

## **DETERMINING OF KEY PERFORMANCE INDICATORS IN BUSINESS**

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### **ABSTRACT**

*As a result of technological developments, the impact of globalization on social and economic environment is rapidly and constantly changing. Many state and private sector businesses which are aware of this change, have sought to find a strategy that is diverse, feasible and capable of achieving their goals.*

*In this sense, key performance indicators (KPIs) that are the corner stone of performance management are defined and explained in this study. Characteristics, principles of KPIs are mentioned respectively. The aim of this study is to show how businesses can determine which KPI is the best for their companies in order to reach their goals.*

*The concepts of performance and performance management have been emphasized in detail. Then, Balanced Scorecard method which is one of the multi-dimensional performance measurement methods is discussed. Balanced measurement cards are a management system that allows organizations to clarify their visions and strategies and transform them into action.*

**Keywords:** *Performance, Performance Measurement, Key Performance Indicator, Balanced Scorecard*

### **İŞ HAYATINDA ANAHTAR PERFORMANS GÖSTERGELERİ ÖZET**

*Teknolojik gelişmelerin sonucu olarak, sosyal ve ekonomik globalleşmenin etkileri günden güne hızlı bir şekilde ortaya çıkıyor. Kamu ve özel kuruluşların çoğunluğu, değişimin farkında olanlar, çeşitli stratejiler geliştirerek hedeflerini geliştirmeye çalışıyor.*

*Bu bağlamda, anahtar performans değerlendirmeleri, performans yönetiminde önemli bir köşe taşı olarak bu makalede açıklanıyor ve anlatılıyor. Şirketlerin hedeflerine ulaşmak için en önemli araç olarak görebilecekleri performans değerlendirmelerinin özellikleri ve temel prensipleri yine bu makalede belirtiliyor.*

*Makalede, performans ve performans yönetimi detaylıca vurgulandıktan sonra kurumsal karne metotları çok boyutlu olarak incelenerek kurumsal karnelerin şirket vizyonlarına ve stratejilerine verdiği katkıdan bahsediliyor.*

**Anahtar Kelimeler:** *Performans, Performans Yönetimi, Anahtar Performans Göstergesi, Kurumsal Karne*

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## 1. INTRODUCTION

Organizations need effective performance management system in order to manage their processes more effectively and accomplish their vision and goals by spreading them throughout the company. Performance management system will bring noteworthy benefits not only to their competitiveness in controlling their costs but also using their resources properly and efficiently.

In this study; what key performance indicators are and what they are used for are mentioned and put emphasis on how they are determined for an organization and how they are contribute to performance management

In the fourth sub-section, one of the multidimensional performance appraisal models, balanced scorecard method is given in detail. Firstly, the emergence and development of BSM is examined and the conceptual framework about balanced scorecard is introduced. Dimensions, performance criteria, application stages, benefits, and finally obstacles of BSM are given in order.

The purpose of this study is; to give information about key performance indicators based on companies' performance management tools and their indicator tables and balanced measurement card and to mention about their usage, to define their purpose, and to show their contribution to performance of the company. For this purpose, the following sub-problems were investigated:

- What are KPIs?
- What are the purposes of KPIs?
- What are KPIs' characteristics?
- What are KPIs' principles?
- What are the usage areas of KPIs?
- How are KPIs determined in an organization?

Finding an answer to those questions are vey crucial. Within this framework, managers try to generate KPI system for their companie

## 2. Key Performance Indicators

A key performance indicator (KPI) is a measurement of activity that brings out how a company or team is performing against its strategic goals. KPIs are the most critical metrics that measure the success of specific activities used to define success and track progress in meeting organizational goals. KPIs in business environment are mostly measurable information; it shows structures and processes of a company. First and foremost, the KPIs must relate directly to the organization's stated goals. These are the metrics against which the organization

will be driven to perform in order to measure its success over time. Regardless of which definition companies adopt, the following elements should always be considered by companies:

The KPIs must :

- Reflect, and relate directly to, the organization's goals.
- Be measurable and quantifiable.
- Be linked directly to the measurement of the organization's success.

Now KPIs are very significant for planning and controlling through supporting information, creating transparency and supporting decision makers of the management (Meier, et al., 2013).

