pages: 13-19

# MEASUREMENT OF BUSINESS PERFORMANCE IN RELATION TO COMPETITORS



received: 1 November 2014 accepted: 30 June 2015

### ŽANETA RYLKOVÁ

#### ABSTRACT

Business performance in the general form can be descripted as the essence of existence of the whole enterprise. Business performance is closely linked with the choice of indicators. Indicators should involve quantitative and qualitative measures in a company. Each organization should monitor and analyze the indicators to understand its performance and identify opportunities for improvement and development. Some indicators can be used to compare with competitors or market requirements. The aim of this paper is to analyze the performance measurement and management of companies based on primary research and highlight the indicators measuring performance in relation to the competition.

KEY WORDS

business, performance, competition, measurement, indicators, development

DOI: 10.12846/J.EM.2015.02.02

Corresponding author: Žaneta Rylková

Silesian University in Opava, School of Business Administration in Karvina, Czech Republic

e-mail: rylkova@opf.slu.cz

#### INTRODUCTION

Today's business world is much complex and has uncertain conditions which influence the companies to create effective strategies for the dynamic market. Strategic management has now developed to such a point that its primary value has evolved to help the organization to operate successfully in competitive environment (Hunger, Wheelen, 2011). Strategic planning is said to result in a better match between external environment variables and the changing internal organizational conditions of the company (Schmidt, 2010). Theorists usually have the same opinion that strategy is about the long term future of the whole company, not its parts. Moreover, it is also usually accepted that strategy is about achieving "unique positioning of a company in the market" (Gonzalez et al., 2012).

Considering these complicated conditions and processes, performance measurement has become a popular concept in strategic management (Aracioğlu et al., 2013) and it is worth outlining that management of business development is associated with four components, which is necessary to support, implement and improve. These are (Rylková, Antonová, 2013):

 a management folder - applicable authorities of the founding documents of the companies (General

- Meeting, Board), including classic and flexible organizational structure,
- an executive folder the component responsible for ensuring and innovative activities,
- an initiation folder (development and coordination) which means implementing steps leading to the development of enterprises (management of changes, advisors, external consulting companies),
- strategic folder it involves performance management and measurement. It also includes a structure of a broader cooperation of various entities and individuals with long-term planning and implementation of innovative activities, corporate innovation projects (entrepreneurs, customers, suppliers, schools, regions).

The paper points out the contribution of drivers, which have a significant impact on the competitiveness and development and highlights the indicators measuring performance in relation to the competition.

#### 1. LITERATURE REVIEW

Business life parameters, such as size, strength, activity and success, characterized in various ways,

usually grow rapidly soon after the establishment of the company until maturity, when the business reaches the best performance values and integrity (Skokan, Pawliczek, 2014).

In complex conditions in which the interests and needs of different stakeholders are in conflict, there is a need for a systematic framework for enterprise development (Sargut, Gunter McGrath, 2011).

General rules of sustainable development of business are: openness to complexity and diversity, ability to find balance between economic, social and environmental aspects of business and management of conflicting interests of stakeholders (Witek-Crabb, 2011). To improve the sustainability rules in strategic management, there is a need to review the strategic management process (participants and methods), and the strategy content (mission statement/core values, and goals).

The relative market effectiveness was defined through company's: perceived competitiveness, ability to influence the markets and perceived attractiveness for cooperators (Witek-Crabb, 2012).

In order to compete with the global players, businesses run in emerging economies need to pay greater attention on evaluating their business performance. Business managers have recognized that new strategies and competitive realities demand new measurement systems (Vaidya, Chitnis, 2012).

Business performance, innovativeness, proactiveness, risk-taking, competitive aggressiveness and autonomy are the crucial factors to ensure the success of a business (Arshad et al., 2013). Entrepreneurial orientation is important to the growth of a company and also to the growth of the economy of a country (Chen et al., 2011). In fact, few scholars agreed that entrepreneurial orientation is a significant contributor to a firm's success and healthier business performance (Mahmood, Hanafi, 2013; Zainol, Ayadurai, 2011).

Performance is a word that in economy or industry indicates the entity's ability to achieve certain results comparable, on the basis of certain given criteria, with the results of other units. These results are expressible in positive terms. Performance is also considered with the ability to achieve such results for a certain period of time.

