

# SURVEY OF PERFORMANCE MEASUREMENT SYSTEMS IN CZECH COMPANIES

*Michaela Strítěská, Ondřej Svoboda*

## Introduction

With regard to the constantly growing competitive pressure caused by globalisation of production activities and markets, companies, if they want to remain competitive, have to re-evaluate their strategies, processes, procedures and general functioning. In order to achieve such a competitive position, the management must dispose of efficient tools which identify the company's reality with the maximum possible accuracy and help to determine the goals, define the tasks and diversify the sources. For that it is necessary to map various aspects of their performance and therefore planning and measuring of company performance becomes a key and irreplaceable management tool. Strategic performance measurement system is also an efficient tool for improvement of the organisation's performance, which is proved by a number of scientific studies (Ahn, 2001, Atkinson et al., 1997).

Since the mid 1970s, the traditional attitudes to performance measurement have been criticized strongly because they are focused mainly on an analysis and assessment of financial indicators. The critics argue with reason that company performance measurement solely on the basis of financial indicators leads to support of short-term thinking (Hayes, Garvin, 1982), informs mainly about past results (Hammer, 2002, Synek 2007), causes a discrepancy between what the organisation wants to measure and what is actually measured (Šulák, Vacík, 2004) and does not tell the whole "story" (Kaplan, Norton, 2005). In today's competitive environment, using only financial criteria for assessment and management of company activities is therefore inadequate and recently we can thus see the growing emphasis laid on using of leading non-financial

criteria (Ittner, Larcker, 2001, Epstein, Manzoni, 1997).

In professional literature we can thus more and more find calls for create of performance measurement system (hereafter PMS) containing non-financial indicators complementing successfully the financial indicators and thus they try to overcome the drawbacks of the traditional attitudes to performance measurement. The presented research is exploratory, related to the currently existing performance measurement systems characteristics identification. The research process is based on a questionnaire survey applied to selected companies in the most competitive industries in the CR. The main research purpose is to investigate the current practices of using performance measurement systems as well as to identify and understand their main elements, principles and roles.

## 1. Literature review

In the field of business performance measurement, a diverse and multi-disciplinary research is appearing. This brings different approaches towards performance measurement and solves complications. In literature we can find numerous definitions of a PMS and little consensus regarding its main components and characteristics (Dumond, 1994, Wu, 2009).

One of the most presented performance measurement definitions was formulated by Neely et al. (2002): "the performance measurement is a process of quantifying the efficiency and effectiveness of past actions". This definition stresses effectiveness as well as efficiency, but does not indicate what to quantify or why. An explanation that gives a better guidance to people involved in PM with an emphasis on measurement of value that the organisation delivers to the customers is provided by Moullin (2003): "PM evaluates how well organisations

are managed and the value they deliver for customers and other stakeholders". Performance measurement is a primary presumption for performance management. In this context, performance management could be defined according to Bititci et al. (1997) as a process by which the organization integrates its performance with its corporate and functional strategies and objectives. To sum it up, performance management is a strategic approach to management which provides managers, employees and stakeholders at different levels with instruments necessary in order to regularly plan, continuously monitor, periodically measure and review performance of an organisation.

At the heart of performance management process, there is a performance measurement system that supports a performance management philosophy (Lebas, 1995, Bititci et al., 1997). According to Forza and Salvador (2000), PMS supports managers in the performance management process mainly fulfilling two primary functions: "the first one consists in enabling and structuring communication between all the organizational units (individuals, teams, processes, functions, etc.) involved in the process of target setting. The second one is that of collecting, processing and delivering information on the performance of people, activities, processes, products, business units." A similar definition is also provided by Tangen (2005) who sees a successful PMS as "a set of performance measures that provides a company with useful information that helps to manage, control, plan and perform the activities undertaken in the company". The main components of a PMS are provided by for example Otley (1999): objectives, strategy, targets, rewards, information flows (feedback and feed-forward).

In recent years growing attention has also been paid to the study of performance measurement systems as instruments for effective strategy implementation. Therefore some scholars rather use the term of strategic performance measurement system (SPMS). Thereafter, McGee (1992) determines the key components of SPMS as follows:

- **performance metrics** – defining evaluation criteria and corresponding measures that will operate as leading indicators of performance against strategic goals and initiatives;
- **management process alignment** – designing and reengineering core management

processes to incorporate new performance metrics as they evolve, and balancing the various management process of the organization so that they reinforce one another;

- **measurement and reporting infrastructure** – establishing processes and supporting technology infrastructures to collect the raw data needed for all of and organisation's performance metrics and to disseminate the result throughout the organization as needed.

Neely et al. (1995) state that PMS can be examined at three different levels:

1. **At the level of individual performance measures**, the PMS can be analysed by asking questions such as: What performance measures are used? What are they used for? How much do they cost? What benefit do they provide?
2. **At the next higher level, the PMS as an entity** can be analysed by exploring issues such as: Have all the appropriate elements (internal, external, financial, non-financial) been covered? Have measures which relate to the rate of improvement been introduced? Have measures which relate to both long and short term objectives of the business been introduced? Have the measures been integrated, both vertically and horizontally?
3. **At the level of relationship between the PMS and the environment** within which it operates. At this level the system can be analysed by assessing: whether the measures reinforce the firm's strategies, whether they match the organisation's culture, whether they are consistent with the existing recognition and reward structure, whether some of them focus on customer satisfaction, whether some of them focus on what the competition is doing.

Other basic characteristics which should be met by a correctly created PMS are mentioned e.g. by Lynch and Cross (1991), Kennerley and Neely (2002), Ittner et al. (2003) or Gomes et al. (2004).

