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Research Article

EXPLAINING THE INTERMEDIATE FACTORS IN THE PERFORMANCE EVALUATION USING THE BALANCED SCORECARD APPROACH FROM A STRATEGIC PERSPECTIVE IN THE PROJECT-BASED ORGANIZATIONS FOCUSING ON THE EXECUTIVE COMPANY OF THE DEVELOPMENT PROJECTS OF SOCIAL SECURITY ORGANIZATION

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ABSTRACT
This research examines the findings of case study of the experiences of people working in the field of macro-projects management and has been implemented in Design Management and Housing Implementation Company of Iran (abbreviated to Design and implementation), that is one of the country's biggest project-based companies of the country. In this study, the intermediate goals related to the factors affecting the performance of the project-based organizations based on the Balanced Scorecard as a new performance evaluation method are stated. And finally, the most important indicators of performance evaluation purposes related to Design Management and Housing Implementation Company of Iran were identified from financial, customer and internal processes and learning and growth perspectives.

Keywords: *Performance Evaluation, Balanced Scorecard, Objectives, Indicators*

INTRODUCTION
Performance evaluation systems designed to lead the organization toward its goals more intelligently have adopted new forms in the recent years. However, using an applied model in large organization in national operational project markets surely needs specific changes and modification in the system. Due to high pace of changes and the fluctuating environment, each project is unique regarding the problems it encounters. Large number of major civil and infrastructural projects in Iran has been triggered in the recent years and management problems that in most of the cases lead to delay in delivery or inconsistency highlight necessity of applied studies, including the present one, to examine all management issues encountered in doing such projects in Iran. Such studies are at preliminary stage in Iran and there is still long road ahead to reach a clear perception of the issue and extract national standards.

Performance Evaluation
Performance evaluation is the process through which performance of a specific period is assessed, measured, evaluated, and judged.

Neely *et al.*, (1995) defined performance as the process of quantifying to measure effectiveness and efficiency of the way tasks are done. Performance evaluation at organizational level is synonym with effectiveness assessment. By assessment, the extent to which goals and plans are realized through an efficient operation and activity is meant.

Objectives and Main Terms of Performance Evaluation
Objective of performance evaluation is to evaluate and make judgment regarding performance within a specific time period. In other words it is the process of quantifying and measuring effectiveness and efficiency of doing tasks (Neely *et al.*, 1995). On the other hand, performance evaluation is to measure through comparing the real and ideal situations based preset indices with specific features (Khaki, 2003). Khaki explains performance as an evolving stage-cyclic process that assesses the current situation in a specific field of management using computable indices and then the collected information are judged and measured using predefined standards (Khaki, 2003). Concerning with importance of performance evaluation it is notable that permanent improvement of performance of organization leads to great deal of

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synergy, which in turn results in improvement and development of organizational growth opportunity. Governments, organizations, and institutes are eagerly seeking developing synergic forces. Permanent development is not possible without surveying and learning about the extent of development and realization of goals, without detecting the challenges ahead of the organization, and without collecting feedback and information regarding progress of the codified policies and the area that urgently need development.

All these goals are not achievable without measurement and assessment. It is a taken for granted fact that performance of a business can improve when it is measured by integrated, balanced, and formulated measures. Although the concept and nature of performance management is rooted in business performance improvement, it leads to poor management and threaten the business when it is designed and executed improperly (Nudurupati *et al.*, 2007).

Performance evaluation of public organization is a continuous process in the developed countries nowadays. It is now a key element in national programing system of these countries. Neely reported that more than 3600 articles have been published between 1994 and 1996 regarding performance evaluation; which is a revolution per se (Neely, 1999).

Performance System and Process

Regardless of the model and pattern used for performance evaluation process, following steps must be taken:

1. Codifying the indices, aspects, and pertinent axes and setting the measurement unit;

2. Weighting the indices regarding their importance and maximum possible point;

3. Standardizing and determining preferred condition for each index;

4. Measuring through comparing actual performance at the end of assessment period based on preset standards; and

5. Extraction of results and interpretation.

Indices highlight the path of the organizations toward realization of its goals. What we first encounter with in codifying the indices are vision, mission, macro-goals, long/short-term strategies, operational programs, and major activities. The codified performance evaluation indices must have the features of a D&SMART system.

