RAIS RESEARCH ASSOCIATION for INTERDISCIPLINARY STUDIES
AUGUST 2020

DOI: 10.5281/zenodo.4005977

Key Performance Indicators as Determinants of Managerial Compensation

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ABSTRACT: Performance management has gained in importance, especially in recent times, as managers are under constant pressure to improve organizational performances. Performance management, as a process of efficient management of executive compensation, is a relatively new concept. This paper analyzes the concept of business performances, as well as the concept of performance management. It shows the evolution of business performances over time. Finally, the paper elaborates the purpose, goals, principles, characteristics and significance of the organizational performances for the operationalization of policy and strategy of managerial compensation.

KEYWORDS: performance measurement, executive compensation, motivation

Introduction

As a subject of academic study, performance management research began in the late 1980s and early 1990s. Over the years, the concept of performance management has been constantly changing. Performance management has undergone several key changes over time (Thorpe & Beasley 2004; Barrett 2004; Bach 2005).

Since the concept of using individual tools in the 1980s, performance management has evolved and become a process in which all managers and employees are directed in the context of achieving organizational goals. Connecting individuals with organizational performance, and setting and measuring their achievement, has become the focus of effective compensation management, especially managerial compensation. In today's business environment, performance management is seen as an open process where teams, rather than individuals, set goals and equally and openly participate in the discussion together with managers. Modern performance management practice gives more importance to teamwork and control of the planned process than it does in individual assessment, which is, at best, only a part or one aspect of a performance management system.

Initially, the emphasis and quality of the approach to performance management was on objectively setting and evaluating results in relation to set goals, and basing compensation models on the performances' realization. At the core of the performance management concept is the role of reward in motivation. The combination of positive and negative motivational incentives, in relation to rewarding for realized performance, is the main characteristic of performance-oriented organizations. Thus, the focus of performance management is changing in the direction of rewarding towards development orientation. Providing competent and motivated managers while doing the job is a key feature of performance management.

During the 1980s and early 1990s, many organizations continued to try to improve their performances by ensuring employee compliance with the goals set at the top, which were then cascaded down to different organizational levels. The logical basis was the belief that the top management knew best, and that quality and performance management were mostly the responsibility of the highest management levels. Nowadays, only a few organizations, aimed at achieving superior performance and quality, function in this way. Employees and managers are not only expected to do things the right way, but, above all, to do the right things (Boland & Fowler, 2000).

The importance of key performance indicators

Conceptualization of economic instruments for measuring business success is one of the primary research interests of modern economic theorists. The fact is that there is no single benchmark that can fully meet the needs of all stakeholders in all situations. Considering the specifics of the business, the characteristics of the organization determine the way of expressing value. The following table illustrates the classification system used to determine the ability to measure performance:

Table 1. The classification of the measurability of individual output

Category	Characteristics of Individual Output
Easily Measurable	Immediately quantifiable (e.g. the margin made on trading a financial asset) Identifiable in the short term Individually determined
Somewhat Measurable	Quantifiable only in the medium to long term May accrue as a result of teamwork May be increasingly subject to factors outside the agent's control
Not Easily Measurable	Little/no identifiable output to measure

Source: Nash, D. (2003). Determinants of the use of financial incentives in investment banking, ESRC Cetre for Business Research, University of Cambridge, Working Paper No. 256, pp.9.

Financial and non-financial key performance indicators are an important information basis, primarily for managers at all hierarchical levels. They enable the analysis of the achieved results in relation to the planned ones, in relation to the competitors or from the dynamic aspect. Also, the the key performance indicators determine the causes of the achieved results, and propose the direction of improvement.

A prerequisite for measuring key performance indicators is formulating a set of universal principles. These principles serve as standards for the analysis of the measurement process itself. The most common are the following (Reilly & Reilly, 2000):

- Measurement should be systematic and support the implementation of business strategy and the achievement of set goals
- The logic of each key performance indicator should be clear and unambiguous
- Each business unit should create its own set of custom performances, consistent with the performances at organizational level
- Measurement results should be available to all stakeholders
- Performance measurement should be a simple, easy-to-understand process
- Each element of the achieved result of the organization should be measurable
- Key performance indicators should be consistent with strategic objectives as well as competitive strategies
- Key performance indicators should have a dynamic character and monitor changes in the internal and external environment.

