

Assessment of Function for Development of Virtual Learning Centers with BSC
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Received: 2017/11/25

Accepted: 2019/6/30

Abstract

Assessment of function is considered as an important strategic process in organizations. Using assessment of function with a *consistently* implemented viewpoint causes upgrading and improving the response of executive agencies in government section and also increasing public confidence in the performance of organizations. It helps the efficiency and effectiveness of the government too. Assessment of function is based on a balanced scorecard model for implementation of virtual training centers' strategies was the purpose of this survey research. A stratified random sampling method with a proportional volume allocation technique was used to achieve the goal. The statistical population of this research with 350 persons includes available staff working in the centers of Kerman province in 2017 and the sample size was estimated 184 persons by using the Cochran formula. Data collection was done using documentary and field methods. A researcher-made questionnaire was used to measure each of the components of the research. According to experts, research was confirmed validity and reliability of the questionnaire using Cronbach's alpha coefficient was calculated 0.81. The statistical method is a confirmatory factor analysis (CFA). Examination of hypotheses showed that there is a direct relationship between the implementation of the BSC and the related factors (learning, innovation, and competence), (financial), (internal process of S) with organizational performance. But there was no relationship between performances of the agent (more satisfaction). The overall results showed that the implementation of the BSC model has a direct relationship with organizational performance.

Keywords

Internal Process, Competency and Innovation, Organizational Function, Balanced Score Card (BSC) , Virtual Learning.

Introduction

The continuous improvement of organizations' performance will create a gigantic force that can support the growth and development agenda and create opportunities for organizational /excellence. Governments, organizations and institutions are putting forward efforts on this issue. Without reviewing and becoming aware of the extent to which progress is being made and the achievement of goals, without identifying the challenges faced by the organization and gaining feedback, and being aware of the extent to which policies are being developed, without any indexes of evaluations and performance assessment cannot improve and develop organization.

In the current century, the question of performance appraisal is of particular importance to organizations and managers. Organizations are struggling with the challenges they face in the 21st century with the help of the abilities and talent they have at their disposal. They are faced with the unexpected changes that they are going to see the least losses and they get the most profit. Therefore, the most important thing is to measure their value-assess the performance of the organizations, thus presupposing different financial procedures in the middle of the year, researchers were born. One of the most popular performance measurement methods based on financial and non-financial assessment is the Balanced Scorecard (BSC). The Balanced Scorecard model was first introduced by Professor Kaplan and Norton (1996) [1], which provides a

framework for monitoring and evaluating corporate performance. In this model, each organization is evaluated from four aspects. These four aspects are: financial aspect-customers-process attention-learning.

The current research trying to answer the following questions:

1. Is learning, innovation and competence relevant to the organization's performance in the implementation of the BSC (Virtual Learning Centers)?
2. Is customer satisfaction related to the organization's performance in the implementation of the BSC (Virtual Learning Centers)?
3. Does the implementation of the BSC (Virtual Learning Centers) have a financial relation with the organization's performance?
4. Does the implementation of BSC model (virtual learning centers) have internal processes related to the organization's performance?

Literature Review

A research by Aristotle Guran et al. (2015) entitled "Performance assessment based on a balanced scorecard to implement the training center strategies" was carried out. After reviewing, it was found that there is a direct relation between the use of BSC and the indicators studied [2].

A study by Asadi et al., (2010) entitled "Assessing the performance of state institutions by using Balanced Scorecard (BSC) " was evaluated the relative performance of 13 provincial institutions in 2008, by using the Integrated Model and data were coverage by balanced scorecard. The average relative efficiency of the studied institutions was 0.945. (9 of 13) institutions were located on the efficiency frontier, and four institutions had a capacity of less than 1. In this paper, by combining the two Assessments of function models of DEA and BSC, the performance indicators of the units have been identified. The combination of these two models has strengthened the advantages of each model while reducing the disadvantages of each one By this manner, a comprehensive model for evaluating the performance of these units was presented [3].

