

## ВИЗНАЧЕННЯ КЛЮЧОВИХ ПОКАЗНИКІВ ЕФЕКТИВНОСТІ (KPI) ДЛЯ УПРАВЛІННЯ ПРОЕКТАМИ

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***Анотація.** Метою статті є висвітлити ключову роль KPI в управлінні проектами та успіху бізнесу, підкреслити їх значення для прийняття рішень на основі даних та подолання загальних проблем, пов'язаних з їх розумінням та застосуванням. Вирішуються проблеми, пов'язані з неправильним визначенням, вибором і оптимізацією KPI в управлінні проектами. Науковці та професіонали пропонують інноваційні моделі та фреймворки для визначення та впровадження KPI. Ці моделі структуровані та сприяють обґрунтованим рішенням, що сприяє успіху проектів. Проте основна проблема полягає в неправильному розумінні та використанні цих метрик. Дослідження останніх років підкреслює важливість точного і стратегічного вибору KPI, а також регулярного перегляду та коригування їх для адаптації до динаміки проекту. **Ключові слова:** вимірювання ефективності, ключові показники ефективності (KPI), проекти.*

## DEFINING KEY PERFORMANCE INDICATORS (KPIs) FOR PROJECT MANAGEMENT

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***Abstract.** Key Performance Indicators (KPIs) in project management and business are crucial for success and effective decision-making. This article discusses the importance of these metrics and attempts to address the challenges that often arise in defining and using them. One of the key issues discussed in the article is the need to define the role of KPIs in translating strategic project goals into quantitative indicators. Defining KPIs should be an obvious task, but often this procedure becomes difficult due to the vagueness of goals and the need for their further measurement. The importance of correctly defining KPIs becomes apparent as they become the basis for assessing project performance. In addition, the article focuses on choosing the most relevant KPIs for specific projects. Organizations often use general metrics that do not consider the specifics of each project. This can lead to an incorrect definition of project success or failure, as the real requirements and challenges of a project may differ from the general standards. The article also pays considerable attention to optimizing KPIs as an integrated system. This means that KPIs should be interdependent and complementary to each other, rather than functioning in isolation. An optimal KPI system helps an organization focus on its main goals and achieve them more efficiently. In recent years, researchers and professionals have been actively exploring and developing innovative approaches to defining and using KPIs in project management. These works help to improve the practice of using KPIs and ensure greater efficiency in the project management and decision-making process. In general, the article emphasizes the importance of understanding KPIs as a system rather than individual metrics, and the role of senior management in coordinating these metrics to achieve organizational success.*

***Keywords:** performance monitoring, key performance indicators (KPI), projects.*

**JEL Classification: H540, L920, O200.**

**Statement of the problem.** The critical challenges and misconceptions are surrounding the definition and application of Key Performance Indicators (KPIs) within the realm of project management. The issues at hand include the need to clarify the role of KPIs in translating project objectives into quantifiable measures, the selection of the most relevant KPIs for specific projects, and the optimization of KPIs as a coherent system.

Furthermore, the problem statement encompasses the prevalent issue of organizations often employing KPIs that do not align with their true performance objectives, resulting in the misuse of these vital metrics. The misinterpretation and lack of understanding regarding the essence and significance of KPIs are major obstacles that organizations face when striving for effective project management and decision-making.

This article aims to tackle these problems by providing insights into the various models and frameworks available for defining KPIs effectively, as well as by emphasizing the importance of viewing KPIs as strategic assets rather than mere metrics. Ultimately, the central problem is how to harness the full potential of KPIs in project management, while dispelling common misconceptions and addressing the challenges that hinder their optimal utilization.

**Analysis of research and publications of recent years.** Recent studies and publications have shed light on the critical role that KPIs play in ensuring project success. They have highlighted the need for precise and strategic KPI selection, as well as the importance of aligning these indicators with an organization's overall goals and objectives [9, 10]. Furthermore, research has emphasized the significance of regularly reviewing and adjusting KPIs to adapt to changing project dynamics and evolving business environments.

In recent years, scholars, and professionals such as Putri C.F. [2], Immawan T. [3], Cruz V. [8], Sharpanskykh A. [5] and Okudan O. [6] have introduced innovative models and frameworks for defining and implementing KPIs in project management. These models offer structured approaches that help organizations make informed decisions and foster transparency, ultimately driving project success.

However, challenges persist, such as the common misuse of KPIs or the failure to comprehend their essence. The analysis of recent research and publications underscores the importance of addressing these challenges and promoting a more comprehensive understanding of KPIs in project management [1, 4, 7].

**Separation of previously unresolved parts of the overall problem.** This article addresses important issues related to the misunderstanding and misuse of key performance indicators in project and business management. Much attention is paid to the accurate and strategic selection of KPIs, as well as their regular review and adjustment to adapt to changes in projects.

**The purpose of the article.** Elucidating the crucial role of Key Performance Indicators (KPIs) in project management and business success, emphasizing their significance in data-driven decision-making, strategic alignment, and overcoming common challenges related to their understanding and application.