The efficient performance measurement system emphasizes the following four elements (Mercer, 2007): information, insight, impact and institutionalization. The performance measurement system provides information on business and value creation for shareholders. It is especially important for large, complex, global business organizations, because the information obtained will not be the same for each of their production areas or each geographical area they cover. The performance measurement system enables the conversion of the obtained information into an understanding of how to create value for shareholders, gives the insight what actions and performance measures should be taken in order to generate the desired business results. A performance measurement system has an impact on setting goals and the establishment of a system of accountability. The system of measuring the achieved performances enables success in business through institutionalization, a phase in which employees at all organizational levels understand how their actions affect the results, and consequently their compensation.

Traditional key performance indicators

Traditional (conventional) key performance indicators derive from the traditional approach of efficiency and effectiveness. They are based on a small set of individual, mostly financial indicators, which are obtained on the basis of accounting information and do not change over a relatively long period of time. Key performance indicators are determined by goals, organizational units, and business strategy, and their primary purpose is to control business. Among them, a significant place belongs to the indicators of productivity, economic efficiency and profitability.

Productivity represents an economically relevant relationship between products and labor costs and expresses the efficiency of living human labor (Grozdanovic, 2002). Productivity key performance indicators are numerous and depend on the way the product is expressed and labor costs (average number of employees, or time unit of work). Each of them has a corresponding purpose and area of application. Economic efficiency expresses the degree of usefulness of the investments. It represents an economically relevant relationship between value and reproduction costs. Value is usually expressed by different types of income (according to available accounting data). The most commonly used economic efficiency indicator is the ratio between operating income and operating expenses. Profitability is measured by the ratio between profit and capital. Profitability indicators depend on business results and rational use of invested funds. They are most often viewed as relative indicators, in the form of a rate of return, ie as a relative return per unit of invested capital. They adequately express the efficiency of the capital use. Profitability indicators appear in several different forms, of which the following are important:

- ROI - Return on Investment, expressed by the ratio of profit and total capital engaged. It is considered the primary indicator of profitability and shows the amount of return on the total invested capital.
- ROE - Return on Equity, expressed by the ratio of net profit (after tax) and average equity. It reflects the earning capacity and how effectively management is using a company’s assets to create profits.

Measuring performances for business results with traditional key performance indicators is also performed by applying the Market Value Ratios. These key performance indicators show success in meeting the requirements of investors for superior returns on invested capital (Stojilkovic & Krstic, 2000). The traditional key performance indicators of Market Value Ratios that are most in use are (Stojilkovic & Krstic, 2000):

- Earning per Share - EPS which is a common indicator of business efficiency and reflects the earning power of shares
- Net Income's Effects on Stockholders Equity – which is often used, since the profit after tax already means a reduction of the amount of interest paid on used loans and that the structure of assets (own and borrowed) should not be ignored
- Rate Earned on Stockholders Equity - is an indicator of return on equity, is a precise expression of return from the point of view of shareholder interest
- Dividends Per Share - DPS shows the amount of dividends per share and is a significant measure of business efficiency
- Price to Earnings - P/E ratio links the share market price and earnings per share and thus indicates the investment potential. A stable and high P/E ratio is a sign of investor's confidence in organizational growth and development. P/E ratio is a rather unstable

indicator, which varies significantly between different business organizations, as well as at the same organization in a relatively short period of time (any change in financial structure and accounting policy, acquisitions or new investments, will lead to a change in P/E ratio). In addition, this ratio is the most commonly used key performance indicator of organizational success.
- Dividend Per Share / Market Price Per Share - shows the current return per share owned, as a percentage of the market value of owners portolio.
- Dividend Payout Ratio - DPS / EPS is obtained from the relative ratio of Dividend per share and Earnings per share and serves as a basis for considering dividend policy.

Traditional key performance indicators are not a guarantee of business success, but an indication of efficient execution of activities. The key to business success is achieved by developing a balanced and carefully weighed set of financial and non-financial key performance indicators, formed in accordance with organizational vision and strategy, and variable in accordance with business conditions. Financial key performance indicators show the results of implemented actions, and non-financial ones express activities that generate future results.

