

## Performance Evaluation Using the Balanced Score Card (BSC): A Case Study of Azerbaijan Regional Electric Company

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### ABSTRACT

Perceived limitations of traditional performance evaluation methods on the one hand, and new attitudes toward the organizations or enterprises from other hand, has led to a change in attitude in performance evaluation. Balanced scorecard method has showed to be successful in covering inadequacies and shortcomings of traditional performance evaluation methods. This model is a combination of performance evaluation criteria, including past, current and future performance indicators, and puts nonfinancial measures along with financial measures. This study, focusing on each above-mentioned organizational and environmental dimension, accurate results derived from the organization performance and new ideas and measures for improvement each of these dimensions presented. The results showed that, there are significant differences between existing and desired performance in the four dimensions of customer, internal-financial processes, and learning and growth, and the firm's performance is not balanced.

**KEYWORDS:** Performance evaluation, the balanced scorecard (BSC), Regional Electric Company.

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### 1 – INTRODUCTION

The measurement has a long history in organizations and companies. Perhaps it started from when people hired by another. The most important tools to ensure accurate and timely strategy in an organization are performance measurements. There are different definitions for performance measurement, some of which are:

Automatic or manual tools to implement the criteria and collect, manage, and convert the performance data to measurement indicators.

A set of people, methods and tools to generate, analyze, picture, diagnose, scrutiny and assessment of data and information about different aspects of performance at individual, group and organization level.

A systematic evaluation method for inputs (raw materials, equipment, facilities, personnel, etc.), outputs (the final act), conversions, and efficiency in a productive or nonproductive operation.

The most important feature of manual performance evaluation is that it is primarily financial measure. Financial measurement is not enough for understanding the past and future performance of organization. Various researchers, such as Kaplan, Maskin, Atkinson, etc. presented the drawbacks of traditional performance measurement systems: The traditional measurement based on old procedures. It has financial trend. Financial measurements are abridged and, appropriate for shareholders and to tax earners. They neglect non-financial items those are very important nowadays, such as product quality, customer satisfaction, factories flexibility, etc. Traditional measurement, have an internal perspective. It is also historic and considers previous managers and their performances in past periods, while ignoring present and future success of company. Traditional measurements are not predictive. Traditional measuring assesses tasks, but not processes. Traditional measurement are strengthens deviant behavior. This old statement "one does what he could measure" refers to the fact that the measurement system strongly affects the behavior and orientation. Traditional measurement focused on inputs rather than outputs and measurement system focused on company's inputs simultaneously and measures costs of the resources.

The weakness of traditional measuring indicators and changing competitive environment, propounded the need to redesign the performance measurement systems in organizations. In today's competitive environment, companies try to improve product quality, development, reliability, after sales services and customer satisfaction. Increased market competition and changes in nature of work, organizational roles, organizations external demands, etc., all increased the environment dynamics, and as a result, the performance evaluation patterns and indicators evolved. Therefore new methods for organization performance evaluation developed. One of these changes is shifting

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from financial indicators to nonfinancial ones. One of the organization performance evaluation methods is balanced scorecard that evaluate the performance of organizations in four areas of 1 - Finance 2 - customer 3 - The internal processes 4 - The growth and learning, and make organizations capable of allocating resources developing executive strategies. In fact, BSC is an integrated performance evaluation system in terms of strategic financial indicators, and is a framework to convert the organization's vision into a set of existing performance indicators in four above-mentioned areas. The basic principle of this model is that, the performance system should provide enough information for managers to pursue the following four questions;

- How much attention do we pay to the shareholders?
- How our customers look at us?
- Which areas need more progress?
- Can we continue with improvement and creating value?

In this research, focusing on each above-mentioned organizational and environmental dimension- using balanced scorecards - accurate results derived from organization performance and new ideas for improve each of them presented.

## 2 - AN OVERVIEW OF THE LITERATURE OF BALANCED SCORECARD

First developed by Kaplan and David Norton (1992) the balance scorecard published in Harvard Business Review. The publication of three books on this topic in different years and in line with each other, left no doubt that, they are most influential people in this area. Their first book published in 1996 called the balanced scorecard. In this book, balanced scorecard introduced as a performance measurement system, and to some extent, discussions about implementing strategies in this framework presented. Successful implementation of this strategy and harmonizing it with whole organization requires considering issues such as, employees awareness, incentive systems for appreciate their success, budget allocation based on operational plans, improving learning process and eventually leadership and conduction of the entire process. They discussed about some of these issues in "strategy-based organization" (2000). Their next book was about the strategy map and released in 2004. This book helped the management team to setup their strategy according to the relations between four aspects of balanced score card. Therefore, it seems that, the writers act with a clear and purposeful planning, as every 4 years they published a book in this area. In the preface of "Strategy Maps", the authors stated:

Successful implementation of strategy requires three components:

Excellent results = Strategy management + strategy measurement + strategy description

These three components have a very simple philosophy:

- You cannot describe what you cannot measure.
- You cannot manage what you cannot measure.

