

THE EFFECTS OF LEADERSHIP STYLES AND BUDGET PARTICIPATION ON JOB SATISFACTION AND JOB PERFORMANCE

Ralph W. Adler

Dept. of Accountancy and Business Law
University of Otago
Dunedin, New Zealand

Jonathan Reid

WHK Gosling Chapman
Auckland, New Zealand

Abstract

Previous attempts to study the effects of leadership style and budget participation on job satisfaction and job performance have invariably centred on 1970s conceptions of leadership style. As a consequence, this body of research has failed to capitalise on significant advancements in the conceptualisation and operationalisation of leadership that occurred in the 1980s and 1990s. The present paper incorporates these more modern understandings of leadership, in combination with the traditional conceptions, to examine the effects of leadership style and budgetary participation on employee performance and job satisfaction. In general, only partial support was found for the literature's existing empirical findings. Moreover, the present study clearly reveals that improved explanation of employee performance and job satisfaction can be attained through the inclusion of the more recent (post 1970s) conceptualisations and operationalisations of leadership. Surprisingly, at least in comparison to earlier studies, the relationships, rather than showing as complex, interactive ones, are apparently of a much simpler, independent nature.

Keywords: Leadership, budgets, participation, performance, job satisfaction

Introduction

Some 30 years ago, Ansari (1976) observed that leadership style can interact in important ways with a firm's budgetary control system. This discovery, in spite of the significant implications it had, and still has, for employee performance and job satisfaction, has received only intermittent study. What little attention has been awarded the topic, has invariably centred on 1970s conceptions of leadership style; and, in the process, has failed to capitalise on the several significant advancements in (and arguably richer understandings of) the conceptualisation

and operationalisation of leadership that occurred in the 1980s and 1990s (Bass, 1990; Yukl, 2002). The purpose of the present paper is to incorporate a contemporary understanding of leadership with an organisation's use of budgetary participation to help explain employee performance and job satisfaction.

The paper is organized in the following manner. In the next section, the relevant literature is reviewed and a set of testable hypotheses is presented. The paper next describes a study that empirically tested these hypotheses. The fourth section presents the results, while the final section discusses the results and provides conclusion.

Literature Review

Budgets are a ubiquitous organizational device commonly used for planning, coordinating, evaluation, and control. Serving to unite and unify an organization's functional strands (Horngren, 2004), budgets impact on and are impacted by a wide range of individual, unit, and macro level structures and processes (Covaleski *et al.*, 2003).

Budgets can be used in an autocratic or participative fashion. The former is often described as a top-down approach, and the latter as a bottom-up approach.

Normative-based arguments propound the existence of a positive correlation between bottom-up or participative budgeting and job satisfaction and performance (Argyris, 1952; Becker and Green, 1962). Explanations for the expected correlation depend on the particular theoretical lens being adopted. For example, goal setting theory argues that participation aids in goal internalization and ultimately task commitment and performance (Locke, 1968; Erez *et al.*, 1985; Erez and Arad, 1986). Meanwhile, contingency theory suggests that environmental uncertainty causes organizations to differentiate, which in turn requires organizations to adopt integrating mechanisms - such as cross functional task forces and/or organizational systems that might feature negotiated transfer prices and budget participation - to aid organizational coordination and promote effectiveness (Lawrence and Lorsch, 1967). Empirical studies undertaken by management accountants, however, have produced inconsistent and inconclusive results (Kren, 1992; Shields and Young, 1993; Brownell, 1982; Chenhall and Brownell, 1988).

Research findings from the participative decision making literature are similarly plagued by an inability to support their studies' deductively-based hypotheses (Wagner and Gooding, 1987; Locke and Latham, 1990: 169-170; Locke and Schweger, 1979; Leana *et al.*, 1990; Cotton *et al.*, 1988). As an example, Wagner and Gooding's (1987: 524) meta-analysis of 70 published studies on participation and its consequences (performance, decision performance, motivation, satisfaction,

and acceptance of consequences) found the correlation between participation and its various outcomes to be “modest.” They concluded that “many of the noteworthy positive findings” were the result of methodological artefacts (Wagner and Gooding, 1987: 524).

Some scholars of budget participation have reported better success when the moderating effects of contingent factors are included. Examples of the contingent factors examined are locus of control (Kren, 1992), job difficulty (Mia, 1989), civic virtue (Graham and Verma, 1991), task and environmental uncertainty (Brownell, 1982), and leadership (Brownell, 1983; Hopwood, 1972 and 1974; and Dessler, 1973).¹

Brownell had been a particularly strong advocate of the need to include contingent factors when examining the effect of budget participation on performance and job satisfaction. Brownell (1983: 318) noted:

[I]t is too simplistic to expect to observe consistent, cross-situationally generalizable effects of budgetary participation. Rather, the results of this study confirm that variables from the interpersonal domain will moderate these effects at least as far as performance and job satisfaction are concerned.

Contingent Frameworks

For Brownell, leadership style was a particularly important contingent factor, one that must be considered whenever a “move towards (or away from) a participative budget-setting process” was being considered (Brownell, 1983: 318).

Hopwood (1972 and 1974) was one of the first scholars to draw attention to the link between budgets, leaders’ performance evaluative styles, and the associated consequences on employee performance and job satisfaction. Hopwood found that “budget-constrained” performance evaluative styles were positively associated with job tension and, although not empirically tested, felt that budget-constrained styles would lead to lower job performance (Hopwood, 1972: 176). It is worth noting that a subsequent study by Otley (1978), which repeated some of Hopwood’s work using independent profit centres as opposed to Hopwood’s use of cost centres, found the relationships between budgets, a leader’s performance evaluative style, and performance to be more complex than Hopwood initially observed.

