AN EVALUATION OF CORPORATE STRATEGIC PERFORMANCE: An Evidence From Jordan

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ABSTRACT

This study aimed at conducting an assessment of corporate strategic performance in a sample of Jordanian banks. To reach this end, an empirical linear discriminant model was developed and tested using Multiple Discriminant Analysis as a statistical tool for data analysis and hypotheses testing. Findings indicated that corporate efficiency has highly significant discriminatory power to distinguish between the strategically- high and strategically-low performing banks in the study sample. Results of hypotheses testing also indicated that ability to raise long term capital has reasonable discriminatory power to distinguish between groups. On the other hand, profitability has a weak positive discriminatory power and productivity has no statistically significant contribution to strategic performance.

Keywords: *Strategic Performance, Strategic Management, Strategic thinking, Strategic Planning, Strategic Adaptation*

INTRODUCTION

Strategic performance is a phenomenon that can distinguish high performing firms from low performing ones. It sheds more lights than any other performance indicators on how well a firm prepares itself to effectively navigate into the future. This study comes as an attempt to develop proper measurements of corporate strategic performance using the scientific method. To accomplish this objective a sample of high-performing firms and another sample of low-performing firms are going to be used to empirically investigate variables that can distinguish between the two study groups. Multiple Discriminant Analysis is going to be used as a statistical tool for testing the study hypotheses.

PURPOSE OF THE STUDY

The purpose of this study is to conduct an empirical assessment of strategic performance through identifying a set of strategic factors that focus primarily on the quality of transformation process in the study sample. It seeks to identify measures of strategic performance that can help distinguish between high-performing banks and low-performing ones. Results of testing the study hypotheses, which are included in the next section, should accomplish this purpose.

SIGNIFICANCE OF THE STUDY

Findings of this study should help top management executives of banks included in the study sample to adequately measure their strategic performance so that the transformation process from current status into the future can be carried out in a most efficient and an effective manner.

LITERATURE REVIEW

Corporate strategic performance is defined as a set of strategic factors that contribute significantly to a firm's strategic performance capability. It allows the corporation to create and maintain favorable future conditions that guarantee continuity and survival. In this study a high-performing corporation is treated as strategic performing one. This means that a high-performing corporation that enjoys high levels of strategic performance is characterized of being able to create and maintain a set of strategic performance capabilities that distinguish it from low-performing Corporation, (Chennerley & Neel, 2002).

Recently, the subject of corporate strategic performance has been at the center of interests of both academic and professional corporate circles, (Hui, Abdul Rahman & Abdul Aziz 2009).

The goal of this emphasis was to improve strategic management of corporations so that future options can be managed adequately. Many research articles were published during the last decade with a focus on the development of proper measurements of strategic performance. (Vital, Mavinac and Hauser, 1994, Kaplan & Norton, 2001, Kennerley & Neely, 2002 and Carmen Aranda, Javier Arellano, 2010).

The main theme, of these articles, was that strategic performance is a difficult and complicated phenomenon for measurement and conventional accounting-based measurements cannot successfully capture the magnitude of the phenomena. Therefore, multi-dimensional and multi-factor measurements should be developed, (Bourne, Mills, Wilcox, Neely, & Platts, 2000, Vinh Sum Chau, 2008).

Traditional measures for the evaluation of corporate strategic performance are unable to depict the nature and orientation of this phenomenon simply because they measure past performance while strategic performance requires a forward-looking measure, (Sim & Koh, 2001). Alternative approaches were developed in order to assess the firm strategic posture which involves a firm's ability to create and successfully maintain certain capabilities that help moving it forward, (Chenhall, 2005). This measurement system is going to be used to evaluate strategic performance in a selected sample of banks for this study.

Most strategic business analysts and corporate managers realized that a well integrated and well-designed strategic performance measurement system is an important part of strategic management of any organization. Vital, Mavinac & Hauser (1994) argued that, such a system is expected to have a strong impact on how managers think about strategic options they encounter in the market place. It also has an impact on the way they allocate corporate resources. It is also vital that managers should benefit from employing a well-designed strategic measurement because it will help them comprehend what was achieved as well as how it was achieved.

