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# Integration of Critical Success Factors in Order to Improve Performance of the Company

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**Abstract**
The paper is motivated by the practical and always current problem of achieving planned and improving existing enterprise performance. Research suggests that management rarely understands what is it that contributes to the creation and strengthening of the value of the company, its competitiveness and, consequently, achieving success. In a turbulent and unstable business environment, managers cannot afford the luxury of not understanding, and, ultimately, not knowing the competence of enterprise. Key activities that contribute to the success of enterprise are critical success factors (CSFs). Components of the strategy that the company must stand out in order to surpass the competition are these activities. These activities ensure the realization of high company performance. The focus of this paper is to identify an integrated set of critical success factors, with adequate quantification, using key performance indicators, which contributes to the improvement of organizational performance. With the intention of determining the factors that will stand the company in relation to the competition, it is necessary to consider the influence of internal and external environment. The paper will also display impacts that management must pay attention to during the definition of an integrated set of critical success factors. Contribution of the paper lies in the analysis of the issues that are crucial to the success of companies, and in establishing a set of critical success factors that determinable affect to the achievement of company performance.

**Keywords**
Critical success factors, key performance indicators, performance of the company.

## Introduction

Critical success factors (CSF's) are the result of focusing on the important things in order to achieve business success. Although the company can be successful in fulfilling a multitude of activities, not all activities are critical to the success of business. Therefore, some are critical, and represent critical success factors. According to its originators, the critical success factors are the "limited number of aspects (areas) in which results, if they are satisfactory, will enable successful competitive performance" (Rockart & Hofman, 1992). Johnson and Scholes define the key success factors as "those components of strategy where the company must excel to outperform competition" (Johnson, & Scholes, 1997). These are competencies that ensure the achievement of economic success of the company. CIMA defines critical success factors as "an element of the organizational activity which is central to its future success" (Botten, 2009, p. 19). Most of the literature on critical success factors describes their informational perspective. In his article on possibilities to improve the reporting top management about key information, John Rockart first used the term "critical success factor". He defines the critical success factors as several key areas within which actions must perform well. As a result, the critical success factors are areas that special attention must be paid to (Rockart, 1979, p. 81). Simon also emphasizes the need to separate important information from a multitude of other-generated information on company business. The basic requirement in the design of a company's communicational system is not to decrease the scarcity of information, but to prevent their accumulation. In this way, greater attention is devoted to that information which is relevant to the fulfilment of business tasks (Simon, 1997). Bulen also associates critical success factors with the reporting system. She points out that “critical success factors, in conjunction with relevant, computer-based information help managers in making better decisions” (Bullen, 1995, p. 14). Dickinson, Ferguson and Sircar provide a broader explanation of the critical success factors. According to them, the concept of critical success factors is. “... a formal process of establishing and maintaining corporate priorities. CSFs are internal or external events or possible events that can affect the firm positively or negatively and thus require special attention. CSFs provide an early warning system for management and a way to avoid surprises or missed opportunities.” (Crandall & Crandall, 2008, p. 22).

In order to maintain the functioning of business at the desired level, CSFs help the management to focus on the priority decisions and activities. Based on statements by Simon about the need for filtering important and unimportant information, other renowned thinkers of management, such as Drucker and Senge also emphasize the need for identifying important areas for management. Drucker points out that the manager's task is to optimize the available resources: staff, equipment, facilities and capital. He differentiates between effectiveness and efficiency. One of his most famous quotations is “Effectiveness is the foundation of success – efficiency is a minimum condition for survival, after success has been achieved. Efficiency is concerned with doing things right. Effectiveness is doing the right things.” (Drucker, 1974, p. 44). Therefore, efficiency is a process characteristics and effectiveness is the manifestation of effective practice and is often referred to as the variable of result or outcome. Senge describes how systems thinking can lead to complexity in today's business environment. The goal of management is to identify the causes of organizational problems and finding effective and sustainable solutions. One of the main problems faced by managers in their organizations is a multitude of information, which is mostly internally generated. The challenge for managers is to choose the right information out of a multitude of inadequate information. According to Senge, “what is most needed is the ability to distinguish what is important against what is not important, on which variables to pay more or less attention” (Senge, 1990).

