The Impact of Business Strategy on Budgetary Control System Usages in Jordanian Manufacturing Companies

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Abstract

This research aims at investigating the impact of business strategy on budgetary control system usage in Jordanian manufacturing companies.A survey methodology was utilized using questionnaires to gather data from eighty one Jordanian manufacturing companies listed in Amman Stock Exchange. A total of sixty four usable questionnaires were received and were used for data analysis. Regression analyses were used to achieve the research objectives.The main findings reveal that only low cost strategy has a significant impact on budgetary usages in the Jordanian manufacturing companies. The findings of this research raise important issues and implications for management accounting researchers and practitioners that is hoped to enhance knowledge on budgetary control system usage .

Keywords: Budgets Usages , Low Cost Strategy , Differentiation Strategy, Management Control Systems, Jordanian Manufacturing Companies.

1.1 Introduction

Budgeting is considered as one of the central management accounting Control systems (MACS) that generates information needed for planning, coordinating, controlling and performance evaluation purposes as well as a major tool for correcting performance and ensuring that managerial policies and decisions are well implemented.

The majority of prior studies on MACS have followed a contingency theory perspective and argued that there is no one best budgetary control system applicable to all organizations and that different organizations pursuing different strategies require different budgetary and control systems (Chenhall and langfield-smith,1998). However, prior studies that have examined the relationship between budgetary control systems and business strategies have been limited (Simons,1987 ; Govindarajan,1988). Moreover, (Simons, 1990) argues that budgets can be used diagnostically or interactively. Diagnostic usage of budget relates to the traditional usage of budget for motivating, evaluating managers, monitoring and controlling activities, and correct deviations from preset measures of performance. While Interactive usage of budget relates to using budgets actively as a tool for planning, coordinating and communicating strategic priorities and plans (Abrenethy and Brownell,1999).

Therefore, this study attempts to examining the impact of business strategies on budgetary control system usages in Jordanian manufacturing companies**.**

1.2 Statement of the Problem

Despite the importance of budgetary control systems and its relationship with business strategy, little research to date have investigated how business strategy may influence budgetary control systems in general and in Jordanian manufacturing companies in particular. Also, previous studies have concentrated on budgetary control system as a control and performance evaluation tool, neglecting other usages such as planning, coordination and motivation. The lack of development and knowledge on budgetary control system design in Jordanian context and the need for systematic empirical research on this area have provided a motivation for undertaking this study.

Thus, this study will examine the impact of business strategy on budgetary control system usages in Jordanian manufacturing companies.

1.3 Research Objective

The current study aims at identifying the impact of business strategy on budgetary control system usages. Thus, this study aims at achieving the following research objective:

To determine the impact of business strategies on budgetary control system characteristics usages in Jordanian manufacturing companies.

1.4 The Importance of the Research

This study utilizes the contingency theory in studying budgetary control system usages. The importance of the study was implicitly mentioned in prior discussions; however the following discussion will explicitly state the Significance of the study:

1.   The literature of MACS indicates that the limited empirical research conducted to date have not yielded any concrete results about the nature of the most relationship between business strategies and budgetary control systems usages (Chenhall, 2003). Thus, it is essential to conduct this study to investigate the effect of business strategies on budgetary control system usages.

2.   This study contributes to the literature by studying budgetary control systems usages in Jordanian context. Prior budgetary contingency theory studies, although were few, were conducted in different countries and contexts, and none were implemented in Jordan. Thus, this study adds to the literature by advancing knowledge on whether the findings of prior studies can also be applied to the Jordanian context.

2. Literature Review
Studies pertaining to Strategy and budgetary systems:
(Dahlan, et al, 2007) examined the relationship between tight budgetary control and firms' performance. Additionally, the effects of two contingent factors, namely, business strategy and external environment are investigated. Tight budgetary control was measured using an instrument developed by (Van der Stede, 2001) as a means to re-validate the instrument. Using a survey questionnaires with a sample of 165 top management staff of manufacturing firms in Indonesia listed on Jakarta Stock Exchange. The construct of strategy is operationalised using the definitions of strategy introduced by (Miles and Snow, 1978). The results indicate that prospector strategy has a positive influence on the relationship between tight budgetary control and firms' performance. However, defender strategy and external environment do not appear to moderate the relationship between tight budgetary control and firms' performance. This study has implications for managers and may assist in the understanding on budgetary control practices in Asian countries.

