

# The Possibility of Implementing Balanced Scorecard in Jordanian Private Universities

Inaam M. Al-Zwyalif

Correspondence: Inaam M. Al-Zwyalif, Department of Accounting, Faculty of Economics and Administrative Sciences, Al-Zaytoonah University of Jordan, P.O. Box 130 Amman 11733, Jordan. Tel: 962-6-429-1511. E-mail: [inaamz2011@gmail.com](mailto:inaamz2011@gmail.com)

Received: September 2, 2012

Accepted: September 26, 2012

Online Published: October 16, 2012

doi:10.5539/ibr.v5n11p113

URL: <http://dx.doi.org/10.5539/ibr.v5n11p113>

## Abstract

The study aims at identifying the Jordanian Private Universities awareness' of the importance of the implementation of the balanced scorecard (BSC) in performance evaluation, as well as at determining the ability of those universities to implement the BSC through discussing the availability of the essential elements for this implementation. To achieve the goals of the study, data were collected from the Jordanian Private Universities through a questionnaire specially designed for that purpose and handed out to a sample of faculty deans, deputy deans, heads of scientific departments, financial managers and administrative managers, 151 questionnaires were distributed out of which 130 questionnaires were valid for analysis, about 86% of the distributed questionnaires. The result of the study showed that the Jordanian Private Universities are aware of the importance of the implementing the BSC in performance evaluation. The study also showed the availability of financial resources and essential staff in the Jordanian Private Universities, which represents the basic requirements for the implementation of the BSC.

**Keywords:** balanced scorecard, performance evaluation, awareness, private universities

## 1. Introduction

Higher-education plays a vital role in countries' economic growth and shaping the future of the nation. Nowadays educational institutions are experiencing challenges such as rapid growth of information technology, globalization, increased competition and resource constraints. The successful realization of these institutions on the educational services market play a necessary role in attainment their defined goals, therefore focus and hence the performance assessment of higher education institutions become essential. So strategic planning and performance tracking has got great importance for such institutions.

The BCS was developed by Kaplan and Norton in 1990 as a performance management device. BSC is considered as a new performance measurement system that based on four different but linked perspectives (financial, customer, internal process, and learning and growth) that are derived from the organization's vision, strategy, and objectives.

Currently, there are not many research addressed the adoption of BSC for measuring the performance in the field of higher education in developing countries. The importance of this paper stems from the fact that the current paper is dealing with this subject in one of the developing countries, such as Jordan.

## 2. Study Problem

Emerging global trends and new economic challenges make the higher education sector gives a strong focus on organizational performance, like allocation of limited resources, quality assurance and management. Universities must emphasize on their strategies if they are to conquer the competitive markets. Under the conditions of competition, the Jordanian Private Universities need a new system and techniques to assess the performance and understand its strategy which provide balanced information from all possible contributing areas to achieve total quality through continuous improvement of its performance.

## 3. Objectives of the Study

The present study aims at:

- 1) Highlighting the suitability of BSC for educational institutions.
- 2) Identify the Jordanian Private Universities' awareness of the importance of the implementation of the BSC in performance.
- 3) Determining the capacity of Jordanian Private Universities for the implementation of the BSC.

#### **4. Theoretical Framework and Previous Studies**

##### *4.1 Theoretical Framework*

It is known that the traditional performance evaluation system focus on measuring the financial performance and doesn't reflect the value of most intangible assets, which represent an important aspect of the market value of organizations as knowledge and skill among workers, relationships with customers and managers, and management expertise. Thus, financial framework cannot provide a comprehensive picture of performance.

In today's competitive environment, financial performance measures are not sufficient in themselves; they should be integrated with nonfinancial measures in a well-designed performance measurement system. Financial performance measures summarize the results of past actions and nonfinancial performance measures concentrate on current activities, which will be drivers of future financial performance (Hilton, 2002, 456).

