THE ROLE OF MOTIVATION IN THE LINK BETWEEN BUDGETARY PARTICIPATION AND MANAGERIAL PERFORMANCE

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ABSTRACT

This study attempts to replicate and extend the previous study by Brownell and McInnes (1986), who failed to provide evidence of significant influence of motivation on the link between budgetary participation and managerial performance. Using the model developed by House (1971), which was used by Brownell and McInnes (1986) to gauge motivation, the present study investigates the influence of each of the components making up the model by using a partial correlation test. Questionnaires were sent to 118 middle-level managers from randomly selected companies in Sydney and 79 completed questionnaires were returned. The findings from using partial correlation analysis of the data reconfirmed the earlier insignificant influence of the components of the House (1971) expectancy model by Brownell and McInnes (1986) on the link between budgetary participation and performance.

ABSTRAK

Kajian ini bertujuan untuk melihat secara lebih lanjut kajian yang telah dilakukan sebelum ini oleh Brownell & McInnes (1986), yang gagal menemui bukti pengaruh signifikan motivasi ke atas hubungan di antara penyertaan belanjawan dengan pencapaian pengurus. Sebagai lanjutan terhadap kajian Brownell & McInnes, kajian ini melihat kesan setiap komponen dalam model House (1971), ke atas hubungan di antara penyertaan belanjawan dengan pencapaian pengurus. Soal selidik dihantar kepada 118 pengurus kelas pertengahan syarikat-syarikat di Sydney yang telah menggunakan korelasi separa yang dipilih secara rawak. Sebanyak 79 soal selidik telah dikembalikan. Penemuan kajian telah mengesahkan penemuan Brownell & McInnes (1986), apabila pengaruh setiap komponen bagi model House (1971) ke atas hubungan di antara penyertaan belanjawan dengan pencapaian pengurus adalah tidak signifikan.

BACKGROUND

A number of previous research studies which focus on the effects of budgetary participation on managerial performance have been carried out (Cherrington and Cherrington, 1973; Milani, 1975; Merchant, 1981). While Merchant (1981) found a significant and positive association between budgetary participation and performance, Cherrington and Cherrington (1973), however, found a negative association between these two variables. Milani (1975), on the other hand, found a weak (i.e. insignificant) positive relationship between budgetary participation and performance of foremen. Based on a review of the organisational behaviour literature, Locke and Schweiger (1979) concluded that there was no consistent evidence of a positive effect of budgetary participation on performance.

Several empirical studies have since followed, which argued that specific intervening and moderating variables, such as locus of control (Brownell, 1981), influence the relation between budgetary participation and managerial performance. Through a laboratory study of two separate subject groups (i.e. undergraduate accounting students and managers from a large manufacturing firm), Brownell (1981) found that the interaction between budgetary participation and locus of control significantly affected performance. This, then, suggests that locus of control does influence the link between budgetary participation and performance.

Brownell and McInnes (1986), attempted to discover the indirect effects of motivation on the link between budgetary participation and managerial performance using the path-analysis approach. Arguing that budgetary participation influences motivation positively, which in turn affects performance, they hypothesised that motivation mediates the effects of budgetary participation on performance. Their findings, using middle-level managers from three large firms in the US, showed disappointing results, whereby their hypothesis of motivation mediating the link between budgetary participation and managerial performance could not be accepted. However, their results showed a significantly positive direct pair-wise correlation between budgetary participation and managerial performance, lending support to the earlier findings by Merchant (1981). Nevertheless, the non-significant mediating role of motivation on the link between budgetary participation and managerial performance was not expected.

Therefore, this paper attempts to investigate further the roles of motivation on the link between budgetary participation, using an approach different from that of Brownell and McInnes (1986). In their study, Brownell and McInnes employed the model developed by House (1971) to measure motivation. According to this model, motivation was a combination of five components, namely IV_a, IV_b, P_1, P_{2i}, and EV_i. Brownell and McInnes, in discussing their

unexpected findings, suggest that the insignificant direct pair-wise correlation between budgetary participation and motivation, which inevitably led to motivation not significantly mediating the link between budgetary participation and performance, might have been due to the positive relations between budgetary participation and the expectancies (i.e. P_1 and P_{2i}) being offset by both the negative relations between budgetary participation and the extrinsic valences (i.e. IV_a and IV_b) and its zero relation with the extrinsic valence (i.e. EV_i). Therefore, the objective of the paper is to extend the study by Brownell and McInnes by re-examining the mediating effect of motivation on the link between budgetary participation and performance.