Maurice states that, among numerous approaches to performance measurement, BSC is the most famous, as nowadays; it is synonymous to business performance measurement (Schiuma and Marr, 2003). Various studies show that about 60 percent of American companies have experienced the implementation of BSC (Silk and Rigby, 1998). Also investigating management tools and techniques showed that, BSC is one of the most popular management tools and about 44 percent of North America's organizations using this.

## 3 - RESEARCH OBJECTIVES

Observing defeated organizations against successful organizations using effective performance measurement, raises an important question indeed. All organizations have a strategy for achieving their goals, and used all facilities they have. Moreover, all managers led their personnel and devoted considerable amounts of efforts and resources, but obtained different results. Although, these issues have their positive or negative effects on organizations and the business environments, but contain a valuable message to organizations. Studying these phenomena can help to better understanding the conceptual and practical aspects of measuring performance and identifying the main failure factors of organizations. Therefore, providing ideas to avoid the failure of organizations would be an effective step in the development of effective management of the organization.

This research is tries to focus on each organizational and environmental aspect of company and using the balanced scorecard model, along with evaluation indicators, derive accurate results from organization performance. Moreover, it presents new ideas to improve each of above-mentioned areas to both evaluate activities in similar companies, and identify the strengths and improvement areas.

This study not only compared the existing situation with desired situation and considered performance of the company in four areas but also, develops strategies and establishes new goals that, will consider the strengths and

weakness of company in a more realistic way. Therefore, the research objectives could be as follows: to measure organizational performance of Azerbaijan Regional Electric Company.

**RESULTS**

Organizational documents such as balance sheets, financial statements, etc. used to investigate the perspective of financial performance of the regional electricity company. In this section, we only used descriptive statistics, due to lack of example.

Table 1: Financial Indexes current and anticipated situation

Comparison of financial ratios		
Ratios	current to anticipated ratio	Normalized ratios
Current ratio	77..	77. 0
Immediate ratio	81..	81. 0
Asset circulationratio	66. 3	27. 0
working capital ratio	9.0	91. 0
Return on sales (profit margin)	25. 1	80. 0
Return on assets	56. 4	22. 0
Debt ratio	6..	61. 0
Debt to equity ratio	45..	46. 0
Fixed asset circulation ratio	25.0	25. 0
Return on equity	06. 6	16. 0
Total cost to revenues ratio	0.79	80. 0
The average selling rate of electricity	9.0	91. 0
Receivable to sales ratio	13. 1	88. 0

To investigate financial performance perspective:

1. If the ratio is less than 5.0, the index is Inappropriate. (Negative differences)
2. If the ratio is larger than 5.0, the index is appropriate. (Positive difference)
3. If the ratio is equal to 5.0, the index is average. (No difference)

Table 2: Indicators status

Index	Status
Current ratio	Appropriate
Immediate ratio	Appropriate
Asset circulation ratio	Inappropriate
working capital ratio	Appropriate
Return on sales (profit margin)	Appropriate
Return on assets	Inappropriate
Debt ratio	Appropriate
Debt to equity ratio	Inappropriate
Fixed asset circulation ratio	Inappropriate
Return on equity	Inappropriate
Total cost to revenues ratio	Appropriate
The average selling rate of electricity	Appropriate
Receivable to sales ratio	Appropriate

**CONCLUSION**

ANOVA used to evaluate the overall organization performance in four dimensions and the relationships between four dimensions. The results showed that:

There are significant differences between the four dimensions of performance with assurance of 0.95%. The company's performance in four perspectives as follows:

Financial performance > internal processes performance > client function > growth and learning function.

Among the four dimensions, the customer and internal processes influenced by each other, which means that, one's improvement will improve the other and vice versa. Recommended that, to improve company's performance in four dimensions, most attention must be paid to indicators that gained lowest score in Friedman's test. Therefore, in customer dimension, the company should do its best to improve, availability, service quality and cost of the service indicators. In learning dimension, the organizational should work toward improving the status of information assessment and organizational structure and in the internal processes dimensions should improve the status of innovation, corporate, and exploitation indicators. It is necessary that various organizations divide into several classes and, for each class the appropriate BSC model or possibly other systems develop to suit their needs, for example:

- A model for R & D systems in organizations
- A model for service systems, such as banks
- A model for distribution and selling systems
- A model Ministry systems

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