

THE RELATIONSHIP BETWEEN SELF-REPORTED BUDGET PERFORMANCE AND SATISFACTION WITH ORGANIZATIONAL REWARDS IN A COLLEGE SETTING

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ABSTRACT

The relationship between an individual's budget performance and satisfaction with the reward structure in a college environment was investigated from a foundation provided by cognitive psychological and need hierarchy theories. An optimal predictive model was sought. A significant relationship between variables is observed.

INTRODUCTION AND PURPOSE OF STUDY

A budget provides a critical mechanism through which the implementation of an organization's strategic plan is monitored and controlled. Strategic plans and budgets can be impeded by uncontrollable and unexpected forces external to the organization such as national and global economic down turns, natural disasters, wars and the like. However, they likewise can be impeded by those within the organization responsible for successful development and implementation of both plans and budgets. With respect to the budget process itself, identifying and understanding the motivational factors that enhance or inhibit individual performance to achieve budget goals established by the organization's planning process might assist the organization to be proactive in establishing and maintaining structures supporting goal congruence within a budget context. Early behavioral studies cited the lack of goal congruence between the individual and the organization as a signal for budgetary failure (Otley, 1978; Searfoss, 1976).

A pertinent question then is to ask: What factors motivate individuals to meet budget goals and as a result support the organization's planning initiatives? The purpose of this study is to explore the relationship between an individual's satisfaction with the organization's reward structure and consequent budgetary performance. The relationship between a manager's satisfaction with available rewards and budget attainment in an organization is not well examined in the accounting literature. However, three studies by Collins (2007, 2008, 2009) observed some significant relationships between an individual's satisfaction with the organization's reward structure and the respective individual's budgetary performance in a cooperative. The purpose of this study is to empirically investigate the strength of the relationship between perceived satisfaction of the reward structure offered by a small liberal arts college and budgetary performance by the individual using the same measures as employed by Collins (2008) when examining these interrelationships in the cooperative. This study is exploratory and searches for

an optimal predictive model.

THEORETICAL FRAMEWORK

Industrial psychologists have studied the relationship between satisfaction with one's job and performance for many years. Rewards as a moderating influence on the relationship between job satisfaction and performance have been examined by theories of motivation such as expectancy theory (Lawler and Porter, 1967; Naylor, Pritchard and Ilgen, 1980; Vroom, 1964) and cognitive evaluation (Deci, 1975) theory. The extrinsic and intrinsic aspects of rewards are explored by these theories of motivation suggesting that the extrinsic and intrinsic elements of rewards impact the motivation, satisfaction and performance of individuals. Although these theories are complex, simply stated, motivation and consequently behavior is viewed to change pending the nature of the reward perceived to follow behavior.

Need satisfaction theory (Porter, 1961, 1962, 1963; Porter and Lawler, 1968) has examined the strength of perceived reward satisfaction and the importance of rewards to individuals. An instrument devised by Porter (1961) examines need satisfaction through five need categories. These five categories include security, social, esteem, autonomy and self-actualization needs. Each category aligns with the need hierarchy developed by Maslow (1954, 1968) and is associated with intrinsic or extrinsic aspects of rewards. Porter (1961), however, further differentiates esteem needs, as described by Maslow (1954, 1968), by separating esteem needs from what he defines as autonomy needs. Porter (1961) places autonomy needs at a higher hierarchical order than those items classified as esteem needs. Lower order needs such as security, social and even esteem needs are suggested to have a weaker intrinsic reward component associated with them than the higher order needs of autonomy and self-actualization where the intrinsic reward component is stronger (Porter and Lawler, 1968).

DATA

A small liberal arts college was used to examine and explore the relationship between budget performance and perceived satisfaction with the organization's reward structure. Individuals at the college participating in the study consisted of the organizational level in the college closest to initial responsibility for budget management and control of expenditures. Participants comprised of all academic department heads and all lower administrative personnel, i.e., registrar, director of admissions, director of financial aid, etc. A total of 41 individuals participated in the final questionnaire. There were 36 usable responses from a study total of 41 participants. The overall usable response rate was, therefore, 89%.

VARIABLE OPERATIONALIZATION

Using Dillman's (1977) total design method, a questionnaire was constructed to measure the variables. Preliminary interviews with the Academic Vice-President and Vice-President for Finance were conducted to obtain an understanding of the college's budgetary process. Working directly with the Academic Vice-President and Vice-President for Finance, the questionnaire was additionally designed to address the organization's environment and language. A pre-test panel which included the two Vice-Presidents and two lower administrative personnel provided direct feedback as well as further assurance regarding the relevance of the language being used in the questionnaire. The questionnaire incorporated instruments previously developed to measure an organization's reward structure (Porter, 1961) as perceived by an individual and self-reported

budget performance (Kenis, 1979). A discussion of the instruments and variable measurement now follows.