Value-based key performance indicators

Value-based key performance indicators have been developed and affirmed, with the aim of focusing on the capital dimension. The organizational success in the process of increasing the value of capital is measured by indicators which can be defined as concepts of added value, or method of value analysis for owners (Bardia, 2002). Success in creating value for shareholders, continuous growth and development of organization, is valorized through key performance indicators based on added value. These key performance indicators express the organization's orientation towards value creation, by profit generation higher than the cost of capital.

The most commonly used key performance indicator is EVA - Economic Value Added, often referred to as SVA - Shareholder Value Added, and is considered as the true measure of corporate surplus or effectiveness (Pratap & Revathy, 2017). EVA represents the difference between net operating profit after tax and capital expenditures that generate profit (Kee, 1999). The cost of capital, as an expenditure value, is based on the total invested capital (Shaked et al., 1997). The cost of capital is calculated as the product of the average cost of capital and the value of invested capital. It represents the minimum rate of return on capital required by all investors (owners and creditors) as compensation for the assumed investment risk. A positive EVA shows that value is created for organization, and for its owners. Otherwise, negative EVA indicates the destruction of value. In some situations, a negative EVA is not uncommon. It is often expected in newly established business organizations, or at the beginning of new development programs. However, a negative EVA in several successive years is a reliable indicator that a business organization is in serious trouble (Stern et al., 2001).

EVA concept has existed for more than a century. Alfred Marshal referred to it as “economic profit” as early as 1890, pointing out that a business organization makes profits only when its income exceeds the cost of doing business and the cost of invested capital (Kee, 1999). The attractiveness of this indicator stems primarily from its comprehensibility and ease of application. EVA makes it relatively easy to spot factors that increase or decrease economic performances. EVA differs primarily from traditional key performance indicators because it includes the cost of capital as expenditure (Rappaport, 1998). Organization is not successful enough if it makes a positive net profit, but if it earns enough to cover the costs of borrowed and own capital. EVA is an absolute indicator that takes into account all costs of doing business, not just those shown in the official financial statements. EVA can be used for almost any business and financial decision (Eric & Stosic, 2013). It explains the impact of certain investment alternatives on the economic value that business organization creates. EVA can be determined both for the organization as a whole, and for its units, assuming that there are appropriate internal accounting reports (Kee, 1999).

The concept of cash flow analysis is an adequate instrument of financial analysis. This indicator incorporates those factors that affect the determination of economic value: cash flows and capital costs (at a discount rate). Discounted Cash Flow (DCF) techniques take into account the time dimension of money through interest and determine the present value of operating net cash flows (Kee, 1999). Projects that create a positive net present value create an economic value greater than the cost of capital.

Despite the great popularity of cash flow as a measure of value creation, there are problems with its practical application. First of all, future cash flows cannot be measured reliably and quite accurately, only measures of historical cash flows changes can be used. Estimated cash flow is usually derived from standard accounting criteria, which should be taken into account when assessing the value creation process. The accounting reconciliations of cash flows are unclear, and DCF techniques are extensive and complex to apply, which significantly affects the popularity of EVA as key performance indicator. Nevertheless, DCF and EVA are compatible concepts, which give comparable results if all adjustments have been made, and if the initial assumptions were identical. A business organization can apply both DCF and EVA in investment management, and simultaneously compare these two criteria.

Although EVA, as a measure of success, is consistent with interests of organization and its stakeholders, it does not address the time aspect of shareholder maximizing wealth. Capitalization of future added values, and maximization of their present value, is done by applying the discounting method. Market Value Added (MVA), as key performance indicator, is very often used as a support to discounting process, as a quantitative expression of the increase in share capital value. MVA is a cumulative indicator of success, and is determined by both historical, current and expected business results (Vimrova, 2015). It represents the assessment, given by the capital market, of net present value of all past and future projects at a certain point in time. It reflects the success of past capital investments, and expectations regarding the success of future capital investments.