(Shih & Yong, 2009): investigated seven MCS features and their relationship with strategy. Using a questionnaire survey methodology with a sample of 49 large Singaporean firms listed on the Singapore Stock Exchange. Strategy was measured using Miles and Snow's Prospector/ Defender typology. Seven MCS attributes have been investigated in this study including tightness of budgetary control; extent of use of non-financial criteria and subjective assessment for performance evaluation. The analysis reveals that the Prospector-like firms tend to adopt a long-term perspective in decision making and practice decentralized control to a greater extent than other firms. Also, the more intensely a firm pursues the Prospector-like strategy, the less uncertain it is about its financial results, and that the tightness of budgetary control is negatively correlated with financial results uncertainty.

(Jung and min-Choe, 2010) investigated the relationships between the importance of four operational budget reasons and the intensity of the cost leader/differentiator strategy in business units. The study considers this relationship for both annual budgets and rolling forecasts. Using data collected from a survey of 331 medium to large Australian business units. The results indicate that more intensive adopters of differentiator strategies appear to regard annual budgets and rolling forecasts as more important for both operational planning and performance evaluation reasons, this represented a broader range of reasons than that observed for cost leader business units, which have been traditionally argued to be more sensitive to formal financial controls.

2.1 Theoretical Model
The study model is presented in Figure 1. It consists of two main variables: business strategies and budgetary control system usages.

Figure 1
Study Theoretical Model
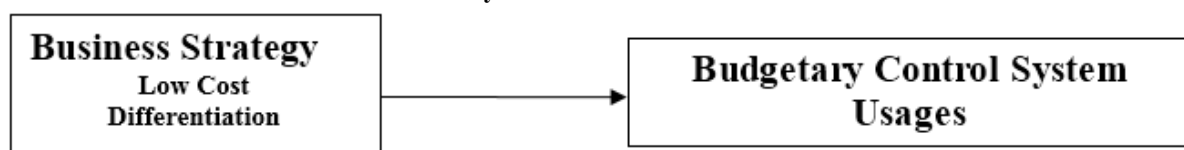
Budgetary Control System Usages:
HA1: Low cost strategy has a significant negative impact on interactive budgetary usage (using budgets for planning, coordination and communication).
HA2: Differentiation strategy has a significant positive impact on interactive budgetary usage (using budgets for planning, coordination and communication).
HA3: Low cost strategy has a significant positive impact on diagnostic budgetary usage (using budgets for motivation, performance evaluation and control)
HA4: Differentiation strategy has a significant negative impact on diagnostic budgetary usage (using budgets for motivation, performance evaluation and control).

3. Research Design and Methodology
The current study adopts a survey methodology and utilizes questionnaires for data collection. Using this method for data collection has many positive aspects such as obtaining data from a large number of respondents and provides respondents with sufficient time, comfort and freedom to answer in order to avoid respondents' bias. In addition, survey methodology is considered suitable for collecting a large quantity of data at lower cost and less time.

3.1 The Research Population Survey Administration

The population of this study is defined as all manufacturing companies listed in Amman stock exchange. The sampling frame was obtained from Jordan Investment Board (www.jordaninvestment.com) and consists of 81 manufacturing companies. The main survey consisted of 81 questionnaires and was sent electronically to financial managers of all listed manufacturing companies. A total of 74 questionnaires were received including 64 useable questionnaires and 10 unusable questionnaires.

4. Data Analysis and Recommendations

First Hypothesis Test (Interactive budgetary Usage):

HA1: Low cost strategy has a significant negative impact on interactive. Tables (4.1) and (4.2) show the simple regression model statistics for testing the first research hypothesis (HA1). The F statistic (F= 115.363) shown in table 4.1 was statistically significant at 0.000 level indicating the goodness of fit of regression model. The R^2 value also indicates that the independent variable (low cost strategy) explains 65% of the variation in the dependent variable (interactive budgetary usage), reflecting the strength and stability of the study model ($R^2 = 0.650$).

Table (4.1)
Analysis of Variance For First Hypothesis

Model	R^2	Sum of squares	Df	Mean square	F	*Sig.
Regression		37.074	1	37.074	115.363	0.000
Residual	0.650	19.925	62	0.321		
Total		56.999	63			

*Sig(α ≤ 0.05)

In addition, the results related to HA1 shown in Table (4.2) supports fully the first hypothesis that low cost strategy has a significant negative impact on interactive budgetary usage (Beta = - 0.806; t = -10.741, α = 0.000). Thus, HA1, was fully accepted as indicated by the regression model results.