Where

S stands for specific: the index must be specified, clear, and determined. That is, the index must be comprehensive, transparent, simple, clear, and explicit as it must convey single interpretation.

M stands for measurable: the index must be measureable easily. That is, in addition to qualitative performance, the index must be qualitatively defined and expressed through qualitative variable.

R stands for realistic: the index must be realistic. That is, it must be pertinent to activities, missions, strategies, and approaches of the organization and also key and sensible fields of performance of the organization.

T stands for Time frame: the index must have specific time frame with specific assessment period.

D stands for database: the data and information must be stored and accessible in a database.

In light of the shortcomings of traditional performance evaluation methods, which are mainly concerned with financial elements, modern performance evaluation tools take into account non-financial indices such as quality, customer satisfaction, innovation, and so on. These indices, in practice, act as driving forces of financial performance (Bilititci and Nudurupati, 2002). Some authors have proposed that a combination of indices (financial and non-financial) must be utilized; still the problem is to find an easy way to find correlation between the indices and their weight and value in the set of indices (Basidor, 1997).

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A Preferred Performance Evaluation System

Some features of a preferred performance evaluation system are mentioned blow:

It must be a support for strategic goals and balanced. In addition, it must prevent division-based optimization or focus on few performance indices. Finally, it must cover comprehensive performance indices and easily accessible.

Balanced Score Card - BSC (1992)

One of the well-known and recognized performance evaluation models is BSC, which was introduced by Kaplan and Norton in 1992. The technique was later developed and improved. The model recommends that each organization must adopt a set of balanced indices for performance measurement; so that it must grant a general view of four key aspects of the organization. These four key aspects answer the four key questions:

1. How the stakeholders see the organization? (Financial aspect)
2. What areas need performance evaluation? (Internal business Process)
3. How the customers see the organization? (Customer aspect)
4. How to improve and create value? (Learning and innovation aspect)

Knowing the limitations of available performance evaluation methods at the time, Robert Kaplan and David Norton, professors at Harvard University, introduced BSC as a modern managerial tool for performance evaluation in an article published in "Harvard Management Journal- 1992". BSC nowadays is one of the top 15 highly accurate managerial tools in 22 countries. The main idea of BSC is that no single measure can be a transparent reflection of performance of an organization.

Development of BSC

Traditional measurement systems for business performance evaluation are mainly designed for short-term financial goals. Such systems have been proved not be effective to deal with issues that modern enterprises encounter with. Moreover, more attention to the stakeholders' interests has ensured the organizations that the adopted strategies are translated into pertinent activities (Ahn, 2001). To survive the age of information, organizations need proper measurement and management tools suitable for their strategies and capabilities.

The disappointing fact is that, despite the believe in strategies concerning with customer-relationship strategies, fundamental merits, and capabilities of organization, most of them have based their performance evaluation merely on financial measures (Maclver, 2003). Perceiving the needs for integrated management system that encompass traditional measures and qualitative performance indices, Robert Kaplan and David Norton developed BSC in 1996. Their goal was to develop a framework to translate the strategy into performance. The card is a strategic management system based on measurement that makes alignment between the organizational activities and the strategies by translating the perspective and strategy of the organization into inverse strategic-centered goals and standards. Moreover, performance evaluation as to realization of goals over time is done through creating illustrative image of health condition of the organization. To put it another way, BSC is a set of measures that yields a real time and comprehensive insight into the business. In addition to financial measures that represent result of the past action, BSC takes into account supplementary operational measures as to the customer' satisfaction, internal processes, improvement and innovation activities. BSC enables the manager to observe the organization from four key aspects:

1. How the customers see the organization? (Customer aspect)
2. In what areas the organization must be the best? (Internal business Process)
3. Do we can keep creating value and improve? (Learning and Growth aspect)
4. How the stakeholders see the organization? (Financial aspect)