**Presentation of the main material.** As with any business effort, performance measurement systems stand as a vital driver of success. They combine crucial performance indicators, translating a company's strategy into tangible and quantifiable outcomes [1, p. 55].

Indeed, as mentioned by Putri, performance measurement is a process through which an organization observes crucial aspects of its programs, systems, and care processes. This involves collection of data to accurately represent how the process is going on, subsequently informing the organization's decisions over time. Performance usually is assessed and compared in relation to the organizational goals and objectives. The outcomes from these measurements provide insights into the efficiency and effectiveness with which an organization operates [2].

The methodologies for measuring performance have thrived in this era. Scholars and professionals alike have much implemented novel models of performance measurement systems, including but not limited to the Balanced Scorecard, Integrated Performance Measurement System (IPMS), and SMART (Strategic Management Analysis and Reporting Techniques) System [3, p. 170].

Hence, performance evaluation is a key aspect for every enterprise manager. Indicators or key performance indicators (KPIs) in a business environment provide most often quantitative information. They illustrate company structure and processes. Presently, KPIs assume a position of paramount significance in the domains of planning and controlling. They fulfill this role by furnishing essential data, thereby fostering transparency, and offering invaluable support to managerial decision-makers.

There are different approaches in defining KPIs. Lord Kelvin coined the concept of KPIs by stating that "When you can measure what are speaking about and measure it in numbers, you know something about it, when you cannot express it in numbers, your knowledge is of meager and unsatisfactory kind; it may be the beginning of knowledge but you have scarcely, in your thoughts advanced to the stage of science" [4, p. 49].

Viara Popova asserted that KPIs encompass a collection of metrics centered around the facets of organizational performance deemed most crucial for both the present and prospective achievements

of the organization [5, p. 511].

Ozan Okudan stated that KPIs are metrics that are indicative of the performance of related processes. Prioritization of KPIs is also crucial for effective performance assessment, as monitoring all KPIs can be impractical and challenging. KPIs in a Performance Measurement System (PMS) must be actively overseen by the management of Small and Medium-sized Enterprises (SMEs) to ensure that set targets are achieved. Consequently, each KPI must be measured repetitively, and the collected data should be analyzed, reported, and systematically stored within the company periodically. Hence, as the number of KPIs increases, the time required for performance measurement increases as well.

Furthermore, the information necessary for analyzing these KPIs might not be readily available inside the organization. As a result, additional financial and human resources must be allocated for measurement, analysis, and storage of these KPIs [6, p. 12640].

Nonetheless, in his systemic approach of the Theory of Constraints, Goldratt talked about how the «global optimum is not the sum of local optima. You cannot achieve the most efficient system by maximizing the efficiency of each of its components individually, without considering their interactions with each other» [4, p. 50].

In other words, optimizing individual components of the system will ultimately result in losses to the system as a whole.

Goldratt also said, «The obligation of any component is to contribute in the best possible way to the achievement of the system's goal» [4, p. 51].

Therefore, the task of the CEO and top management is to coordinate and synchronize the efforts of each component's KPI within the system to achieve the best overall systemic result.

However, a significant number of companies are operating with the wrong measures, often labeled as KPIs. Very few organizations genuinely track their true KPIs. This discrepancy arises due to the limited engagement of organizations, business leaders, authors, accountants, and consultants in comprehending the essence of KPIs [4, p. 48].

KPIs serve as a set of measures focusing on specific aspects of organizational performance that are critical for achieving success. These KPIs often are not new introductions to the organization; rather, they might have gone unnoticed or remained unutilized, possibly languishing undiscovered by the current management team.

There are four types of KPIs [2]:

1. KPI of the result - the number and intermediate result to achieve the goal;
2. KPI costs - the number of resources spent on the process;
3. KPI functioning - indicators of the implementation of business processes, as well as an assessment of the compliance of the process and the required algorithm for the implementation of this process;
4. KPI performance - indicators that characterize the ratio between the result and the spent time on it;
5. KPI efficiency (efficiency indicators) - indicators that characterize the ratio of the result to the expenditure of resources.

Wei Peng in the meantime describes three types of the KPIs as follows [4, p. 49].:

1. Leading indicator. A KPI that measures activities with substantial impacts on forthcoming performance. These activities serve as causal foundations for the eventual outcome (termed as lagging indicators) they influence. Moreover, these KPIs are actionable, meaning they offer insights for improving future performance against one or more lagging indicators.

2. Lagging indicator. A KPI of this kind quantifies the output of past activities.

3. Diagnostic measure. A KPI that does not fall under the category of leading or lagging indicators but serves as an indicator of the vitality of processes or activities. For instance, the number of client meetings salespeople conduct each week could be a leading indicator of Sales Revenue (a weak/lagging outcome). Similarly, the successful completion of complex repairs on the first visit could be a leading indicator of customer satisfaction. Leading indicators possess significant potency as metrics because they uncover predictive and insightful causal relationships within business processes, thereby guiding actionable strategies for ongoing process enhancement. Hence, creating effective leading KPIs holds crucial significance for a business's success, enabling swift adaptation to changes and preparedness for future transformations. However, identifying leading indicators is often hard. It demands months for data collection, definitions, and rules measurement, selecting preferred metrics, and encouraging feedback, among other tasks.