Table (4.2)
Simple Regression Analysis For First Hypothesis

Model	B	Std.error	Beta	t	*Sig.
(Constant)	5.887	0.225		26.203	0.000
Low cost	-0.967-	0.090	-0.806-	-10.741-	0.000

*Sig(α ≤ 0.05); Dependent variable: Interactive budgetary usage

Second Hypothesis Test (Interactive Budgetary Usage)

HA2:Differentiation strategy has a significant positive impact on interactive budgetary usage.

Tables (4.3) and (4.4) show the simple regression model statistics for testing the second research hypothesis (HA2). The F statistic (F= 0.251) shown in table 4.19 was not statistically significant indicating the lack of goodness of fit of regression model. In addition, R^2 value was very weak indicating that the independent variable (differentiation strategy) explains only 0.4 % of the variation in the dependent variable (interactive budgetary usage), thus, not reflecting the strength and stability of the study model ($R^2 = 0.004$).

Table(4.3)
Analysis of Variance For Second Hypothesis

Model	R^2	Sum of squares	Df	Mean square	F	*Sig.
Regression		.2300	1	.2300	0.251	0.618
Residual	0.004	56.770	62	0.916		
Total		56.999	63			

*Sig(α ≤ 0.05); Dependent variable: Interactive budgetary usage

In addition, the results related to HA2 shown in Table (4.20) do not support the hypothesis that differentiation strategy has a significant positive impact on interactive budgetary usage (Beta = - 0.063; t = 0.501, α = 0.618). Contrarily to the hypothesized positive direction, the direction of effect was negative and the strength of effect was weak and not statistically significant. Thus, HA2, was fully rejected as indicated by the regression model results.

Table (4.4)
Simple Regression Analysis For Second Hypothesis

Model	B	Std.error	Beta	t	*Sig.
(Constant)	3.922	0.661		5.936	0.000
Differentiation	-0.085-	0.170	-0.063-	-0.501-	0.618

*Sig(α ≤ 0.05); Dependent variable: Interactive budgetary usage

Third Hypothesis Test (Diagnostic Budgetary Usage):
HA3:**Lowcost strategy has a significant positive impact on diagnostic budgetary usage**.

Tables (4.5) and (4.6) show the simple regression model statistics for testing the third research hypothesis (HA3). The F statistic (F= 1.529) shown in table 4.5 was not statistically significant (α=0.221) indicating the lack of goodness of fit of regression model. In addition, R^2 value was weak indicating that the independent variable (low cost strategy) explains only 2.4 % of the variation in the dependent variable (diagnostic budgetary usage), thus, not reflecting the strength and stability of the study model $(R^2 = 0.024)$.

Table (4.5)
Analysis of Variance For Third Hypothesis

Model	R^2	Sum of squares	Df	Mean square	F	*Sig.
Regression		1.181	1	1.181	.5291	0.221
Residual	0.024	47.878	62	0.772		
Total		49.059	63			

*Sig(α ≤ 0.05); Dependent variable: Diagnostic budgetary usage

In addition, the regression results related to HA3 shown in Table (4.6) do not support fully the hypothesis that low cost strategy has a significant positive effect on diagnostic budgetary usage (Beta = 0.155; t = 1.237, α = 0.221). Although, the direction of effect was positive as hypothesized, the strength of effect was not statistically significant. Thus, HA3, was rejected as indicated by the regression model results.

Table(4.6)
Simple Regression Analysis For Third Hypothesis

Model	B	Std.error	Beta	t	*Sig.
(Constant)	3.646	0.348		10.469	0.000
Low cost	0.137	0.140	0.155	1.237	0.221

*Sig(α ≤ 0.05); Dependent variable: Diagnostic budgetary usage

Forth Hypothesis Test (Diagnostic Budgetary Usage):
HA4:**Differentiation strategy has a significant negative impact on diagnostic budgetary usage**.