A cross-sectional descriptive research entitled "Implementing the FAHP_BSC Combined Approach to Assess the Performance of the Hashemizadeh Institute in Tehran." was carried out by Iravani Tabrizi[4]. In this study, at the first a list of Assessment of function indicators with a card approach Balanced scores was prepared and paired comparisons were calculated using field method and distribution of standard hierarchy analysis questionnaire with a compatibility rate lower than 0.1 between 7 decision makers. Then, FAHP yielded the weight of each indicator and each perspective. Among the indicators of variables' evaluation, the factors of stakeholders and services have a significantly difference (28%) than other variables.

A study by Ebrahimi (2005), entitled "Investigating the Relationship Between Strategic Management of Information Systems with Balanced Scorecard and Information Systems Performance", emphasizes that the development of information systems strategy based on the result of information systems' performance causes that the strategies always be updated. The author has added, the relationship between the strategic management of information systems with a balanced scorecard and the performance of information systems is necessary. The results of her analysis showed that increase (decrease) in the alignment of strategic management of information systems with a balanced scorecard Increases (decreases) the performance of information systems [5].

Banker et al. (2004) conducted a BSC analysis of the performance measurement scale in the US telecom industry. Four performance measurements have been used in accordance with the four BSC perspectives: return on assets (ROA), number of access lines per employee, percentage of digital access lines, and percentage of access lines for relative proportions with financial perspectives, Internal process, innovation and learning, and customer. A data envelopment analysis model was then developed to examine the relationship between financial performance

measurement scale and other non-financial measurements. The results showed that two of the three non-financial metrics do not require any financial collateral, while the third non-financial scale (percentage of commercial access lines) should be assessed by financial scale, light and heavy, and should to be appropriately incorporated into the system of Assessment of function [6].

Model development

Kaplan and Norton put forward the idea of a balanced assessment in the Harvard Business Review for the first time in 1992. The inadequacy of financial metrics to measure the performance of organizations has resulted in other activities, such as customer relationship management, innovation in processes and training. Assess employees and adds other criteria to their financial performance in order to measure their performance. Although the set of activities shaped the success of each organization, few people are able to tailor the appropriate measures to these activities so that this criterion Balanced Organizations to the Eye Carry out their mission and their leadership.

The future perspective of the organization is the core of the BSC's activities. The BSC brings the mission and strategy into goals and criteria, and it focuses on four aspects: financial, customer, internal processes, and learning and human resource development. It should be emphasized that the BSC is not just about the role of a control system. Its criteria are not only used to describe the past performance, but also these criteria will be instrumental in defining the strategy of the organization. It is also designed to help regulate and coordinate the initiatives of individuals, units, and the entire organization to enable them to achieve common goals. Therefore, managers with the use of BSC are not only clearly communicating to the company, but also finding where they are now and how they can face future challenges. (Figure 1)