From wide analysis and discussions, the following characteristics of KPIs could be defined (Fig. 2):

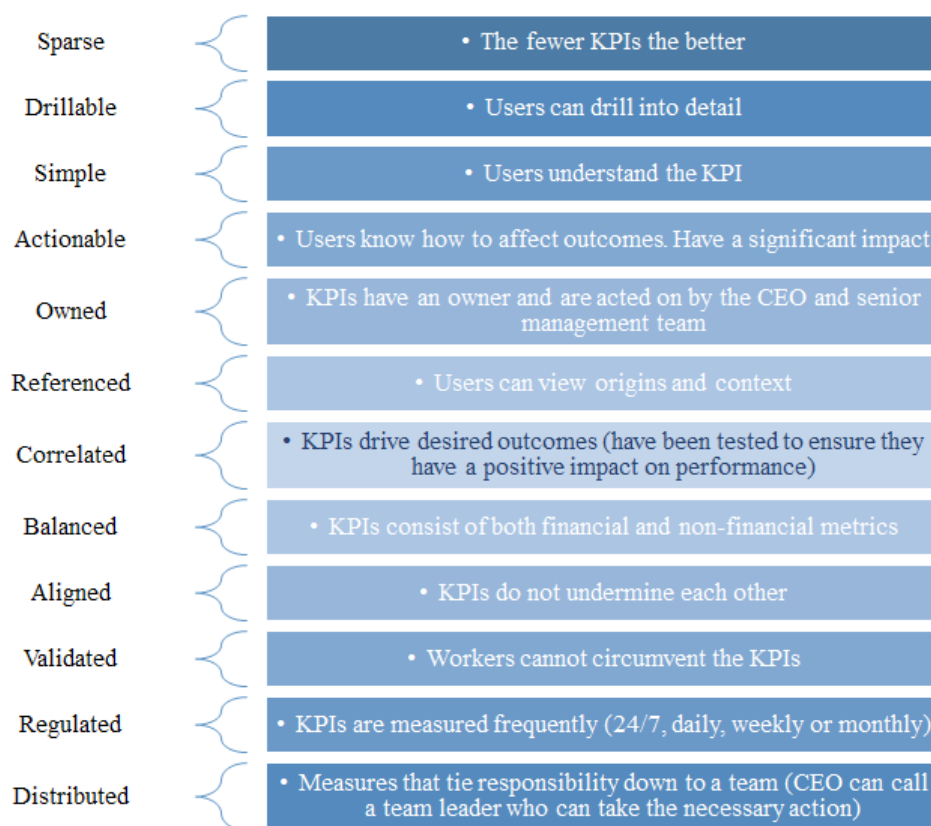


Fig. 2. 12 characteristics of KPIs

Source: compiled by the authors based on [4]

Business monitoring or control typically relies on an information system that provides insights into various Key Performance Indicators. This critical activity researches issues in business performance and issues alerts regarding their origin. Business monitoring serves as a fundamental task, allowing decision-makers to address concerns promptly rather than delaying action. However, this process is also challenging due to the substantial volume of data that requires rapid processing.

Conventionally, business monitoring relies on users assessing aggregated KPI values who often check the scorecard to ensure accuracy. For instance, a KPI like "Customer retention increased by 3%" evaluates the percentage of customers retained across all the stores in the present year. To enhance the comprehensiveness of KPI monitoring, dashboards provide in-depth insights [4, p. 48].

Typically, a business strategy includes numerous challenges that make fail to achieve their objectives [4, p. 50].:

1. Too many KPIs weaken the focus on primary goals.
2. A wide list of KPIs lacking clear alignment with business objectives may indicate a bigger problem.
3. Insufficient strategic focus on KPI selection represents a challenging process.
4. Lack of understanding of the performance metrics results in a monitoring and reporting shortcomings.

**Conclusion.** Selecting the right Key Performance Indicators (KPIs) requires a deep understanding of your organization's specific goals and objectives. It's not a one-size-fits-all approach. KPIs should be carefully chosen to reflect what truly matters to your business. They should align with your strategic plans and the unique challenges you face in your industry.

KPIs are vital for project management and overall success. This article emphasizes the importance of selecting the right KPIs, optimizing them as a system, and aligning them with the organization's goals. Effective KPIs provide transparent, data-driven insights for decision-makers. In essence, they are essential navigational tools for businesses, guiding them toward success in an ever-changing environment.

The misconception and misuse of KPIs remain prevalent issues in many organizations. A failure to understand KPIs can lead to the use of incorrect or irrelevant metrics. The holistic perspective of KPIs as a system, rather than isolated indicators, is crucial for their success. Top management plays a key role in coordinating these metrics to drive organizational success.

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