Brownell (1982a; 1982b) demonstrated that the often observed dysfunctional behaviour associated with a superior’s high reliance on performance measures was moderated by the extent to which the subordinate participated in setting the budget. In particular, if the level of budgetary participation was proportionate

to the level of reliance on performance measures, then an appropriate fit would be obtained and would lead to increased job performance and decreased dysfunctional behaviour.

In a subsequent study, Brownell (1983) examined the influence of budgeting systems and leadership styles on employee performance and job satisfaction. Brownell observed that the highest job satisfaction and performance occurred when the budgeting process included participation and the superior displayed a considerate leadership style. As Brownell went on to note, his findings revealed the existence of significant interactive effects between budgets and leadership styles. Furthermore, Brownell felt that the uncovering of this interactive effect provided an understanding of why previous literature was inconclusive or contradictory and why it was vital to “recognize the role of contingent factors in any theoretical or empirical assessment of the behavioral consequences [job satisfaction and performance] of budgetary systems” (p. 307).

Research subsequent to Brownell (1983) bifurcated, with one branch exploring the effects of budgetary participation on job performance, job satisfaction, and employee stress (e.g., Hirst, 1983; Brownell and Hirst, 1986; Brownell and McInnes, 1986; Mia, 1988; Dunk, 1989) and a second branch examining the effects of leadership styles on job performance and job satisfaction (e.g., Bass, 1981; Bass, 1990; Fisher and Edwards, 1988). Only most recently has research attempted to reunite budget use and leadership style for understanding job performance and employee satisfaction (Marginson and Ogden, 2005). Among Marginson and Ogden’s set of interesting findings was the observation that role ambiguity overrides other commonly recognised variables, such as leadership style, and produces a strong yearning among subordinates for the structure and certainty that budgets provide. In other words, unlike Brownell (1983), Marginson and Ogden do not find that leadership style plays a particularly important role.

A notable departure of the Marginson and Ogden (2005) study, at least from the perspective of Hopwood (1974) and Brownell (1983), is its rejection of the Ohio State Leadership scale. The Ohio State Leadership scale was the classic research instrument for much of the 1960s and into the 1980s, and therefore its use by Hopwood and Brownell is to be expected. Since the late 1980s, the Multifactor Leadership Questionnaire-X (MLQ-X) featured, often alongside the Ohio State Leadership scale, in virtually all empirical studies that included leadership as a variable (Bass and Avolio, 2000). Consequently, Marginson and Ogden’s choice to devise their own five-item leadership instrument, instead of using the Ohio State Leadership scale, as is commonly captured by Stogdill’s (1963) instrument, and/or the Multifactor Leadership Questionnaire-X (MLQ-X), is most curious and raises questions about the utility of their findings involving leadership style.

“As just noted, the measurement of leadership was initially dominated by the Ohio State Leadership scale, which focused on two broadly defined categories of leadership behaviour: initiating structure and consideration. Initiating structure represents the extent to which leaders define and structure their subordinates’ roles for the purpose of goal attainment (Yukl, 2002: 50). Under this particular style, leaders become highly immersed in directing and monitoring the group’s activities by devoting their time to the processes of planning, scheduling, and communicating information (Otley and Pierce, 1995). As Yukl (2002: 50) notes, some of the more typical leader actions evidencing this leadership style are “criticizing poor work, emphasizing the importance of meeting deadlines, assigning subordinates to tasks, maintaining definite standards of performance, asking subordinates to follow standard operating procedures, offering new approaches to problems, coordinating the activities of subordinates, and seeing that subordinates are working up to capacity.”

Consideration involves leaders showing interest in and concern for their subordinates’ welfare. Leaders who are high on consideration have relationships with their subordinates that are characterized by high levels of mutual trust and respect and include good rapport and two-way communication (Otley and Pierce, 1995). As Yukl (2002: 50) notes, some leader actions that typify this leadership style are “doing personal favors for subordinates, finding time to listen to subordinates’ problems, backing up or going to bat for a subordinate, consulting with subordinates on important matters before going ahead, being willing to accept subordinate suggestions, and treating a subordinate as an equal.”

The link between leadership style and employee performance and job satisfaction has been well researched, with hundreds of studies conducted (Yukl, 2002: 52). In spite of the substantial attention given, the results have been inconsistent and inconclusive (Bass, 1981; Bass, 1990; Fisher and Edwards, 1988; Kerr and Schriesheim, 1974; and Yukl, 1971). The only generally consistent finding involves the relationship between consideration and satisfaction. In particular, employees are generally most satisfied when their leader is moderately considerate (Fleishman and Harris, 1962; Yukl, 2002: 52). This finding is slightly at odds with Brownell’s (1983: 308) interpretation of there being “relatively strong effects of consideration on job satisfaction.”

The first hypothesis to be tested in the present study is the relationship between leadership styles featuring high consideration and employee satisfaction. The hypothesis can be formally stated as follows:

H1: There is a positive association between considerate leadership and employee job satisfaction.

As noted earlier, Brownell (1983) believed the outcomes of employee job satisfaction and job performance were predicated on the presence of interactive relationships between such contingent variables as leadership style and budgetary participation. In particular, Brownell's work concluded that a considerate leadership style combined with high budgetary participation is associated with high employee job satisfaction and job performance. This relationship, he argued, was illustrative of a compatible match between two contingent variables (i.e., leadership style and budgetary participation) and could be conceptually supported by literature showing that a trusting and supportive leader was a prerequisite for effective budgetary participation (Ritchie and Miles, 1970; Zand, 1972). This discussion leads to the following two hypotheses:

- H2: There is a significant interaction effect for considerate leadership and budgetary participation with employee job satisfaction.
- H3: There is a significant interaction effect for considerate leadership and budgetary participation with employee job performance.