## 1. Identification of CSFs

Optimal number of critical success factors is the question when we start to research this topic. Based on the results of best practice, it was concluded that a company should have from 5 to 8 critical success factors, regardless of company size. Belonging to a particular industry is what highly affects the number of critical factors.

Key activities for the identification of critical success factors are:

- consulting strategic documents, which represent the initial source for the identification of critical success factors in order to ensure consistency of performance measures with strategic directions,
- developing a hierarchy of critical success factors by the project team,
- reviewing the critical factors through workshops,
- making a final version of the critical success factors after consultation with stakeholders and employees,
- establishing communication between all levels of management and employees about the critical success factors.

Critical success factors may change over time, consistent with the changes in the company and the environment. Relevant literature identifies a wide range of key success factors: product quality, costs, customer satisfaction, manufacturing flexibility, innovation, employee satisfaction and brand awareness (Eaton, 2005, p. 47). Research suggests that management often does not understand what is it that contributes to the creation and strengthening of enterprise value. As guidance for identifying key success factors, management can use the following questions (Malinić & Savić, 2011, p. 19):

1. Which factors initiate the formation of the costs?
2. What factors affect the revenue generation?
3. What is it that contributes to the undertaking of an investment?
4. What factors expose the company to the risk?

In order to better understand the factors that affect the performance of enterprises, the following components will be analysed (Malinić & Savić, 2011, pp. 119-120):

- Quality. In addition to lower prices, customers demand higher quality products. On that basis, it can be said that quality is a critical element of revenue generation. Quality attributes include customer satisfaction (measured through the number of repeated purchases), the number of defective products per 1,000 units of product, consistency, and achievement of industrial standards. However, the concept of quality is much broader than the issues of products and services quality. It relates to the quality of all processes in the company, including the quality of key human resources – top management. Improvements in this area should contribute to a more efficient use of production resources, reducing the time required for production, reduce scrap, which will certainly have repercussions on the overall operating costs, cost of products, profitability and competitiveness of enterprise. It is the TQM concept, which is based on efforts to continuously improve quality and to deliver customers products and services of high quality on a consistent basis.
- Time. The importance of time as a factor of success is reflected in the speed of launch, timely deliveries to customers, as well as the ability of company to adapt to the changing environment in the short term. Time as a key factor for success is closely linked to the issue of quality of all business processes in the enterprise.
- Innovation. As an important component of the strategy of differentiation, the goal of innovation is to increase the number of new products, reduce development time of new products and the identification of new markets and customers. Hence, research and development (R&D) represent one of the most important elements in the value chain. Indicators of this success factor are the time of launching a new product, the length of the development phase, the quick change ability of product mix of the company. The most commonly used indicators of innovation are share of revenues from sales of new products in the total income, received awards etc.
- Costs. As an element of a company's competitive advantage, costs represent a starting point of following generic strategies: cost leadership, differentiation, focus on costs and focus on differentiation. The most critical item in cost management is comprehension of causes of the cost structure of the company. This becomes more significant because understanding the causal links between certain activities and its costs enables management to direct effects of improvement to those activities that generate the best results. Cost's behavior and relative cost position of the company depend on the number of structural factors that affect costs. Porter has identified several significant factors that affect costs (Porter, 2008, pp. 86-98): economies of scale, study effects of experience curve, the degree of capacity utilization, vertical links and links in the value chain, interpersonal relations, degree of integration, timing, discretive policy, locations and institutional factors.

## 2. Measuring performance and critical success factors

The last decade, characterized by the increasing globalization and the degree of competition, advanced technology, complex manufacturing processes and high demands of customers, set up completely new business conditions. In such circumstances, an enterprise should carefully design strategies of success, establish goals, take the appropriate decisions that lead to the realization of set goals, monitor results and indicate the necessary improvements. Proactive response of the management in a turbulent environment requires timely and accurate information about the performance of the business. Information must be integrated, dynamic, accessible and visible to enable rapid decision-making. In light of the increasing demand for efficiency and effectiveness (Brigham & Fitzgerald, 2001) in the growing information-dependent environment, the ability to acquire and treatment based on performance information is often seen as a prerequisite for business success. Behn (2003) and Taylor (2014, p. 8) lists eight main purposes of performance information: to evaluate, control, budget, motivate, promote, celebrate, learn, and improve. Effective management is based on the foundations of an effective quantification/measurement, on which arises functioning of almost all processes in the company (see figure

1). Performance measurement is a topic that is often discussed but rarely defined. Literally, it is a process of quantifying action, whose action leads to results.

