responses reflect a somewhat conservative group in terms of perceived need for participation in the budget process. Moreover, nonsignificant correlations between PNP and DPA as shown on Table 3 may be considered a surprising finding. Often in the past, the accounting literature has presumed, perhaps implicitly, that PNP and DPA are strongly related. Our findings suggest this may be a questionable assumption.

Several practical managerial implications can be derived from this study. Merely increasing the level of participation in budgetary processes, without considering the amount of participation that ought to be allowed under the circumstances, may not always be an effective strategy. Study findings support this contention (i.e., DPA levels were not significantly correlated with organizational performance). Certainly, considering the perspective of subordinate preferences for participation alone is insufficient to achieve effectiveness. Since the actual degree of participative budgeting is a choice made by decision makers, we suggest that they first determine the level of participation that should be used in a given context and then match actual participation to that level.

It seems that a key factor in determining participation congruence is establishing the amount of needed participation, as perceived by decision makers. The level of perceived need for participation is likely associated with the degree of differential uncertainty perceived by the decision makers and other situational factors. Future research could investigate cognitive processes used to determine the level of participative budgeting that should be allowed given specific organizational characteristics and specific decision-maker populations. The VJ model has already identified important situational factors in this regard. Further identification of important factors at the organization level would likely be helpful in improving decision-makers' abilities to determine appropriate participation levels.

Some limitations are inherent in this study. First, the accountants who participated in this study were volunteers. Since we do not have access to demographic characteristics of all accountants who attended the accounting and financial executives conference, we cannot attest to the representativeness of the sample. Moreover, some of these accountants (11 percent) were reportedly of a rank (i.e., junior or senior level) that may not imply significant decision making in the budget process. Second, the sample reflects three industries and study findings may not generalize to other industries. Third, we do not suggest that our research framework is complete, for there may be other factors not included in the framework that can partially or wholly explain the results. Fourth, the degree of validity and reliability of subject responses attributed to behaviors and attitudes of others in their

organizations is unknown. Also, only one employee from each organization reflected the perceived state of the entire organization. Fifth, although the relationship between the DPC and organizational performance was statistically significant ($p = 0.0001$), DPC did not have a large effect size on organization-level performance variables of the type examined here (e.g., change in stock price). Sixth, the respondents self-reported the organizational performance indicators, and it is doubtful that they could remember precise changes in net income, stock prices, and ROI. However, there is no reason to believe overall responses were biased in either a positive or negative direction. At worst case, this added noise to the data. At best case, this attests to the robustness of our model, since significant associations between the DPC and performance measures were found. Finally, as with any correlation study based on survey results, there remain questions regarding internal validity. Specifically, we cannot say with any degree of confidence that the relationships found in this study represent causal linkages. Consequently, we believe that the results reported here should be interpreted in light of these limitations.

In conclusion, we believe the congruence framework presented in this study is a step forward in our quest to better understand ways to maximize the effectiveness of participative budgeting. Future research may reveal that the relationship of participation congruence to outcomes is a workable universalist theory. In much the same way as contingency theory has superseded questions regarding the universal desirability of participation, the congruence framework may ultimately replace the endless search for moderating variables which contingently support recommendations for all-or-nothing participation in the budgeting process.

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