The strategic performance measurements system can serve several purposes:
First, the process of building a system in itself usually helps managers to identify business priorities more effectively. Second, Traditional measurement systems do not actually take into consideration the long term significance of allocating investment in the corporation core activities. The well balanced measurement system should be able to provide managers with required help to rationalize expected benefits of various activities.
To make a strategic system functional certain systematic approaches has to be put into effect. Vital, Mavinac &

Hauser (1994) have the following ideas about the successful design of such a system:
Like any strategic business initiative, the successful installation of a strategic measurement system will require commitment and support from top management. Simply collecting and reporting measures isn't enough. They must be looked at, mulled over, discussed, and used. Ultimately, they should inspire insight, action, and change, (pp. 17-18).

For the purpose of this study, a corporation that is characterized of having strategic performance level has two identifying characteristics:
First, it is capable of creating and maintaining strategic posture is towards the future. A corporation having strategic posture is characterized of being able to position it strategically by pursuing certain policies aimed at creating receptive environment that helps transforming it from its current environment into the future. One of the very important tools of achieving that is profitability. A literature on corporate performance has emphasized profitability factors and considered it as a necessary condition effective performance (Kaplan, Norton 2001).

The sufficient condition is a corporation ability to maintain strategic performance levels so that it can transform itself smoothly and effectively in order to be able to meet future challenges. This transformation ability can best be captured by the quality of the slack resources management. Generation of slack resources as well as their uses can be represented by financial measurement (Kaplan & Norton, 2001).

Second. It is capable to create and maintain high levels of corporate managerial efficiency. This represents corporate capabilities in terms of assets utilization. This capability can best be measured by the ratio of net profit after tax to total assets. As this ratio becomes larger the managerial efficiency in terms of assets utilization is increased (Gerald, 2005).

RESEARCH HYPOTHESES
The following five hypotheses were formulated:
   1- Does profitability distinguish between high-performing corporations and low-performing ones? Thus, does it constitute a satisfactory measurement of corporate strategic performance?

2- Does labor productivity distinguish significantly between high-performing firms from low-performing ones? Thus, does it constitute a satisfactory measurement of corporate strategic performance?

3- Does capital productivity distinguish between high-performing firms from low-performing ones? Thus, does it constitute a satisfactory measurement of corporate strategic performance?

4- Does an increase in corporate ability to raise long term capital distinguish between high-performing firms from low-performing ones? Thus, does it constitute a satisfactory measurement of corporate strategic performance?

5- Does management efficiency distinguish between high-performing firms from low-performing ones? Thus, does it constitute a satisfactory measurement of corporate strategic performance?

METHODOLOGY

At this stage of the research process, a detailed presentation of methods and procedures become relevant. This section of the research describes the research variables, selection of the research instrumentation, selection of participants, collection, and analysis and hypotheses testing.

Selection of instrumentation

Secondary data collection sources were used to collect data related to the study dependent as well as independent variables. All data for this study are publically available from secondary sources, such as corporate websites and industry publications, therefore no need for any permission to be obtained to conduct this process. Since data are going to be obtained from secondary data sources, reliability of such data is guaranteed.

For this study, the dependent variable Maximum Sustainable Growth index was used as the dependent variable. Maximum Sustainable Growth (MSG) was used as criteria to classify the sample into either group one or group two. MSG is a concept which measures a firm's maximum growth that can be achieved using internal resources and a firm debt capability to enhance future growth. MSG can be calculated using the following formula:

$$MSG = P[ROA + (D/E)(ROA - i)] \qquad \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots \text{(Formula (1))}$$

Where,

MSG is the Maximum Sustainable Growth

P is Percentage of Returned Earnings

ROA is Return on Assets

D is Total Dept Outstanding

E is Total Equity

I is after tax interest on debt

One independent factor was used in this study, the quality of transformation process . The quality of transformation process is comprised of the following variables:

1- Profitability is an important determinant of slack resources generation ability. This research uses profit margin (the ratio of net profit after tax to total sales) as a measure of profitability. An increase in this ratio represents an increase in slack resources generation ability (Gerald, 2007).

