

# Using of the Balanced Scorecard for Performance Evaluation: Empirical Evidence from the Listed Corporations in the Palestine Exchange (PEX)

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Received: November 2, 2015

Accepted: December 31, 2015

Online Published: February 25, 2016

doi:10.5539/ijbm.v11n3p215

URL: <http://dx.doi.org/10.5539/ijbm.v11n3p215>

## Abstract

This manuscript is aiming at testing the extent to which the listed Palestinian corporations in the Palestine Exchange (PEX) are using the four perspectives of the Balanced Scorecard (BSC) in evaluating the performance. In order to achieve the previous objective, this paper uses a questionnaire to investigate the opinions of the financial managers of the listed corporations in the PEX. In relation to the results of the distributed questionnaire forms, there are 37 questionnaire forms, where 32 questionnaire forms were returned (32 out of 37) which presents (86.5%). This study employs the descriptive statistics in order to state the outcomes. However, the findings of this paper state the following points: (1) The financial managers rely on the financial and customer perspectives for evaluating the performance of the listed corporations in the PEX. (2) The Palestinian listed corporations do not rely on the learning and growth indicators for measuring the performance. (3) The Palestinian listed corporations do not rely on the business process indicators for measuring the performance. (4) This paper concludes that the listed corporations in Palestine do not rely on the BSC indicators for measuring the performance in a correct and complete way.

Finally yet importantly, this manuscript strongly recommends the listed corporations in the PEX to adopt the BSC for evaluating the performance. It also recommends the Palestine Exchange to obligate the listed corporations to use the BSC as a tool for strategic planning and performance evaluation.

**Keywords:** Palestine Exchange [PEX], balanced scorecard, financial perspective, customer perspective, learning and growth perspective, business process

## 1. Introduction

Financial managers should implement many influential tasks that sustaining a firm. In addition, the financial managers are asked by the board of directors to prepare “performance evaluation report” (Diamond & Khemani, 2005; Kadam, 2012). Recently, most of the Palestinian financial managers rely on the financial indicators for evaluating the performance of the listed Palestinian companies in the Palestine Exchange; PEX (Al-Najar, 2012; Palestine Governance Institute, 2012). However, many authors show that the financial indicators are insufficient for interpreting the real performance of a firm (Dobbs & Koller, 2005; Kaplan & Norton, 2006; Gibbons & Kaplan, 2015). The manuscript of (Singh & Sohani, 2014) shows that the conventional performance measurement systems based on financial metrics alone have been considered inadequate and more attention is being paid to nonfinancial metrics. Pioneer authors like Robert Kaplan and David Norton, developed the comprehensive model of performance evaluation. This model is called the Balance Scorecard: BSC. Robert Kaplan and David Norton introduced the Balanced Scorecard in a 1992 (Kaplan & Norton, 1992). Moreover, the manuscript of Robert Kaplan and David Norton was based on a multi-firm research project to examine performance measurement in firms whose intangible assets played a central role in value creation. The findings of this paper indicate that the financial indicators are insufficient in evaluating strategic and real performance. In addition, in 1992, Kaplan and Norton show that the BSC achieves many benefits. These benefits are: (1) Translating firm’s strategy to measurable parameters. (2) Communicating the strategy to all staff of a corporation. (3) Enhancing the performance in the future. (4) Enhancing operational control. (5) Wider and more effective

monitoring of performance improvement initiatives. (6) Improves understanding of the correlation among measures, improves understanding, and makes target-setting easier. All of the authors in the fields of management and cost accounting testify that the BSC model is comprehensive, use financial and non-financial indicators or balance between the financial and non-financial measures of performance and measure and enhance the performance in the short run and long run. (Kaplan & Norton, 1992, 2006; Kadam, 2012; Madsen & Stenheim, 2014). The BSC uses four perspectives for measuring the comprehensive performance. These perspectives are: the financial perspective, the customer perspective, internal business unit perspective, and leading and innovation perspective (Kaplan & Norton, 1992). Thus, the financial measures alone have been failed in guessing the real performance (Kaplan & Norton, 2006; Kadam, 2012; Kaplan & Norton, 1992). In the developed countries, the listed corporations use the BSC extensively. (Marr, 2010), for instance, shows that more than 50% of the companies in the America, Europe and Asia are using Balanced Scorecard model.