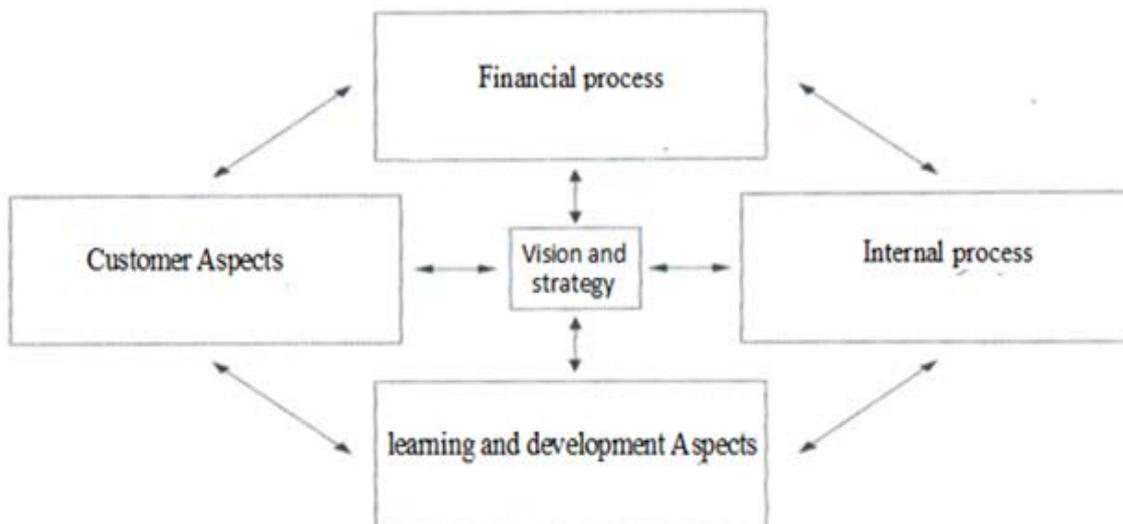


Figure 1. Balanced Scorecard Model Charts

Definition of theoretical and operational components of the balanced scorecard

1-customer:

Theory: Financial success is due to the organization's good performance vis-à-vis its customers. Therefore, they were evaluated in a lower layer of customers. Customer satisfaction is one of the key factors for success in an organization.

Practical: In order to evaluate this viewpoint, a five-scale Likert questionnaire was used.

2. Internal processes:

Commentary: The organization's operations include a set of processes that directly or indirectly are in relationship with the mission of the organization.

Processes have a significant impact on customer relationships and achievement of financial goals. Organizations must identify processes that make them able to continue to value creating for their customers by surpassing them.

Practical: The Likert Poll Questionnaire was used to evaluate this perspective.

3. Competence and Innovation:

Theoretical: The rapid track of scientific and technological changes in the organization's environment, which aims at this perspective should be aimed at empowering the goals set in three different perspectives. They are the foundations for establishing a balanced evaluation system.

Practical: The Likert Poll Questionnaire was used to evaluate this perspective.

4. financial:

Theory: Financial measures are important components of the balancing system. Balanced scorecard uses performance metrics such as profit, return on investment, costs, etc. to evaluate performance and provide feedback [12].

Practical: The Likert Poll Questionnaire was used to evaluate this perspective.

5. Organizational performance:

Theoretical: Achieving the desired goals, which are based on the appropriate criteria with the best performance indicators. Balanced scorecard is not only a powerful tool for evaluating the performance of the organization, but also it is a tool for implementing the strategy.

Practical: Likert questionnaire was used to assess organizational performance.

Method

The current research statistical community consisted of 350 persons including all general staff, apprentices, experts, responsible experts and units' experts whom are involved in implementing the processes which are related to different units of customer's services inside and outside of the system.

According to 350 employees, the sample size was estimated to be 184 by the Cochran formula. Finally, to increase the reliability and concern of probable deficiencies, the sample size increased to 275 employees. The method was simple random sampling and data gathering was done using documentary and field methods. A researcher-made questionnaire was used to measure each component of the research. Characteristics of questionnaires were standardized and uniform.

Data gathering method. Data collection: The statistical method used in this study is correlation analysis and confirmatory factor analysis.

In this research, data collection tool was a standard questionnaire. The scoring method was based on Likert spectrum including 5 choices from "I totally disagree" to "Totally agree" which are scored from 1 to 5 respectively.

The questionnaire consists of five sections:

1. Development of competency and organizational innovation and learning (26 items)
2. Internal process (21 items) financial process
3. Customer Satisfaction (15 items)
4. Financial (11 items)
5. Organizational performance (10 items)

These items are determined by selecting the options of the Likert scales as follows: I totally agree (1) I disagree (2) I do not comment (3) I agree (4) I totally agree (5) to analyze the data, confirmation factor analysis, path analysis, SEM structural equation and t-test

were used.

In order to analyze the collected data, descriptive statistics including mean, Standard deviation and so on were utilized and also the first and second order factor analysis were used to answer the research questions. In the following section, a brief analysis of how the factor analysis is presented:

Factor analysis method is used to identify the underlying variables of a phenomenon or to collate a set of data. The primary data for factor analysis is the correlation matrix between variables. Factor analysis does not have predetermined dependent variables. The use of factor analysis can be divided into two general categories:

(A) Exploratory purposes; (b) Objectives

Results

As mentioned above, to test the main hypothesis of the research, the structural model was discussed in the standard estimation and meaningful coefficients.