Different methodologies were employed in the present paper both in the sample selection and in the statistical test. With regard to the sample selection, the study derived its sample from a random selection procedure whereas the Brownell and McInnes study did not use a random selection method. For the statistical test, the present study employed a partial correlation test instead of a path-analysis, which was employed by Brownell and McInnes. By using a partial correlation test, the study would be able to examine the influence of motivation on the link between budgetary participation and performance by investigating the role of each of the components of the House (1971) model. If, after partialling out the effects of each of the components of the House model (1971), the correlation between budgetary participation and managerial performance in the present study becomes insignificant, the arguments set forth by Brownell and McInnes in which aggregation of the expectancy model's components caused the disappointing results, would then be accepted. If, the present study shows that the relation between budgetary participation and performance remains significant even after partialling out the effect of each of the components, then their arguments on the offsetting effects of expectancies and valences could not be accepted. In other words, their findings of no significant indirect effects of motivation on budgetary participation and managerial performance would then be accepted. To this end, the next section discusses the relevant studies in order to develop the theory and the hypotheses.

HYPOTHESIS DEVELOPMENT

Numerous studies have, thus far, been carried out (Hofstede, 1967; Searfoss and Monczka, 1973; Searfoss, 1976; Kenis, 1979; and Merchant, 1981) which showed a positive association between budget setting and motivation. The positive association has been argued to exist as, for instance, participation in the budget setting would likely increase employees' morale "due to a tendency for individuals to become *ego involved* in decisions to which they have contributed" (emphasis added, Ronen and Livingstone, 1975, p. 679). Employees' participation in the budget setting process would also enable the individuals

to gain what was expected of them, as well as to obtain clarification from the superiors about path-goal relationship (House, 1971).

Evidence of positive association between motivation and performance has also been documented in the accounting literature (Ferris, 1977 and Rockness, 1977). Rockness (1977), for instance, used modifications on the House (1971) expectancy model which were later introduced into the accounting literature by Ronen and Livingstone (1975). He argued that an individual's intrinsic valences were derived from the effort to achieve the goal and the intrinsic rewards associated with achieving a particular outcome. Consistent with his theory, Rockness (1977) used an experimental design which found evidence whereby the subjects in a high budget level condition performed significantly higher than those in the medium budget level condition. Nonetheless, most of the evidence on motivation and performance is found in the organisational behaviour literature, which generally shows a positive association between motivation and performance, as concluded by Mitchell (1979). One explanation for the positive association between motivation and performance is that higher internal 'drive' to perform leads to increased effort levels which in turn result in higher level of performance.

Extending the role of motivation into the budget setting environment, Brownell & McInnes (1986) was intended to discover the indirect effects of motivation on the path between budgetary participation and managerial performance. To measure motivation the model developed by House (1971) was employed, which is as follows:

$$\text{Motivation (M)} = IV_b + P_1[IV_a + \sum_{i=1}^{n} (P_{2i}.EV_i)], \qquad (1)$$

$$i = 1, 2, 3, \dots\dots.n.$$

where:

IV_b	=	intrinsic valence associated with work-goal accomplishment,
IV_a	=	intrinsic valence associated with goal-directed behaviour,
P_1	=	extrinsic valence associated with the ith extrinsic reward contingent on work-goal accomplishment,
P_{2i}	=	the expectancy that goal-directed behaviour will lead to work-goal accomplishment, and
Ev_i	=	the expectancy that work-goal accomplishment will lead to the *ith* extrinsic reward.

According to the model, the strength of "M" or "drive" is determined by the intrinsic valence, IV_b, attributed by the manager to goal-directed behaviour, along with the expectations of, and valences attributed to, other outcomes

which may result from the behaviour. P_1 is defined as the expectancy that the behaviour will result in work-goal accomplishment, i. e., budget attainment in our case. P_{2i} are a set of expectancies linking attainment of budget to "n" extrinsic, or externally mediated, outcomes, having valence EV_i to the managers . Finally, IV_a is the internally mediated valence, attributable to budget attainment (i.e. accomplishment).