The quality of PMS also depends on selection of appropriate indicators. Besides the above mentioned features it is also necessary to take into account the indicators ability to predict the development in the future (leading indicators). It is possible to use statistical or

data mining methods to select such indicators. These methods are often used for so-called "soft measures" (see Křupka et al., 2010).

## 2. Research Methodology

The methodology adopted is based on the literature overview and a questionnaire survey approach. The theoretical construction for the research was developed based on the extensive literature review focused mainly on research studies published in international journals. This step was important to gain a better understanding of components and roles of strategic performance measurement systems and to develop working hypothesis that were specified into themes for questionnaire investigations.

To fulfil the main research purpose it was necessary to confirm or disconfirm the following hypothesis:

- H1: The current approaches to performance management of majority of companies included in the survey do not correspond to theoretical concept of comprehensive performance measurement systems;
- H2: The focus of performance measurement of the surveyed companies remains in the financial area;
- H3: Majority of senior and middle managers from investigated companies do not have sufficient awareness of the fundamental characteristics of performance measurement system.

To verify the hypotheses H1 and H3 must be specified that fundamental characteristics that shape comprehensive performance measurement system are defined by the following requirements: performance measurement system is interconnected with the strategy, fulfils in the company all important roles and the performance measures are multi-dimensional. These requirements must be met simultaneously. The majority in this context is considered as more than 80% of respondents.

As it was stated by Marinič (2005), one of the key factors of a company performance and subsequently of creation of the values is competitiveness of the company and a competitive advantage. At the same time, the company performance is considered to be the basic standard of its competitiveness. On the basis of these, the questionnaire survey was focused on the nine most competitive branches in the Czech Republic which were determined

according to Competitiveness yearbooks 2008. 2009 (see Table 1). The basic file of respondents was defined by random selection in the below specified branches from the European database (Evropská databanka) and Access to Registers of Economic Subjects (Administrativní registr ekonomických subjektů). The total of 1,000 questionnaires was distributed by means of electronic mail and personal inquiries by trained interviewers. Unfortunately, 10 % of the selected contact e-mail addresses were invalid and the questionnaires returned back. From the delivered questionnaires, the total return was 14.7 %. With regard to the fact that the usual return in questionnaire surveys is similar or lower, the result can be seen as satisfactory. An outline of selected branches, their marking and structure of the questionnaire sent and delivered is given in the following table.

The questionnaire was divided into three main parts and it was focused on these key areas: identification of respondents, competitiveness of the company and performance measurement systems of companies. Due to the extent and focus of this contribution, the area of competitiveness of companies will not be assessed within the scope of the analysis of results. The main attention will be paid to characteristics of the extent of the performance measurement system introduction at respondents, its main components, structure and roles it fulfils in the company. At the same time, the benefits and main imperfections of the existing performance measurement systems will be identified.

The questionnaire contained the total of 15 questions and it was prepared in such a way to make its filling in by respondents as quick and simple as possible. The questionnaire was aimed at middle and higher management of selected companies. The questionnaire included several types of questions and most of which are from the category of closed questions with variant answers. In some cases, it was only possible to choose one variant, in some questions there were more variants. Several variant questions can be considered to be semi-open as in the last variant they offer the answer "other, please specify" and the respondents thus could, if they wanted, add another option which had not been mentioned yet. The research survey carried out in this way enables verification of the findings of the

**Tab. 1: Structure of the Questionnaires Sent, Delivered and Filled in According to the Branch**

Branch		CZ-NACE	Number of questionnaires sent	Number of questionnaires delivered	Number of undelivered questionnaires	Number of questionnaires filled in
1	Production of means of transport	29000; 30000	116	104	12	14
2	Refineries and chemical industry	19000; 20000	102	97	5	8
3	Banking and insurance industries	64000; 65000; 66000	90	81	9	19
4	Machinery and equipment	28000	176	159	17	19
5	Electric and optic devices	26000; 27000	96	79	17	8
6	Plastics and other non-metallic products	22000; 23000	108	99	9	12
7	Electricity, gas, water and heat	35000	99	92	7	5
8	Services and companies including real estate services	61000 – 63000; 68000; 69000; 71000; 72000	104	93	11	9
9	Metals and metal products	24000; 25000	83	74	9	13
10	Other – anonymous questionnaires	-	26	26	0	26
<b>Total</b>			<b>1,000</b>	<b>904</b>	<b>96</b>	<b>133</b>

Source: authors

authors on the one side and their completion with the opinions of the respondents on the other side.

## 2.1 Characteristics of Respondents of the Questionnaire Survey

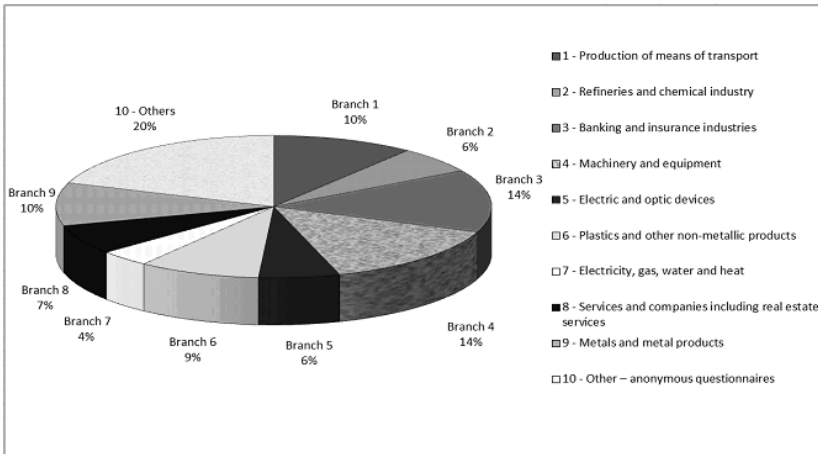
As we have already pointed out, the questionnaire was filled in by the total of 133 companies, 55 % of which were joint-stock companies, 40 % were limited liability companies, 1 % public companies or limited partnerships and 4 % of respondents stated another legal form. The sample of respondents can also be characterised from the point of view of their size. In almost 70 % of respondents, the turnover was more than CZK 250 mil., in 17 % the turnover was in the range of CZK 101 – 250 mil. in the given year and 13 % of respondents were included in the category of up to CZK 100 mil. as regards their turnover. According to the number of employees, the companies with more than 250 employees slightly prevail (54 %