### **2.1. Purpose of The Key Performance Indicators**

Performance indicator system is a system in which the efficiency of employees is assessed and the benefits of achieving their goals in achieving organizational goals are met. Regardless of which department the employee is in the organization, the process of determining whether the employee contributes to the organization's effectiveness, benefits or damages is a performance indicator system process (Fındıkçı, 2000). Rewarding the contributions of performance indicator system is very useful in determining personal targets and making positive feedbacks.

A number of studies have been carried out with the aim of determining the relevance of a topic with the performance indicator system work of the enterprises' human resources department. However, it should be noted that it is very difficult to scale the activity with 4 success. Especially the presence of many different qualities of human beings makes this job stronger.

Performance evaluation for businesses is also an important concept in terms of work. If the employees are doing their jobs properly, they will be in the desire to receive their compensation. In this respect, a worker engaged in business may become unhappy if he or she strives to keep it in the same category as a worker who does not perform the job properly, and this will adversely affect the performance of this worker. In this respect, performance indicator systems are also important in terms of determining employees who are trying to do their job properly.

### **2.2. Determining KPIs**

Evaluating the success of a business depends on defining and prioritizing the criteria that are really important. The use of incorrect criteria gives incomplete or

disconnected parts about the business. Even worse, the direction of the company can be misunderstood because of the improper key performance indicators (Bayles, 2006).

While KPIs provide significant information to decision-making processes for individuals, there are several factors to consider:

**Identification of performance indicators:** It is difficult to define KPIs; because the KPI definition requires knowing what performance is to be measured and how to measure it. In addition, it is critical to have the approval of the individuals to be assessed on the basis of KPIs. Without a generally accepted KPI definition, no one will use or support it.

**Obtaining the necessary information:** The required data must be collected after the KPI is determined. Depending on the complexity and number of operating systems in the organization, this can be quite complicated. Ideally, the information needed is the data being held in the data storage.

**Calculation of values according to KPI definition:** The person who is in charge of the performing business calculations or calculating a data set must clearly understand the definition of the KPI in order to create right KPI. Miscalculations often occur due to insufficient understanding.

**Making temporal updates:** Updating KPIs at specific periods or as needed can be very time consuming if it is done manually. In addition, various software programs can be used in defining KPIs and various metrics, data extractions, calculations, and updates (Wu, 2009).

The moment of a “kick-off” meeting that is performed at the beginning of a project is the best time to determine KPIs. It includes the following steps:

- Taking carefully into account the desired results,
- Avoiding extreme results definition,
- Determining as many indicators as possible with a brief brain storm,
- Evaluating each indicator according to the above criteria,
- Choosing the best indicators. If the indicators obtained at the end are not satisfactory, a new brainstorming is needed (De, 2009).

### **3. PERFORMANCE MANAGEMENT & MANAGEMENT METHOD WITH BALANCED SCORECARD**

Determining KPIs are not enough to success in business, companies have to evaluate the performance to achieve their goals concerning the KPI.

### **3.1. Performance Management**

In these days, the concept of performance management is viewed as a management tool with great proposals for the transformation of corporate strategies into results. The concept of performance management is a management process in which the organization is tasked with collecting, comparing and presenting new and necessary activities that will provide continuous improvement in performance and relevance to the current and future associations to address the desired objectives. Organizational performance is a combination of economic and human dimension. In order to capture and sustain desired performance, these dimensions must be considered equivalently (Yıldırım, 2006).

The performance management process is a process in which the organizational and functional strategies of the business are managed in harmony with the performance of their objectives. Not only the organizational strategies are important but also functional strategies also play a crucial role on the performance management processes. It is stated that the goal of this process is to provide a proactive control system to ensure that the organizational and functional strategies in operation are spread to all processes, activities, work and employees in 6 operation and then to obtain feedback. It is recommended that this feedback be used to make the most appropriate managerial decisions. In fact, the performance management process in the enterprise also describes how an organization can use different systems to manage its performance. These systems include, but are not limited to, the dissemination and retraining of established strategies, management accounting, management understanding of objectives, formal and informal non-financial performance measures, reward systems, personnel appraisal and retracement. At the heart of the performance management process is an information system that provides good diffusion and feedback. This information system is actually a performance measurement system. This system integrates appropriate information from all the systems mentioned above. In this context, integration provides a regular framework that will let the performance measurement system to collect feedback in order to facilitate decision-making and control processes, as well as the correct extension of the strategic and tactical objectives of the business (Elitaş and Ağca, 2006).