The assumption of zero and the assumption of one to confirm or reject the research hypothesis are as follows:

1. H0 There is no meaningful relationship between the two variables.
2. H1 There is a meaningful relationship between the two variables.

If the meaningful number of the test (coefficients T) in the regression test is greater than 1.96, the assumption is zero and assumes a confirmation, and vice versa. The following table summarizes the confirmation or rejection of relationships between the research's variables:

Table 1. Relationship between BSC dimensions and organizational performance

Internal Process S	Financial W	Customer Satisfaction TQ	Competency, Learning and Innovation Q	Items
-	-	-	1	Competency, Learning and Innovation Q
-	-	1	0.59	Customer Satisfaction TQ
-	1	0.67	0.71	Financial W
1	0.81	0.78	0.71	Internal Process S

The above table shows:

1. There is a significant relationship between satisfaction and merit, based on the standard coefficient (standard load factor of 0.59)
2. There is a significant relationship between financial and competency. The standard factor (standard factor load) is 0.71
3. There is also a significant relationship between competence dimension and internal process. The standard coefficient (standard factor load) is 0.71
4. There is a meaningful relationship between financial dimensions and customer satisfaction. Standardization factor (standard factor burden) is 0.67
5. There is a significant relationship between the dimensions of the internal process and the customer satisfaction. The standard factor (standard factor load) is 0.78
6. There is a significant relationship between the internal and financial process dimension. The coefficient of standard (standard factor load) is 0.81

The results also show that there is a positive and significant relationship between the above dimensions.

Table 2. Summary of relationships between research variables

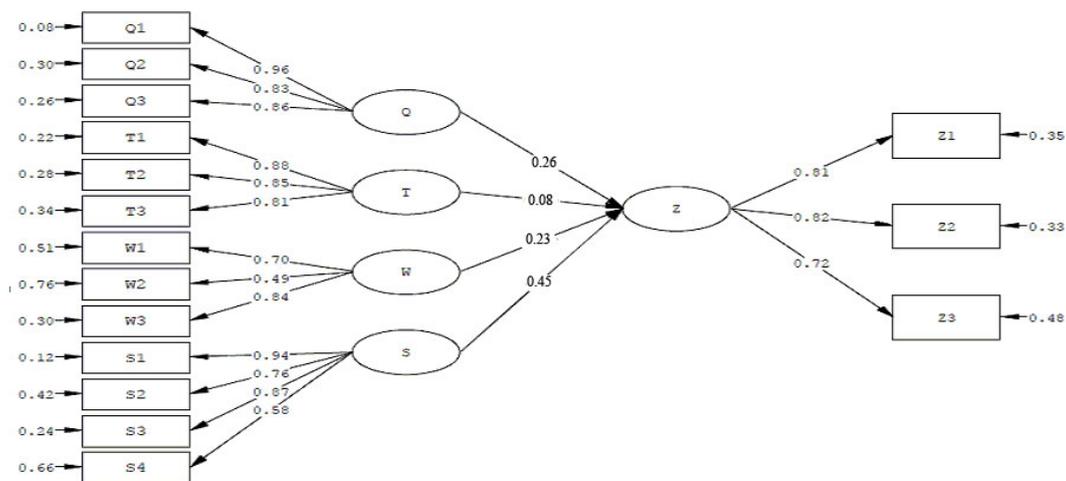
Confirm or decline	Meaningful t	The amount of direct effect (Standard Estimates)	Impact rate
Confirm	2./91	0.26	Does the implementation of the BSC model (competence, learning and innovation Q) affect organizational performance?
Decline	1.03	0.08	Does the implementation of BSC model (customer satisfaction) affect organizational performance?
Confirm	2.32	0.23	Does the implementation of the BSC model (financial W) affect the performance of an organization?
Confirm	3.42	0.45	Does the implementation of the BSC (internal S process) affect the performance of an organization?

