

Performance measurement of administration services using balance scorecard and Kano model

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ABSTRACT

This paper performs a survey to measure the performance of an administration unit in Iran based on a popular technique of balance scorecard. The study also uses Kano model to prioritize various factors and to provide necessary recommendation to improve the performance of different units. The survey has indicated that while these offices do well in terms of financial figures as well as customer perspective, they perform poorly in terms of learning and growth. According to our survey, it is essential to use information technology in general service offices, properly. In addition, these administrative agencies need to use hardware and software packages, more efficiently and these two basic items have received much attraction.

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1. Introduction

Performance measurement plays essential role on increasing the level of customer services in most countries. Many governmental agencies try to outsource their unnecessary activities and assign them to private sector. This helps increase community involvement in different activities and help society become part of economic growth. One primary concern in privatization of business units is to monitor tasks very carefully. In such events, performance measurement could contribute significantly on detecting strength and weakness and provide necessary hints to make continuous improvement. There are literally various techniques for measuring performance of various organizations. Balance scorecard (BSC) method is one of strategic planning system used in various governmental and non-governmental organizations, substantially. BSC is virtually a management system, which helps companies to express their goals and supply them within the organization (Olson & Slater, 2002). Kaplan and Norton (1996) are the first people who introduced the idea of BSC in 1992 and used it as a performance evaluation system, especially for 12 firms in USA in 1992. The main objective of BSC

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is to replace and to make necessary changes on the traditional performance evaluation model focused on financial indexes to detect more complete and effective evaluation of organizational performance. They argue that financial perspective is the only part of organizational performance evaluation in BSC and other perspectives of traditional model have to be considered such as customer, internal business processes and employee's growth and learning. Therefore, performance evaluation model can reach more balance and efficiency compared with past. These perspectives are essential for perception and application of a perfect performance evaluation system and formation of a general set of firms' performance indexes for strategic studies of all objectives and activities of a particular firm. There are four perspectives as follows,

1. Financial aspect: this aspect investigates how firms take advantage of their strategic activities.
2. Customer aspect: this aspect focuses on the issue that firms should take advantage of their inherent and available resources for the distinction among their competitors.
3. Internal business process aspect: all the strategic activities in any firm executed to meet stockholder and customer's expectations ought to be investigated. General process begins by perception of customer's requirements and the operational and sale processes are executed after that.
4. Growth and learning aspect: if organizations wish to keep permanent activity and development, they need to concentrate on constant growth and innovation.

Kaplan and Norton (2000) explained that firms had to emphasize on some principals such as promotion of employee's abilities and capabilities, information system performance, etc. This perspective incorporates three main criteria including employee satisfaction, employee continuity and efficiency. Many firms and organizations have to construct performance evaluation indexes by these criteria. Performance indexes should always be taken into account properly based on organizational objectives. Index selection is important for studying the required industry performance, since we consider efficiency of manufacturing operations and create significant benefits by precise investigation of these indexes. Performance key indexes should be investigated for achievement of strategic objectives in every four perspectives of BSC (Wang et al., 2011). Relationships among different perspectives of BSC are shown in Fig. 1.

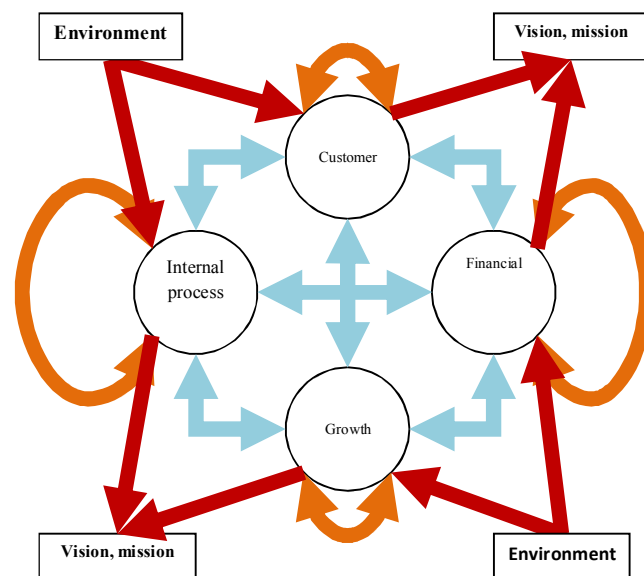


Fig.1. Relations among different aspects of BSC

There are literally various types of BSC methods such as fuzzy based BSC (Tseng, 2010) or hybrid model (Yuksel & Dag deviren, 2010).