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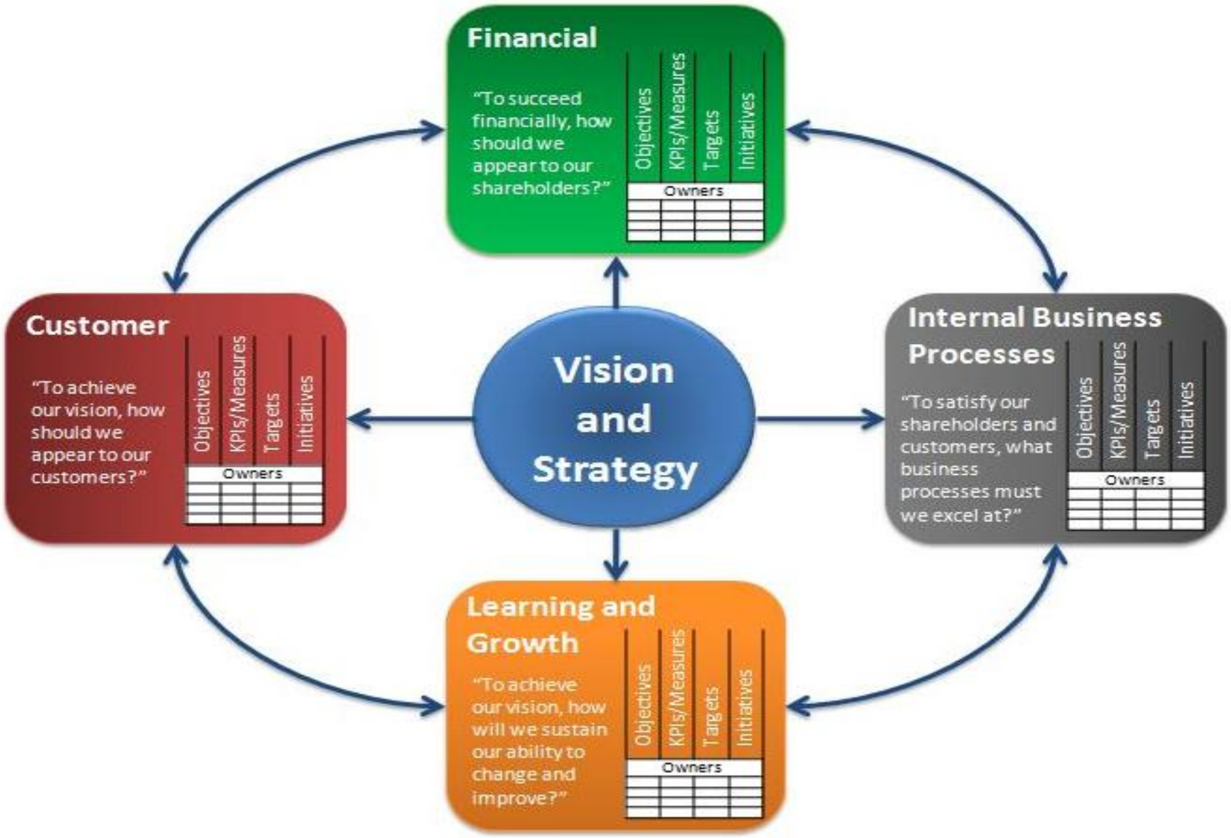

Figure 1: BSC Model

"Project, project management, and project-based organizations"
Project is a set of temporary activities to meet a commitment, to develop a product, or to launch a service. The term "temporary" highlights the fact that the projects have specific initiating time and are supposed to meet a specific deadline (Aladpoush, 2003).
Project is defined to organize human force, raw material, and human resources in a specific manner and to carry out a specific set of unique activities with specific features, cost, and term so that it results in a profitable change by realizing pre-set qualitative and quantitative goals (Turner 1999).
The term "project-based organizations" refers to a wide range of companies that create temporary systems to accomplish a project. These organizations in the recent years have emerged as a specific form of organization (Nudurupati *et al*., 2007).
Project management is the technique of guiding and coordinating human resources and the materials throughout the term of project using modern management techniques so that the preset goals become achievable within the time, cost, place, quality, and cooperation scopes (Kers Hendrikson)
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Alignment of Project Management with BSC

Doubtlessly, elements of projects and proper and scientific management of these elements is not feasible by traditional project management techniques given the breadth, complicacy, and diversity of projects. A project, therefore, must be managed based on project management science and development of its