followed by companies with 50 – 249 employees (46 %). On the basis of these characteristics it is possible to state that respondents were medium-sized and big companies. According to the ownership structure, almost half of the companies have a Czech owner (47 %) and a comparable percentage of companies (45 %) has a foreign owner or is partially owned by a foreign company, 4 % of respondents are owned by the state and 4 % of respondents did not answer this question. Moreover, the following graph (Fig. 1) shows the structure of respondents of the basic file according to the individual branches of business activities. From the graph it is clear that mainly the companies from the sector of banking and insurance industries and manufacturers of machinery, means of transport and metals took part in the questionnaire survey. Unfortunately, 20 % of respondents were only willing to take part in the research survey when their full anonymity was guaranteed.

All the percentage shares of the respondents (with only a few exceptions which are pointed out in the text) are calculated in such a way that 100 % of respondents include only those who answered the questions in the

questionnaire. For every question, at the end of the interpretation of the findings gained, the share of the respondents who answered the given question out of all the questionnaires filled in is specified.

**Fig. 1: Characteristics of Respondents According to the Individual Branches**



Source: authors

### 3. Findings and discussion

The main aim of the questionnaire survey was to map the current practices in the area of company performance management, to identify the main trends, to determine in what extent Czech companies use sophisticated company performance measurement systems and where they see the main advantages and disadvantages of the PMSs used by them.

The initial point of the strategic performance management of companies is defining of strategic goals expressing the specific situations the company wants to achieve by means of its activities. This condition is met by almost all respondents addressed as 97 % of them have determined their strategic goals. However, the time period for determination of strategic goals is getting shorter as 85 % of respondents determine their strategic goals for five or fewer years, only 12 % of companies define their strategic goals in the horizon of ten years. This fact corresponds to the current understanding of strategy when in the current quickly changing

environment the management approach to the strategy must be more dynamic and flexible. The question was answered by 99 % of respondents.

If we focused on the characteristics of the extent in which the performance measurement system is introduced, 71 % of respondents consider their PMS to be introduced and uses it for the company management, 7 % of respondents has introduced the system but it is not used for the management in their opinion, 9 % of respondents are in the stage of the performance measurement system creation and implementation, 2 % of respondents are planning to introduce it and 11 % of the companies stated that they do not measure their performance systematically. The respondents who marked the last option did not continue filling in the questionnaire as their answers would not be relevant for the conclusions of the research.

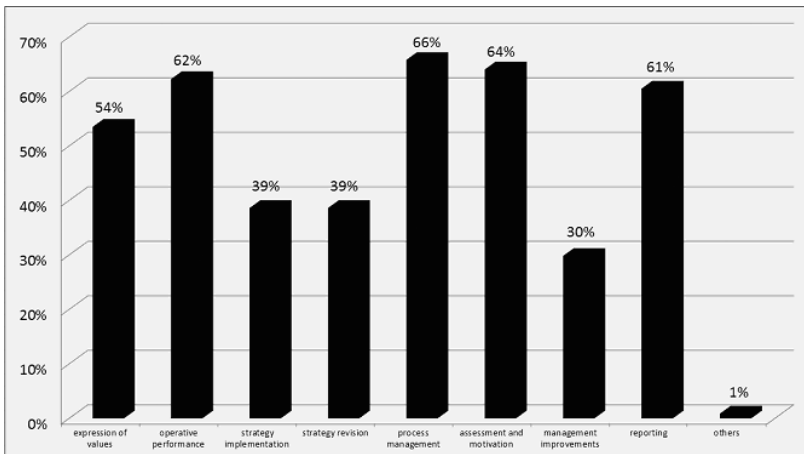
These results would have been very positive if it had not become clear in the following questions that the managers do not have

a clear idea of the actual concept of performance measurement system: on the contrary, their idea differs significantly from the theoretical basis. As regards respondents who do not use performance measurement system for management, a problem that the PMS is not seen as part of the company management but only as part of company accounting and reporting, often pointed out in literature, was confirmed (Kaplan, Norton, 1996, Hammer, 2002).

In order to be able to speak about a PMS, it must fulfil certain roles in the company. Due to this reason the following question in the questionnaire was focused on mapping of what the key performance indicators are mainly used for in the company. The respondent could choose from eight pre-defined possibilities which were determined on the basis of the research of literature (Franco-Santos et al., 2007, Micheli, Manzoni, 2010, Gimbert, Bisbe and Mendoza 2010) or add another function which KPI fulfil in their company. Respondents

can select more than one choice. This question was answered by the total of 90 % of respondents. As it is clear from the graph (Fig. 2), the performance measurement systems in the companies are used most often for management of processes (66 %) and as a tool for assessment and motivation of employees (64 %). Very often they also fulfil a role for assessment of operative performance and reporting towards the company management and shareholders. Half of the respondents uses the key performance indicators to express the values which are important and desirable in the companies. Only for less than 40 % of respondents it fulfils the function of the strategic performance measurement system as it is used for monitoring, evaluation or reviewing of the strategies. These results are interesting in the context of the following question. Only 30 % of respondents uses KPI for inspection and improvement in the area of management and assessment of opportunities and threats.