Conceptions of leadership have evolved considerably since the mid-1980s. In particular, researchers became interested in the emotional and symbolic aspects of leadership. The work of Burns (1978) and Bass (1985) was a particularly energizing force at the time, and out of their work grew the terms transactional and transformational leadership. It is important to note two characteristics of these new theories of leadership. First, they are conceptually distinct from initiation and consideration, and have been shown to be operationally distinct as well. Transactional and transformational theories of leadership are meant to provide an explanation for the exceptional influence some leaders have by focusing on the emotive persuasions and commitment inducing loyalties that leaders can create in their subordinates (Yukl, 2002: 240). Second, transactional and transformational theories of leadership complement, as opposed to supplant, the older theories. It is possible for a leader to be high (low) on any one of the initiating structure, consideration, transactional, and transformational leadership styles. Together - combined, that is, with initiating structure and consideration - measurements of a manager's transactional and transformational abilities are meant to give a fuller, more complete picture of the particular manager's leadership style.

Transactional leadership views the leader-follower relationship as a *quid pro quo* arrangement. The leader uses rewards to clarify organizational goals and engender employee compliance (Yukl, 2002: 254). Political leaders, for example, achieve this end by offering jobs and special investment/funding in exchange for votes, while corporate leaders use jobs, pay, and status to reward employee effort and performance (Yukl, 2002: 241).

Transformational leadership, which emphasizes emotions and values, draws upon symbolic behaviour and the role of the leader in making events meaningful for followers (Yukl, 2002: 241). Transformational leaders have the ability to inspire their followers, to deal individually with subordinates to meet their developmental needs, and to encourage new approaches and more effort toward problem solving (Seltzer and Bass, 1990). Although Burns (1978: 20) viewed transformational leadership as a process that elevates followers from their “everyday selves to their better selves,” Bass (1985) and Yukl (2002: 250) contend that this is not always the case. Leaders can also be transformational even though they reach out to people’s base instincts and produce negative effects, such as was the case with Adolf Hitler.

Transactional and transformational leadership have been widely linked to positive individual and organizational consequences (Bass, 1990). These leadership styles are found to correlate positively with employee perceptions of job, leader, and organizational satisfaction (Bycio et al., 1995; Niehoff et al., 1990), as well as with objective measures of performance, including stock and product performance, sales volume, and profit margin (Geyer and Steyer, 1998; Howell and Avolio, 1993). Such findings lead to the postulation of the following hypotheses:

- H4: Transactional leadership is positively correlated with employee job satisfaction.
- H5: Transactional leadership is positively correlated with employee job performance.
- H6: Transformational leadership is positively correlated with employee job satisfaction.
- H7: Transformational leadership is positively correlated with employee job performance.

The literature supports not only a positive correlation between transactional/transformational leadership styles and employee job satisfaction and performance, but it further reveals that a substantial increase in the amount of explained variation in employee job satisfaction and performance can be achieved when transactional and transformational leadership are used in addition to initiating structure and consideration. As an example, Seltzer and Bass (1990) found that by incorporating measures of transformational leadership in their studies, they were able to account for a further 8-28% more variability in their employee satisfaction and leader effectiveness dependent variables. This discussion leads to the following two hypotheses:

- H8: An increase in the amount of explained variation in employee job satisfaction can be achieved when transactional and transformational leadership are used in addition to initiating structure and consideration.

H9: An increase in the amount of explained variation in employee job performance can be achieved when transactional and transformational leadership are used in addition to initiating structure and consideration.

The interactive effects of budget participation and transactional and transformational leadership have yet to be studied. Leveraging the earlier discussion that noted how a trusting and supportive leader was a prerequisite for effective budgetary participation (Ritchie and Miles, 1970; Zand, 1972), it is expected that a transformational leadership style would come under the description of a trusting and supportive leader. The transactional leader would not, for his/her relationship with followers would be characterised less by trust and more by a legalistic, contractual arrangement. Accordingly, the final two research hypotheses are posited:

H10: There is a significant interaction effect for transformational leadership style and budgetary participation with employee job satisfaction.

H11: There is a significant interaction effect for transformational leadership style and budgetary participation with employee job performance.

Method

Sample

The sample consisted of middle-level managers from a large New Zealand-based manufacturer. The targeted managers formed the second tier of management at the company's production sites. All managers had budgetary responsibilities, and each reported directly to the production site manager.

An email, which included reference to the company's senior management support for the research, was sent to 89 middle managers within the Ingredients Division of the Fonterra Cooperative Group² inviting them to participate in a piece of research exploring the "budget setting process." A link to the web-based questionnaire was enclosed. The average age of those who responded was 44 years, the average tenure in their current position was 4.1 years, and the average length of time spent within the organization was 13.2 years.

Research Instrument

The questionnaire collected data on a total of seven variables: consideration, initiating structure, transactional leadership, transformational leadership, budgetary participation, performance, and job satisfaction. Leader consideration and initiating structure were measured using the Ohio State Leadership scale (Leader Behavior Description Questionnaire-Form XII) (Stogdill, 1963). The instrument consists of 20 items (ten each for consideration and initiating structure). This set of items

describes the frequency with which subordinates observe 20 different types of leadership behaviour from their superior.

Transactional and transformational leadership were measured using the revised version of the Multifactor Leadership Questionnaire-X (MLQ-X) developed by Tepper and Percy (1994). MLQ-X is a widely-used version of the Multifactor Leadership Questionnaire (MLQ) developed by Bass (1985). Tepper and Percy's (1994) version of MLQ-X differs in that it does not include the transactional leadership sub-scale of management by exception. This is because Tepper and Percy (1994) showed that none of the LISREL models containing items measuring management by exception in MLQ-X obtained an adequate fit to the data, while items measuring promises (contingent reward I) and rewards (contingent reward II) showed good convergence and formed an interpretable index of transactional leadership. Three items measured contingent reward I (promises), three items measured contingent reward II (rewards), six items measured charismatic leadership, six items measured inspirational leadership, three items measured individualized consideration, and three items measured intellectual stimulation. The first two sub-scales (contingent reward I and II) measure transactional leadership and the remaining sub-scales measure transformational leadership.