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boundaries, within the time cycle of the project. Project-based organizations, nowadays, employed project management body of knowledge (PMBOK) to pursue main goals of their project. According to PMBOK, project management covers 9 fields of knowledge and management as follows:

1. Integrated project management: describes the required processes to ensure coordination between different elements of the product including initiation, program implementation, and completion of the project.
2. Project limited management: describes the required processes to ensure that all the needed activities are covered and that no unnecessary job is done. It includes illustration of project development, development and control limits, and definition and control of activities.
3. Project time management: describes the required processes to ensure that the project meets the deadlines; such as defining relationship between activities, estimated time requirements, and developing and controlling time schedule.
4. Project cost management: describes the required processes to ensure that the project is accomplished within the dedicated budget; including cost estimate, budget, and cost control.
5. Project quality management: describes the required processes to ensure that all effective necessities to implement the project (e.g. programming, guarantee, and quality control) are met.
6. Project logistics management: describes the required processes to ensure that essential goods and services for project are procured including processes like logistics control and programing, equipment and documents management, demand and supply management, supplier selection, subcontractors assessment and management.
7. Project human resource management: describes the process to ensure the best way of employing people in the project including defining organizational structure of project work forces, how to attract new forces, how to assign job to the forces (matrix structure), organization, formation, and development of project team.
8. Project communication management: describes the required process to ensure proper generation, collection, dissemination, and distribution for information including communication programming, information management, information control, effectiveness report, and formal completion of the project.
9. Project risk management: describes the process that deals with determining and analyzing proper reaction to deal with project risk including risk definition, estimation, quantification, and adopting proper reaction to control and react to the risk.

Given the different fields of project knowledge management and framework of BSC, the connection between these nine principles of project management and the four principles of BSC is evident. As listed in Table 1, all aspects of project management are covered by BSC framework.

Table 1: Conformity between main processes of project management and the aspects of BSC

Processes of project management and aspects of BSC	**Integrate management**	**Limitations management**	**Time management**	**Cost management**	**Risk management**	**Quality management**	**Human management**	**Communication management**	**Logistics management**
Financial				*					
Customer		*	*					*	
Internal processes	*				*	*		*	*
Learning & Growth	*						*		

Excellence Model of Project-Based Organizations and BSC

All the aspects of excellence are surveyed by excellence model for project-based organizations. Along with determining the stakeholders, expectation and framework of each stakeholder are described and one or more measure is defined for each stakeholder and then assessments are carried out based on the measures and sub-measures (Nejabat *et al.*, 2007).

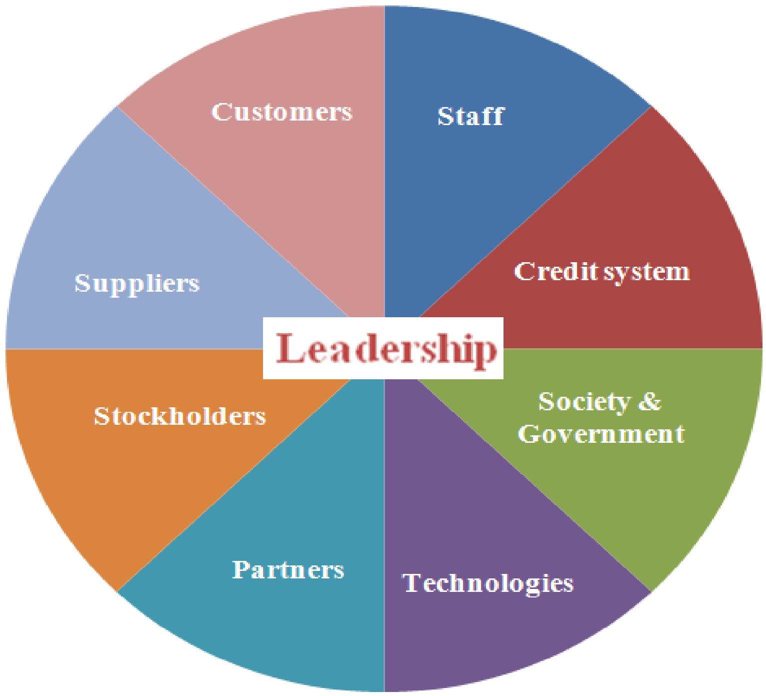

Figure 2: Excellence model of project-based organization

BSC also functions as a flexible performance evaluation system with excellence model. Table 2 lists alignments between BSC and excellence model for project-based organizations.