2-Productivity is another measure of a firm ability to generate slack resources. This research uses sales revenue per employee as a measure of labor productivity, and sales revenue per Dollar of total assets as a measure of capital productivity. An increase of any of these two ratios indicates an increase in firm's ability to generate slack resources (Bourgeois, 1981).

3-The ability to raise long term capital is a measure of a firm capability to generate slack resources. This research uses debt-equity ratio as a measure of slack resources generation capability. This measure is a popular one to represent a firm's ability to raise long-term capital because as it decreases, the firm ability to get involved in stock market for additional equity is improved. Therefore as this ratio decreases, a firm's ability to raise additional capital improves (Gerald, 2007).

4-Efficiency as measured by Return on Investment can also be used as an indication of how well slack resources are generated. As this ratio is increases a firm ability to enhance its image is increased (Wheelen and Hunger, 2010).

The study strategic measurement, factors and variables are summarized in Table (1).

Table (1): Summary of the Study Variables

Strategic Measurements	Factors	Variables
Dependent Variable: Maximum Sustainable Growth	MSG scores	Formula 1
Independent Factor:	Profitability	Profit margin
Quality of Transformation Process		
	Productivity	Labor Productivity
		Capital Productivity
	Ability to raise long term Capital	Debt / Equity Ratio
	ROI	Net Profit/ Total Assets

FORMULATION OF THE STUDY GROUPS
As part of the research methodology, the researcher has divide the study sample into two groups based on Maximum Sustainable Growth score for each firm in the study sample. The first group is called "Strategically High-Performing Group" and the second one is called "Strategically Low-Performing Group. This classification was done in order to make data applicable for the use of Multiple Discrimanant Analysis as a statistical tool for data analysis in this study. An important necessary condition has to be met in order to be able to apply MDA as a statistical tool for data analysis and hypotheses testing. This necessary condition is maintained when the sample is divided into two or more pre-defined groups.

DATA COLLECTION & STATISTICAL METHODS
For the purpose of this study all firms in the banking sector in Jordan were included in the study sample,(a total of 15 banks). All Jordanian banks were included in the study sample provided that reliable data on the study variables are available for the period of time covered by this study. The temporal line for this study extended over   a period of four years (2005-2008). The unit of analysis therefore is the firm itself.

Data to calculate the dependent variable (MSG) include returned earnings, net income, total assets, total debt, total equity and after tax interest on debt.
Independent variables which we need to collect data about them are summarized in table (1) in the column labeled variables, which include Profit margin, labor productivity, capital productivity, debt to equity, net profit, and Return on Investment.

To test the study hypotheses the Multiple Discriminant Analysis (MDA) statistical method is going to be used. MDA is a multivariate statistical method which was first introduced by Fisher. Applications of MDA were limited to behavioral sciences particularly to psychological testing. However, by the end of 1960s, MDA was applied to other disciplines as well. Management was among those disciplines using MDA. By late 1970s, MDA had wide range of applications in marketing, finance and strategic management. MDA has to do with classifying objects into exactly one or more pre-determined groups based on some measurable characteristics (stat soft, 2008).

Let us assume that we have two distinct groups, as the case in this study. Let X1 and X2 be the sample means vectors for the groups, and S be the pooled estimate of the population covariance matrix. Let a be a coefficient vector of the index a'x, then MDA computes the linear index of several measurements which best discriminate between groups. It therefore seeks to develop a linear combination that distinguishes between groups by maximal separation. What actually MDA does is that it maximizes the absolute difference [a" (x1-x2)] subject to the constraint a'sa=1. Then the critical ratio for the two group cases will be:

T2 (a)= [a' (x1-x2)[2 n2n2/(n1+n2) /a'sa

Where,

 N1 is group 1 sample size

N2 is group 2 sample size

 s. t.   a'sa=1

Since MDA has proven to be a powerful tool to provide the most significant distinction between groups, it seems rather an appropriate tool for testing the study hypotheses. Its primary advantage as applied to this research is its powerful ability to check the entire profile of strategic performance rather than sequentially examining individual measurements (Morrison, 1982).