Budget performance. Budgetary performance was measured using self-reported evaluation by individual department heads at the college. This self-report is consistent with the cognitive scheme being measured. Satisfaction with the organization's reward structure is a measure of the individual's internal perceptions and feelings. A self-rating of one's own budget performance is also a measure of one's own internal perceptions. There is an expectation here that the individual's self-rating correlates with the individual's actual budgetary performance as reported back by the organization.

Brownell and McInnes (1986) and Kenis (1979) employed self-report measures of budgetary performance in their respective studies. Brownell and McInnes (1986) used an eight dimension scale developed by Mahoney, Jerdee, and Carroll (1963, 1965) and an overall rating. Brownell and McInnes (1986) used the overall self-rating as the study's measure of performance. Kenis (1979) also used one self-rated item as a measure of an individual's budgetary performance. This study constructed one overall self-reported statement based on the wording provided by Kenis (1979). Essentially each individual was requested to report on a five-point verbal frequency scale ranging from 1 (always) to 5 (never) how often they have met budget goals.

Reward structures. The salience of perceived rewards to an individual was measured using the original instrument constructed and tested by Porter (Porter, 1961, 1962, 1963; Porter and Lawler, 1968). Porter's (1961) original instrument, classified each of 16 items into one of six types of need categories. The six categories consist of security needs, social needs, esteem needs, autonomy needs, self-actualization needs and an "other" category for items which could be included in more than one of the six categories.

Designed to elicit from each respondent how much of the respective need *is* perceived present now and how much of the need item *should be* there, the questionnaire measured the salience of specified items by taking the difference between what an individual thought should be there and what is there ("should be" minus "is"). The difference for items designated to measure the salience of a respective need category (i.e., security, social, esteem, autonomy, self-actualization and "other" need items) were summed to obtain a total score for each respective need category.

PROCEDURE AND RESULTS

Linear regression techniques and applications available in SAS are used to explore the relationship between an individual's budget performance and how well the college's reward structure satisfies an individual's needs. Exploratory in nature, this study simply seeks an optimal model that best predicts the relationship between the variables. Table 1 provides a summary of variable names and descriptions.

**TABLE 1
VARIABLE NAMES AND DESCRIPTION**

Variable	Description
SELFPERF	Budget Performance
SECNEED	Security Needs

SOCNEED	Social Needs
ESTNEED	Esteem Needs
AUTNEED	Autonomy Needs
ACTNEED	Self-Actualization Needs
OTHNEED	“Other” Needs

Using the initial following model, three selection methods that included forward regression, backward regression and stepwise regression, were each utilized to assess whether there exists a subset of variables that would best predict the dependent variable, i.e., an individual’s budgetary performance (SELFPERF).

$$(1) \text{ SELFPERF} = B_0 + B_1(\text{SECNEED}) + B_2(\text{SOCNEED}) + B_3(\text{ESTNEED}) + B_4(\text{AUTNEED}) + B_5(\text{ACTNEED}) + B_6(\text{OTHNEED})$$

The results of forward regression, backward regression and stepwise regression find SOCNEED significant at the .05 level. Considered to be the “best” model, the following one one-variable model is further analyzed:

$$(2) \text{ SELFPERF} = B_0 + B_1(\text{SOCNEED})$$

Table 2 provides a summary of the empirical results. The results in Table 2 show a significant positive relationship between satisfaction with social needs and budget performance by the individual (Beta = +.197; p < .05).

**TABLE 2
SUMMARY OF REGRESSION RESULTS
OPTIMAL MODEL**

Estimated Coefficients and Model t-statistic p-values	R ² and PROB> F
SELFPERF = 2.2 + .197 (SOCNEED) (.0425)*	.1155 (.0425)*

The PROB>F represents the p-values associated with the F-statistic. The p-values associated with the t-statistic for each coefficient are included in parentheses.

*Significant at the .05 level (two-tailed test for the F-statistic and one-tailed test for the t-statistic).

SUMMARY AND CONCLUSIONS

Selection techniques and regression analysis were employed to investigate the relationship between an individual’s need satisfaction with the reward structure in a small liberal arts college and the respective individual’s self-evaluated budget performance. An optimal predictive model shows an overall association between an individual’s satisfaction with social needs as provided by the college’s reward structure and the individual’s budget performance. The relationship between an individual’s satisfaction with social needs within the organization was found to be positively related (Beta = +.197; p < .05) to an individual’s budget performance. The positive sign suggests that the greater an individual’s satisfaction with social needs, the more likely the individual will report attaining budget goals for their respective unit.

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