P_1: Extrinsic Valence Associated With the *ith* Extrinsic Reward Contingent on Work-Goal Accomplishment

House (1971) proposed that the association between participation and expectancy of accomplishing the budget (i.e. P_1) would be positive because participation would likely increase the clarity of path-goal relations. It is expected that for managers, their participation in the budget setting process should enable them to gather information regarding their planned activities from their superiors. Kahn et al. (1964), for instance, suggested that if an individual was not clear about what was expected of him or her, due to the absence of information (i. e. role ambiguity) or due to conflict of information (i. e. role conflict), his or her ability to predict the path-goal relation would be reduced accordingly. As a result, the individual will not be able to estimate, with precision the effort needed to accomplish the budget targets. A positive and significant relationship between budgetary participation and goal clarity was later documented by Kenis (1979). The positive relationship between budgetary participation and P_1 was also shown by Brownell and McInnes (1986).

In addition to being able to obtain information regarding path-goal relations, managers would also be able to influence the budget targets through the participation process. Hence, managers would have the opportunity to negotiate for budget targets which are reasonably attainable, thereby increasing the likelihood of achieving the targets. Therefore, the arguments set forth thus far suggest that the association between budgetary participation and P_1 will be positive and significant.

It may also be argued that the setting up of budget targets through a participation process may lead to the creation of attainable targets, and it may be argued further that the attainable budget targets could well represent *slack* budgets. Slack budgets are due to the managers involved in the operating activities possessing information which is not known to their superiors. The slack, could then, serve as a *buffer* to enable the managers would concerned to deal with unexpected unfavourable economic conditions with ease. Consequently, goal clarity as well as attainable budget targets would likely increase the managers' subjective estimation of the probability of achieving the targets. Previous literature on leadership seems to support these contentions (House, 1971; House and Dessler, 1974; Szilagyi and Sims, 1974). They suggested that increased clarification about work would improve an individual's attitudes

and behaviour on ambiguous tasks. Therefore, it is argued that the individual would be more willing to increase his efforts, thereby increasing the likelihood of meeting the budget targets. The related alternative hypothesis predicts that P1 will significantly affect the relation between budgetary participation and performance, while controlling its influence leads to the relation between budgetary participation and performance becoming insignificant. Stated in its null form:

Ho_1: P_1 will not influence the link between budgetary participation and performance.

P_{2i}: Expectancy of Goal-Directed Behaviour Leading to Work-Goal Accomplishment

Becker and Green (1962, p. 401) suggested that a participative budget would be considered successful if it "... provides information to associate reward or punishment with performance". Moreover, as a result of participation, it can then be expected that *reciprocal expectations* will be established between the managers and their superiors. Each party will understand at the outset that rewards or punishment will follow accomplishment or non-accomplishment of the previously agreed-upon budget targets. Hence, it is proposed that the association between participation and P_{2i} will be positive.

A positive association between P_{2i} and performance is also predicted. The argument is that as the expectancy of being rewarded following work-goal accomplishment increases, managers are more likely to increase the level of their efforts. Hence, their performance will also be expected to improve accordingly. This argument was based on the earlier paper by Locke et al. (1968), which suggested that setting goals which are clear to the performers of the task and tying the rewards to the attainments of tasks can change the performers' task performance. Hence, being aware of the subsequent rewards or punishments following accomplishment or non-accomplishment of the budgets, managers will be more willing to exert additional efforts in order to achieve the them. Hence, it is proposed that the relation between P_{2i} and performance will be positive and significant. Since P_{2i} will significantly influence the relation between budgetary participation and performance, it is expected then that controlling for the effects of P_{2i}, the relation between budgetary participation and performance will become insignificant. Stated in its null form:

Ho_2: P_{2i} will not significantly influence the link between budgetary participation and managerial performance.

