

A Study on the Factors Affecting the Budget-related Attitude of Hospital Departmental Managers and The Relationships of These Attitudes with Performance

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Abstract

The healthcare environment faced by the hospital managers has changed dramatically in recent years. The promotion of medical resource utility efficiency and the containment of medical costs have been the consensus of government, insurance institutions, and medical providers. The environmental uncertainty raised by the pressure originating from the medical expenditure control by the government and the third party payers has forced hospital managers to learn something about business administration. Budget system is among the most popular devices used by managers to reduce costs and improve performance. However, budget system can not achieve effectiveness in planning, motivating, negotiating, and controlling if there is no support from the organizational members. To obtain this support, careful attention must be given to the behavioral side of budget system. In view of this, the present study seeks to explore the factors affecting the budget-related attitude of hospital managers and the relationships of these attitudes with performance in order to provide the hospital managers with the additional evidence regarding the effective operation of budget systems. The empirical study is based on a sample of 132 departmental managers from a medical center in Taiwan and analyzed by canonical analysis. Results support the proposed hypotheses that when the degree of budgetary feedback and budgetary participation are high, the budget motivation and budget attitude will be high, but the propensity to budgetary slack will be low and that when the degree of budget motivation and budget attitude are high, the budgetary and departmental performance will be high.

Keywords: Budget-related attitude, Budget characteristics, Budgetary performance, Budget motivation, Budgetary participation

1. Introduction

Due to the changes of disease patterns and social structures as well as the raise of national income and educational level, the society has become more demanding on medical and health services. The implementation of medical insurance also has intensified the competition of healthcare providers. Although it has pushed up the quality of health services, it has also brought about financial pressures and resource misallocation. The efficiency of using medical resources and containment of medical costs have been concerned, especially since the National Health Insurance was launched. The environmental uncertainty originating from the medical expenditure control by the government and the third party payers has forced hospitals to enhance the level of operation and financial structure. Hospitals should be alert of potential impact any new management idea might cause on organization members.

In the field of business administration, budgeting system is a commonly used tool in containing costs and improving performance. Through initiating, applying, and auditing of budget, managerial functions (planning, coordinating, motivating, and controlling) could be carried out. It is more so with participative budgeting. In the healthcare industry, services are delivered by a person to another person. Teamworkship is particularly vital in achieving any dimensions of organizational effectiveness. Success of management control system heavily relies on the behaviors of organization members. No matter how scientific and objective the budgeting techniques are, budgeting system cannot be performed without members' cooperation. Therefore, the current study is intended to investigate the members' budget-related

attitude of a professional organization and the influence of budget-related attitude on performance.

2. Literature and hypotheses

Budget refers to an inclusive plan that an organization bases to obtain and consume financial as well as non-financial resources during a period of time. It describes an organization's actions plans in a quantifiable format. Budgeting encourages managers to think about the future and communicates future actions plans to organization members. Budgeting also makes an organization aware of operation bottleneck and is able to efficiently allocate resources. In addition, it enables an organization to coordinate activities through integrating departmental budgets. Effective budgeting motivates members to work toward organization goals, which could as well serve as control criteria of departmental performance. Budgeting is successful when it receives full support by top management and well perceived by members of its initiation and implementation.

Budgets are initiated in two formats – imposed budget and participative budget. Top-down imposed budgeting tends to cause members' complaints and abrasive reaction; while bottom-up participative budgeting tends to gain members' cooperation. The latter is considered most motivating by scholars but requires members' understanding and accepting organizations' strategies in the initiating process. Goals solely set by top management might be too difficult or too loose. On the contrary, if solely set by subordinates, budgetary slacks could occur and the organization could get disoriented. Thus, ideally goals should be established by all members -- top management proposes the visions of organization development, whereas subordinates provide information on daily operation details. The implementation fashion of budgets could also affect members' attitude toward budgets. If managers take budgets as a tool for pressuring or criticizing, such negative emphasis would induce displeasure, tensions, distrust, and denial within members. Said (1978) argues that imposed budget might mislead organization members to an idea that budget is applied simply to cut off expenditure and contain costs. Commonly practiced pseudo-participation (lower-level managers only participate for formality) leads members to consider budget as a control tool and a pressure source. Such a task-oriented traditional budgeting, which focused on control and outcome but ignores members' psychological or behavioral elements, can not get to the effect of planning and controlling. If budgets are utilized to help subordinates set up goals, evaluate operational outcomes, or uncover activities that call for resources, budgeting could be deemed as facilitating individuals' and organization's goals.