A business organization that is particularly sensitive to the capital availability, and cash flows intensity, uses Cash Value Added (CVA), either as a stand-alone key performance indicator, or in combination with EVA (Shaked et al., 1997). CVA is a difference between cash inflow from operating activities and the cost of capital employed. CVA provides an effective assessment of long-term business performance, as opposed to EVA which focuses on a relatively short period of time.

One of the main responsibilities of top management is to increase organizational value, and shareholder value. Management must have an insight into the level of shareholder value, and the possible improvement in performances that would leads to value increase. A detailed insight into the process of shareholder value creation is given by SVA - Shareholder Value Analysis. This key performance indicator represents the impact of business decisions on organizational economic value. Economic value is determined as net present value of expected cash flow, discounted by the average cost of capital (Wenner & LeBer, 1989). As long as cash inflows are higher than cash outflows, shareholder value is generated. The focus of this key performance indicator is on managing those organizational activities that contribute most to shareholder value creation, as well as to the benefits for other stakeholders. The basic precondition for SVA successful application is the existence of skills, expertise and motivation of managers.

Balanced scorecard as a performace metric for managerial compensation

Both traditional and value-based key performance indicators are regarded as financial-based, so their ability to fully capture the value creation is questioned. The information technology development requires the exploitation of intellectual property, which becomes the primary source of competitive advantage. It is necessary to evaluate non-financial assets and their contribution to value creation, as well as their impact on organizational growth and development. Business organizations searched for appropriate multidimensional key performance indicators that would include financial and certain non-financial measures.

The concept of Balanced Scorecard is one of the multidimensional indicators. This concept represents the first attempt to design a complete business performance model, in order to achieve the primary and secondary goals of all stakeholders (Kaplan & Norton, 1993). It offers a multidimensional scheme of how to translate strategy and its elements into individual, measurable goals of organization and its stakeholders. Balanced Scorecard includes a combination of financial measures (which reflect the results of past activities and processes) and operational measures (which are treated as causes of future activities and processes).

Balanced Scorecard is based on four dimensions of measurement: financial, customer, internal processes and learning and growth (Kaplan & Norton, 1997). Balancing key performance indicators is done along several dimensions: financial and non-financial, long-term and short-term, as well as strategic and operational aspects (Kaplan & Norton, 1997). The financial dimension should show whether a business organization creates or destroys value. For that purpose, financial key performance indicators are used. These are Rate of Return (RoR), Earnings Per Share (EPS), Profit per Employee, Economic and Market Value Added (EVA, MVA), Net Cash Flow, etc. Customer dimension evaluates the quality of relationships with consumers, and the degree of their satisfaction. Customer satisfaction is measured by: Consumer Satisfaction Index, Customer Retention Rate, Quality of service (QoS), Delivety timeliness, Market Share and its growth, etc. The internal process perspective of measurement, together with customer analysis, should identify the critical factors of organizational future success. The analysis of internal processes is performed by key performance indicators, non-financial in nature. These indicators include: Timing of new product launch, Quality of new product development, Quality of project management process, Quality of production and reengineering process, Quality the relationship within and between production teams and business units, Duration of production cycle, Quantity of standardized processes, etc. (Maltz et al., 2003). The internal process dimension reveals the essential differences between Balanced Scorecard and traditional key performance indicators. Traditional key performance indicators are mainly concentrated on monitoring and improving existing business processes, while Balanced Scorecard deals with identifying new processes and activities that will create high values for customers and owners. The innovative dimension, or the dimension of learning and growth, shows whether a business organization can improve value creation; and whether a business organization is able to adapt to environmental changes. Key performance indicators for the dimension of learning and growth include: Retention rate of top managers, Quality of professional and technical knowledge, Quality of management development, Duration of employee training, Degree of employee satisfaction, Quality of corporate culture development, etc. (Maltz et al., 2003). Key performance indicators for the dimension of innovation include: Number of new products and their market share, Quality and number of employees in research and development department, Number of registered patents, etc (Dziallas & Blind, 2019).

Balanced Scorecard, as a management and control instrument, includes both financial and non-financial key performance inficators from different perspectives, describes the current position of organization using a relatively limited methodology, and focuses managers' attention on factors crucial for the corporate strategy implementation (Benkova et al., 2020). Balanced Scorecard is considered incomplete. It fails to measure the contribution of employees and suppliers to the process of achieving goals, and also fails to determine the role of social community as economic environment factor of business organization (Atkinson et al., 1997).