### **3.2. Performance Measurements**

Performance measurement is an approach that is the basis for the necessary measures to be taken such as determining the performance level of the company, measuring the extent to which principles can be reached, and identifying problems. The performance in the companies needs to be systematically measured and evaluated. First of all, it is necessary to determine the objectives

and appropriate performance indicators and standards so as to enable an objective evaluation based on the comparison, to collect the data related to these and to perform the measurements. Performance measurements are methods used to measure the performance of the company itself according to predetermined performance indicators or indicators to achieve performance improvement goals.

The number of companies, which are, used performance measurement as a management tool, increasing aggressively all over the world; on the other hand it is one of the significant instruments of accountability to the company's stakeholders. In this context, the identification of performance indicators plays an important role in the efficient management of firm performance. Indicators are derived from the relationship between direct measures that measure different aspects of company's activity and are expressed in the form of an index, a ratio, a measure of unit pressure, or another comparison (Elitaş and Ağca, 2006).

### **3.3. Balance Scorecard Method**

Balanced scorecard performance measurement method is developed by Robert S. Kaplan, a professor at Harvard University's Department of Rehabilitation and David P. Norton from the Renaissance Consulting Company in the United States for the need of a performance measurement method that includes the other functions of the enterprise, as traditional financial measurement methods are not sufficient for performance measurement alone. In 1990, the two initiated a research called "Performance Measurement in Future Organizations" and implemented innovative performance applications with 12 selected company executives and with the development of the works, Balanced Scorecard technology was emerged (Baynal and Karasakal, 2008).

The balanced scorecard is then the most commonly used method of multidimensional performance measurement. Kaplan and Norton have applied this new system to more than 300 companies in nine articles and five books between 1992 and 2008 (Hoque, 2014).

Özyazar et al. (2014) present in his study that there are 27,100 in Google Scholar, and 3,622 articles in Science Direct about balanced scorecard. This result shows that the development and application of the BSM is prevalent.

Some traits can be obtained from previous publications of Kaplan and Norton before 1997. The balanced scorecard should have at least the following characteristics:

- Mix of financial and non-financial measures;
- Limited quantities,

- The original names "Financial", "Customer", "Internal Process" and "Innovation and Learning", which are divided into 4 groups under the name of Perspectives, But the last two have been renamed "Internal Business Process" and "Learning and Development"
- Selected metrics to relate specific strategic objectives - one or more metrics, often documented in tables, each associated with an objective,
- Measurements should be chosen in a manner that provides active support for the senior management of the organization, reflecting both strategic access privileges and the importance of approval and support for strategic communications that will emerge from the balanced measurement card after being designed.
- Some should show causal relation. It is unclear what Kaplan and Norton mean by their work: The 1992 and 1993 articles explain the linkages between the four perspectives but do not discuss these links in the article. The 1996a article discusses and explains the need to demonstrate the causal link between the criteria in the Balanced measurement card perspectives in a manner that envisions the construction of a second generation Balanced measurement cards. But in the 1996 books it also suggests causality to be between "performance (leader)" measurements and "output (latency)" measurements (Lawrie and Cobbold, 2004).

#### **3.4. The Perspectives of Balanced Scorecard**

A balanced measurement card suggests that we should think of the organization from four perspectives and we need to develop and collect data and analyze it according to this perspective. The idea is that the first category, learning, development and innovation, starts with people (employees and partners). At the same time as these people achieve strategic objectives, they will achieve the defined strategic objectives to develop and create secondcategory business processes. This business acceleration accumulation and priorities will continue to contribute the customer loyalty and satisfaction of the third category. Thus, the energies and choices of employees, such as the driving force of the magnetic field in physics, will collectively contribute to achieving the strategic goals of the final and fourth category of financial targets. A sample measurement criteria table is given in Table 2 (Baynal and Karasakal, 2008).