For these purposes, the BCS was developed by Kaplan and Norton in 1990 as a performance management device. It generally involves identifying a set of performance measures that are related to and drive strategy implementation (Kaplan & Norton, 1992; Kaplan & Norton, 1996a). The BSC is a systematic approach to performance measurement that translates an organization's strategy into clear objectives, measures, targets, and initiatives, and integrates an appropriate mix of short- and long-term financial and non-financial performance measures used across the organization. To implement the BSC the organization should articulate goals for time, quality, performance and service and then translate these goals into specific measures (Kaplan & Norton, 1992). The BSC approach offers a guide for what should be measured to reach the balance of the implications in all functional areas, resulting from the strategic goal (Punniyamoorthy & Murali, 2008). It is a general and flexible approach to performance measurement and can be adapted to work in companies, public sector, and nonprofit enterprises. The BSC measures organizational performance across four different but linked perspectives that are derived from the organization's vision, strategy, and objectives (Atkison, Kaplan & Young, 2007, 395).

The four measurement perspectives in the BSC, figure (1), are:

- ◆ Financial perspective: Focuses on desired financial results. The measures chosen for this perspective include many ratios or financial items, such as return on investment, operating income, residual income, inventory turnover, and revenue growth.
- ◆ Customer perspective: Focuses on meeting customer needs, including product design, order taking, delivery, and post-sales service. Measures for this perspective address factors that relate to customer satisfaction, such as: customer retention, market share, lead time, Defects, and customer complaints.
- ◆ Internal business process perspective: Focuses on the methods and practices used inside the organization to produce and deliver products. The internal business process perspective identifies the critical operating, innovation, post-sales service. Measures for this perspective address factors such as: cycle time, new product introductions, technological capability, order response time, and capacity utilization.
- ◆ Learning and growth Perspective: Focuses on the future-new strategies, continuous improvement, employee learning, etc. Measures for this perspective address factors such as: employee skills, industry leadership, new patents, and organizational learning.

The measures in the four perspectives are linked together on a cause-and-effect basis. For example, learning is necessary to improve internal business processes, which in turn improves the level of customer satisfaction, which in turn improves financial results. Organizations that use the BSC is not necessarily committed to apply the four perspectives of the BSC but could modify the model according to the requirements of their work (Cullen, Joyce, Hassall & Broadbent, 2003).

However, many organizations failed in building a BSC. Therefore, organizations should be aware of the common pitfalls in developing a BSC, which include the following: (a) senior management is not committed; (b) scorecard responsibilities don't filter down; (c) the scorecard is treated as a one-time event; and (d) the BSC is treated as a system or consulting project (Atkison et al., 2007, 425-426).

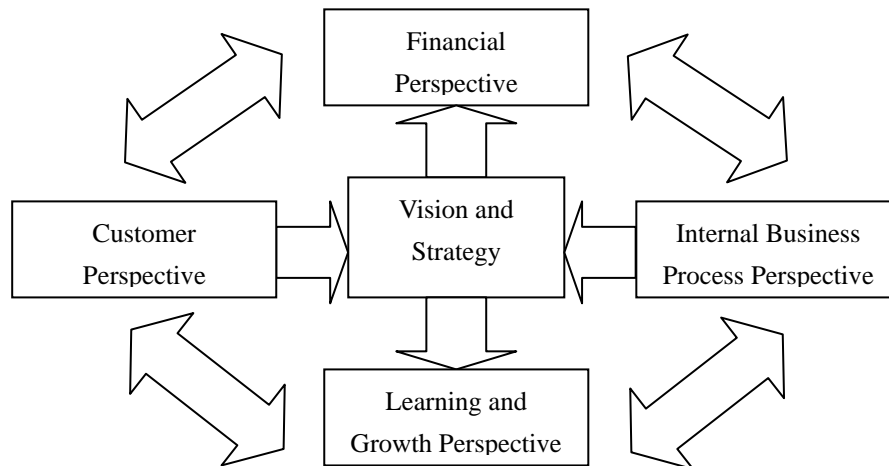


Figure 1. BSC Perspectives

Source: Kaplan & Norton (1996b).

#### 4.2 Previous Studies

Although some studies have addressed the application of the BSC in the field of education, but in general there is a lack of academic research related to this issue (Karathanos & Karathanos, 2005). Hafner (1998) developed a BSC for educational institutions using the University of California with 9 campuses as the case. Chang and Chow (1999) stated that rather than focusing on financial measures, higher education has historically focused on academic measures. Ruben (1999) in his study supports this by identifying cluster measures from diversified areas like peer assessments and public services for higher education dashboard. Dilanthi and Baldry (2000) used BCS to measure the performance of the educational institutions. The study stresses the relationship between performance measurement and performance quality under the model of BSC.