Among the relevant researches, Collins (1978) explores the interaction among personal flexibility, perceived budget characteristics (accuracy, estimate certainty, controllability, and participation), demographic characteristics (age, tenure, and status), and attitudes toward budget characteristics on budgetary response attitudes (positive response attitude and negative response attitude). Results indicate that perceived budget characteristics, attitudes toward these characteristics and personal flexibility are important correlates with budgetary response attitudes. Kenis (1979) investigates the impact that managerial philosophy and leadership style of upper lever management, organizational structure, organizational hierarchy, organization size have on budgetary goal characteristics of participation, clarity, feedback, evaluation, and difficulty. The researcher further examines how the budgetary goal characteristics affect job-related attitudes (job satisfaction, involvement, job tension), budget-related attitude (attitude toward budgets, budgetary motivation) and performance (budgetary performance, cost efficiency, and job performance). Results reveal that significant positive correlations exist among budgetary participation, budgetary feedback, budget goal clarity, and job satisfaction and budgetary motivation. Budgetary goal characteristics as a whole may play an important role in improving the attitudes of managers toward budgets and the budgetary motivation of managers. Govindarajan (1986) explores how environmental uncertainty influences the relationship between 1) budgetary participation and managerial performance, 2) budgetary participation and managers' attitude and motivation (including propensity to budgetary slack, budget usefulness, budget attitude, budget relevance, and budget motivation). It is found that when environmental uncertainty increases, 1) budgetary participation has a positive impact on managers' performance, 2) budgetary participation has a positive impact on managers' attitude and motivation, and 3) budgetary participation has a negative impact on the propensity to budgetary slack. Williams, Norman, and Moore (1990) examine how the interaction of departmental task interdependence and department manager's budgetary behaviors (including budget evaluation and monitoring, budgetary participation, communication informality, and thinking ability change) influences department performance objectives (including objectives of output performance, system performance, environmental performance, and sub-division performance). Results indicate significant relationship between budgetary behaviors and performance. Goodwin and Kloot (1996) study how strategic communication (budgetary participation) influences budgetary response attitude through role ambiguity. It is found that when strategies and budgeting process are closely connected, strategic communication and budgetary response attitude are positively and significantly related.

Based on the existing literatures, the current study is aimed at exploring 1) the important factors that influence department managers' attitude toward budgeting; 2) the influence magnitude of budget-related attitude on budgetary performance and department performance. The dimension of budget-related attitude includes positive attitudes (budget response, budget usefulness, budget relevance), negative attitudes (propensity to budgetary slack) and budget motivation (internal motivation). The dimension of factors that affect managers' budget-related attitude includes: perceived budget characteristics (accuracy, estimate accuracy, controllability, budgetary participation, budget target clarity, budget feedback, budgetary evaluation, budget goal difficulty, budget monitoring, formality of communication) and demographic characteristics (age, tenure, status). The dimension of influence that budget-related attitudes have on the performance includes budgetary performance and department performance

In Taiwan, government-owned hospitals differ from private hospitals to a great extent in budgeting. Under the protection of general funds of government budget, the operational efficiency of government-owned hospitals has been concerned. Particularly after the implementation of the national health insurance, the equality of competition between the two systems has become increasingly intense. To improve the operational efficiency, university-affiliated hospitals were reformed to adopt the operation fund system and take the responsibility of operation result so as to make up the gap between the two hospital systems. Therefore, the budgeting system is regarded essential since it works as the mechanism of planning, coordinating, motivating, and controlling. Through in-depth interviews with top management of a university-affiliated medical center, it was found that 1) the revenue budget was listed solely by the departments of medical affairs and accounting, 2) the expense budget of personnel and administration cost was determined by each department, and 3) the fixed assets (equipment) budget was determined by the management. Among them, the fixed assets budget is less ambiguous since it is generated in a specific flow. The top management would reserve budget for material equipment according to strategic goals and maintenance plans and then evaluate the request by each department. The final decision is made by the top management, based on the operational efficiency and personnel size of the requesting department. Since the fixed assets budget is based on each department's demand and allocated by the management, it can avoid the problems of budgetary accuracy, estimate certainty, controllability, goal difficulty, goal clarity, and acceptance. The above dimensions were then tailored to fit the practical operation of budgeting at hospitals in Taiwan to build up the research framework (Figure 1).