**Fig. 2: Roles Fulfilled by KPI in the Company**



Source: authors

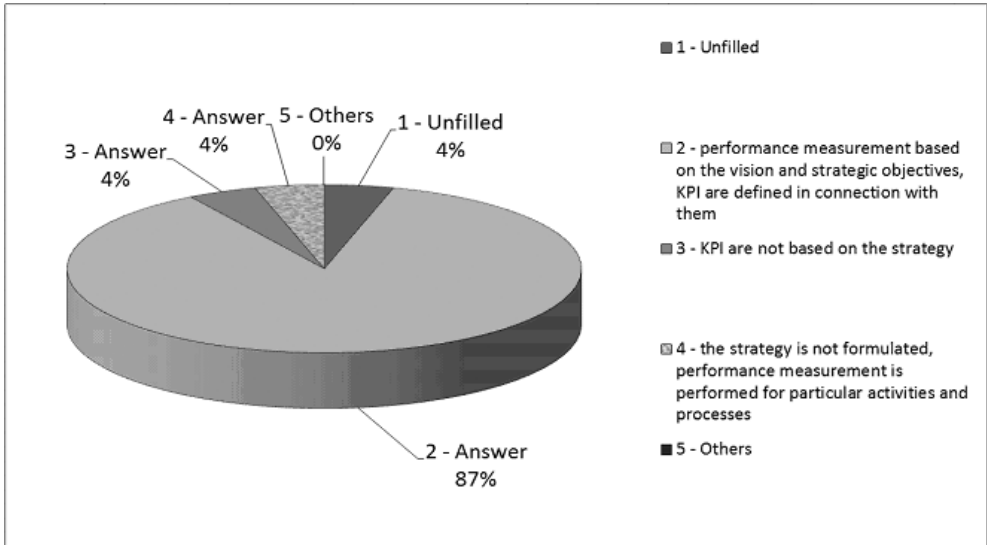
Only 9 % of respondents marked all the possibilities and 8 % of respondents all but one. For these respondents we can say that the performance measurement system in their company fulfils the roles defined by theoretical approaches. On the contrary, 41 % of respondents ticked three and fewer functions

which performance measurement systems fulfil in their company. Almost the same percentage of respondents (42 %) ticked four to six roles fulfilled by performance measurement systems in their company. In this group of respondents, performance measurement systems can be considered developed at medium level.

In the past two decades we can still find researches which are focused on the studies of performance management systems as tools for efficient strategy implementation (Kaplan,

Norton 1996, Butler, 1997, Simons 2000). It was therefore interesting to focus also on the relation between performance measuring and the company strategy.

**Fig. 3: Relation between the Performance Measurement and Company Strategy**



Source: authors

As it is clear from the graph (Fig. 3) shown, for 87 % of respondents performance measuring is connected with the vision and strategic goals, KPI are therefore defined in connection with them. Only for 8 % of respondents (if we add up those who marked that KPI was not based on strategy or performance measuring was performed for particular activities and processes) it is the other way round. Only 4 % of respondents did not answer this question and therefore they are not able to characterise the specified relation. The respondents who added their own answer can be mostly included in the first group as they stated that these are connected matters. One respondent completed that they use the World Class Manufacturing method. According to this result, the PMSs could be considered to be strategic if the cross analysis did not find out that 74 % of respondents who have the performance measurement connected with the

strategy did not mark in the previous question that PMS is used in their company for monitoring and strategy evaluation and reviewing of the strategic goals and decisions. Only 26 % of respondents thus cover the ability of the organisation to formulate and implement the development strategy in the context of the key factors of success and possibilities to influence it actively through the performance measurement methods.

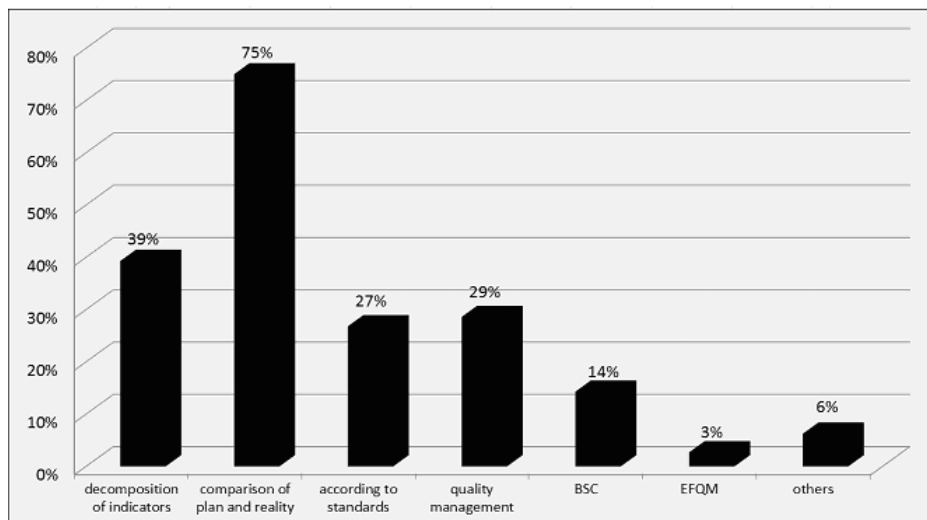
The following part of the questionnaire was already focused on the actual tools and concepts used by the companies for the performance measurement and management. The attitudes to the performance measuring can basically be divided to traditional ones focused on the financial criteria, modern ones approaching the performance analysis by means of creation of values for shareholders (called Value Based Management) and comprehensive ones emphasising use of leading non-financial

criteria (BSC, EFQM). The typical concepts of the value management is the economic value added (EVA), market value added (MVA) or operating return of investments (CFROI). Some authors (e.g. Wu, 2009) also include the quality methods and techniques in the scope for the performance management as even though they have not been developed primarily for the performance measurement, they often behave as tools of the performance management and in organisations they are used for improvement of the particular performance characteristics. In the literature we can find other various performance measurement systems which try to eliminate the imperfections of the traditional approaches, for example The Performance Measurement Matrix (Keegan et al., 1989), SMART Performance Pyramid (Lynch, Cross, 1992), Integrated Performance Measurement (Nanni, Dixon et al., 1992), Performance Prism (Neely, Adams et al. 2002) or Kanji Business Excellence Performance System (Kanji, 2002). However, these systems are not included in the questionnaire survey as so far it is not possible to find their comprehensive characteristic in Czech professional literature. On the basis of this fact the authors assume that they have not spread into the current practice of companies yet. For this question it was possible to tick more variants.