According to Sutherland (2000), the Rossier School of Education at the University of Southern California used the BSC to evaluate its academic program. Bremser and White (2000) used the BSC to help in the design of curriculum for accounting education program. Delker (2003) in his paper developed BSC model for the California State University. Similarly Cullen, Joyce, Hassall and Broadbent (2003) developed the BSC model for the Mid Ranking UK University.

Karathanos and Karathanos (2005) study aimed at showing the performance indicators of the first three winners of the Malcolm Baldrige National Quality Award 2003. The study concentrated on the need for alignment of performance measures with vision, mission and strategic goals. Chen, Yang and Shiau (2006) have used the BCS to create a system for evaluating the performance of the Chin Nmin Institute of Technology in Taiwan. Papenhausen and Einstein (2006) demonstrated the application of BSC in the faculty of business and use the College of Management at the University of York as a case study.

In another study conducted by Umashankar and Dutta (2007), BSC was used to measure the efficiency of the management at Indian universities. The study found that the BSC could enable these universities to identify and correct significant deviations and design appropriate strategies. Nayeri, Mashhadi and Mohajeri (2007) developed the BSC model in order to assess the strategic environment of higher education in the field of business in Iran. Raghunadhan (2009) assessed the institutes of higher education which is funded by the government of India, and used the BCS to compare institutes surveyed. The results indicated that the concepts of strategic management are applied in these institutes. Beard (2009) argued that the BSC is suitable for use in higher education, and he has shown many successful applications of the BSC in this area. Also Umayal and Suganthi (2010) presented a model for measuring performance of an educational institution based on BSC approach. Measurement criteria were also suggested to assess the performance according to the four perspectives of the BSC. In addition, Yu, Hamid, Ijab and Soo (2009) discussed the appropriateness of adopting electronic BSC to measure the quality of performance for academic staff in higher education. The research showed that the electronic BSC is appropriate and effective for this purpose.

Cullen, Goyce, Hassall and Brodbent (2003) suggested that educational institutions used the BSC to enhance the importance of performance management instead of just monitoring. Educational costs and benefits need to be

considered while implementing performance managements (Chen, Yang & Shiau, 2006). Branes (2007) noted that as higher education moves in the direction of performance management, BSC aims to provide a concise solution to manage a complex process of assessment, evaluation and reflection at various levels within the institution.

## 5. Study Hypotheses

To achieve the objectives of this paper the following main and sub-hypotheses were suggested:

H1: Private universities in Jordan realize the importance of implementing the BSC in performance evaluation.

H2: Private universities in Jordan have the basic requirements for the implementation of the BSC.

The Second Hypothesis (H2) has the following sub-hypotheses:

H2a: Private universities in Jordan have sufficient financial resources for the implementation of the BSC.

H2b: Private universities in Jordan have the essential staff for the implementation of the BSC.

## 6. Research Methodology

### 6.1 Measuring Instrument

A two-part questionnaire was formed according to the nature of the research subject and literature review. The questionnaire was piloted with a similar sample of respondents selected from Jordanian Private Universities based in Amman, the capital city. The aim was to assess the applicability of the questionnaire and readability of its items. To assess the face validity of the questionnaire, it was also handed to 8 academic reviewers from reputable business school in Jordan. Some items were changed, reformulated and added based on their valuable feedbacks. The reliability test was applied to examine the internal consistency of the research instrument. The Cronbach's alpha coefficient was (0.91) which confirms the reliability of the questionnaire.

The first part of the questionnaire measured the realization of the importance of implementing the BSC using (10) questions and the second part measured the ability to implement the BSC through the availability of financial resources and the essential staff using (12) questions. In addition to the three demographic questions which were qualification, position and experience.

The scale of measuring is a five-point scale (Likert type). Answers ranged between, highly agree, agree, somewhat agree, disagree, and highly disagree.

### 6.2 Research Population and Sample

The Jordanian Private Universities were the target population of this study. According to Higher Education Accreditation Commission in Jordan, there are 16 private universities (Higher Education Accreditation Commission, 2012). The choice of private universities stems from the need to use a way to develop and enhance the performance of these universities in order to improve the quality of the educational process and enable them to compete in the educational services market. Moreover, these universities are receiving much attention from the highest formal levels in Jordan due to the importance of their role in the economic growth and sustainable development.