Table 1: Balanced Scorecard Method Measurement Criterion

PERSPECTIVES	CRITERION				
	FINANCIAL PERSPECTIVE	Increasing profits	Growing	Increasing efficiency	Reducing costs
CUSTOMER PERSPECTIVE	Customer loyalty	Customer satisfaction rate	Completing product range		
INTERNAL BUSINESS PERSPECTIVE	Inventory usage ratio	Efforts to develop new products and services	Minimization of operational problems	Energy costs/ sales ratio	
LEARNING AND GROWTH PERSPECTIVE	Training of employees	Satisfaction of employees	Persistence of employees	Self-improvement of employees and career opportunities	

#### 4. Factors directing and application area of KPI

KPI is used worldwide in many different areas such as energy, agriculture and communication. Due to the reason of KPI affects the companies' many aspects, global firms and local companies mainly use KPI in their departments.

##### 4.1. Factors Directing Companies' KPI at Global Level

The answer to the question of which factors will affect the economy in the future is not easy when we examine the economy of world and the economy of Turkey. Modeling will be carried out on scenarios, basic expectations and trends in some sectors and basic framework will emerge. In this way, we will try to find out what trends are in the context of Turkey and world economy.

However, the basic behavior of the consumer has been changing and the future process must be established on a framework which technological innovation and development are much more intense. Basic predictions regarding to sectors in Turkey and global level have been revealed by the experts's assessments and interviews. In this context, it is much easier to solve the problems when the expectations at the sector level are revealed in a healthy way.



The world economy has abundant opportunities in terms of different segments in all respects (Court and Narasimhan, 2010). Especially the development of the middle class has important opportunities in terms of the business world. We can see how this process has changed in different cultures and markets (Desvaux and Regout, 2010).

**Table 2: Summary of five sectors in one table**

	Manufacture Sector	Energy Sector	Advanced Technology Sector	Agriculture Sector	Service Sector
Adherence to natural sources	Growth trend	Growth trend	Uncertain	Growth trend	Growth trend
Innovation to reduce dependence on natural resources	Growth trend	Growth trend	Stable	Growth trend	Growth trend
Determination of industry standards based	Growth trend	Growth trend	Stable	Growth trend	Growth trend
Obligation to work in cooperation with the public for the use of natural resources	Growth trend	Growth trend	Stable	Growth trend	Growth trend
Direct investment to use natural resources	Uncertain	Growth trend	Stable	Growth trend	Growth trend
Cost management and competition	Growth trend	Growth trend	Growth trend	Growth trend	Growth trend
The situation of consolidation and cooperation	Growth trend	Growth trend	Growth trend	Growth trend	Growth trend
The need for new technologies in the production process	Growth trend	Growth trend	Growth trend	Growth trend	Stable
The importance of strategic analysis and management models	Growth trend	Growth trend	Growth trend	Growth trend	Growth trend
R&D investments	Growth trend	Growth trend	Growth trend	Growth trend	Stable
Need for qualified managers	Stable	Growth trend	Growth trend	Growth trend	Growth trend
Development of new business models	Growth trend	Growth trend	Growth trend	Growth trend	Growth trend
Cooperation between global and local actors	Growth trend	Growth trend	Recession trend	Growth trend	Growth trend
New capital inflows	Recession trend	Growth trend	Stable	Growth trend	Growth trend
Withdrawals from the sector	Stable	Recession trend	Stable	Stable	Stable

#### **4.2. Assessment on Competitive Management of Businesses in Global Business World and 3D Management Mentality**

It appears that the factors that affect the success of businesses in the global environment are multifaceted. In which areas they should develop themselves and form the system to be successful. These factors need to be explained.

**Profit:** One of the most effective indicators of a business's commercial value in local and global markets. It can be said that a business that has the ability to make a continuous and uninterrupted profit is generally successful. If this tendency is constantly upwards, then it can be said that the business has a healthy commercial operation model. It is very important that businesses have a performance that meets their investors' expectations. This is related to how much profit the business make. Therefore, the basic success criteria comes from its profit.