In contrast, Palestine suffers from a lack of empirical efforts that explores the using of the balanced scorecard for evaluating performance of the listed companies in the Palestine Exchange. As a result, this paper comes to explore this issue from the reality of the listed corporations in the Palestine Exchange; PEX.

The findings of this manuscript are expected to be used as real evidence from Palestine regarding the previous mentioned issue. In addition, the results of this manuscript assist the top manager to evaluate the performance of management. As well as, this paper comes to discover the weakness of performance evaluation process, which enables the policy makers and decision-takers to draw the correct conclusion. This manuscript follows the previous studies regarding the methodology and statistical techniques.

This manuscript consists of six sections. These sections are summarized as in the following: section (1) an introduction, section (2) addresses the previous literatures, section (3) describes the hypotheses of the study, section (4) addresses data and methodology, section (5) presents the results and section (6) reports the conclusion.

## 2. Literature Review

This part comes to discuss the findings of the previous literatures that investigate the using of the Balanced Scorecard for evaluating performance worldwide.

The study of (Kadam, 2012) explains that the BSC is the most accurate tool for performance evaluation. He explains that the BSC is a comprehensive measure because the BSC exploits financial and non-financial measure of performance. Also, the manuscript of (Madsen & Stenheim, 2014) shows that some uses of the BSC may increase performance. The paper of (Singh & Sohani, 2014) shows that the components of the BSC claim that it aligns with strategy leading to better motivation and communication which causes better performance. Also, the study of (Isoraite, 2008) shows that the BSC translates an organization's strategy into performance objectives, measures, targets and initiatives. It is based on four balanced perspectives, and links them together with the concept of cause and effect. A proper balanced scorecard can predict the effectiveness of an organization's strategy through a series of linked performance measures based on four perspectives including finance, customers, internal processes, and employee learning and growth. In Jordan, for instance, the study of (Al-Khatatneh & Al-Sa'aydeh, 2010) shows that all companies managers of the Jordanian public shareholding and industrial companies appreciate highly the use of all (BSC) measures in strategic planning and performance evaluation. Also, the paper of (Gerald & Aaron, 2006) shows that there is association between using the BSC and the profitability for all the clients of KPMG auditing firms. In Jordan, the paper of (Judeh, 2008) shows that, there is a statistical significant effect of using the BSC on organizational commitment for the Jordanian companies. Similarly, the paper of (Dudin, 2009) shows that there is a positive impact of using the BSC on the performance of the Jordanian banks. In the United States, the manuscript of (Kaplan and Norton, 1996) shows that applying the BSC by the American companies leads to desired improvement in performance. The paper of (Pietrzak, et al., 2015) explains that the public Polish universities use the BSC to translate the strategic into action and to enhance the financial and non-financial performance. Also, the manuscript of (Montequín et al., 2013) indicates that there is a positive impact of adopting the BSC on the performance of the Spanish Banking Group. Moreover, the paper of (Yousef, 2011) shows that the BSC model is very important for enhancing both the future performance and the competitive advantages of a firm. In Taiwan, for example, the manuscript of (Lin et al., 2006) demonstrates that the BSC plays a vital role in enhancing the performance of the listed companies in Taiwan Bourse. In China and Japan, the paper of (Chen et al., 2006) shows that the first use of the BSC to compare hospital performance between China and Japan shows benefits that not only suggest performance improvements in individual hospitals but also reveals effective health factors allowing implementation of valid national health policies. In Indonesia, the manuscript of (Devie & Widjaja, 2012) shows that the BSC has an

effect on the financial performance. And shows that there is a strong relationship between financial and nonfinancial performance, too.

### 3. The Hypotheses

This paper comes to examine the extent to which the Palestinian listed corporations use the BSC for performance evaluation. Presented below are four sub-hypotheses and the general hypothesis.

H<sub>1</sub>: The Palestinian listed corporations do not use the financial perspective of the BSC for performance evaluation.

H<sub>2</sub>: The Palestinian listed corporations do not use the customer perspective of the BSC for performance evaluation.

H<sub>3</sub>: The Palestinian listed corporations do not use the learning and growth perspective of the BSC for performance evaluation.

H<sub>4</sub>: The Palestinian listed corporations do not use the internal business process perspective of the BSC for performance evaluation.