Performance measures that want to be created result from the critical success factors. The probability of creating a successful performance measurement is greater, if critical success factors are better defined. Key performance indicators (KPIs) show the way for the realization of dramatic performance improvements. KPIs represent a set of measures focused on those aspects of organizational performance that are critical to current and future success of the company. It is believed that there should not be more than 10 KPIs at the enterprise level. Parmenter defines seven following characteristics of KPIs. KPIs (Parmenter, 2010, p. 6):

- are non-financial indicators (not expressed in monetary units),
- are measured frequently (daily or weekly),
- are acted on by the CEO and senior management team,
- clearly indicate what action is required from the staff (e.g., staff must understand the indicators and know how to correct them),
- require responsibility of a team or individual,
- have a significant impact (e.g., affect one or more of the critical success factors and more than one BSC perspective),
- they encourage appropriate action (they have a positive impact on other performance while poorly designed KPI can lead to dysfunctional behaviour).

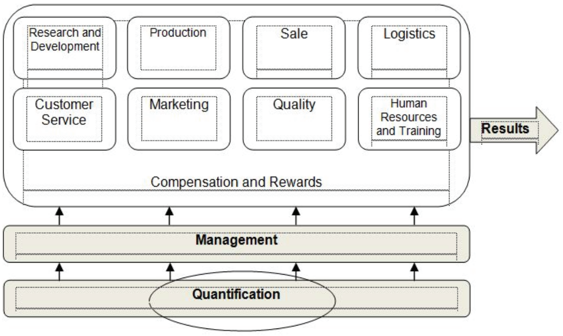


**Figure 1** Quantification (measuring) – the most important system of management
**Source:** Spitzer, 2007, p. 14

The relationship between competitive strategy, critical success factors and key performance indicators is of a vital importance for the company, because if critical success factors are classified, it is easier to achieve key performance indicators. The relationship between the critical success factors and key performance indicators is shown in Figure 2.

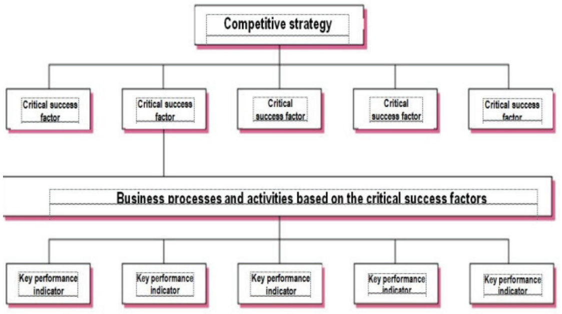


**Figure 2** Critical success factors and key performance indicators
**Source:** Botten, 2008, p. 20

## 3. Integrated set of critical success factors and key performance indicators

In order to develop an integrated set of critical success factors and performance indicators, it is necessary to develop taxonomy of the key success factors of the company. In the case of complex issues that need to be addressed, simplification and help upon the process of categorization is the purpose of taxonomy development. The structure of the taxonomy follows the configuration that facilitates the process of problem solving, which lead to a simpler way of identifying CSFs and key performance indicators that affect the economic success of the company.

On the basis of reviewing literature and respecting some specific of local economic practices, a number of critical success factors, factor components and key performance indicators is selected that will be used for the purpose of creating an integrated model of performance management. Critical success factors are grouped into five basic categories (see Figure 3): quality, flexibility, employees, efficiency and innovation.

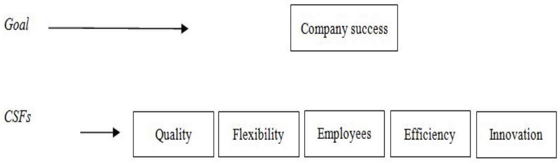


**Figure 3** Taxonomy of company success.
**Source:** Authors

Quality is the most important factor of success for each industry. In the context of quality, food quality and consumer satisfaction were selected as factor components. Food quality determined the following indicators: product characteristics, and security and safety of product. On the other hand, the following indicators measure consumer satisfaction: price in relation to quality, customer loyalty and customer complaints. Figure 4 represents quality, as one of the critical success factors and its variables: factor components and key performance indicators.