The questionnaire was administered to a sample of the faculty deans, deputy deans, heads of scientific departments, financial managers and administrative managers, 130 questionnaires were distributed out of which 112 questionnaires were valid for analysis, with rate of return almost 86%.

### 6.3 Methods of Data Analysis

The descriptive and analytical statistical techniques were applied in the analysis by using the mean, standard deviation, percentage and frequency. Also one sample t-test was applied to test the study hypotheses.

## 7. Results of the Study and Hypotheses Testing

### 7.1 Demographical Characteristics Analysis of Respondents

Table 1 shows the distribution of the sample according to qualification, position and experience.

The table illustrates that around (74.1%) or nearly three quarters of respondents have PhD Degree. As well (31.3%) of the respondents were in dean position, (25.9%) in deputy dean position and (25%) in head of scientific department position. As for experience in the job, the vast majority of participants having a job experience ranging between 11-15 years (42.9%) and more than 15 years (42.9%). In general, the previous results suggest that respondents are able to absorb the questionnaire and provide reliable information.

Table 1. Sample Profile

Variables		Frequency	Percent
Qualification	Bachelor's Degree	17	15.2%
	Master's Degree	12	10.7%
	PhD Degree	83	74.1%
	Others	-	-
	Total	112	%100
Position	Dean	35	31.3%
	Deputy Dean	22	19.6%
	Head of scientific department	28	25%
	Financial manager	14	12.5%
	Administrative manager	13	11.6%
	Total	112	%100
Experience	5 years or less	-	-
	6-10 years	28	25%
	11-15 years	36	32.1%
	More than15 years	48	42.9%
	Total	112	%100

### 7.2 Descriptive Analysis

Descriptive Analysis was used to assess the results obtained from the questionnaires as listed in table 2 and 3.

Table 2 shows the arithmetic means of the phrases related realization of the researched universities of the importance of the implementation of the BSC. The overall mean of the respondents' answers here was (4) and the standard deviation was (0.36), all paragraphs were above the default mean (3), which confirm respondents' belief in the existence of awareness among Jordanian universities about the importance of the implementation of the BSC.

Table 2. Descriptive Statistics for: Importance of Implementing BSC in the Evaluation of Performance

Items	Mean	Standard Deviation
The BSC enables employees to absorb the cause and impact of their work tasks.	4.26	0.51
There is the belief of the importance of a BSC to assess the performance.	4.20	0.42
The measure of financial performance is related to owners and the measure of operating performance related to management.	3.94	0.62
Nonfinancial (operational) measures can affect the ongoing success of any organization in the long-term.	4.06	0.68
The use of BSC produces the information needed to develop and improve performance.	4.29	0.73
The traditional performance evaluation system suffers from several deficiencies which require replacing it with another one.	3.05	0.58
The BSC system determines the activities which were the reason in the financial outcomes.	4.00	0.76
Operational standards can give an important signal about the value of the organization.	3.82	0.81
There is a belief that operational standards pertaining to financial standards.	3.78	0.91
The expected benefit of the use of the BSC system is more than the cost of their use.	4.63	0.83
Total field	4.00	0.36

Table 3 shows the answers of respondents on statements related to the availability of adequate financial resources for implementing the BSC. The results indicate that all means were above the default arithmetic mean (3), also the overall mean of this field was (4.35), and the standard deviation was (0.56) which demonstrates that the private universities in Jordan could afford the cost of implementing the BSC.

Also table 3 demonstrates means and standard deviations of the availability of essential staff for implementation the BSC. The mean for all answers about this area and the standard deviation were (4.35) and (0.56), respectively. The mean of each statement was greater than default mean (3), this means that the respondents believe that the essential staff are available in those universities for the implementation of the BSC.

Furthermore, table 3 indicates that the overall mean of the two fields (availability of financial resources and staff) was (4.27), which is greater than (3), and the standard deviation was (0.61). This result indicates that the participants believe that the basic requirements for the implementation of the BSC are available in Jordanian

Private Universities.