If we focus on particular tools for performance measurement used by companies, it is possible to state that in practice the developmentally oldest approaches to the performance measurement prevail significantly in practice. As it is clear from the graph (Fig. 4), 27 % of respondents measure performance on the basis of standards and 75 % of respondents use a method of comparison of the plan and reality for finding differences in the individual areas of performance. However, it is questionable whether in these cases we can really speak about coordination of planning, inspection and basic data establishment with the aim to affect improvement of the company results, i.e. in the sense of controlling.

More modern indicators, such as EVA, MVA or CFROI, are preferred for performance measurement by 39 % of respondents and 29 % uses TQM conception as a tool for performance measurement. Only in 17 % of respondents we could speak about application of more complex performance measurement systems while the strategic performance measurement system (BSC) is only used by 14 % of the companies and EFQM only by 3 %. A very surprising result is the sporadic introduction of the EFQM method as in Europe this model is used widely by companies in all branches of activities and of

**Fig. 4: Tool for Performance Measurement and Management**



Source: authors



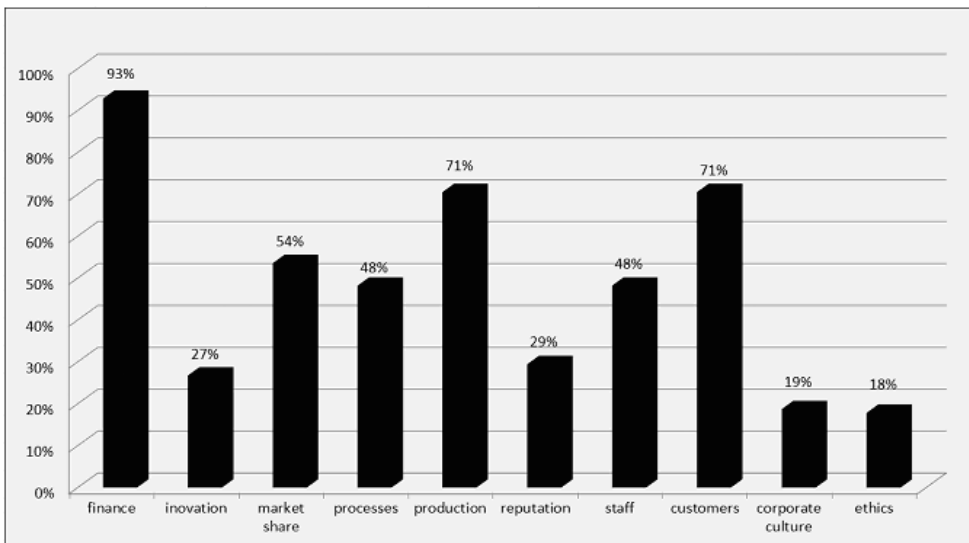
all sizes. 30,000 organisations using this model include almost all important European companies (Czech Republic National Quality Award, 2011). The respondents who use holistic attitudes to performance are from the area of telecommunication services, automotive industry, insurance industry and power engineering. 6 % of respondents stated that they had created their own system for performance management based on the BSC methods, development of proportional indicators in time series or WCM.

Another point of view of the results is provided by an analysis of frequency of respondents on the basis of selection of concrete tools used in the company. The strongest group (30 %) comprises of respondents who only use comparison of the plan with reality for

performance measuring. 8 % of respondents only uses decomposition of financial indicators and 8 % combines it with comparison of the plan with reality. For the remaining 54 % of respondents, none of the possible combination of use of tools prevails and therefore interpretation of these results is not significant. The specified question was answered by 97 % of respondents. These findings are also relevant for the confirmation of hypothesis H1.

If we want to gain a “balanced” picture of the company performance, the system of its measurement must include multi-dimensional criteria. Mainly due to this reason, the following question was focused on the areas of performance which are monitored in companies by means of indicators.

**Fig. 5: Areas of Monitoring of Company Performance**



Source: authors

As it was clear from previous answers of respondents, the areas which are monitored in companies most frequently are financial performance (93 %) and customer performance (71 %) – see Fig. 5. A very high percentage (71 %) also monitors performance in the area of production with regard to the fact that approximately 75 % of respondents can be considered to be

production companies. Surprisingly few companies, however, monitors their market share (54 %) and performance of employees (48 %). The areas which are mostly mapped by so-called “soft” criteria which are intangible and therefore must be measured indirectly are monitored rather sporadically. The company reputation is monitored only in 29 %, innovation

in 27 % and ethics and company culture, where also the CSR policy can be included, in about 20 % of respondents. These results prove how small attention is paid to ethics, company culture and building of goodwill in Czech companies and at the same time how small emphasis is laid on innovation.