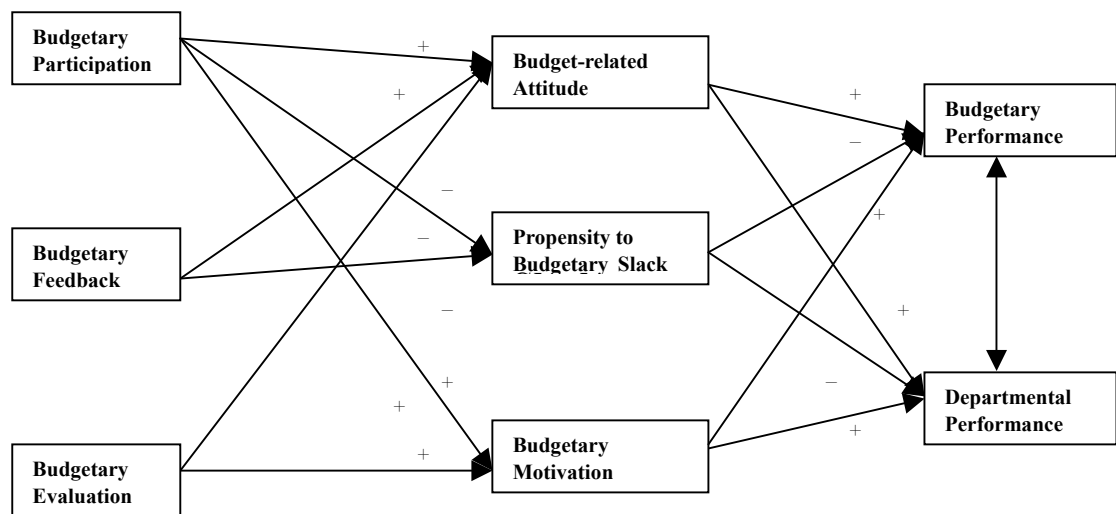


FIGURE 1 Research Framework

The following hypotheses were established for testing:

- H1: When a department manager's budgetary participation is high, the budget-related attitude tends to be more positive
- H2: When a department manager's budgetary participation is high, the propensity to budgetary slack tends to be low
- H3: When a department manager's budgetary participation is high, his budget motivation tends to be high
- H4: When superior's feedback on budget is high, a department manager's budget-related attitude tends to be more positive
- H5: When superior's feedback on budget is high, a department manager's propensity to budgetary slack tends to low
- H6: When superior's feedback on budget is high, a department manager's budget motivation tends to be high
- H7: When superior's budgetary emphasis is high, a department manager's budget-related attitude tends to be more

positive

H8: When superior's budgetary emphasis is high, a department manager's propensity to budgetary slack tends to be low

H9: When superior's budgetary emphasis is high, a department manager's budget motivation tends to be high

H10: When a department manager's budget-related attitude is more positive, the budgetary performance increases

H11: When a department manager's budget-related attitude is more positive, the department performance increases

H12: When a department manager's propensity to budgetary slack is higher, the budgetary performance decreases

H13: When a department manager's propensity to budgetary slack is higher, the department performance decreases

H14: When a department manager's budget motivation is higher, the budgetary performance increases

H15: When a department manager's budget motivation is higher, the department performance increases

3. Methodology

A questionnaire survey was conducted in the empirical study. The measurement tool was derived from the existing literature so that the reliability and validity was assured. The Likert scale was used to measure interviewees' perception.

3.1 Sample and data collection

A university-affiliated hospital was chosen as the sample. The researchers visited the management to gain support on the research activities. Data were collected in two stages. In stage one, an in-depth interview was conducted with each selected department manager of interest to confirm measurement variables and interview sample in stage two. On hundred and fifty-six initial questionnaires were then mailed to department managers, superintendents, and nursing heads, requesting for anonymous response. A second-wave questionnaires were mailed out to the sample after three weeks. Out of 132 responded questionnaires, three were found invalid, which made up 85% response rate. The sample's average age was 41.39 years old, average working experience 10.97 years, and experience with the current job 6.13 years. The service units include clinical departments, nursing departments, auxiliary departments, and administrative departments.