EV_i : Extrinsic Valence Associated With the *ith* Extrinsic Rewards Contingent Upon Work-Goal Accomplishment

It is expected that there will be no significant relation between budgetary participation and EV_i. The argument is that participation is not likely to change one's valences towards the rewards that are being linked with budget attain-

ment. One's valences are subjective in nature. For instance, a reward which is of high valence to one individual may not be as high to another. Moreover, it is doubtful that managers can ask their superiors to provide the extrinsic rewards which are of as high a valence as they wish.

If the extrinsic rewards are of high valences to the individual managers, it is likely that an increased willingness to accomplish the budget targets will result, as argued by Stedry (1960). According to Stedry "Management can increase the tendency of the department head to aim at or below this goal by increasing the positive reward associated with its attainment and/or increasing the negative rewards associated with its non-attainment" (p. 19). Therefore, it is predicted that EV_i and performance will be positively related. Since the relation between budgetary participation and EV_i is expected to be zero and the relation between EV_i and performance is expected to be positive, it is therefore hypothesized that EV_i will not significantly influence the link between budgetary participation and performance. Hence, the related null (as well as the alternative) hypothesis is as follows:

Ho_3:EV_i will not influence the link between budgetary participation and managerial performance.

IV_b: Intrinsic Valence Associated With Work-Goal Accomplishment

IV_b originates from the behaviour itself. However, it is not determinate what the relation between budgetary participation and IV_b is, because it is not expected that an individual manager would experience high internally-generated valences following budgetary participation. Rather, high internally-generated valences might be due to the nature of the task itself. If the task is highly unpredictable and complex, high internally-generated valences would be observed. If this is the case, a positive relation between budgetary participation and IV_b is expected, because, as argued earlier, participation would lead to path-goal clarity and thereby accomplishment of the budget targets will be of high value to the individual.

However, if the task is routine, it is then expected that budgetary participation would not lead to a high internally-generated valence; in fact, a negative relation between budgetary participation and IV_b will, instead, be observed. This is because there is no challenge present in the process of accomplishing the budget targets. Hence, it is not clear what the relation between budgetary participation and IV_b will be.

If a manager's perceived valences associated with goal-directed behaviour are highly positive, it is then expected that the manager's level of effort will be increased accordingly. That is, IV_b will directly and positively influence the manager's level of performance. Therefore, it is predicted that the association between IV_b and performance is positive.

Since the relation between budgetary participation and IV_b is not determinate, and a positive relation between IV_b and performance is expected, the relation between budgetary participation and performance will not be affected significantly by IV_b. Hence, the null hypothesis (as well as the alternative) hypothesis is as follows:

Ho_4: *IV_b will not affect the link between budgetary participation and performance.*

IV_a: Intrinsic Valence Associated with Goal-Directed Behaviour

IV_a originates from goal accomplishment. Ronen and Livingstone (1975) argued that participation lead to 'ego involvement'. Brownell & McInnes (1986) extended the argument further by claiming that 'ego involvement' would in turn lead to an enhanced IV_a. The argument suggests that giving managers the opportunity to negotiate a budget target which is attainable will subsequently make them *internalize* the budget targets as theirs. Empirical evidence for this claim is available from previous research (Dunbar, 1971; Onsi, 1973; Milani, 1975; and Collins, 1978).

However, a negative relation between budgetary participation and IV_a can also be observed, as was found by Brownell & McInnes (1986). They suggested that the findings could be due to the existence of *slack* budgets. The slack budgets have taken away the valences associated with budget accomplishment due to the budgets providing no challenge. However, if the tasks are highly unpredictable and continuously affected by the environment, the information may soon become obsolete. Therefore, in this type of environment, managers may find it difficult to create slack budgets because the managers involved may not have the needed *private* information to manipulate during the budget setting process.

If, however, the task is highly predictable and routine in nature, budget accomplishment will not be associated with a high valence to the managers concerned. Therefore, if this is true, then the relation between budgetary participation and IV_a will be zero or even negative because of the existence of a *buffer*, which is in the form of budget slack. Therefore, following the above arguments, it is difficult to conceptualize the relation between budgetary participation and IV_a. This is because the outcome will be dependent upon the inherent characteristics of the tasks in the sample of this study.