For measuring participation, Milani's (1975) six-item Likert scale was used. Performance was measured using a self-assessment version of Mahoney *et al.*'s (1963, 1965) nine-dimensional managerial performance rating scale. The nine dimensions include eight sub-dimensions of performance and a single overall rating. Even though this instrument uses self-assessment, it is well established and has been tested and used extensively in management accounting research (Lau and Lim, 2002). Job satisfaction was measured using a short-form of the Minnesota Satisfaction Questionnaire (MSQ) developed by Weiss *et al.* (1967). This instrument consists of 20 items, all of which utilize a five-point Likert scale. A full copy of the research instrument is included as Appendix A.³

Results

As previously mentioned, a total of 89 managers was targeted. Of this number 40 completed the online questionnaire⁴. This represents a response rate of 45 percent.⁵

All seven variables were factored analysed and tested for inter-item reliability. Factor analysis of the items comprising the four leadership variables (initiating structure, consideration, transactional, and transformational leadership) produced eigenvalues and a scree plot inflection point that confirmed the presence of four main factors. Accordingly, the separate transactional and transformational subscales (e.g., contingent reward I, contingent reward II, charismatic leadership,

etc) could not be observed. The factor analysis further revealed that the three reverse-scored items of the Leader Behavior Description Questionnaire-Form XII (items 36, 42, and 44) failed to load on any of the four factors, instead producing a strong loading with solely one another. The possibility of a separate, unique factor emerging when reverse-scored items are used has been repeatedly demonstrated in the past (see, for example, Schmitt and Stults, 1985). As a consequence, the three items were omitted from further data analysis. The inter-item reliabilities for the four leadership styles are shown in Table 1.

Factor analysis of the items comprising budgetary participation, employee job satisfaction, and employee job performance produced eigenvalues and a scree plot inflection point that confirmed the presence of three separate factors. The item loadings across each of the three factors were consistent with *a priori* expectations. The inter-item reliabilities for the budgetary participation, employee job satisfaction, and employee job performance variables are shown in Table 1.

Table 1: Reliability Testing

Variable	Cronbach's Alpha
Initiating Structure	.863
Consideration	.883
Transactional Leadership	.748
Transformational Leadership	.910
Budgetary Participation	.844
Subordinate Performance	.906
Subordinate Job Satisfaction	.899

The study's hypotheses were tested using correlation analysis and linear regression. The assumptions underlying the use of these two parametric tests, i.e., normality of residuals, homogeneity of variance, and linear relations (Coakes and Steed, 2003), were tested for and met. The Kolmogorov-Smirnov test was used to test the normality of the residuals and analysis of scatter plots was used to test for homogeneity of variance and the linearity of the data. No departures from the various assumptions were observed.

Hypothesis 1 posited a positive correlation between considerate leadership and employee job satisfaction. This relationship was tested using a Pearson product-moment correlation. The test produced a correlation of .536, which was significant at $p < .01$. Accordingly, support is found for hypothesis 1.

Hypotheses 2 and 3 involved testing for an interaction effect for considerate leadership and budgetary participation with employee job satisfaction (Hypothesis

2) and employee job performance (Hypothesis 3). Both hypotheses were tested using stepwise-linear regression models. In the first step, the independent variables considerate leadership, initiating structure, and budgetary participation were entered along with the dependent variable employee job satisfaction or employee job performance. In the second step, an interactive term (considerate leadership x budgetary participation) was added. While the introduction of interactive terms often produces multicollinearity, which in turn causes biased parameter estimates, the purpose of the present step-wise regression was not to determine parameter estimates but to test for the presence of a significant change in R^2 between the two regression models (the one with and the one without the interactive term). The results indicate that for employee job satisfaction the R^2 of the first model was .528 and the R^2 for the second model was .541. The R^2 change of 1.3% is not significant, displaying an F-change statistic of 1.023 and a p-value of .319 (see Table 2). Accordingly, Hypothesis 2 is not supported.

Table 2: Stepwise Regression for the Interactive Effect of Considerate Leadership Style and Budgetary Participation on Job Satisfaction

Model	R	R ²	Adj.R ²	Std error of the estimate	Change Statistics		
					R Square change	F change	Significance of F change
Model 1 (IVs): Initiating structure, consideration, budgetary participation	.727	.528	.489	7.110	.528	13.426	.001
Model 2 (IVs): Initiating structure, consideration, budgetary participation, consideration x budgetary participation	.736	.541	.489	7.107	.013	1.023	.319

Dependent variable: job satisfaction

The results related to Hypothesis 3 (employee job performance) revealed an R^2 of .435 for the first model and .478 for the second. The R^2 of 4.4% is not significant, displaying an F-change statistic of 2.942 and a p-value of .095. Accordingly, Hypothesis 3 is not supported.

Table 3: Stepwise Regression for the Interactive Effect of Considerate Leadership Style and Budgetary Participation on Job Performance

Model	R	R ²	Adj.R ²	Std error of the estimate	Change Statistics		
					R Square change	F change	Significance of F change
Model 1 (IVs): Initiating structure, consideration, budgetary participation	.659	.435	.388	6.485	.435	9.225	.001
Model 2 (IVs): Initiating structure, consideration, budgetary participation, consideration x budgetary participation	.692	.478	.419	6.316	.044	2.942	.095

Dependent variable: job performance

Hypotheses 4 through 7 posited positive correlations between transactional leadership styles and employee job satisfaction / employee job performance (Hypotheses 4 and 5, respectively) and between transformational leadership styles and employee job satisfaction / employee job performance (Hypotheses 6 and 7, respectively). Separate Pearson product-moment correlations were computed to test each of the four hypotheses. The following correlations were observed: a correlation of .582 for transactional leadership and employee job satisfaction, .484 for transactional leadership and employee job performance, .646 for transformational leadership and employee job satisfaction, and .384 for transformational leadership and employee job performance. All correlation coefficients were statistically significant at $p < .01$, and therefore provide support for Hypotheses 4 through 7.