2. The proposed study

During the past two decades, the government of Iran has tried to assign different activities to private sector. There are literally many simple activities, which could be accomplished by private sectors. For instance, applying for passport renewal, receiving no-criminal record, etc. are tasks, which are executed by private units named Police+10. The proposed study of this paper uses balance scorecard to measure the performance of these offices in Iran. The study tries to study the unit in terms of four perspectives including internal processes, learning and growth, customer and financial figures. The proposed study has been performed among different offices in city of Semnan, Iran. The questionnaire of the survey consists of 13 questions in Likert scale, which covers four different balanced scorecard perspectives. In order to develop strategic objectives, the following six items are considered,

1. Investigating mission, outlook, objectives and responsibilities,
2. Creating appropriate culture within the organization,
3. Creating strategic objectives and appropriate methods for accessing them,
4. Detecting critical objectives and building necessary attributes for measuring them,
5. Preparing appropriate forms to measure different perspectives,
6. Detecting the relationship between various objectives, criteria, attributes and taking the necessary actions to handle them, accordingly.

The study uses Kano model (Kano et al., 1984) as well as balanced scorecard to measure the performances of various perspectives. We use experts' insight to assign appropriate weights for each component of balanced scorecard. Table 1 shows details of the weights.

Table 1

The results of weights given to each component of the survey

Row	BSC perspective	Weight (W)	Efficiency (E)	W×E
1	Financial perspective	0.586	97.22%	56.97%
2	Internal process	0.220	61.37%	13.5%
3	Customer perspective	0.070	86.15%	6.03%
4	Learning and growth	0.124	52.38%	6.5%
Total				83%

As we can observe from the results of our survey, in terms of financial perspective, most Police+10 units maintain desirable efficiency. In terms of customer perspective, they have desirable efficiency but the results of efficiencies for internal process and learning and growth are discouraging. In terms of financial perspective, the primary objective of privatization system is to distribute wealth among different segments of society. There are two objectives of reducing the cost of operations ($E = 86.1\%$) and increasing revenue ($E = 11.12\%$).

In terms of learning and growth, there are two objectives, which are having a dynamic and innovative system ($E = 50.99$) and taking advantage of information technology ($E = 1.39$). The first objective consists of three performance measurements including supports on behalf of the governmental organization ($E = 34.2\%$), growth in physical equipment ($E = 16.76\%$) and hours of training programs ($E = 8.06\%$). The second objective, information technology enhancement, consists of two goals including the amount of information technology usage ($E = 6.77\%$) and the level of software and hardware applications ($E = 3.43\%$).

In terms of customer perspective, the primary objective is to help society use information technology and it includes four objectives including reduction of ordinary people involvement with military based organizations ($E = 48.9\%$), increase people's satisfaction from police ($E = 21.24\%$), the level of government satisfaction from the performance of agency ($E = 11.92\%$) and effectiveness of services provided in these agencies ($E = 4.09\%$).

The last component of balance scorecard is associated with internal processes with two items of process improvement (E = 48.92%) and promotion plans (E = 12.45). The proposed study has implemented Kano model to rank the components achieved from the implementation of balanced scorecard. Table 2 demonstrates the summary of our findings.

Table 2
The summary of ranking different items

Rank	Description	Factor load	Type of need
1	The amount of information technology used to accomplish different tasks	0.873	Basic
2	The amount of hardware and software equipment used to do regular tasks	0.864	Basic
3	The level of customer satisfaction from the services	0.843	Basic
4	Reduction in doing tasks by military based organizations	0.756	Attractive
5	The level of government satisfaction from the services	0.738	Basic
6	The percentage increase in facilities and equipment	0.623	Attractive
7	Effectiveness of various services offered by local offices	0.609	Attractive
8	Increase on the number of training programs	0.603	Basic
9	Percentage of promotion plans	0.593	One-dimensional
10	Effectiveness of government support	0.513	Attractive
11	Increase on Police+10 revenue	0.467	One-dimensional
12	Reduction on Police+10 expenses	0.416	One-dimensional
13	The amount of process improvement	0.407	One-dimensional

3. Conclusion and discussion

In this paper, we have presented an empirical investigation to measure the performance of a general service provider in Iran. The proposed study has applied balanced scorecard to study the firm in terms of four perspectives of learning and growth, internal processes, customer and financial characteristics. Using Kano model, we have prioritized 13 different components detected by balance scorecard. The results of our survey have concluded that it is essential to use information technology in general service offices, properly. In addition, it is necessary for these administrative agencies to use hardware and software packages, more efficiently. In our survey, these two basic items have received much attraction. The other basic and important item has been associated with customer and the level of customer satisfaction. In our survey, customer plays essential role on the success of the organizations. Since government plans to reduce unnecessary transportation to military and governmental agencies, development of such system has become necessary and accordingly, these agencies must strive to increase government's satisfaction. Obviously, it is important for the customers to use reliable services and the agencies ought to use effective techniques to meet customers' requirements.

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