TESTING THE STUDY HYPOTHESES
As mentioned earlier, the objective of using MDA is to test the ability of the study independent variables to distinguish between strategically high-performing firms and strategically low –performing ones in the study sample. MDA Statistical analysis will be conducted using the SPSS statistical software, to obtain the following: First, to use the stepwise discriminant analysis which can select variables to be included in the model based on their abilities to distinguish strategically high-performing group from strategically low-performing one. Therefore a set of independent variables were identified and used in the analysis.

Second, Walk's lambda was calculated which shows the overall discriminatory power of the independent variables in the model. Walk's lambda is the multivariate extension of R-squared in regression analysis, but interpreted backward from R-squared. It varies between 1 and 0, where values near 1 imply low discriminatory power and values close to 0 imply high discriminatory power (statsoft, 2008).

Finally, the discriminant functions associated with each group were calculated and used to classify firms into their respective group. Depending on this test the study hypotheses were tested.

FINDINGS
In this section of the research, the results of testing the research hypotheses were presented. Presentation of the results include statistical parameters showing the linear discriminate functions associated with each of the two groups, and Wilke's lambda which shows the discriminatory ability of the model to distinguish between the study groups. Finally the classification matrix will be presented which includes predicted classification of sampled firm into their respective group.

When applying stepwise discriminant analysis, the only independent variables allowed to enter into this discriminant model were ability to raise long term capital, profitability, and ROI. Other variables were excluded due to insignificant ability to distinguish between the two groups of the study.

1- Classification Function Coefficients:

Table (2): Classification Function Coefficients

	Group	
	1	2
DE	7.260	7.765
Prof	.081	.131
ROI	49.881	54.395
(Constant)	-341.960-	-394.136-

Fisher's linear discriminant functions

As reported in table (2) corporate efficiency as measured by ROI has significantly dominated both functions associated with group one (49.881) and group two (54.395), followed by ability to raise long term capital as measured by debt – equity with (7.260) for group one and (7.765) for group two. Finally the discriminant functions associated with profitability has shown very weak coefficients in both groups.

2- Wilk's Lambda

Results in Table (3) indicted that the overall Wilk's lambda associated with this model is 0.369 with a significance of 0.009. This means that the discriminant model used in this study has strong discriminatory power to successfully distinguish between the study groups. As a matter of fact the discriminatory power is highly significant due to the high significance level associated with it (0.009), as reported in Table (3).

Table (3) :Wilks' Lambda

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1	.369	11.469	3	.009

3- Classification Results

Table (4) shows the results of the classification of the study sample into their respective groups. It indicated that six banks were correctly classified into group one while two banks were misclassified into group two. Results also indicated that all banks in group two were correctly classified into their respective group. This classification scheme has successfully classified banks into their correct group 86.7% of the time, which means that the model used in this study has very strong classification power.

Table (4): Classification Results

			Predicted Group Membership		
		Group	1	2	Total
Original	Count	1	6	2	8
		2	0	7	7
	%	1	75.0	25.0	100.0
		2	.0	100.0	100.0

a. 86.7% of original grouped cases correctly classified.

CONCLUSIONS AND RECOMMENDATIONS

Results presented in the previous section indicated the following conclusions:

1- Corporate efficiency as measured by ROI has the most significant discriminatory power to distinguish between the strategically high performing group and strategically low performing group, therefore it can be used as a measurement for strategic performance.

   This conclusion can be explained on light of the importance of this measurement to capture the underlying elements of corporate strategic posture. ROI is considered as the most important single factor that portrays everything that is happing now in the firm and thus contributes to the future performance levels, (Wheelen and Hunger, 2010).

2- Ability at raise long term capital as measured by debt to equity has significant discriminatory power to distinguish between the two study groups, therefore it can be used as a measurement for strategic performance.

   This result can be explained by understanding the fact that securing future financing options will certainly help in the process of enhancing strategic performance.

3- Profitability has a weak but positive discriminatory power to distinguish between the two study groups. While it is true that profitability is an important current performance factor, it is a successful indicator of current performance level but has very limited strategic ability to estimate future performance.

4- Productivity has no discriminatory power to distinguish between the two study groups, therefore it cannot be used as a measurement for strategic performance.

   Again, Productivity is always considered as a current performance measurement, but seemed to have no impact on strategic performance which is a futuristic phenomina in nature.

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