The word performance may be related to a number of specific examples however in conjunction with the concept of enterprise, it largely loses its concreteness. Business performance encounters the basic problem - how to measure it and how to objectify it. In addition, the performance can be seen from different angles and perspectives and therefore this expression will have different content for the owner of the

company, another for employees, a competitor, or managers of the company.

Performance indicators (Key Performance Indicators = KPIs) are indicators that measure progress towards the target values either directly or indirectly. For all of these needs it appropriate procedures and methods that are measuring relevant ratios and relationships have been developed. In the last twenty years, we experienced a certain retreat from traditional internal financial success criteria or business performance, such as profit, revenue from sales of own goods, services, and the relationship of profit before tax to sales and return on assets.

Performance measurement systems are concise sets of metrics (which may be financial and/or nonfinancial, long and/or short term, internal and/or external, ex post/or ex ante) that support the decisionmaking processes of an organization by gathering, processing, and analysing quantified information about its performance and presenting it in the form of a succinct overview (Bisbea, Malagueno, 2012; Gimbert et al., 2010). Previous studies have looked at other roles of strategic performance measurement, such as: promoting specific behaviours and attitudes at different organizational levels; responding to rules and regulations; providing greater accountability within and between organizations; communicating financial and non-financial results to key stakeholders (Micheli, Manzoni, 2010).

Business performance is measured by various methods, some of them are essentially very simple, other methods are extremely sophisticated and complex, both conceptually and mathematically. Kaplan and Norton propose a balanced set of financial and non-financial indicators. Strategically aligned performance indicators should bring improvements in organizational out-comes (Grafton et al., 2010)

Tools (indicators), which are used, vary according to a sector. The largest users of big number of indicators are companies operating in the consumer goods market, mining, processing chemicals, metals and healthcare. The smallest users are, on the contrary, enterprises in construction, retail and manufacturing (Janeček, Hynek, 2010).

Performance measurement should include five main dimensions, namely: financial, market and customer, process, staff development and standards for the future. The financial dimension should be reflected in indicators such as sales, profits and return on investment. The dimension of the market and customers should evaluate customer satisfaction, retention and service quality. The dimension of the process should include evaluation of the length and quality of processes. The dimension of employee

development should evaluate employees options, their motivation, and the capacity of information system. The dimension of scales for the future must evaluate the depth and quality of strategic planning, forecasting and preparing for the unexpected changes of external environment, the possibility of joint ventures and strategic alliances and investing in new market development (Maltz, 2003).

The traditional approach to the competitiveness measurement (focused on the use of the financial analysis) includes mainly the absolute indicators (net profit/loss per the period, turnover amount), ratio indicators (profitability, liquidity, indebtedness, productivity) and difference indicators (profit increase/decrease, turnover increase/decrease), (Wagner, 2009).

A decision of using one of the methods of competitiveness measurements is usually a part of the more advanced stages of the company development. In many cases, especially regarding more complex methods, investment in this tool is costly and time-consuming ant its return is represented by features which are different to quantify (Kožená, Chládek, 2012).

#### METHODS

Strategic management and business performance have become important in recent years due to significant contributions to company success.

Competitiveness is a complex, multi-dimensional, multi-face, relative and very confusing concept. There are numerous definitions and models for this term, but still no universally agreed or widely adopted definition, nor a universal model of competitiveness (Dimoska et al., 2012) can be found.

If we focus on the competitiveness of the company in terms of market demand, it can be a considerable degree of abstraction stated that it is determined by the combination of price and quality (Black, 2002). This definition corresponds, in substance, to the argument that the fundamental guideline in determining customer value is provided, which is given by the ratio between quality and price. To support the sentence mentioned above, it can also refer to academics and practice presented strategic market concept of C - Q - T (Costs - Quality - Time). In this conception time is allocated as one of the key factors (Veber, 2002). Such a view includes not only technical and economic performance of the product, but also other areas such as uniformity of quality, environmental friendliness, level of after-sales service, ease of operation and maintenance and

finally design (Veber, 2002). In relation to the competition businesses should measure and evaluate indicators such as annual market growth, annual growth in sales of the company, market share, customer retention rate, new customers, dissatisfied customers, relative product quality, relative service quality, relative sales of new products, indicators of market performance (Kislingerová, 2010).