The relation between IV_a and performance, on the other hand, is predicted to be positive. The argument is that the higher the valence associated with work-goal accomplishment, the higher the performance will be. Willingness to put in additional effort in order to achieve the budget targets results from managers' putting high valences on the achievement of the budget targets. Hence, the relation between IV_a and performance is predicted to be positive.

Since the relation between budgetary participation and IV_a is situational and the relation between and performance is expected to be positive, the influence of IV_a on the link between budgetary participation is not expected to be significant. Therefore, the null (as well as the alternative) hypothesis is as follows:

Ho_5:IV_a will not significantly influence the link between budgetary participation and performance.

METHOD

A questionnaire-based survey method was employed to collect the data. A package containing copies of a questionnaire, a covering letter, and a reply-paid envelope was sent to a total of 118 managers from 61 randomly selected companies located in the Sydney metropolitan area, and drawn from the *Kompass Australia* (1988). Completed questionnaires were mailed back directly to the researcher with anonymity guaranteed well in advance.

Budgetary participation. The instrument developed by Milani (1975) was used to measure budgetary participation. It is a six-item Likert-scaled instrument whose validity and reliability were later confirmed by Brownell (1982).

Components of the expectancy model. Brownell's (1983) approach to measuring the three classes of valences (IV_a, IV_b, and EV_i), which was adapted from the procedure developed by Lawler and Suttle (1973), was adopted in the present study. Seventeen outcomes from the Lawler and Suttle study were classified into either intrinsic (8 items) or extrinsic (9 items). The list of the outcomes is given in the Appendix. For each outcome, respondents were asked twice to indicate on a scale from 1 to 9 (extremely desirable to extremely undesirable) the strength of their preference for each outcome. First, the respondents were asked to put their subjective (i.e. perceived) value on each outcome as it might result from "working hard" (i.e. goal directed behaviour). Secondly, they were asked to put their subjective value on the outcome as might result from "meeting or beating the budgeted goal" (i.e. work-goal accomplishment).

IV_b was measured by averaging the eight responses to the intrinsic items from the first eight responses. IV_b was also measured by averaging the responses to the same items from the second set of responses. Brownell (1983) found that the two sets of responses were sufficiently independent of each other, as reflected in the significant differences in mean of the two sets of outcomes (i.e. IV_a and IV_b).

EV_i was measured from the first set of outcomes (i.e. outcomes resulting from work-goal accomplishment). For ease of interpretation, the raw scores of IV_a, IV_b, EV_i, P_{2i} and P_1 were reversed and rescaled.

P_{2i} was measured by asking respondents to indicate, on a scale from 1 (never) to 7 (always), to the question on how often "meeting the budget" would result in each outcome (i.e. extrinsic rewards). Two additional items were incorporated into the nine extrinsic rewards to elicit measures of P_1, which was used to measure the likelihood of meeting the budgets after working hard. The raw scores of both P_{2i} and P_1 were reversed and rescaled for ease of interpretation.

Managerial performance. This variable was measured using the instrument developed by Mahoney et al. (1963 and 1965). It is a nine-item, Likert - type scale and it asks respondents to rate themselves on eight dimensions of performance, as well as their overall performance, on a scale from 1 (very poor) to 7 (very high). In order to justify the use of the overall rating as the measure of respondent's performance, Mahoney et al. (1963 and 1965) indicated that at least 55 percent of the variance in the overall rating should be explained by the eight dimensions of performance. A self-rating approach is not likely to cause serious bias since respondent's anonymity is guaranteed and the objective of the data collection is scientific research.

Data analysis. Partial correlation was used to test the null hypotheses. By controlling the effects of each of the components of the expectancy model (i.e. IV_a, IV_b, EV_i, P_{2i}, and P_1), the resulting partial correlation coefficient was then attributed to the effects of budgetary participation on managerial performance.

RESULTS

Out of the 118 questionnaires distributed, 79 completed questionnaire were returned, representing a 67 percent response rate. The average age of the respondents was 42 years, with an average tenure in the current position being 4.5 years. The mean number of employees in their areas of responsibility was 102. Table 1 presents the descriptive statistics for each of variables measured in this study.