Hypotheses 8 and 9 proposed increased explanation of employee job satisfaction and performance when transactional and transformational leadership are added to the traditional leadership measures of initiating structure and consideration. Both hypotheses were tested using stepwise-linear regression models. In the first step, the independent variables initiating structure and consideration were entered along with the dependent variable employee job satisfaction (Hypothesis 8) or employee job performance (Hypothesis 9). In the second step, transformational and transactional leadership were added. The results revealed that there was an 11.8% increase in the variation explained in job satisfaction. The observed F-change statistic was 4.053, and the associated p-value was .026 (see Table 4). Accordingly, Hypothesis 8 is supported.

Table 4: Stepwise Regression for the Additive Explanatory Effect of Transactional and Transformational Leadership on Job Satisfaction

Model	R	R ²	Adj.R ²	Std error of the estimate	Change Statistics		
					R Square change	F change	Significance of F change
Model 1 (IVs): Initiating structure, consideration	.611	.372	.338	8.091	.372	10.945	.001
Model 2 (IVs): Initiating structure, consideration, transactional, transformational	.700	.490	.432	7.496	.118	4.053	.026

Dependent variable: job satisfaction

The stepwise regression did not, however, produce a significant change in R² for the model involving employee job performance. The change in R² was 7.9%, with an associated F-change statistic of 2.043 and a p-value of .145 (see Table 5). Accordingly, Hypothesis 9 is not supported.

Table 5: Stepwise Regression for the Additive Explanatory Effect of Transactional and Transformational Leadership on Job Performance

Model	R	R ²	Adj.R ²	Std error of the estimate	Change Statistics		
					R Square change	F change	Significance of F change
Model 1 (IVs): Initiating structure, consideration	.498	.248	.208	7.375	.248	6.116	.005
Model 2 (IVs): Initiating structure, consideration, transactional, transformational	.572	.327	.250	7.175	.079	2.043	.145

Dependent variable: job performance

Hypotheses 10 and 11 posited interactive effects for transformational leadership styles and budgetary participation with employee job satisfaction (Hypothesis 10) and employee job performance (Hypothesis 11). Stepwise-linear regression models were used to test the proposed relationships. In the first step, the leadership variables (initiating structure, consideration, transactional, and transformational leadership) and budgetary participation were entered along with either the dependent variable employee job satisfaction or employee job performance. In the second step, an interactive term (transformational leadership x budgetary participation) was added. The results indicated that for employee job satisfaction, the R^2 before adding the interactive term was .603, while after adding it the R^2 was .632. This 2.8% increase in R^2 was associated with an F-change statistic of 2.530 and a $p < .121$ (see Table 6). For employee job performance, the R^2 before adding the interactive term was .463, while after adding it the R^2 was .500. This 3.7% increase in R^2 was associated with an F-change statistic of 2.455 and a $p < .127$ (see Table 7). Both p-values are insignificant and therefore fail to support Hypotheses 10 and 11.

Table 6: Stepwise Regression for the Interactive Effect of Transformational Leadership Style and Budgetary Participation on Job Satisfaction

Model	R	R^2	Adj. R^2	Std error of the estimate	Change Statistics		
					R Square change	F change	Significance of F change
Model 1 (IVs): Initiating structure, consideration, transactional, transformational, budgetary participation	.777	.603	.545	6.706	.603	10.347	.001
Model 2 (IVs): Initiating structure, consideration, transactional, transformational, budgetary participation, transformational x budgetary participation	.795	.632	.565	6.560	.028	2.530	.121

Dependent variable: job satisfaction

Table 7: Stepwise Regression for the Interactive Effect of Transformational Leadership Style and Budgetary Participation on Job Satisfaction

Model	R	R ²	Adj.R ²	Std error of the estimate	Change Statistics		
					R Square change	F change	Significance of F change
Model 1 (IVs): Initiating structure, consideration, transactional, transformational, budgetary participation	.681	.463	.384	6.502	.463	5.865	.001
Model 2 (IVs): Initiating structure, consideration, transactional, transformational, budgetary participation, transformational x budgetary participation	.707	.500	.409	6.368	.037	2.455	.127

Dependent variable: job performance

Discussion and Conclusion

The findings of this study offer further insight into the effect of budgetary participation and leadership on employee job satisfaction and performance. Of the 11 proposed hypotheses, six were supported and five were not. It is quite interesting to note where the support and lack of support occurred. In particular, while none of the interactive hypotheses could be supported, only one of the non-interactive hypotheses failed to be supported. This finding suggests that the relationships between leadership styles, budgetary participation and employee job satisfaction/performance may be more simple and straightforward than is commonly acknowledged. This issue of simplicity will be returned to later.

One of the main contributions of the study was its ability to demonstrate that more modern conceptions and operationalisations of leadership lead to a significant increase in the amount of explained variation in job satisfaction. The nearly 12% increase in explained variation in job satisfaction over what traditional measures of leadership have been able to achieve attests to the need to include measures of transactional and transformational leadership.

The failure to observe a significant increase in the amount of additional explained variation in job performance when transactional and transformational leadership styles were included is contrary to the study's hypotheses but not entirely surprising. Generally speaking, it is easier to explain variation in a more proximal variable like job satisfaction than it is in a variable like performance, which is both further downstream from the direct effect of leadership style and is impacted by a large array of micro and macro variables (e.g., interdependencies among workers, competitors' actions, the general economy, etc.). Nevertheless, due to the nearly 8% increase in the explained variation of job performance, prudence would dictate the inclusion of transactional and transformational leadership styles in the study of job performance.