Department of Management and Business Administration of the Silesian University in Opava, School of Business Administration in Karvina carried out research entitled "Adaptability of enterprises (SMEs) in the years 2010-2012".

The primary objective of the research was to examine the impact of the economic situation in period 2010-2012 on the competitiveness and strategic management of companies in the Czech Republic on the basis of the potential correlation.

The questionnaire survey was done in the winter term of 2013 by students of the Silesian University in Opava, the School of Business Administration in Karviná. 450 respondents were approached; and 290 questionnaires were duly filled and usable for the purpose of this survey. Polling took place in the whole area of the Czech Republic, mainly in small and medium-sized enterprises. Respondents' selection was random.

A sample 290 respondents were selected within the Czech Republic. The ratio of small, medium, large-sized enterprises is 178:73:39. The criterion was the average staff size over the past three years.

The questionnaire form relied largely on closedended questions with an option to specify the answer in more detail. The questionnaire was split into these topic sections:

- · strategic company management,
- economic trends within company, crisis/risk management,
- company policy for human resources,
- · production, services and innovative activity,
- research activities and cooperation,
- · business performance measurement,
- company priorities in terms of sustainable economy.

The data of questionnaire was subsequently entered into Microsoft Office 2007 Excel application. In order to evaluate the survey there was used the SPSS program. Outputs were achieved with using several methods, for the purposes of this study there were selected three methods: the Rotated Component Matrix (factor loadings after rotation, arranged by size), the Communalities (part of variability explained by variables common factors) and the Correlation Matrix (mutual dependence of two questions).

One of the objectives of the research carried out by the Department of Management and Business Administration was to analyse and evaluate which factors and drivers had impact on the competitiveness of organizations and strategic management in the years 2010-2012.

From the questionnaire survey conducted by the Department of Management and Business Administration it was possible to point out the areas that can have high impact on the competitiveness of organization and strategic management.

Using the correlation analysis by the SPSS program, there was found a structure of questions which join the links with other questions and they are most responsible for the results that came out after the evaluation of the specified number (sample) of 290 questionnaires. The coefficient of questions correlation higher than 0.5 was found 17 times in the research in the period of 2010-2012, but in order to keep the contribution clear and concise, the table number 1 involved just 5 of the most important issues with a correlation coefficient higher than 0.8.

In the primary research of the period 2010-2012, the following hypothesis H1 was determined: Performance measurement is one of the drivers affecting competitiveness.

## 3. RESULTS, DISCUSSION AND LIMITATIONS

The most important issues with a correlation coefficient higher than 0,8 are innovation of products and services, written strategy, performance measurement, cooperation, measures in relation to competitors. Recognition of the potential importance of intangible performance drivers is shown in the Tab 1.

Tab. 1. Drivers for competitiveness

No	CATEGORIES	INITIAL	EXTRACTION
1.	INNOVATION OF PRODUCTS AND SERVICES	1,000	0,872
	(D1)		
2.	Written strategy (A4)	1,000	0,865
3.	PERFORMANCE MEASUREMENT (F3)	1,000	0,814
4.	COOPERATION (G2)	1,000	0,811
5.	MEASURES IN RELATION TO COMPETITORS (F5)	1,000	0,806

The categories which have the significant impact on competitiveness and strategic management are shown in Tab. 1 (there was used an own evaluation by the SPSS). Regarding the results mentioned above, it is possible to confirm the hypothesis H1: Performance measurement is one of the drivers affecting competitiveness.

For the question, which method is used to performance management - 11% of enterprises stated the TQM method, 3% - EFQM method, 16% - the ISO 9000, 5% - the six sigma, 3% - the MBO method, 4% - the BSC method, 8% - the SMART, 4% - the BCG, 22% - the SWOT analysis, 2%- PESTLE and 22% of respondents stated that they use other methods (Kaizen, ABC).

Regarding the characteristics of the performance measurement system in the enterprise, 40% of companies stated from the sample of 290 companies stated that they had established the performance measurement system and they use it. 8% of companies stated that they had assembled the performance measurement system, but they did not use it, 14% of businesses reported that a performance measurement system was in the phase of forming or implementation and the remaining 38% reported that they did not measure performance.