H<sub>g</sub>: The Palestinian listed corporations do not use the BSC for performance evaluation.

### 4. Data and Methodology

The population of this manuscript consists of the financial managers of the listed corporations in the Palestine Exchange [PEX]. The following conditions have been considered to select a sample. a-Company's stock is traded. b- The corporation home office is located in the West Bank. Hence, 37 corporations have met the previous conditions. The collected data are using accurate designed questionnaire. 37 questionnaires have been distributed where 32 questionnaires were returned. Table 1 shows the distribution of the study sample according to the corporation sector. For instance, the questionnaire was distributed by depending on the models of the pioneer authors in this field both Kaplan and Norton.

Table 1 shows that 12.5% of the correspondents are the financial managers of the Banks, 9.4% of the correspondents are the financial managers of the Insurance corporations, 25% of the correspondents are the financial managers of the service corporations, 21.9% of the correspondents are the financial managers of the Investment corporations, and 32.2% of the correspondents are the financial managers of the industrial corporations.

Table 1. Study sample according to the sector of the listed corporation in the PEX

The Sector	Number of Listed Firms	%
Banks sector	4	12.5
Insurance sector	3	9.4
Service sector	8	25
Investment sector	7	21.9
Industry sector	10	32.2
Total	32	100%

### 5. The Results

This part presents the hypotheses testing outcomes. Presented below are the results of hypotheses testing.

#### 5.1 The Outcomes of the First Hypothesis (H<sub>1</sub>)

This hypothesis states that the Palestinian listed corporations do not use the financial perspective of the BSC for performance evaluation. Table 1 shows that 93.75% of the financial managers of the listed companies in the PEX use the financial measures for evaluating the performance of these listed companies. Thus, this paper concludes that the listed Palestinian corporations rely on the financial indicators for measuring the performance of a corporation and its divisions.

#### 5.2 The Outcomes of the Second Hypothesis (H<sub>2</sub>)

The second hypothesis states that the Palestinian listed corporations do not use the customer perspective of the BSC for performance evaluation. Table 2 shows that 84.4% of the financial managers of the listed companies in the PEX use the customer measures for evaluating the performance of these listed companies. Then, this paper concludes that the listed Palestinian corporations rely on the customer indicators for measuring the performance

of a corporation and its divisions.

### 5.3 The Outcomes of the Third Hypothesis ( $H_3$ )

The third hypothesis indicates that the Palestinian listed corporations do not use the learning and growth perspective of the BSC for performance evaluation. Table 3 shows that 34.37% of the financial managers of the listed companies in the PEX use the learning and growth measures for evaluating the performance of these listed companies. Thus, this paper concludes that the listed Palestinian corporations do not rely on the learning and growth indicators for measuring the performance of a corporation and its divisions.

Table 2. Using the financial perspective of the BSC for performance evaluation in the Palestinian listed corporations

Indicator	Yes	No	Usage
Return on investment.	32 100%	0 0.00%	High
Return on equity.	30 93.75%	2 6.25%	High
Economic value added.	26 81.25%	6 18.75%	High
Cash flows.	32 100%	0 0.00%	High
Net earnings.	32 100%	0 0.00%	High
Working capital.	27 84.38%	5 15.63%	High
Growth in sales.	31 96.88%	1 3.13%	High
Growth in fixed assets.	27 84.38%	5 15.63%	High
Usage of financial perspective of the BSC	30 93.75%	2 6.25%	High

Table 3. Using the customer perspective of the BSC for performance evaluation in the Palestinian listed corporations

Indicator	Yes	No	Usage
The percent of new customers.	25 78.13%	7 21.87%	High
The percentage of missing customers annually.	21 65.63%	11 34.37%	Medium
The percent of customers to employees.	22 68.75%	10 31.25%	High
Products or services are delivered on time.	28 87.5%	4 12.5%	High
Client Satisfaction Index in terms of product or service quality.	31 96.88%	1 3.13%	High
Customers impression about the corporation and its reputation.	32 100%	0 0.00%	High
The number of customers Complaints.	31 96.88%	1 3.13%	High
The number of the returned units or rejected services.	24 75.00%	8 25.00%	High
Usage of customer perspective of the BSC	27 84.40%	5 15.60%	High

#### 5.4 The Outcomes of the Fourth Hypothesis ( $H_4$ )

The fourth hypothesis says that the Palestinian listed corporations do not use the internal business process perspective of the BSC for performance evaluation. Table 5 shows that 31.25% of the financial managers of the listed companies in the PEX use the internal business process measures for evaluating the performance of these listed companies. Then, this paper concludes that the listed Palestinian corporations do not rely on the business process indicators for measuring the performance of a corporation and its divisions.