As the present study reveals, none of the interactive models (i.e., those models positing an interactive effect for some form of leadership style and budget participation) could be supported. Based on the substantial additional variation that transactional and transformational leadership were able to provide, it seems quite possible that early research, which failed to include transactional and transformational leadership, may have used misspecified research models. Accordingly, these earlier studies' detection of a small number of interactive effects, primarily between considerate leadership style and budget participation, may be no more than spurious relationships produced by misspecified models.

The apparent absence of interactive effects appears to attenuate the earlier admonitions of Brownell (1983) to ensure the harmonization of budgetary systems with leadership styles. It now appears that the relationships may be monotonic and not non-monotonic, as he originally suggested.

In many ways, a monotonic relationship is more consistent with the rationale behind the trend toward greater employee involvement and empowerment that has occurred over the past 25 years. More specifically, the emergence of just-in-time and total quality management philosophies, both of which include the encouragement and harnessing of employee participation and involvement, is commonly associated with enhanced organizational performance. Together, these management philosophies present a mandate to encourage employee participation as part of the philosophies' overall desire to increase organizational performance. In other words, in today's environment, the use of participation is not to be traded-off with different types of leadership style. Recognizing, however, that the present study is the first attempt to examine the interaction of transactional and transformational leadership with budget participation, further scholarly work in this area should be undertaken before any rigid conceptions about the nature of the relationships, and the management practices that can be applied, are formulated.

This study comes with the usual set of caveats. First, this study should not be construed as suggesting a causal arrangement between the variables. While it is often accepted that particular leadership styles influence job satisfaction and performance, it is nevertheless quite possible that the reverse is true. For example, it is quite possible, even likely, that a leader faced with a poorly performing business unit will adopt a more hands on, directive approach.

A second limitation concerns the generalisability of the study's findings. The results are based on the responses of individuals from one organization. Whether these findings can generalize to situations outside this one organization is not known.

Notwithstanding these limitations, the present study does provide useful guidance for scholars and practitioners alike. In terms of the former, some of the more likely fruitful avenues for further empirical study were identified in the previous paragraphs. In terms of the latter, this study offers guidance on budgetary participation and leadership style. This guidance suggests that the relationships may not be as complex as Brownell (1983) initially proposed. Instead of worrying about calibrating budgetary participation with leadership style, managers are encouraged to recognize the importance of transactional and transformational leadership and make a commitment to ensuring high budget participation.

Acknowledgements

The authors are grateful for the helpful and encouraging comments provided by Professor Charles Horngren, as well as attendees of conferences and seminars where the paper was previously presented. Additionally, the authors wish to thank the senior managers of Fonterra for enabling access to their organization.

Appendix A

Directions: Listed below are the descriptive statements about the manager of your production site. For each statement, I would like you to judge *how frequently* your current production site manager has displayed the behavior described.

Use the following for the five possible responses.

	5	4	3	2	1
Key:	Frequently	Fairly	Sometimes	Once in	Not
	If Not Always	Often		A While	At All

1. _____ Doesn't let rules stand in the way of solutions.
2. _____ Takes time to find out what I need.
3. _____ I can get what I want if I work as agreed with him/her.
4. _____ I am ready to trust him/her to overcome any obstacle.
5. _____ Incorporates our ideas into his/her visions of the organization's future.
6. _____ Turns threats into opportunities.
7. _____ His/Her ideas enable me to rethink ideas which I had never questioned before.
8. _____ The work I do for him/her determines what I get for it.
9. _____ Modifies rules creatively to fit with what needs to be done.
10. _____ Recommends us for promotions and merit raises when deserved.
11. _____ Works with me on a one-on-one basis.
12. _____ Spends time coaching me.
13. _____ If there is risk involved for us, he/she takes the first step.
14. _____ Tells me what to do to be rewarded for my efforts.
15. _____ Arouses my curiosity about new ways of doing things.
16. _____ Rewards me for good work.
17. _____ Makes me less critical of creative ideas.
18. _____ Encourages me to take risks.
19. _____ Gives me reasons to believe in what I can do.
20. _____ Persuades me about the importance of the task or mission.
21. _____ Does not allow me to accept defeat.
22. _____ Provides a vision of what lies ahead.
23. _____ Arranges that I get what I want in exchange for my efforts.
24. _____ In my mind, he/she is a symbol of success and accomplishment.
25. _____ Lets the group members know what is expected of them.
26. _____ Is friendly and approachable.
27. _____ Encourages the use of uniform procedures.
28. _____ Does little things to make it pleasant to be a member of the group.
29. _____ Tries out his or her ideas in the group.

30. _____ Puts suggestions made by the group into operation.
31. _____ Makes his or her attitudes clear to the group.
32. _____ Treats all group members as his or her equals.
33. _____ Decides what shall be done and how it will be done.
34. _____ Gives advance notice of changes.
35. _____ Assigns group members to particular tasks.
36. _____ Keeps to him or herself.
37. _____ Makes sure that his or her part in the group is understood by the group members.
38. _____ Looks out for the personal welfare of group members.
39. _____ Schedules the work to be done.
40. _____ Is willing to make changes.
41. _____ Maintains definite standards of performance.
42. _____ Refuses to explain his or her actions.
43. _____ Asks that group members follow standard rules and regulations.
44. _____ Acts without consulting the group.

Directions: Listed below are questions about your current budgetary participation. Please circle the appropriate number on the scale below each question.

What is the extent of your involvement in the setting of your area of responsibility's budget? I am involved in setting:

1	2	3	4	5	6	7
None of the budget						All of the budget

What is the extent of the reasoning given by your superior for revisions to your budget?

1	2	3	4	5	6	7
No reasoning						Extensive reasoning

How frequently do you give your opinions about the budget to your superior?

1	2	3	4	5	6	7
Never						Very frequently

What is the extent of your influence on the final budget for your area of responsibility?

1	2	3	4	5	6	7
No influence						Extensive influence

Directions: Listed below are statements about how you feel with regards to job satisfaction in your present job.

Use the following for the five possible responses.