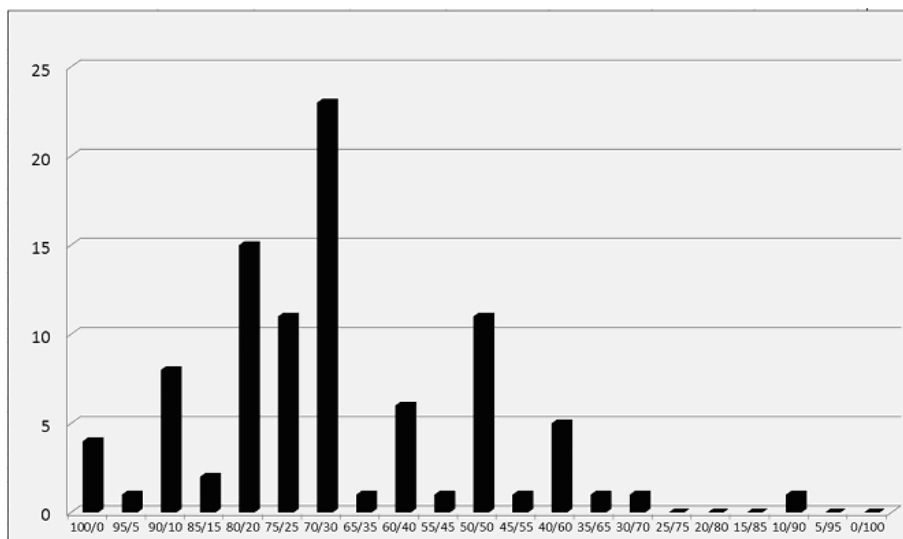
However, interesting results are provided mainly by the analysis of frequency of respondents on the basis of the areas of performance monitored by means of their PMS. Almost all the areas specified above (with the exception of ethics or company culture for which the research authors themselves assume that the respondents will not include them in their performance measurement systems, and manufacturing as the questionnaire survey also included companies providing services) were marked only by 9 % of respondents. For them we can state that their performance measurement systems really provide a comprehensive view of performance of their company. 22 % of respondents measures performance in five to six areas specified above, 39 % in three to four and 30 % only in one or two areas. The specified question was answered by 97 % of respondents.

The question of how many criteria the PMS contains at the corporate level in your company

could not be answered by 50 % of respondents. The companies who answered this question have the average of 11 criteria determined at the highest (corporate) level and the median has the value 7 and modus 3. The minimum number of criteria specified by the respondents was 1 and the maximum 10 criteria. The answers of the respondents were highly varied which is also proved by the variation coefficient, which is 90 % for the file. The high dispersion of answers can probably be explained by unawareness of the number of criteria or misunderstanding of the term of “corporate” level. The companies using BSC or EFQM have on average a larger number of criteria than the remaining companies (on average 18 criteria compared to 10 criteria of the remaining companies). These findings also correspond to the theoretical concept as the authors of BSC, Kaplan and Norton (2005), themselves state that for every BSC perspective it is suitable to prepare four to seven various criteria so that some companies work with up to 25 criteria in total.

The following question was dealing with specification of the proportion of the financial and non-financial KPI which are embedded in the performance management system. To get a clear idea of the distribution of frequencies of

**Fig. 6: Histogram of Distribution of the Proportion of Financial and Non-Financial Criteria**



Source: authors

various proportions of the financial and non-financial KPI, the below specified histogram was prepared. At first sight it is clear from the graph (Fig. 6) that the most frequently specified proportion is 70 % of financial criteria to 30 % non-financial criteria. The question was answered by 78 % of respondents.

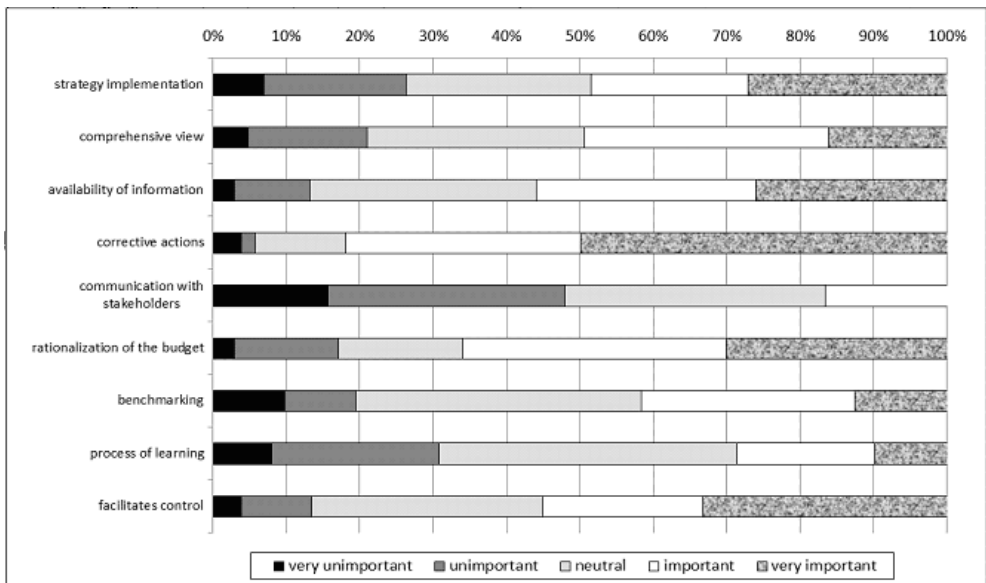
The histogram arrangement corresponds to the unimodal distribution. This fact is reflected in such a way that with increasing distance from the mean value, there is a lower frequency of different conditions of financial and non-financial criteria. The results gained correspond to the fact that financial criteria are easier to define and monitor for companies. On the basis of above stated findings hypothesis H2 can be considered as confirmed.