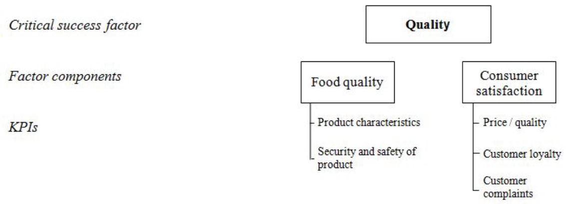


**Figure 4** Quality categorization.
**Source:** Authors

Flexibility, as a critical success factor, represents an internal power of company, which is reflected both in effective time management of the production process, as well as timely and accurate shipment. Therefore, time of process and delivery are selected as factor components. Time of process is determined by the following indicators: production time and time-to-market. The following indicators determine timeliness and regularity of the delivery: the percentage of on-time delivery and the percentage of correct shipments. Figure 5 represents flexibility, as one of the critical success factors and its variables: factor components and key performance indicators.

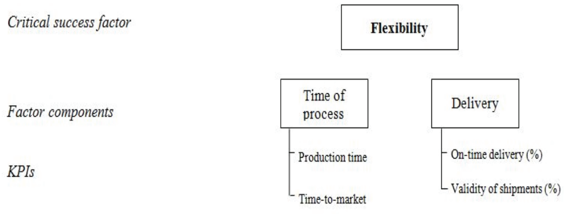


**Figure 5** Flexibility categorization.
**Source:** Authors

As a key resource of a company, employees can be expressed using the following factor components: employee satisfaction, and training and development. Employee satisfaction can be quantified using the following key performance indicators: index of motivation, the percentage of absence from work, and fluctuations of full-time employees. At training and development, it is necessary to observe how much company annually invests in training per employee, as well as how effective is training time per employee. This is supported by the research where group of authors examine whether human capital investments directed toward employee training are effective in improving employee performance (Bapna, Langer, Mehra, Gropal, & Gupta, 2013). Figure 6 represents employees, as one of the critical success factors and its variables: factor components and key performance indicators.

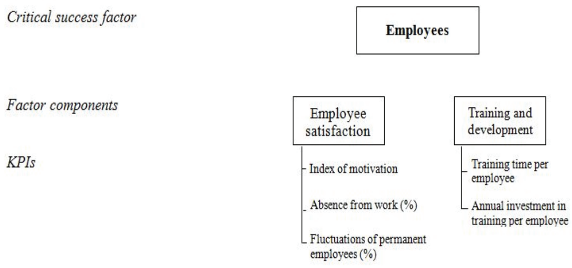


**Figure 6** Employees categorization.
**Source:** Authors

Efficiency, as an essential component of business performance of each company, consists of two components: the costs and revenue. As determinants of cost, there are expenditures size, purchase price and the percentage of waste. Volume of production and sales price represents proposed indicators of revenue. Figure 7 represents efficiency, as one of the critical success factors and its variables: factor components and key performance indicators.

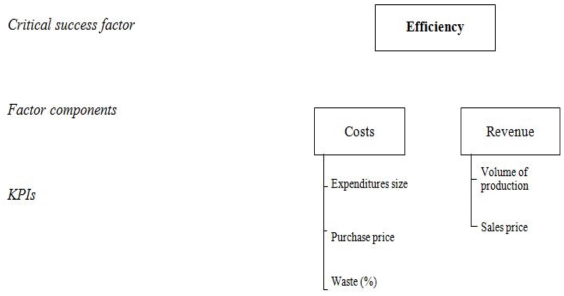


**Figure 7** Efficiency categorization.
**Source:** Authors

Innovation, as a critical success factor, was determined by two components: research and development of new products and research and development of new technologies. Both factor components are significant and mutually dependent, i.e. no successful development of new products without the development of new technologies, and vice versa, new product development is a prerequisite and purpose of developing new technologies. Important indicators of research and development of new products are research and development (R&D) costs of the new product, time for development and launch of new product and the share of new products in total products. Important indicators of research and development of new technologies are investment in new technology as a percentage of sales and share of R&D costs in total costs. Figure 8 represents innovation, as one of the critical success factors and its variables: factor components and key performance indicators.