**Expansion of Markets:** One of the most important criteria of an business's success is performance that shows in its own market. The business can be considered as very important success if the market rate of the business is constantly growing in the existing markets or if the business can find new market. Businesses that can make effective operation, tend to expand and develop their market rate.

**Continuously Growth of Business:** One of the success criteria is the growth figures in the last five years. That very important indicator increases in the number of employee, individual earnings, and production in terms of both market rate and other factors for business. Especially, it is known that growing and developing business in a competitive model, have around 10% average annual growth performance. Therefore, business should grow at least over 5% every year in order to survive and remain on the market.

**The Strong of the Competitive Strategy:** Strategy is another criterion of success level evaluation. The strategy is the essential element of the business on realization of the factors such as cost leadership, product diversification, and focus. Here we are confronted with the strong of the structure and quality of the basic strategy for the operation.

**Trading of Companies in the Stock Market:** It is possible to evaluate opening to the stock market of a company as an important success criterion. A business has reached a significant level when it has attained the level of trading in the stock market as a structure, system, and balance sheet. It is very important for enterprises to improve their structures after reaching a certain growth rate. Also, it is very important what kind of methods will finance their growth. In this context, solving business growth by finding partners or risks and impacts opening to the stock market directly on the basis operations of the business have been evaluated below based on the decision tree model by developing different scenarios.

It is easy to decide on a clear scenario by virtue of the fact that the lack of data especially on the basic issues of the business (managerial, financial, production, marketing, growth). However, in the model framework developed here, two scenarios can be said to be suitable for operation in any case. The first profitable alternative is scenario 5. In this approach, the main objective of the public offering of the operator is realized if it is ensured that the share price of the operator to the market is appropriately priced and sold at a good value. In addition to this, to cooperate with a different business and the transfer of some of their shares in this framework is an effective way to make a management policy especially in terms of growth and future process in the stock exchange. In this context, scenario 8 is the most optimal choice. Management of the process correctly in the business will enable the institutionalization of the system. Therewithal, scenario 6 and 7 are applicable models. However, there are problems in these scenarios in terms of effectiveness. These models with proper management approaches can make a significant contribution to the future development of business.

These scenarios were developed entirely on hypothetical data. There will be great benefits of using real data in enterprises for more accurate and effective use. In particular, the harmonization and risk scenarios related to the structure and operation of the alternative financing sources should be established. Furthermore, what kind of consequences will this process have to be considered in the scenarios will produce more accurate results.

Foreign partnership is another funding technique in terms of model and content. This should be addressed in particular by the qualification of the partner and its approaches to integration into the management process.

The most important issue in opening a business to the market is due diligence. In this process, it is of utmost importance that the price of the enterprise's value and resources is calculated correctly. Opening up to a stock exchange with a strong corporate governance model which businesses have metric models for each area with a good management system contributes to the future processes and shareholders of the business as a serious resource. It may be useful for business that has management-system infrastructure problems and developing structural models to prepare this process correctly with a ½-year preparatory cycle.

As a result, opening of a business to the stock market and starting trading can be seen as a very important success factor. On the other hand, it is an important performance criterion for a structure to cooperate with domestic and / or foreign partners. Effectively management of these factors for businesses is the most important values that will affect growth and other key indicators positive.

## 5.RESULT

As a conclusion, majority of companies are using KPIs to achieve their goals and compete with their rivals. KPI helps the company to survive in today's competitive world. Especially developed countries follow the rules and find the best way to take the advantage of KPI. Almost all departments on the major companies, we can see the KPI and it is controlled very strictly. Unless it creates a pressure on managers, directors and other employees, companies' growth rate may increase sharply due to that reason. Not only performance management is important but measurement of this performance also plays a crucial role in every aspects of performance of company.

Balanced Scorecard method is used by organizations to measure and monitor progress, control the company's targets and goals. There are 4 perspectives dor balance scorecard; financial, customer, internal process and organizational capacity.

In Turkey, we can see the KPIs in some companies. Especially the organizations that is worldwidely multinational. Manufacture, energy, advanced technology, agriculture and service sectors are the most commen ones. Detailed graphs are given above concerning these sectors. To be a successful on competitive markets five factors are very important. These are profit, expantion of markets continuously growth of business, the strong of the competitive strategy, trading of companies in the stock market.

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