Table 2: Alignment between BSC and excellence model for project-based organization

Elements of excellence model or project-based organizations	Aspects of BSC
Creditors Stakeholders	Financial
Society and government customer	Customer
Suppliers Technology Business partners	Internal processes
Employees Leaders	Learning & growth

Understanding the Mission, Vision, Organization's Major Objectives and Strategies

The first step for using the Balanced Scorecard is understanding the mission, vision, and macro and strategic goals of the organization. And this was provided through studding the documents and referring to the relevant departments, managers, and documents and this led to clarifying the mission, vision and strategic objectives of the organization.

Second Step: Interviewing and identifying the intermediate objectives to develop assessment indicators. The most important purpose of this step is identifying the intermediate objectives appropriate to the strategy to achieve criteria suitable to these goals. This step leads ultimately to the identification of various goals sought by the organization.

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The Objectives of the Organization for Using in the Performance Evaluation Process Considering the Objectives Outlined in the BSC:

In order to achieve the effective indicators in assessing the performance of a project-based organization. First, the intermediate objectives according to which they are determined should be achieved. In this context, the defined intermediate objectives are explained as follows:

Financial Dimension

In terms of financial aspect, Balanced Scorecard, states two strategic objectives for organizations, including:

Developing the income opportunities and improving the cost structure. According to theses two objectives, some examples in the organizations were created and the goal of diversification of credit and financial resources and liquidity management were developed.

Customer Dimension

Balanced Scorecard in the customer's dimension states the objectives and concepts and ideas such as price, quality, service, selection, and availability and brand name for the organizations. In line with these objectives, their examples were created within the intended organization and the first goal in this regard was pro-activity and excellence in offering project management services and implementation of medical facilities and being the most efficient organization of private sector in terms of management and the second goal was making a trusted organization.

Internal Processes Dimension

In the internal processes dimension, the Balanced Scorecard states 4 processes for organizations which include operation management processes (suppliers, production and delivery), customer management processes, innovative procedures and legal and social processes. In line with these processes, their instances in the intended organization with the goal of creating a qualified network consultants and contractors (suppliers) were created.

- Continuous improvement of key and major processes (internal development for offering the production of goods and services and improving the management of contracts)
- Reduction of implementation time of the projects with stabilizing or improving the quality
- Improving the exchange with customers / new customers, prioritizing the implementation of new projects and increasing the economic efficiency (economic value of health centers)

And finally Environment, Safety, occupational and Society health, were diagnosed as the best goals to manage the mentioned processes.

Learning & Growth dimension

Balanced Scorecard in the growth and learning dimension states three strategic contents for organizations that include: Human capital, information capital and organizational capital. In line with these objectives, their instances were created in the intended organization and in accordance with the opinions.

Goals concerning fitting staff - recruitment, training and retention of staff, Empowering staff (according to the skills and knowledge needed in the company)- IT- physical and management infrastructures analytical tools and information exchange - culture, team work and coordination were developed.

CONCLUSION

Increasing and improvement of different methods of performance evaluation of project-driven organizations worldwide can show the power of this method to assist organizations in achieving the strategies. In the meantime, considering the procedure and systematic evaluation of performance seems to be important according to the strategies of the organization. If evaluating the performance in terms of strategy does not evaluate the organization, it will face misunderstanding toward correct assessment of itself. Balanced Scorecard approach is one of the proven methods of performance evaluation with the ability to adapt with organization's strategies. The necessary for this adaptation is translating the strategies to intermediate targets to make these intermediate objectives, a proper context for extracting the indicators and factors that are located in the evaluation performance process in the method of Balanced Scorecard approach and reaching the process to its original purpose. In this study, this adaptation in a

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large project-based organization as the host company of development projects of Social Security Organization and led to extracting the nationalized intermediate targets, in order to take advantage in the performance appraisal process.

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