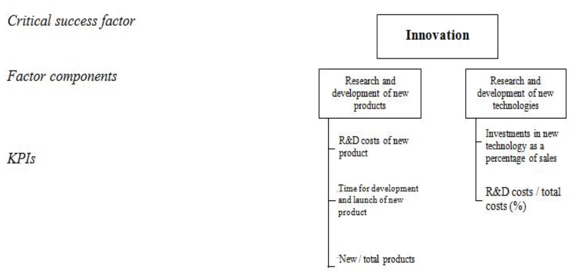


**Figure 8** Innovation categorization.
**Source:** Authors

## Instead of a conclusion

Critical success factors focus direct attention on the key dimensions of performance that a company must stand out if it wants to achieve its goals and meet the demands of consumers. Critical success factors reflect the activities and processes that will have the most impact on the overall performance of the company. In order to improve enterprise performance it is necessary to carry out the following steps of proper implementation of a set of integrated critical success factors and performance indicators:

1. Provide greater commitment and training of top management. Lack of commitment of top management is often the reason for the failure of projects. The purpose of the workshops is to achieve an understanding of the whole problem of KPIs, the benefits of their use, shortcomings of current performance measures and creating a short list of critical success factors of the company. Having completed the workshop, top management can fully devote their attention to KPIs of project. This means that they are accessible to discuss together with team members about proposed measures, to provide feedback, to learn from the practices of other companies that have successfully implemented KPIs etc. In this way, top management participates in a project that will allow a better understanding of the business by employees, and improve the implementation of defined organizational strategy.
2. Begin with the proposal of the six perspectives of balanced scorecard. In most companies, top management puts too much time in discussion of whether they will observe performance of the company through performance measures in four, five or six perspectives of balanced scorecard. Parmenter suggests a pattern of six perspectives: (1) financial, (2) growth and learning, (3) focus on customer, (4) internal processes, (5) staff satisfaction and (6) environment/community (Parmenter, 2010, p. 256).
3. Focus on an integrated set of critical success factors. Performance measures that want to be created stem from the critical success factors. The better-defined critical success factors, the greater the probability of creating successful performance measures will be. Finding the critical success factors is the main goal of management, which will have a major impact on employees. For the first time, employees will know what their focus on daily basis is. It will also help the harmonization of everyday activities with the strategy and promoting all forms of reporting on performance.
4. Identify a set of KPIs. Top management must take into account the rule on a number of key performance indicators, which requires the installation of ten KPIs. The benefit of this activity is focus on the outcome of the project and time savings.
5. Select the project team. Two to four members are recommended when creating a project team. Top management together with the external consultant selects team members in accordance with criteria such as prior experience in working with KPIs, excellent presentation skills, knowledge of the company and its environment, knowledge and innovation monitoring, good communication skills and ability to work under pressure. The project team should identify a coordinator in each or-

ganizational unit, whose task will be to provide expertise knowledge in relation to specific area. It is essential to emphasize that members of top management should not be members of the project team, for reasons of inability to focus and dedicate only to the project.

6. Implement a system. It involves the application of an agreed set of KPIs by the team itself, without relying on external consultants. The role of the consultant is to convince the project team that it is capable of implementing the project, and possesses all the necessary skills for this activity.
7. Use the system over the next 12 months. The project team should promote the use of existing applications for data collection and reporting of performance measures for at least 12 months. The implementation of these activities can be accomplished by standard applications, without the need to purchase specialized software.
8. Record all performance measures, store them in the database and make them available to all teams. The project team has task to create a database in which it will store all performance measures and figure out a way of performance communication. During the sixteen weeks, it is important to establish a base, eliminate possible duplication and ensure consistency.
9. Create a practical form of reporting. Mode of reporting requires presentation of performance measures related to the identified set of critical success factors. The manner in which the report will be designed should be left to the KPI team.

Carry out potential changes. Key performance indicators could ideally be structured in the context of a Balanced Scorecard. However, the word scorecard (table) can have a negative connotation among management. Upon completion of all previous phases and defining the final list of performance measures, it is necessary to create the name of the proposed set of performance measures. In response to the bad experiences of those companies that are not adequately implemented a balanced scorecard, it might be more appropriate to use phrases such as: a list of criteria, navigator, compass etc. SM

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