Attention of the questionnaire survey was also focused on identification of the main advantages and disadvantages of the currently used performance management systems. The variant answers for these questions were assessed by means of the points on the scale 1–5 when the interviewed entity was supposed to decide whether it considers the specified advantage or disadvantage in the context of the

currently introduced performance management system to be absolutely significant (5) or absolutely insignificant (1). The possibilities which were assessed on the basis of these questions were defined on the basis of theoretical findings. The following possibilities were marked as advantages: 1 – *strategy implementation, evaluation and reformulation*, 2 – *it provides a comprehensive view of the position of our company compared to the competition*, 3 – *it ensures availability of information*, 4 – *on the basis of the results, concrete corrective actions are taken*, 5 – *communication of the results gain to the stakeholders – strengthening of the company brand and reputation*, 6 – *provides a possibility of a more rational preparation of budget* 7 – *includes the company in the process of learning*, 9 – *simplifies the control and emphasises responsibility – motivation for employees at all the hierarchy levels*, 10 – *another reason*.

The tenth option where the respondents could add an advantage they also consider to be important will be interpreted separately. The structure of answers can first be illustrated by means of the following graph (Fig. 7).

Fig. 7: Main Advantages of Performance Measurement Systems



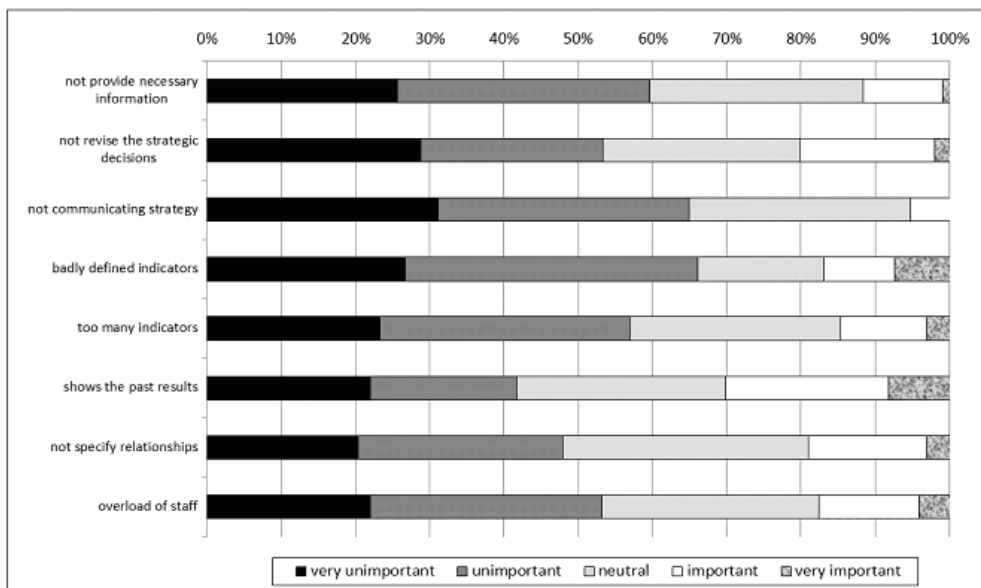
Source: authors

The specified graph shows the percentage distribution of the answers within the individual partial questions. The biggest advantage of their PMS marked by the respondents was the fact that on the basis of the results they provide, they can take particular corrective actions and also that they provide a possibility of preparation of a more rational budget. Almost 60 % of respondents also sees advantages in simplification of control, increased responsibility and motivation of employees at all the hierarchy levels and ensuring of availability of information. Only half of the respondents marked the strategy implementation and provision of a comprehensive view of the company compared to the competitors as an advantage. These results prove that the basic question still is how well the current PMSs support and communicate strategy across the organisation. According to the research made by IMA (Institute of Management Accountants), more than half of respondents assess their performance measurement systems as insufficient in this area. On the other hand, the respondents do not see use of the criteria for benchmarking and inclusion of the company in

the process of learning to be advantages of the PMS. The fewest points were given to the possibility of communication of the results gained to the stakeholders – strengthening of the company brand and reputation, which also corresponds with the preceding answers in certain respects. Within the variant “another reason” respondents mentioned following advantages: better achievement of planned results and creation of a stable environment for employees. The question was answered by the total of 93 % of respondents.

If we focus on the main imperfections of the current performance measurement systems, we will get the following results shown in the graph below (Fig. 8). The variants of the answer for this question were assessed in the same way as in the preceding question. On the basis of the research of literature, the following possibilities were identified: 1 – it does not provide sufficient information necessary for the company management, 2 – it does not enable reviewing of strategic decisions, 3 – it does not support and communicate the strategy across the organisation, 4 – the performance indicators are defined badly or in a too complicated way,

**Fig. 8: Main Imperfections of Performance Measurement Systems**



Source: authors

*they are difficult to follow, 5 – it monitors too many performance indicators, 6 – it only shows results of decision in the previous period, 7 – it is not possible to specify the influences which affected the result, 8 – monitoring of the performance indicators burdens the employees too much, 9 – another reason.*

The most important imperfections of the current PMS are seen by the respondents in the fact that they only show results of decisions from past periods and that they cannot be used for specification of influences which affected the result. Both these imperfections are closely connected with using of mainly traditional approaches to performance measurement not containing multi-dimensional non-financial indicators and so-called driving force criteria. It is very positive that respondents are aware of these weak points of the current PMS. Significant imperfections can also be seen in the fact that the performance indicators are defined badly or in a too complicated way and therefore they are very difficult to measure, that PMS monitor too many performance indicators which results in overloading of employees. All these three imperfections are interconnected very closely. An interesting result is also the fact that the respondents marked as quite an important imperfection the fact that the current PMS cannot be used for reviewing of strategic decisions while the variant that they do not support and communicate the strategy across the organisation is seen to be the smallest imperfection of their PMS. Similarly, imperfections of the existing PMS are not seen in the fact that they would provide insufficient information necessary for management. Next imperfections of the current PMS within the variant “another reason”, mentioned by the respondents, can be summarized as system limitations for necessary data collection. The question was answered by 97 % of respondents.