The above table declares:

- The implementation of the BSC model (competence, learning and innovation) on the organizational performance (virtual education institutions) is equal to 0.26 and the amount of (T) is 2.91. As a result, the above hypothesis is confirmed.
- The performance of the BSC model (Customer Satisfaction T) on the organizational performance (virtual education institutions) is equal to 0.88 and the amount of (T) is equal to 1.3, therefore the hypothesis is above.
- The implementation of the BSC model (the financial value of W) on the organizational performance (virtual education institutions) is equal to 23/0 and the sum of the amount (T) is equal to 32/2, therefore the hypothesis is confirmed.

The implementation of the BSC model (internal process S) on organizational performance (virtual education institutions) is 0.45 and the amount of the (T) is 3.42, therefore the hypothesis is confirmed.

The results presented in the table above indicate that internal processes modification has the greatest impact on organizational performance (virtual education institutions).



Chi-Square=356.30, df=94, P-value=0.00000, RMSEA=0.079

Figure 2. Factor Analysis, Confirmation

Discussion and Conclusion

In examining the relationship between the implementation of BSC (learning, innovation and competence) and organizational performance, the results indicate that the implementation of the BSC model (Functionality, Learning, and Innovation) has a direct relationship with organizational performance (Virtual Learning Institutions). It means that the movement of systems and especially their training centers toward the proper education, learning and knowledge management, and toward utilizing innovation for presenting their services, will affect the performance of the organization positively. And, as a result, the satisfaction rate of customers will be improved. This is consistent with findings from earlier studies [2,3].

The results about the relationship between BSC (customer satisfaction) and organizational performance (virtual education institutions) indicate that the implementation of the BSC model (customer satisfaction T) has a direct relationship with organizational performance (virtual education institutions). Empirical study in the implement the strategies of virtual learning have shown similar relationship [4,5]. This means that the existence or lack of customer satisfaction has a less impact on organizational performance. Perhaps this is due to the nature of the work and the type of the activity of its affiliated employees, since this group of colleagues will continue to serve in all circumstances.

The results of the implementation of the BSC (WF) model with the organizational performance (virtual education institutions) indicate that the implementation of the BSC model (financial) has a direct relationship with organizational performance (virtual education institutions). According to the results, financial control meaning reducing costs and increasing revenue will affect organizational performance and higher incomes will cause more services and better organizational performance. The results of this study show that improvement of internal process has the greatest impact on organizational performance (virtual education institutions). Studies show that the implementation of the BSC model has effect of significant and direct on the organizational performance of free educational institutions and the implementation of the BSC model can be effect on enhance of organizational performance [12].

The results declare, the most effective factor on organizational performance (Virtual Learning Institutions) is internal processes. An empirical literature on e-trading found similar relationship [7,9]. This finding also supported by Barati et al in 2006[8].

The purpose of this research was to evaluate the performance of the institute using a balanced scorecard model, so that using the results of this study, internal weaknesses and external threats can be eliminated, and by using the internal strengths and external opportunities which are ahead of the institute, realization the purposes of the institute and the exact implementation of its strategy can be possible.

At the beginning of the event, we must say that nowadays, those organizations are Succeeded that are in the process of writing a strategic program because strategic planning is an organizational process which is done for defining the organization's strategy and deciding how to find the resources needed to achieve the goals of the strategy.

In order that the organization to know where it will go, it must know exactly where it is right now. After that, you must correctly define what you want and how to reach that position. Strategic planning is used for effective planning to illustrate an organization's plan. In fact, strategic planning is a kind of official image of the organization.

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«فرم اشتراک»

علاقه‌مندان به اشتراک فصلنامه علمی - تخصصی «*Iranian Distance Education*» می‌توانند فرم زیر را تکمیل کنند و به همراه فیش بانکی به شماره شبای: ۲۱۷۸۶۰۹۰۰۱۰۰۷ نزد بانک ملی ایران شعبه بنفشه، کد: ۱۵۰۸ با معادل شبای متمرکز 07 0010 8609 0217 0000 0170 IR42 به دبیرخانه مجله ارسال دارند تا مجله برای آنان فرستاده شود.

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