In answer to the question what system of performance measurement companies use – 44% stated that they use financial ratios, 27% use comparison with plan, 13% - the system with standards, 4% of companies - the BSC, 6% stated that they use the TQM, 6% - other performance measurement systems (there were recorded responses such as the KPI or none).

To the question about the indicators of performance measurement, 68% of companies stated that they use just financial indicators, 6% - non-financial indicators and 26% of companies stated that they use, both financial and non-financial indicators to measure business performance.

The indicators of the competitiveness measuring are shown on Fig. 1. In relation to the competitors, the 56% of 290 asked companies measures or would

like to measure the market share, 21% measures or would like to measure the customer satisfaction in relation to competition, 14% measures or would like to measure product and service quality in comparison with competitors and 9% measures or would like to measure the delivery conditions.

If we summarize the results of the primary research we can

state that innovations, strategy, performance measurement and cooperation are the categories which influence competitiveness. Tsuji and Minetaki (2011) in their study postulated three factors which

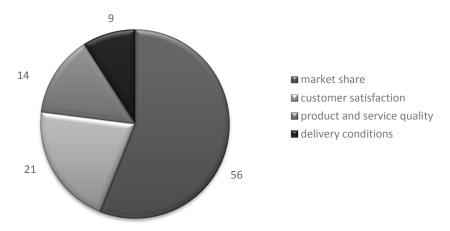


Fig. 1. Indicators of the competitiveness measuring [%]

contributed to innovation: technological factor, managerial organization, human resources. Existing literatures concerning cluster effect on the relationship between firm's innovation capability and business performance are focused on industrial clusters (Dhewanto, 2012). The paper proves that firms have a superior performance where the market share has shown improvements and the number of new products, services and processes has increased (Rodrigues, Raposo, 2011). Cooperation between enterprises based on strategic alliances could contribute to more effective measurement of competitive strength of businesses and thereby improve their competitive position (Kožená, Chládek, 2012). The most commonly used methods for company competitiveness measurement are Balanced Scorecard, EFQM Excellence Model, Benchmarking and Altman Z-Score (Kožená, Chládek, 2012). But according to the primary research these methods are for performance used measurement. Benchmarking is a process of continuous improvement based on the comparison of an organisation's processes or products with those identified as best practice. Benchmarking is influenced by the development of management systems, statistical methods and information technology (Jetmarová, 2011).

The effects of performance measurement systems were examined with regard to aspects such as their specific creation, implementation or use. However, there is still a lack of consensus about the real consequences (Speckbacher et al., 2003; Rousseau, 2006). It does not exist a study on better understanding of possible effects of various performance measurement systems (Franco-Santos et al., 2012). In general, the performance measurement and competi-

tiveness measurement is not well-established practice in companies. The conceptual framework in this paper needs to be followed by future empirical research in order to find a methodology for performance and competitiveness measurement. The paper is a preliminary work before the future survey to the companies in Czech Republic.

#### **CONCLUSIONS**

The company which wants to be successful and competitive needs to measure its performance. Effective performance measurement is the key factor to ensure that the strategy was implemented successfully in the enterprise. It monitors the effectiveness of decisions and actions on its own goals, or predefined stakeholder requirements. The organization must perform well in terms of cost, quality, flexibility, value and other dimensions. Performance measurement system, which allows the firm to fulfill these requirements successfully, is essential (Harvey, 2008).

It is obvious that the current turbulent environment seems to be a competitive challenge for management of companies. External manifestation of competitiveness is to achieve better financial results, contributing to the higher market value of the company, which is currently seen as a major business object. Effective shaping and maintaining of competitiveness, however, is an unique process for every company. The question is how to establish monitoring and evaluation system in order to contribute to the development of the company. It is a difficult task, as the performance should be evaluated not only in relation to the results achieved

(such as achieved market share, sales and financial performance), but also in relation to the potentials in the maintenance and further shaping competitiveness. Undeniable reality is that current excellent results will be by no means a guarantee of such results in the future (Brychta, Benda, Knápková, 2010).

It is very important that the company has a set of performance indicators (measurements), which are in line with its strategic objectives. The indicators should be selected in order to express the values that are important for the company and are in the areas: strategy - from top to bottom, the results of processes - from the bottom up, in the area of control and improvement, evaluation of opportunities and initiatives. Indicators should be defined in the following categories: time (how long the activity lasts), costs (whether resources are used efficiently), quality (if it corresponds to the result of the demand), customer service (whether the company fulfills and exceeds the expectations of its customers), growth (whether the growth rate of the company or enterprise's share on the market is increased), finance (if the sales and profits grow).