Table 3. Descriptive Statistics for: Availability of the Basic Requirements for the Implementation of the BSC

Items	Mean	Standard Deviation
<b>Availability of Financial Resources to Implement the BSC</b>		
There is adequate financial capacity to shift to BSC system.	4.55	0.77
There are sufficient funds can allocate for training programs related to BSC system.	4.68	0.81
There is an ability to afford the training of employees, who are involved in using the BSC.	4.42	0.38
Sufficient funds are available for feedback needed to develop the BSC.	3.85	0.63
There are sufficient funds to attract experiences that could apply the BSC.	4.77	0.41
There is an ability to purchase the programs that are related to the BSC system.	3.83	0.79
<b>Total field</b>	<b>4.35</b>	<b>0.56</b>
<b>Availability of the Essential Staff to Implement the BSC</b>		
There are qualified experts to train employees on the BSC system.	4.29	0.68
There are many employees with experience in the field of performance measurement systems.	4.78	0.83
There is the ability to attract experts who can introduce advanced work systems and applications.	3.63	0.48
The employees are able to use quantitative methods to apply the BSC.	4.18	0.51
Employees working on the evaluation of the performance had recent degrees.	3.55	0.87
The number of employees is consistent with the workload required in the field of performance measurement.	4.68	0.79
<b>Total field</b>	<b>4.19</b>	<b>0.67</b>
Overall statistics for all paragraphs of the availability of financial resources and staff (availability of the basic requirements)	4.27	0.61

### 7.3 Hypotheses Testing

Table 4 shows the results of testing hypotheses based on the use of t-test.

Table 4. T-Test Results to Examine the Hypotheses of the Study

Hypotheses	Mean	Calculated T	Sig.
H1	4.00	16.28	0.00
H2	4.27	19.03	0.00
H2a	4.35	23.86	0.00
H2b	4.19	22.61	0.00

This table illustrates that the value of calculated (t) for the first main hypothesis (H1) amounted to (16.28) with the significance level of (0.00), which is larger than tabulated (t) value ( $\alpha= 0.05$ ). Therefore, and based on the base decision (accept the hypotheses if the calculated t is larger than tabulated t), this hypothesis is accepted, which states that “private universities in Jordan realize the importance of implementing the BSC in performance evaluation”.

The same table also indicates that the value of calculated (t) for the second main hypothesis has amounted (19.03) with a significance level of (0.00), which is larger than tabulated (t) value ( $\alpha= 0.05$ ). Therefore, and based on the acceptance of the former hypothesis, the second hypothesis is accepted, which states that: “private universities in Jordan have the basic requirements for the implementation of the BSC”.

When the analysis was done on the sub-hypotheses (H2a and H2b) the same results were obtained. These hypotheses are accepted as indicated in table 4, since the calculated (t) values (23.86 and 22.61) with a significance level of (0.00) were larger than the tabulated values ( $\alpha= 0.05$ ). These results prove that private universities in Jordan could bear the costs of implementing the BSC and have the essential staff for that implementation.

### 7.4 Study Limitations

The ability to implement the BSC was identified on the basis of the availability of financial resources and essential staff for this implementation (basic requirements to implement the BSC system). Therefore, there may be other necessary requirements to implement the BSC have not dealt with in this study.

## 8. Conclusion

The objective of this study was to determine the Jordanian Private Universities' awareness of the importance of implementing the BSC in performance evaluation and availability of the basic requirements (financial resources and staff) to implement the BSC.

The results of this study indicate that private universities in Jordan realize the importance of the implementing the BSC in the evaluation of performance, and the average of this awareness was (4). Furthermore, the results reveal that there is ability to implement the BSC in mentioned universities, and the overall mean of this ability was (4.27). It was also found that there is availability of financial resources and the essential staff in those universities for the implementation of the BSC, and the average of this availability has reached (4.35, 4.19), respectively.

The implications of this study emphasize the importance of implementing the BCS in Jordanian Private Universities as a strategic tool to assess and improve the performance and rationalize the decisions. The study also stresses the importance of holding workshops and training programs for employees to gain the necessary skills to apply the BSC in order to meet the work requirements in the new environment. Finally, the findings in this paper provide guidance for future empirical research to address other aspects concerning the use of the BSC in the higher education sector in Jordan.

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