Cross-question analysis based on the intersection of answers of the respondents enabled getting an answer for the question how many companies meets theoretical preconditions within the scope of PMS specified in the chapter “Literature review”. They include requirements for the company to have strategic goals determined and the performance management system introduced interconnected with these goals (Fig. 3). At the same time, PMS in the company must fulfil all the

significant roles (Fig. 2) and also to be used for monitoring of all the basic areas of performance (Fig. 5 – This condition was not required for the area of company culture and ethics and also for the area of manufacturing as not every company from the monitored file is a manufacturing company). From the total number of 133 companies, these conditions are currently met by 4 % of respondents. Through cross-question analysis the hypothesis H1 was thus confirmed, because 96% of respondents do not met above stated theoretical preconditions.

The awareness of the respondents of PMS is evidenced critically by cross-question analysis based on the following assumptions. In order to be able to assess how many respondents really understand the theoretical preconditions of PMS, all the 76 % of respondents who answered at the same time they had determined their strategic goals and introduced and used a PMS must be considered to be the initial file representing 100 %. If we then focus on how many of these companies also meet the requirement of having the performance measurement based on the vision and strategic goals of the company and having the key performance indicators (KPI) determined in accordance with them, then this condition is only met by 73 % of them. If we also add a requirement for PMS to fulfil all the important roles in the company, the number of suitable respondent drops as low as 9 %. The last condition for the company to use PMS for monitoring of all the basic performance areas will decrease the number of respondents to the final 6 %. We can therefore state that only a fraction (6 %) of companies from the companies who have determined their strategic goals and introduced a really implemented PMS at the same time fulfils the remaining theoretical conditions determined for a complete PMS. In light of these findings can be stated that the vast majority (94 %) of senior and middle managers from investigated companies do not have sufficient awareness of the basic characteristics of performance measurement systems. Hereby the hypothesis H3 can be considered as confirmed.

## Conclusion

As it is clear from the results of the questionnaire survey made, comprehensive

performance measurement systems are used so far by very few companies in the Czech Republic. These conclusions also correspond to the surveys performed earlier, when e.g. within the scope of the survey implemented by Truneček et al. (2005) in Czech companies from various branches, the BSC method is fully used only by 11 % of companies, on the contrary the most frequently techniques include the quality management and controlling. Similar conclusions concerning the use of tools for performance measurement are also drawn by Horová and Hrdý (2007).

The analysis of the results also shows that focus of the performance measurement of all the surveyed companies still remains in the financial area followed by the customer area. The fact that in practice of Czech companies, performance management on the basis of absolute financial indicators prevails is also confirmed by Fibirová (2007), Horová and Hrdý (2007), Král at al. (2007) or Škodáková (2009). It is also closely connected with the findings concerning the main advantages and disadvantages of the currently used performance measuring systems.

The most interesting and at the same time also the most serious findings of the questionnaire survey performed can thus be seen in confirmation of the fact that the current top and middle managers do not have sufficient awareness of the actual concept of the performance measurement system. They are not sure of what characteristics it should have, what components it includes and what roles it should fulfil in the company. Another important aspect is also the fact that in great extent the respondents also were not able to characterise and assess the current performance measurement system in their company. Conducted research has proved the validity of all specified hypotheses.

Limitations of the presented research study result from the scientific method (questionnaires) that was used during the survey. Using this type of data collection method also creates some limitations. The authors are aware of the fact that they can never be certain of the person who fills the questionnaire in and whether or not a respondent has understood the questions properly. Even open-ended questions were used and the depth of answers that the respondent could provide is more limited. For

these reasons, further researches need to be conducted using a case study analysis.

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**Ing. Michaela Stříteská, Ph.D.**

University of Pardubice  
Faculty of Economics and Administration  
Institute of Economy and Management  
michaela.striteska@upce.cz

**Ing. Ondřej Svoboda**

University of Pardubice  
Faculty of Economics and Administration  
Institute of Economy and Management  
ondrej.svoboda.@upce.cz



## **SURVEY OF PERFORMANCE MEASUREMENT SYSTEMS IN CZECH COMPANIES**

**Michaela Střiteská, Ondřej Svoboda**

*In recent years growing attention has been paid to the study of performance measurement systems as effective instruments for organisation's performance improvement. The paper presents findings of exploratory research related to the currently existing performance measurement systems characteristics identification. The research process is based on a questionnaire survey applied to selected companies in the most competitive industries in the CR. The main research aim is to investigate the current practices of using performance measurement systems as well as to identify and understand their main elements, principles and roles.*

*To fulfil the main research purpose it was necessary to answer the following questions: What is the quality of current approaches to performance management, in selected companies in the most competitive industries? Which area of performance measurement prevails in selected companies? Dominate the performance indicators in financial or non-financial area? What is the proportion of the financial and non-financial KPI, which are embedded in the performance management system? What are the benefits and main imperfections of the existing performance measurement systems? What is the level of knowledge of performance measurement systems of higher and middle managers in the examined companies?*

*The paper is structured as follows. Firstly, it provides a brief overview of literature related to the research topic. Secondly, a research methodology is defined as well as the characteristics of respondents included in the survey. Thirdly, it presents an analysis of key results derived from the questionnaire survey and the findings are discussed in the context of the theoretical basis. Finally, the limitations and conclusions of our research study are outlined.*

**Key Words:** performance management, performance measurement system, strategic goals, indicator, competitiveness.

**JEL Classification:** M10, L25.