3.2 Variable measurement

Ten variables were of interest, including propensity to budgetary slack, budget-related attitude, budget usefulness, budget relevance, budget motivation, budgetary participation, budget feedback, budget emphasis, budgetary performance and department performance. The response format was on a 7-point Likert scale. These variables are summarized as follows (descriptive statistics listed in Table 1).

(1) Propensity to budgetary slack

Propensity to budgetary slack occurs when a department manager determines a budget amount higher than needed for operation. Onsi's (1973) four-item questionnaire, which had previously been used by Merchant (1985) and Govindarajan (1986), was considered. After interviewing the management, one item among the four items was adopted: proposing a looser budget to implement unapproved business, purchase better equipment, make up biased estimation, or cope with budget cut, is not inappropriate

(2) Budget-related attitude

Budget-related attitude refers to a department manager's general attitude toward the budgeting process. Hofstede's (1967) three-item questionnaire was modified and two items were kept: a) If you could choose, you'd use fixed asset budget for operation and b) you could manage well without fixed asset budget (inverse coding). The two items were loaded into one factor (Cronbach α = .51; eigenvalue = 1.32; factor loadings both above .81; accounting for 65.9% variation; KMO = .50)

(3) Budget usefulness

Budget usefulness refers to whether a department manager consider the budgeting process as valuable and worthy. The five-item questionnaire developed by Swierinnga & Moncur (1974) and Bruns & Waterhouse (1975) was modified. Two items were kept: a) you think making a fixed asset budget fairly helpful in management and b) you think making a fixed asset budget fairly helpful in planning department's activities. The two items were loaded into one factor (Cronbach α = .8496; eigenvalue = 1.73912; factor loadings both above .93; accounting for 87.0% variation; KMO = .50)

(4) Budget relevance

Budget relevance refers to the degree of how relevant the budget information is to a department manager's managerial

decisions. Hofstede's (1967) single-item questionnaire was modified: fixed asset budget can motivate you to reach better managerial performance

(5) Budget motivation

Budget motivation refers to the internal motivation a department manager gains out of budget activities. The three-item questionnaire developed by Dermer (1975) was modified. Two items were kept: a) good performance of fixed asset budget gives you sense of achievement and reaching objectives of fixed asset budget helps you in growth and b) development. The two items were loaded into one factor (Cronbach α =.8846; eigenvalue= 1.79466; factor loadings all above .95; accounting for 89.7% variation; KMO = .50)

(6) Budgetary participation

Budget participation refers to the degree of how a department manager participates in budgeting and influences budget objective. Kenis's (1979) five-item questionnaire was modified: a) you have considerable influence in determining the objectives of fixed asset budget in your department, b) budget making of fixed asset is completed only when you feel satisfied, c) most budget objectives of fixed asset in your department are under your control, d) your superior often asks you about opinions in determining the budget objectives of fixed asset of your department, e) you could barely express your opinions in determining the budget objectives of fixed asset (inverse coding). The five items were loaded into one factor (Cronbach α =.7525; eigenvalue= 2.5721; factor loadings all above .54; accounting for 51.4% variation; KMO = .7262)

(7) Budget feedback

Budget feedback refers to the degree of how a department manager receives the information about budget objective fulfillment. The three-item questionnaire developed by Kenis (1979) was modified. a) you could obtain considerable amount of information about budget objective fulfillment of your department, b) you could obtain considerable amount of information and guidance about the budgetary gap of fixed asset of your department, c) your superior would make you aware of how well you have done in objective fulfillment of fixed asset budget. The three items were loaded into one factor (Cronbach α =.7851; eigenvalue= 2.10776; factor loadings all above .80; accounting for 70.3% variation; KMO = .63622)

TABLE 1 Descriptive Statistics for the Variable in the Study(n=132)

Variable	Mean	S. D.	Theoretical Range	Actual Range	Cronbach's α
Propensity to Budgetary Slack	4.63	1.72	1~ 7	1~ 7	n.a.
Budget-related Attitude	8.90	2.29	2~14	3~14	0.51
Budget Usefulness	9.95	2.83	2~14	2~14	0.85
Budget Relevance	4.61	1.47	1~ 7	1~ 7	n.a.
Budgetary Motivation	9.04	2.90	2~14	2~14	0.88
Budgetary Participation	19.52	5.98	5~35	5~32	0.75
Budgetary Feedback	10.51	4.14	3~21	3~18	0.79
Budgetary Evaluation	25.36	7.48	6~42	6~42	0.84
Budgetary Performance	5.16	1.39	1~ 7	1~ 7	n.a.
Departmental Performance	9.58	2.58	2~14	2~14	0.61