The use of key performance indicators in managerial compensation plans

Key performance indicators are of great importance for organizational compensation strategy. Based on the achieved performances, compensation models are developed for managers and employees in organization. Providing an adequate compensation, in line with the actual contribution to performances, is the basis for managerial compensation. Compensation strategy is recognizing the importance of contribution to the achievement of organizational goals (Kandula, 2006). Consequently, compensation models are based on targeted key performance indicators, linking the organizational performance with individual performance. Compensation strategy should provide guidance to organization's management on how to support the implementation of business processes. Total managerial compensation can be of a material or non-material nature (Marinovic Matovic & Marinovic, 2011). Material compensation is divided into direct and indirect. Indirect material compensation is most often called benefit, and it represents benefits above base salary and incentives (Marinovic Matovic & Marinovic, 2011). As an important motivating factor, benefits can significantly contribute to increasing satisfaction and a sense of belonging and loyalty to the organization (Susnjar & Zimanji, 2005). Non-material compensation usually includes: recognition for performances achieved, participation in decision-making, flexible working hours, opportunities for career development, opportunities for training and development, job promotions. As an effective tool for managing an organizational performance, total compensation model, its amount and structure, should include all the necessary incentives and benefits to attract and retain top-level managers (Marinovic Matovic, 2019). Therefore, compensation models serve as a mean to achieve organizational strategic goals. The interrelationship between compensation and key performance indicators is reflected in the following (Kandula, 2006): compensation is a source of organizational efficiency; compensation is a medium between organization and employees; compensation figures as a factor of multiple motivation; compensation is used as a guide to performance; compensation is a source of differentiation; compensation is the basis for employee involvement; compensation serves as a source of innovation; compensation serves as a source of competitiveness; compensation is a source of organizational harmony.

Based on the previous discussion, it can be concluded that the performance management process involves managing key performance indicators, and strategic development of organization, through managing managerial behavior with adequate compensation models. Adequate compensation models should contains both quantitative and qualitative key performance indicators. The basis for creating managerial compensation models are organizational mission and vision, ie key performance indicators, managed to achieve organizational vision.

Conclusions

In developed market economies, business performance management has been raised to the level of scientific discipline. It has been the subject of systematic study by both scientists and practical business people for more than half a century. The development of business performance management has strongly influenced modern models of managerial compensation. Probably the strongest stimulus for the development of modern performance management methods came from multinational corporations, and their need to attract talented managers, in order to optimize economic efficiency in increasingly dynamic competitive environment. The overall growth of organization's economic success is not possible without adequate managerial compensation models, nor without systematic key performance management. In other words, developing and managing key performance indicators, is a key prerequisite for adequate managerial compensation, leading to economic efficiency.

We can conclude that it is necessary to create a plausible model of developing and managing key performance indicators, in order to build an effective managerial compensation model, and optimize economic efficiency. In order to create a plausible model of developing and managing key performance indicators, authors have described both traditional and value-based key performance indicators. The relative simplicity and comprehensiveness of traditional key performance indicators makes them very applicable and dominant in economic analysis and business decision making. However, their application is subject to certain critical analyzes. Almost all traditional efficiency indicators are based on financial and accounting business data, which makes them limited to certain periods of time. Affirmation of value-based key performance indicators encompasses the importance of capital time dimension. However, the financial nature of these key performance indicators undermines their ability to fully capture the value creation process in business organization. With the information technologies development, intellectual property has become the primary source of competitive advantage. It became necessary to evaluate these assets and their contribution to value creation process in business organization, as well as the impact on its growth and development. This has led to the creation of multidimensional key performance indicators, that contain non-financial component.

Performance management has been identified as one of the most important factors for effective management of managerial compensation. This claim is in line with the prevailing views in the theoretical literature. Organizations that base their managerial compensation on key performance indicators will achieve better business results. Guided by the basic research motive of this paper, which consisted in explaining the causal link between key performance indicators, managerial compensation, and economic success of organization, we can conclude that this topic represents a relatively broad research area, which will be in the focus of scientific community.

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