Tables (4.7) and (4.8) show the simple regression model statistics for testing the fourth research hypothesis (HA4). The F statistic (F= 1.235) shown in table 4.23 was not statistically significant (α=0.271) indicating the lack of goodness of fit of regression model. In addition, R^2 value was weak indicating that the independent variable (differentiation strategy) explains only 2.0 % of the variation in the dependent variable (diagnostic budgetary usage), thus, not reflecting the strength and stability of the study model $(R^2 = 0.020)$.

Table (4.7)
Analysis of Variance For Fourth Hypothesis

Model	R^2	Sum of squares	Df	Mean square	F	*Sig.
Regression		.9580	1	.9580	1.235	0.271
Residual	0.020	48.100	62	0.776		
Total		49.059	63			

*Sig(α ≤ 0.05); Dependent variable: Diagnostic budgetary usage

In addition, the regression results related to HA4 shown in Table (4.8) do not support fully the hypothesis that differentiation strategy has a significant negative effect on diagnostic budgetary usage (Beta = 0.140; t = 1.111, α = 0.271). Contrarily to the hypothesized negative direction, the direction of effect was positive and the strength of effect was moderate but not statistically significant. Thus, HA4, was fully rejected as indicated by the regression model results.

Table (4.8)
Simple Regression Analysis For Fourth Hypothesis

Model	B	Std.Error	Beta	T	*Sig.
(Constant)	3.390	0.608		5.574	0.000
Differentiation	0.174	0.156	0.140	1.111	0.271

*Sig(α ≤ 0.05); Dependent variable: Diagnostic budgetary usage

4.1 Hypotheses Analyses Findings
The regression analysis was utilized to examine the research hypotheses and achieve the second research objective restated below: **"To determine the impact of business strategies on budgetary control systems usages".**

It was hypothesized that low cost strategy (COSTSTR) has a negative impact on INTBUD (HA1), and a positive impact on DIGBUD (HA3), whereas differentiation strategy (DIFFSTR) has a positive impact on INTBUD (HA2), and a negative impact on DIGBUD(HA4). The findings illustrated in table (4.29) indicate that COSTSTR has a negative significant impact on INTBUD in Jordanian manufacturing companies as were

hypothesized. However, DIFFSTR was found to have a negative but not significant impact on INTBUD. Moreover, the findings indicate that both COSTSTR and DIFFSTR have a positive but not significant impact on DIGBUD. These findings is not consistent with prior studies' (e.g., Simons, 1995, Anthony and Govindarajan, 2001) argument that budgets are used interactively (i.e. use of budgets for short-term planning and coordination) rather than diagnostically (i.e. use of budgets for performance evaluation and controlling behavior) in organizations pursuing a differentiation strategy. Conversely, diagnostic use of budgets is likely to be more effective in organizations pursuing low cost strategy.

4.2 Research Findings and Recommendations

The findings of this study raise important issues and implications for management accounting researchers. From the perspective of the contingency theory literature, the measurement of contingency variables remains controversial (Larcker, 1981). The results of this study indicated that business strategy is a multidimensional concept. Thus, researchers employing contingent variables should utilize factor analysis to assess whether the items used can be aggregated into a single or more than one variable, the exploratory factor analysis of the business strategy concept indicated the multidimensionality of this concept, which consists of two dimensions (i.e. low cost and differentiation). This is different from previous studies (e.g. Govindarajan, 1988) that have measured this concept as a simple continuum between firms following low cost strategy and those following differentiation strategies (Dent, 1990). Such a continuum neglects the multidimensionality of strategy because a single measure is unlikely to capture many relevant strategic distinctions. Therefore a low score on low cost strategy does not essentially indicate a high score on the differentiation strategy (Ittner and Larcker, 2001)

4.3 Limitations and Further Directions for Future Research

While the results of this study provide general support for the application of contingency relationships to the manufacturing sector, they should be interpreted in the light of the study's limitations. First, the results of this study may not be generalisable to other organizations operating in other industries such as services or retail. Future research will have to reveal whether the results are applicable for organizations operating in non-manufacturing industries. Second, a potential limitation in this study relates to the level of variance R^2 explained by the business strategy. Thus, the presence of the business strategy incorporated in the study theoretical model does not provide a complete explanation of the results. Thus, there is an opportunity for future research to identify and examine the impact of other contextual variables (e.g. culture, management style) on a budgetary control system usages. Hopefully, this research will encourage management accounting researchers to conduct further empirical studies about the budgetary control system usages approach to clarify some of the complexity and confusion that is accompanied with this approach.

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