The Cronbach reliability coefficient for the budgetary participation was 0.89, suggesting very high internal consistency for the instrument developed by Milani (1975). The overall rating of performance was regressed on the eight dimensions of performance to determine whether they explained at least 55 percent of the variance in the overall rating. The R^2 of the regression was 61 percent, and hence the requirement laid down by Mahoney et al. (1963 and 1965) was satisfied. Therefore, the overall rating was used as the score for managerial performance of individual managers.

Results of the partial correlation are presented in Table 2, which shows the correlation coefficient of budgetary participation and managerial performance after controlling the effects of each of the components of the House (1971) expectancy model.

Table 1
Descriptive Statistics
(N=79)

Variable	Possible Range	Actual Range	Mean	Standard Deviation
Participation	6-42	6-42	31.2152	7.4913
Performance	1-7	3-7	5.6203	0.8367
P_1	2-14	4-14	11.2025	2.3712
P_{2i}	9-63	15-51	32.8481	8.1839
EV_i	9-81	47-80	62.4684	6.9630
IV_b	8-72	48-69	56.0253	4.5319
IV_a	8-72	29-64	53.7595	5.7984

Table 2
Results from Partial Correlation
(N=79)

Controlled Variable*	Partial-Correlation Coefficient	p-value
P_1	0.26	.021
P_{2I}	0.29	.010
EV_i	0.26	.019
IV_b	0.27	.014
IV_b	0.26	.02

*   Components of the House (1971) expectancy model.

From Table 2, it is shown that the partial correlation coefficient between budgetary participation and performance, even after controlling the effects of each of the components of the expectancy model, was statistically significant and they were all positive in sign. Hence, the null hypotheses of no influence of P_1, P_{2i}, IV_b, IV_a, and EV_i on the link between budgetary participation and performance, as stipulated in Ho_1, Ho_2, Ho_3, Ho_4, and Ho_5 were accepted. In other words, none of the components of the expectancy model, as evident in Table 2, significantly influence the link between budgetary participation and performance.

Table 3 shows the zero-order correlations (i.e. Pearson Correlation) between each of the components of the expectancy model with both budgetary participation and managerial performance.

Table 3
Pearson Correlation Coefficients
(N=79)

Components of House Expectancy Model	Budgetary Participation	Managerial Performance
Budgetary participation	-	0.2893** (p=0.01)
P_1	0.1361 (p=0.232)	0.3494* (p=0.002)
P_{2i}	0.2933* (p=0.0009)	0.0401 (p=0.725)
EV_i	0.1212 (p=0.287)	0.3654* (p=0.001)
IV_b	0.0890 (p=0.436)	0.2233** (p=0.049)
IV_a	0.1544 (p=0.174)	0.2320** (p=0.040)

*   Significant at 1 %
**   Significant at 5 %

A (direct) zero-order correlation coefficient between budgetary participation and performance was positive and it was significant at three percent level. This positive and significant direct correlation between budgetary participation and performance confirmed the earlier findings of Merchant (1981) and Brownell & McInnes (1986). It can also be seen from Table 3 that, all of the correlation coefficients between the components of the expectancy model and budgetary participation were positive in sign (and hence support the predictions), but only the correlation with P_2i was significant at 1 percent. However, in general, taking aside P_{2i}, budgetary participation did not lead to significant positive effects on motivation. Nonetheless, the evidence suggests that budgetary participation leads to a higher probability of the delivery of the extrinsic rewards following accomplishment of the budget targets. The higher probability of delivering extrinsic rewards following budget targets accomplishment lends support to the *reciprocal expectations* arguments.

As for the correlation between each of the expectancy model's components and managerial performance, all coefficients except P_2i were positive and statistically significant at five percent level, thereby lending support to the predictions. Hence, the evidence suggests that a higher level of budgetary participation is associated with higher level of performance.

DISCUSSION AND CONCLUSIONS

The findings of this study did not reveal a significant influence of any of the components of the expectancy model on the link between budgetary participation and performance. Therefore, the findings reconfirmed the earlier disappointing results found by Brownell & McInnes (1986). Although, theoretically, motivation intervenes in the relation between budgetary participation and performance, the manner in which motivation was measured in both of the studies may have caused the disappointing results.