(8) Budgetary evaluation

Budget evaluation refers to the degree of how a superior requires budget gap analysis and bases performance appraisal on budgeting information. Kenis's (1979) ten-item questionnaire was modified and six items were kept: a) your superior demands that you be responsible for budget gap of fixed asset of your department, b) your superior has asked you to keep up with schedule as to fulfill budget objectives of fixed asset, c) your superior would express discontentment when you fail to fulfill budget objectives of fixed asset, d) your superior would consider your performance unsatisfactory when a big budget gap occurs in fixed asset of your department, e) your superior would be

discontent with budget gap of fixed asset in your department. The six items were loaded into one factor (Cronbach α =.8394; eigenvalue= 3.39493; factor loadings all above .58; accounting for 56.6% variation; KMO = .83055)

(9) Budgetary performance

Budget performance refers to the degree of how a department manager fulfills budget objectives. The single-item questionnaire developed by Kenis (1979), later adopted by Hirst & Lowy (1990) was modified: your department always could fulfill budget objectives of fixed asset

(10) Department performance

Department performance refers to a department manager's self-assessment on his own department as compared to other departments. The single-item questionnaire developed by Chenhall & Brownell (1988) and Brownell & Merchant (1990) was modified. Another inversely coded item was also added. a) you think your department has excellent performance, b) frankly speaking, the performance of your department needs improvement (inverse coding). These two items sought for responses based on self-perception, thus confidentiality of respondent's name was assured to avoid bias. Some studies indicate that self-rating on performance, compared to superior-rating, tends to have leniency bias (Prien & Liske, 1962); while other studies argue otherwise (Parker et al., 1959; Nealey & Owen, 1970; Heneman, 1974). Parker et al. (1959) and Kirchner (1965) found moderate consistency between self-rating and superior-rating. Heneman (1974) maintained that self-rating has lower leniency bias than superior-rating. The two items were loaded into one factor (Cronbach α =.6098; eigenvalue= 1.45852; factor loading both above .85; accounting for 72.9% variation; KMO = .50)

TABLE 2 Correlation Matrix among Variables

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)
Propensity to Budgetary Slack(A)	1.00												
Budget-related Attitude(B)	0.09	1.00											
Budget Usefulness(C)	0.23 [#]	0.69 [#]	1.00										
Budget Relevance(D)	0.16 ⁺	0.69 [#]	0.74 [#]	1.00									
Budgetary Motivation(E)	0.11	0.57 [#]	0.61 [#]	0.76 [#]	1.00								
Budgetary Participation(F)	-0.01	0.16 ⁺	0.14	0.19 [*]	0.27 [#]	1.00							
Budgetary Feedback(G)	-0.19 [*]	0.14	0.11	0.15 ⁺	0.29 [#]	0.47 [#]	1.00						
Budgetary Evaluation(H)	-0.08	0.12	0.13	0.07	0.08	0.14	0.25 [#]	1.00					
Budgetary Performance(I)	0.08	0.18 [*]	0.22 [*]	0.23 [#]	0.28 [#]	0.29 [#]	0.16 ⁺	0.24 [#]	1.00				
Departmental Performance(J)	0.04	0.19 [*]	0.12	0.17 [*]	0.14	0.32 [#]	0.14	-0.01	0.35 [#]	1.00			
Age(K)	-0.09	0.01	0.06	0.07	0.02	-0.03	-0.08	-0.01	0.09	0.02	1.00		
Years of Current Position(L)	-0.06	-0.12	-0.12	-0.13	-0.05	-0.02	-0.08	-0.09	0.09	0.05	0.18 [*]	1.00	
Years of Current Hospital Position(M)	-0.05	-0.08	-0.09	-0.05	-0.09	-0.05	-0.20 [*]	-0.05	0.03	0.03	0.33 [#]	0.34 [#]	1.00