	5	4	3	2	1
Key:	Very Satisfied	Satisfied	Neither Satisfied Or Dissatisfied	Dissatisfied	Very Dissatisfied

1. ____ Being able to keep busy all the time.
2. ____ The chance to work alone on the job.
3. ____ The chance to do different things from time to time.
4. ____ The chance to be “somebody” in the community.
5. ____ The way my boss handles his team.
6. ____ The competence of my manager in making decisions.
7. ____ Being able to do things that don’t go against my conscience.
8. ____ The way my job provides for steady employment.
9. ____ The chance to do things for other people.
10. ____ The chance to tell people what to do.
11. ____ The chance to do something that makes use of my abilities.
12. ____ The way company policies are put into practice.
13. ____ My pay and the amount of work I do.
14. ____ The chances for advancement in this job.
15. ____ The freedom to use my own judgement.
16. ____ The chance to try my own methods of doing the job.
17. ____ The working conditions.
18. ____ The way my co-workers get along with each other.
19. ____ The praise I get for doing a good job.
20. ____ The feeling of accomplishment I get from the job.

About Yourself

Gender _____ Male _____ Female
 Age _____
 Level of education attained _____
 Year of service in your current organization _____
 Year of service in your current organization in your current position _____
 Your production site name and location _____

Notes

- ¹ Shields and Shields (1998) remain skeptical of this improved success, criticizing these studies for, among other things, their absence of theory and their incomplete/inappropriate nomological networks.
- ² Fonterra is the world's largest exporter of dairy products. It operates in 140 countries and has annual sales of NZ\$14 billion. Its ingredients business is the largest dairy ingredients operation in the world, manufacturing and marketing more than 1,000 ingredient products for the international food industry.
- ³ The first section of the research instrument measures initiating structure, consideration, transactional, and transformational leadership styles, the second section measures budget participation, the third section job performance and the fourth section job satisfaction. The final section collects select demographic data.
- ⁴ The research instrument was pilot tested using managers from a large building products firm. Some minor wording suggestions were raised and featured in the instrument's ultimate administration. The pilot testing offered some support for the instrument's validity, i.e., face validity.
- ⁵ Non-response bias tests comparing early returns to late returns indicated no statistically significant differences.

References

- Ansari, S. L. (1976). Behavior Factors in Variance Control: Report on a Laboratory Experiment, *Journal of Accounting Research*, Autumn, 186-211.
- Argyris, C. (1952). *The Impact of Budgets on People*, Ithaca: School of Business and Public Administration, Cornell University.
- Bass, B. M. (1978). *Leadership, Psychology, and Organizational Behavior*, New York: Harper.
- Bass, B. M. (1981). *Handbook of Leadership: A Survey of Theory and Research*, New York: Free Press.
- Bass, B. M. (1985). *Leadership and Performance Beyond Expectations*, New York: Free Press.
- Bass, B. M. (1990). *Bass and Stogdill's Handbook of Leadership: Theory, Research, and Managerial Applications*, New York: Free Press; London: Collier Macmillan.
- Bass, B. M. and Avolio, B. (2000). *MLQ: Multifactor Leadership Questionnaire, 2nd edition, Technical Report*, Redwood City, CA: Mind Garden.
- Becker, S. and Green, D. (1962). Budgeting and Employee Behavior, *The Journal of Business*, 35: 392-402.

- Brownell, P. (1982a). Participation in the Budgeting Process: When it Works and When it Doesn't, *Journal Accounting Literature*, 124-150.
- Brownell, P. (1982b). The Role of Accounting Data in Performance Evaluation, Budgetary Participation and Organizational Effectiveness, *Journal of Accounting Research*, 20, 12-27.
- Brownell, P. (1983). Leadership Style, Budgetary Participation and Managerial Behavior, *Accounting, Organizations and Society*, 8, 4: 307-321.
- Brownell, P. and McInnes, M. (1986). Budgetary Participation, Motivation, and Managerial Performance, *The Accounting Review*, 61, 4: 587-600.
- Burns, J. M. (1978). *Leadership*, New York: Harper.
- Bycio, P., Hackett, R. and Allen, J. C. (1995). Further Assessments of Bass's (1985) Conceptualization of Transactional and Transformational Leadership, *Journal of Applied Psychology*, 80, 4: 468-78.
- Coakes, S. J. and Steed, L. G. (2003). *SPSS Analysis without Anguish*, Sydney: John Wiley and Sons.
- Chenhall, R. H. and Brownell, P. (1988). The Effect of Participative Budgeting on Job Satisfaction and Performance: Role Ambiguity as an Intervening Variable, *Accounting, Organizations and Society*, 13, 3: 225-233.
- Cotton, J., Vollrath, D., Froggatt, K., Lennick-Hall, M. and Jennings, K. (1988). Employee Participation: Diverse Forms and Different Outcomes. *Academy of Management Review*: 8-22.
- Dessler, G. A. (1973). *A Test of the Path-Goal Theory of Leadership*, (Unpublished Doctoral Dissertation, Baruch College, City University of New York).
- Dunk, A. S. (1989). Budget Emphasis, Budgetary Participation and Managerial Performance: A Note, *Accounting, Organizations and Society*, 14, 4: 321-324.
- Fisher, B. M. and Edwards, J. E. (1988). Consideration and Initiating Structure and their Relationships with Leader Effectiveness: A Meta-analysis, *Best Paper Proceeding: Academy of Management Annual Conference*: 201-205.
- Fleishman, E. A. and Harris, E. F. (1962). Patterns of Leadership Behavior Related to Employee Grievances and Turnover, *Personnel Psychology*, 15: 43-56.
- Geyer, A. L. J. and Steyer, J. M. (1998). Transformational Leadership and Objective Performance in Banks, *Applied Psychology: An International Review*, 47, 3: 397-420.

Graham, J. W. and Verma, A. (1991). Predictors and Moderators of Employee Responses to Employee Participation Programs, *Human Relations*, 44: 551-568.