The "surprising" results may be explained by examining the zero-order correlations between the components of expectancy model, as shown in Table 3, and budgetary participation. It was noted that all of the correlation coefficients, except for P_{2i} were statistically insignificant. These findings support the contention that *participatively* set budget targets would likely have an adverse impact on motivation. Although it has been earlier argued (House, 1971; House and Dessler, 1974; and Szilagyi and Sims, 1974) that budgetary participation leads to goal clarity, the process may result in the setting of budget targets which are no longer *challenging* to the employees through the creation of budget slacks. Hence, achieving the budget targets will no longer give satisfaction to the employees, as evident by the insignificant correlation coefficients of IV_b, P_1, IV_a, and EV_i, with budgetary participation.

Though the correlation coefficients between each of the components of the expectancy model and managerial performance, as shown in Table 3, were all positive and significant (with the exception of P_{2i}), the insignificant correlation coefficients between each of the components and budgetary participation thereby lead to the insignificant influence of each of the components of the expectancy model on the link between budgetary participation and managerial performance. Had the correlation coefficients between budgetary participation and each of the components of the expectancy model also been statistically significant, controlling the effects of each of the components of the expectancy model would have led to the correlation between budgetary participation and managerial performance being insignificant, thereby lending support to the significant influence of the components on the linkage.

The fact that IV_t, IV_a, EV_i and P_1 positively and significantly correlated with performance supports the earlier findings (Ferris, 1977; and Rockness, 1977). However, the insignificant correlations of these components with budgetary participation suggest that budgetary participation does not lead to higher motivation. In addition to budget slacks being created in the budget setting process, other variables may antecede the relations. For instance, environmental uncertainty or task complexity (or predictability) may influence the relation between budgetary participation and the components of the expectancy model. Therefore, there are factors that need to be considered by the top management when deciding whether budget targets are to be participatively set. Without due consideration of these antecedent variables, adopting employees' participation in the budget setting may not lead to a higher motivation level. Therefore, incorporating these variables may be worthy of further investigation in future research and may well reverse the conclusions of this study.

With regard to employees' participation in the budgetary process, the concern expressed earlier by Hopwood (1976, p. 79) perhaps needs to be considered by the top management:

> While it appears that an increase in participation in decision making can often improve morale, its effect on productivity is equivocal at the best, increasing it under some circumstances but possibly even decreasing it under other circumstances. The practical problem is in trying to identify which conditional factors determine the wider impact of a particular type of participative management programme.

This study has several limitations. First, the expectancy model assumed that extrinsic rewards were only delivered contingent upon work-goal accomplishment. This assumption may not be always true. For instance, the extrinsic rewards may well be delivered following diligent work. This situation may be applicable to organizations which have highly unpredictable and volatile environments. In this type of environment, information easily gets outdated and hence achieving the earlier budget targets may be practically impossible.

Hence, the earlier-set budget targets may serve as the "means", not the "ends". Staw (1977) and Brownell (1983) argued for the inclusion of a new variable, known as P_{3y} which is defined as the expectancy that working hard would result in the delivery of extrinsic rewards. Therefore, incorporating this additional component into the House (1971) expectancy model may well change the findings.

Secondly, the study used the overall rating of performance as the score for managerial performance for individual managers. Though the results from regression showed that the eight sub-dimensions of performance explained a large proportion of the overall rating (i.e. 61 percent), it should be noted that an individual manager places a different degree of emphasis on each of the eight sub-dimensions, with certain sub-dimensions being very important to certain managers and not to others. Hence, identifying the most important sub-dimensions to each individual manager may be of utility, and it may change the results of the study.

APPENDIX

List of Outcomes

Extrinsic

1. Pay raise
2. High pay
3. Respect from boss
4. Respect from peers
5. More compliments
6. Greater independence
7. Special awards
8. Promotion

Intrinsic

1. Personal growth
2. Setting higher standards for yourself
3. Giving help to others
4. Time at work passing fast
5. Feeling of security
6. Setting higher standards for others
7. Feeling of accomplishment
8. Feeling less tired.

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