[#]: p < 0.01; ^{*}: p < 0.05; ⁺: p < 0.1; n = 132

4. Data analysis and discussions

Descriptive statistics of the study variables are listed in Table 1. The construct validity is confirmed because the KMO of all variables are above .50 (Kaiser & Rice, 1974) and the selected items are loaded into their corresponding factor. Cronbach α 's of all variables but budget attitude and department performance are higher than .75, indicating the

internal consistency. As the correlation matrix in Table 2 reads, the higher the degree of budget feedback is, the lower the department manager's propensity to budgetary slack, the stronger the budget motivation, and the higher the budgetary performance are. The higher the department manager's budget participation is, the more positive the budget attitude, the stronger budget motivation, and the higher the budgetary performance as well as department performance are. When the superior's budgetary emphasis is higher, the budgetary performance is also higher. When a department manager's budget attitude is more positive, the budget as well as department performance are higher. When a department manager's budget motivation is higher, the budget performance is higher.

TABLE 3 Result of Canonical Correlation Analysis of Perceived Budgetary Characteristics and Budget-related Attitude

Independent Variable	Canonical Variate	Dependent Variable	Canonical Variate
	χ^1		η^1
Budgetary Participation	0.642	Budget-related Attitude	0.429
Budgetary feedback	0.978	Propensity to Budgetary Slack	-0.446
Budgetary Evaluation	0.308	Budgetary Motivation	0.839
		Variance Extracted (%)	36.252
		Redundancy Index	5.013
Variance Extracted (%)	6.741	Canonical R ²	0.138
Redundancy Index	48.746	Canonical Correlation Coefficient	0.372*

*: p<0.005

TABLE 4 Result of Canonical Correlation Analysis of Budget-related Attitude and Performance

Independent Variable	Canonical Variate	Dependent Variable	Canonical Variate
	χ^1		η^1
Budget-related Attitude	0.712	Budgetary Performance	0.972
Propensity to Budgetary Slack	0.280	Departmental Performance	0.560
Budgetary Motivation	0.966		
		Variance Extracted (%)	62.872
		Redundancy Index	5.225
Variance Extracted (%)	4.208	Canonical R ²	0.083
Redundancy Index	50.634	Canonical Correlation Coefficient	0.288*

*: p<0.05

To further test hypotheses, canonical analysis was adopted. Perception variables (including budget participation, budget feedback, budget emphasis) were chosen as the independent variable set; while budget-related attitude variables (including budget attitude, propensity to budgetary slack, and budget motivation) as the dependent variable set. It intended to test whether there was a statistically significant correlation between scores from the two linear functions and whether a reasonable interpretation can be made of the two set of coefficients from the functions. As seen in Table 3, the canonical coefficient .37, and Wilk's Λ .83 (p < .005) illustrate a significant linear correlation between the two sets. The canonical loading is .98 for budget feedback, .64 for budget participation, and .31 for budget emphasis; while the canonical loading is .84 for budget motivation, -.45 for propensity to budgetary slack, and .43 for budget attitude. In

other words, when budget feedback and budgetary participation are higher, a department manager's budget motivation tends to be higher, budget attitude will be more positive, and propensity to budgetary slack will be lower. Hypotheses 1, 3, 5, and 6 are supported. At the study hospital, the fixed asset budget is proposed by department managers and then adjusted by department's past performance and number of employees. This could explain why the relationship between budget participation and propensity to budgetary slack and that between budget feedback and budget positive attitude are not significant.

As Table 4 indicates, the canonical coefficient .29, and Wilk's Λ .90 ($p < .043$) shows a significant linear correlation between the two variable sets (budget-related attitude and performance). The canonical loading is .97 for budget motivation, .71 for budget attitude, and .28 for propensity to budgetary slack; while the canonical loading is .97 for budget performance, .56 for department performance. That is, when budget motivation is higher and budget attitude is more positive, a department manager's budget performance as well as department performance tends to be higher. The results support Hypotheses 10, 11, and 14. Diagram 2 illustrates the canonical correlation paths among variables. To further investigate the relationship between budget attitude, budget usefulness, and budget relevance, regression analysis was conducted. Table 5 proposes that making him (her) aware of budget's usefulness and relevance can facilitate a department manager's positive attitude toward budget.