Hartmann, F. G. H. and Moers, F. (1999). Testing Contingency Hypotheses in Budgetary Research using Moderated Regression Analysis: A Second Look, *Accounting, Organizations and Society*, 28, 7/8: 03-809.

Hopwood, A. G. (1972). An Empirical Study of the Role of Accounting Data in Performance Evaluation, *Empirical Research in Accounting: Selected Studies*: 156-182.

Hopwood, A. G. (1974). Leadership Climate and the Use of Accounting Data in Performance Evaluation, *The Accounting Review*, 49, 3: 485-495.

Horngren, C. T. (2004). Management Accounting: Some Comments, *Journal of Management Accounting Research*, 16: 207-211.

Howell, J. M. and Avolio, B. J. (1993). Transformational Leadership, Transactional Leadership, Locus of Control, and Support for Innovation: Key Predictors of Consolidated-Business-Unit Performance, *Journal of Applied Psychology*, 78, 6: 891-902.

Kerr, S. and Schriesheim, S. (1974). Consideration, Initiating Structure, and Organizational Criteria – An Update of Korman's 1966 Review, *Personnel Psychology*, 27: 555-568.

Kren, L. (1992). The Moderating Effects of Locus of Control on Performance Incentives and Participation, *Human Relations*, 45, 9: 991-1013.

Lau, C. M. and Lim, E. W. (2002). The Intervening Effects of Participation on the Relationship between Procedural Justice and Managerial Performance, *British Accounting Review*, 34: 55-78.

Lawrence, P. and Lorsch, J. (1967). Differentiation and Integration in Complex Organizations, *Administrative Science Quarterly*, 12: 1-30.

Leana, C., Locke, E. and Schweiger, D. (1990). Fact and fiction in Analyzing Research on Participative Decision Making: A Critique of Cotton, Vollrath, Froggatt, Lengnick-Hall and Jennings, *Academy of Management Review*: 137-146.

Locke, E. and Latham, G. (1990). *A Theory of Goal Setting and Task Performance*, Englewood Cliffs, NJ.: Prentice Hall.

Locke, E. and Schweiger, D. (1979). Participation in Decision Making: One More Look, in B. Staw (Ed.), *Research in Organizational Behavior Volume 1*, Greenwich, Conn.: JAI Press.

Mahoney, T. A., Jerdee, T. H. and Carroll, S. J. (1963). *Development of Managerial Performance*, Cincinnati: South Western Publishing.

- Mahoney, T. A., Jerdee T. H. and Carroll, S. J. (1965). The Jobs of Management, *Industrial Relations*, 4: 97-110.
- Marginson, D. and Ogden, S. (2005). Coping with Ambiguity through the Budget: The Positive Effects of Budgetary Targets on Managers' Budgeting Behaviours, *Accounting, Organizations and Society*, 30, 5: 435-456.
- Mia, L. (1989). The Impact of Participation in Budgeting and Job Difficulty on Managerial Performance and Work Motivation: A Research Note, *Accounting, Organizations and Society*, 14, 4: 347-357.
- Milani, K. W. (1975). The Relationship of Participation in Budget Setting to Industrial Supervisor Performance and Attitudes: A Field Study, *The Accounting Review*, 50, 2: 24-284.
- Niehoff, B. P., Enz, C. and Grover, R. (1990). The Impact of Top-Management Actions on Employee Attitudes and Perceptions, *Group and Organizational Studies*, 15, 3: 337-352.
- Otley, D. T. (1978). Budget Use and Managerial Performance, *Journal of Accounting Research*, 16, 1: 122-149.
- Otley, D. T. and Pierce, B. (1995). The Control Problem in Public Accounting Firms: An Empirical Study of the Impact of Leadership Style, *Accounting, Organizations and Society*, 20, 5: 405-420.
- Ritchie, J. B. and Miles, R. E. (1970). An Analysis of Quantity and Quality of Participation as Mediating Variables in the Participative Decision Making Process, *Personnel Psychology*: 347-359.
- Schmitt, N. and Stults, D. M. (1985). Factors Defined by Negatively Keyed Items: The Result of Careless Respondents? *Applied Psychological Measurement*, 9, 4: 367-373.
- Seltzer, J. and Bass, B. M. (1990). Transformational Leadership: Beyond Initiation and Consideration, *Journal of Management*, 16, 4: 693-703.
- Shields, J. and Shields, M. D. (1998). Antecedents of Participative Budgeting, *Accounting, Organizations and Society*, 23: 49-76.
- Shields, M. D. and Young, S. M. (1993). Antecedents and Consequences of Participative Budgeting: Evidence on the Effects of Asymmetrical Information, *Journal of Management Accounting Research*, 5: 265.
- Stogdill, R. M. (1963). Manual for the Leadership Behavior Description Questionnaire, Bureau of Business Research, Ohio State University.

Tepper, B. J. and Percy, P. M. (1994). Structural Validity of the Multifactor Leadership Questionnaire, *Educational and Psychological Measurement*, 54: 734-744.

Wagner, J. and Gooding, R. (1987). Shared Influence and Organizational Behavior: A Meta-Analysis of Situational Variables Expected to Moderate Participation-Outcome Relationships, *Academy of Management Journal*: 524-541.

Weiss, D. J., Dawis, R. V., England, G. W. and Lofquist, L. H. (1967). Manual for the Minnesota Satisfaction Questionnaire, University of Minnesota: St Paul, MN, USA.

Yukl, G. (1971). Toward a Behavior Theory of Leadership, *Organizational Behavior and Human Performance*, 6: 414-440.

Yukl, G. (2002). Leadership in Organizations, 5th Edition. Upper Saddle River, NJ: Prentice Hall.

Zand, D. E. (1972). Trust and Managerial Problem-Solving, *Administrative Science Quarterly*, 17, 2: 229-239.