The survey Modelling performance measurement and management of enterprises (2011) and the literature mentioned in the paper indicated that customers, internal processes, innovation, health and safety and the use of information systems are important areas of performance measurement. As far as management and performance measurement are concerned, indicators in relation to the competition based on the primary research are also important. Exploring the performance of enterprises in the future will focus on determining which specific indicators are used by companies to measure performance in relation to the competition.

This paper was supported by the Ministry of Education, Youth and Sports within the Institutional Support for Long-term Development of a Research Organization in 2014.

#### LITERATURE

- Aracioğlu B., Zalluhoğlu A.E., Candemir C. (2013), Measuring and Evaluating Performance within the Strategic Management Perspective: A Study on Performance Measurement of A Seafood Company, Procedia - Social and Behavioral Sciences 99 (1), pp. 1026-1034
- Arshad A.Z., Rasli A., Arshad A.A., Zain Z.M. (2014), The impact of Entrepreneurial Orientation on Business Performance: A Study of Technology-based SMEs in Malaysia, Procedia Social and Behavioral Sciences 130, pp. 46-53

- Bisbea J., Malagueno R. (2012), Using Strategic Performance Measurement Systems for Strategy Formulation: Does It Work in Dynamic Environments?, Management Accounting Research 23, pp. 296-311
- Black J. (2002), A dictionary of Economics, John Black, Oxford University Press, http://www.oxfordreference. com/views/ENTRY
  - html?subview=Mainandentry=t19.e491 [15.10.2014]
- Brychta K., Benda R., Knápková A. (2010), Tvorba modelu prohodnocení výkonnosti podniku - vybraná východiska, Ekonomika a management 4 (3), p. 16
- Česká asociace pro finanční řízení (2011), Tvorba modelu pro měření a řízení výkonnosti podniků, Dotazník Měření a řízení výkonnosti podniků závěrečná zpráva, http://www.cafin.cz/sites/default/files/Zprava.pdf [15.10.2014]
- Chen G., Du H., Chen Y. (2011), Research on Entrepreneurial Orientation and Entrepreneurial Behavior, An Empirical Study, In Management and Service Science (MASS), 2011 International Conference on IEEE, pp. 1-3
- Dhewanto W. et al. (2012), Moderating Effect of Cluster on Firm's Innovation Capability and Business Performance: A Conceptual Framework, Procecia-Social and Behavioral Scineces 65
- Dimoska T., Trimcev B. (2012), Competitiveness strategies for supporting economic development of the touristic destination, Procedia - Social and Behavioral Sciences 44, pp. 279-288
- Folan P., Browne J.A. (2005), A review of performance measurement: Towards performance management, Computers in Industry 56, pp. 663-680
- Gimbert X., Bisbe J., Mendoza X. (2010), The Role of Performance Measurement Systems in Strategy Formulation Processes, Long Range Planning 43, pp. 477-497
- Gonzalez M.E., Quesada G., Mora-Monge C. (2012), An International Study on Manufacturing Competitive Priorities, Journal of Management Policy and Practice 13 (3), pp. 116-128
- Grafton J., Lillis A.M., Widener S.K. (2010), The role of performance measurement and evaluation in building organizational capabilities and performance, Accounting, Organizations and Society 35, pp. 689-706
- Harvey J. (2008), Performance Management, Topic Gateway Series, http://www.ci-maglobal.com/Documents/ ImportedDocuments/9\_Performance\_Measurement.pdf [15.10.2014]
- Hunger J.D., Wheelen T.L. (2011), Essentials of Strategic Management, Prentice Hall, Florida
- Janeček V., Hynek J. (2010), Motivační systém jako faktor zvyšování efektivnosti podniku, Ekonomika a management, http://www.faqs.org/periodicals/201001/19753 82781.html [15.10.2014]
- Jetmarová B. (2011), Benchmarking-methods of Raising Company Efficiency by Learning from the Best, E+M Ekonomie a management 1, pp. 83-95
- Kaplan R.S., Norton D.P. (2007), Balanced Scorecard, Strategický systém měření výkonnosti podniku, Management Press, Praha