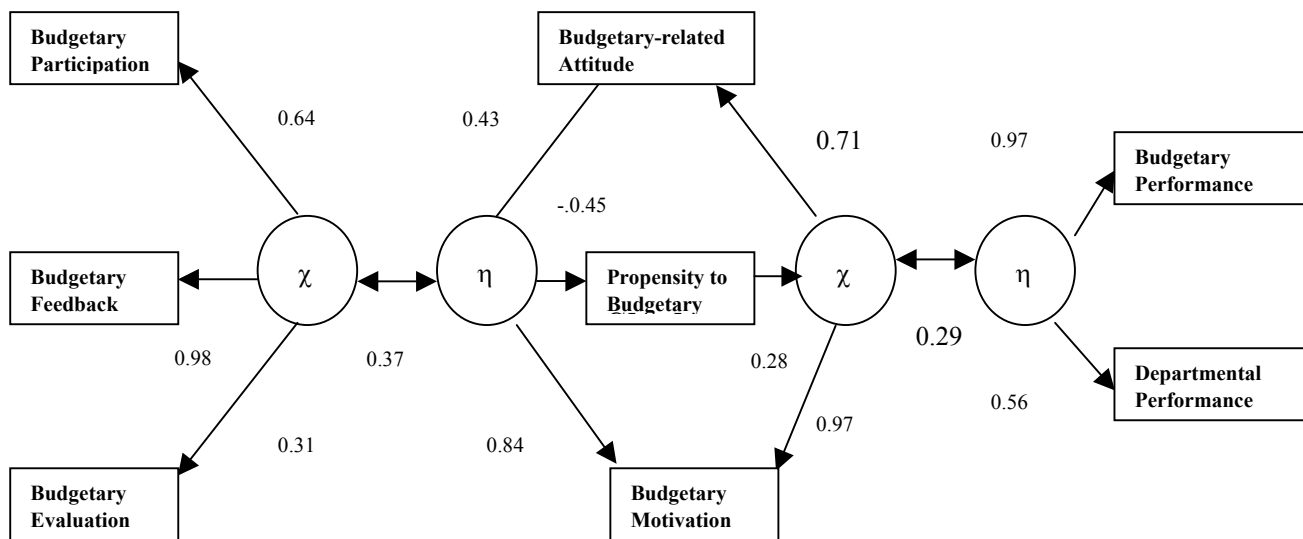


FIGURE 2 Canonical Correlation Analysis Between Variables

TABLE 5 Result of Budget-related Attitude on Budget Usefulness and Budget Relevance

Variable	Coeffic.	Estimates	S. D.	t-statistic	p-value
Constant	b_0	2.859	0.512	5.590	0.0001 *
Budget Usefulness	b_1	0.327	0.072	4.522	0.0001 *
Budget Relevance	B_2	0.605	0.139	4.335	0.0001 *

$R^2 = 0.543$; Adj. $R^2 = 0.535$; $F_{2,129} = 76.489$; $p\text{-value} < 0.0001$; *: $p < 0.0001$

5. Conclusion

The current study explores the factors on hospital department managers' budget-related attitude and its relationship with performance. Empirical results conclude that when budget feedback and participation is higher, a department manager's budget motivation tends to be higher, the budget attitude more positive, and the propensity to budgetary slack slower. When a head has higher budget motivation and more positive budget attitude, the budget performance and department performance tends to be higher.

However, some limitations of the current study have to be recognized:

First, Perception measure. Study variables were designed to measure respondents' perception. Biases of instability,

central tendency, leniency or strictness could occur.

- Second , Cross-sectional design. The hypothesis model was cautiously built upon existing literature. Nevertheless, due to time and budget constraints, a cross-sectional, instead of longitudinal, design was adopted. The causality needs to be conservatively concluded.
- Third , Data collection bias. The bias of questionnaire interviews is inevitable, including halo effect, dishonest response, respondents being unqualified, and social desirability bias.
- Fourth , Generalizability. The results obtained from studying only one hospital might not be generalizable to other hospitals or even the entire health industry.
- Fifth , Variable selection. Some variables (such as personal traits, culture differences) were not included in the study but might have important influence

In spite of the above limitations, the current study has contributions in in-depth understanding about department managers' performance and budget attitude. It reveals the important factors that affect budget attitude. Findings can help management of non-profit organizations in effectively implementing a budget system that accomplishes planning, coordinating, motivating, and control

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