Table 4. Using the learning and growth perspective of the BSC for performance evaluation in the Palestinian listed corporations

Indicator	Yes	No	Usage
The cost per unit.	15 46.88%	17 53.12%	Low
The percent of spoiled units to good units.	10 31.25%	22 68.75%	Low
The length of the production cycle time.	10 31.25%	22 68.75%	Low
The breadth and prevalence of product distribution process.	13 40.63%	19 59.37%	Low
The period of time to enter a new product.	8 25.00%	24 75.00%	Low
The number of employee training hours.	16 50.00%	16 50.00%	Medium
The proportion of qualified staff to the number of employees.	5 15.62%	27 84.38%	Low
The number of times inventory into force.	8 25.00%	24 75.00%	Low
Usage of learning and growth perspective of the BSC	11 34.37%	21 65.63%	Low

Table 5. Using the internal business process perspective of the BSC for performance evaluation in the Palestinian listed corporations

Indicator	Yes	No	Usage
The proportion of investment in new products to existing investments.	11 34.37%	21 65.63%	Low
Growth in market share of the company's products.	16 50.00%	16 50.00%	Medium
The proportion of sales of new products.	8 25.00%	24 75.00%	Low
The proportion of sales to new customers.	5 15.62%	27 84.38%	Low
Reduction in production cycle time.	11 34.37%	21 65.63%	Low
Increase the number of qualified staff.	5 15.62%	27 84.38%	Low
The proportion of research and development expenses to total expenses.	13 40.63%	19 59.37%	Low
The proportion of the costs of training programs to the total expenses.	16 50.00%	16 50.00%	Medium
Usage of internal business process perspective of the BSC	10 31.25%	22 68.75%	Low

#### 5.5 The Outcomes of the General Hypothesis ( $H_g$ )

This hypothesis states that the Palestinian listed corporations do not use the BSC for performance evaluation.

Table 5 shows that 62.5% of the BSC measures are being used by the listed companies in the PEX for evaluating the performance of these listed companies. Hence, this paper concludes that the listed Palestinian corporations rely on the BSC indicators for measuring the performance of a corporation and its divisions incorrectly and incompletely.

Table 6. Using the BSC for performance evaluation in the Palestinian listed corporations

Indicator	Yes	No	Usage
Usage of financial perspective of the BSC.	30 93.75%	2 6.25%	High
Usage of customer perspective of the BSC.	27 84.40%	5 15.60%	High
Usage of learning and growth perspective of the BSC.	11 34.37%	21 65.63%	Low
Usage of internal business process perspective of the BSC	10 31.25%	22 68.75%	Low
Usage of the BSC.	20 62.5%	12 37.5%	Medium

## 6. Conclusion

This manuscript comes to determine the level of adopting the four perspectives of the Balanced Scorecard (BSC) in evaluating the performance of the listed Palestinian corporations in the Palestine Exchange (PEX). Thus, the previous objective of this manuscript has been achieved by designing a questionnaire aims at exploring the opinions of the financial managers of the listed corporations in the PEX. 37 questionnaires were distributed and 32 questionnaires were returned. Hence, this study employs the descriptive statistics to state the findings. As well as, this manuscript states the following results.

- The financial managers rely on both financial and customer perspectives for evaluating the performance of the listed corporations in the Palestine Exchange.
- The financial managers do not rely on both learning and growth, and internal business process perspectives for evaluating the performance of the listed corporations in the Palestine Exchange.
- This paper concludes that the financial managers rely partially on the BSC perspectives; they use only the most common perspectives namely financial and customer perspectives for evaluating the performance of the listed corporations in the Palestine Exchange.

Finally yet importantly, this manuscript strongly recommends the listed corporations in the PEX to adopt the four perspectives of the BSC for evaluating the performance. It also recommends the Palestine Exchange to obligate the listed corporations to use the BSC as a tool for strategic planning and performance evaluation.

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