ECONOMICS AND MANAGEMENT

- Kislingerová E. (2010), Jak měřit výkonnost podniku v časech krize, http://www.businessinfo.cz/cs/clanky/jak-merit-vykonnost-podniku-casech-krize-2817. html#!&cha pter=2 [15.10.2014]
- Kožená M., Chládek T. (2012), Company Competitiveness measurement depending on its size and field of activities, Procedia - Social and Behavioral Sciences 58, pp. 1085-1090
- Lynch R.L., Cross K.F. (1991), Measure Up-The Essential Guide to Measuring Business Performance, Mandarin, London
- Mahmood R., Hanafi N. (2013), Entrepreneurial Orientation and Business Performance of Women-Owned Small and Medium Enterprises in Malaysia: Competitive Advantage as a Mediator, International Journal of Business and Social Science 4 (1), pp. 82-90
- Maltz A.C., Shenhar A.J., Reilly R.R. (2003), Beyond the Balanced Scorecard: Refining the Search for Organizational Success Measures, Long Range Planning 36, pp. 187-204
- Micheli P., Manzoni J.F. (2010), Strategic Performance Measurement: Benefits, Limitations and Paradoxes, Long Range Planning 43, pp. 465-476
- Parmenter D. (2009), Key Performance Indicators: Developing, Implementing, and Using Winning KPIs, 2. ed., John Wiley and Sons, Hoboken, New Jersey
- Rodrigues R.G., Raposo M. (2011), Entrepreneurial Orientation, Human Resources Information Management, and Firm Performance in SMEs, Canadian Journal of Administrative Sciences 28 (2), pp. 143-153
- Rylková Ž., Antonová B. (2013), Development of Organization, Scieconf 2013, EDIS - Publishing Institution of the University of Žilina, pp. 64-69, http://www.scieconf.com/SCIECONF.zip [15.10.2014]
- Rylková Ž., Antonová B. (2013), Impact of Different Factors on the Success of Organization, Proceedings of the 21st International Business Information Management Association - Vision 2020 Innovation, Development Sustainability, and Economic Growth, Vienna, pp. 1404-1412
- Santos F.M., Lucianetti L.M., Broune M. (2012), Contemporary performance measurement systems: A review of thein consequences and a framework for research, Management Accounting Research 23, pp. 79-119
- Sargut G., Gunter McGrath R. (2011), Learning to live with complexity, Harvard Business Review September, pp. 69-76
- Schmidt M.A. (2010), Strategic Planning and Corporate Performance, What is the relationship?, Working Paper 02, pp. 2-24
- Skokan K., Pawliczek A. (2014), Dynamika životního cyklu českých a slovenských podniků ve vybraných regionech, Ekonomický časopis 62 (7), pp. 728-742
- Speckbacher G., Bischof J., Pfeiffer T. (2003), A descriptive analysis on the implementation of balanced scorecards in German-speaking countries, Management Accounting Research 14 (4), pp. 361-388

- Tsuji M., Minetaki K. (2011), Empirical study of internal innovation capability in ASEAN economies, ERIA Research Project, pp. 1-20
- Vaidya O., Chitnis A. (2012), Performance evaluation in Indian corporate organizations: A survey, Procedia -Social and Behavioral Sciences 37, pp. 38-45
- Veber J. et al. (2002), Řízení jakosti a ochrana spotřebitele, Grada Publishing, Praha
- Wagner J. (2009), Měření výkonnosti, 1 ed., Grada Publishing, Praha
- Witek-Crabb A. (2011), Sustainable strategic management, Journal of International Economic Publications: Economy&Business 5, pp. 45-53
- Witek-Crabb A. (2012), Sustainable strategic management and market effectiveness of enterprises, Procedia -Social and Behavioral Sciences 58, pp. 899-905
- Zainol F.A., Ayadurai S. (2011), Entrepreneurial Orientation and Firm Performance: The Role of Personality Traits in Malay Family Firms in Malaysia, International Journal of Business and Social Science 2 (1), pp. 59-72
- Van Vught F. et al. (2008), A practical guide. Benchmarking in European Higher Education, ESMU, Brussels, http://lllp.iugaza.edu.ps/Files\_Uploads/634956737 013680.pdf [15.10.2014]