

MANAGEMENT SYSTEMS AND COMPETITIVENESS OF A COUNTRY – LITHUANIAN CONTEXT

Juozas MIKULIS

Lecturer, Department of Management, Vilnius University

Juozas RUŽEVIČIUS

Professor habil. dr., Vilnius University

Annotation

This article analyzes competitiveness, factors influencing it and its relation with ISO 9001, ISO 14001 and other management systems. The authors compare several definitions of competitiveness presented by different scientists. They try to locate management as a factor which influences the competitiveness of an organization and a country. Objective data indicating the penetration of ISO 9001 and ISO 14001 certification in various countries is analyzed and the correlation among different factors is calculated. Finally, the authors generalize the information about the competitiveness of Lithuania, analyze available data about the quantity of ISO 9001 and ISO 14001 certificates in the country in comparison with other EU-10 new member states (Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, the Slovak Republic, Slovenia, Bulgaria, and Romania). The authors provide recommendations for the improvement of the national policy with regard to competitiveness, attention to the management as a factor to enhance the competitiveness of the country and organization.

Keywords: *competitiveness, management, productivity, certificate, ISO 9001, ISO 14001, Lithuanian National Quality Prize.*

Introduction

Competition is one of the main engines of the economic progress. Competition is important in every level – individual, competition among organizations, countries, regions, and unions of countries. Organization which strives for a long-term success should manage its competitiveness. A country which pursues wealth for its citizens should also take care of the competitiveness of separate sectors as well as of all country. In 2000, the leaders of EU countries

declared a goal to make EU “the most competitive and dynamic knowledge based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion.” (Presidency..., 2000).

In order to enhance competitiveness of European Union, structural reforms are being planned and implemented. What factors influence competitiveness at the levels of organization and country? There are technologies, quality and competence of labor force, research and development, governmental policy, infrastructure, etc. Why two organizations functioning in the same market, using the same technologies achieve different results under approximately the same conditions? Can management be analyzed as one of the factors which influences competitiveness of not only one organization, but also the whole country?

The factors influencing the competitiveness of countries are not analyzed widely in the scientific world. There is some research available about the influence of quality initiatives to the financial results of the company (e.g. Uyar research showed that in Turkey the quality initiatives (i.e. quality award models – Malcolm Baldrige Quality Award, European Quality Award, Turkish National Quality Award; ISO 9001 certification; Quality circles; Six Sigma; Total Quality Management) implementing companies outperformed in financial performance when compared to non-quality-initiative implementing companies (Uyar, 2008)). Lithuanian authors have also analyzed the influence of quality management techniques to the organizational competitiveness; however, the scope of these researches did not include the competitiveness at the state level (Kuisys, Mikulis, 2003; 2004; Ruževičius *et al.*, 2004; Ruževičius, 2007). Some analysis was made to compare the financial results of the quality award winners and other companies. Research of the USA companies showed that quality award winners have significantly outperformed other companies, the stock prices of award winners have increased on average by 114 % over the period of 5 years in comparison to the average Standard and Poors (S&P) 500 companies result of 80 % increase (Hendricks, Singhal, 1996). However, the influence of management to the competitiveness of the country is not researched in depth.

The *main task* of the article is to identify and overview the factors which might influence the competitiveness of the country, to define management among them, as well as the relationship between ISO 9001 and ISO 14001 certification and the competitiveness of countries. The article also aims at analyzing a comparative situation of Lithuania among other EU-10 new member states in relation to the indicators of competitiveness identified, and analyze the current situation and trends of management in Lithuania.

Methodology – the methods used in this article include analysis of scientific and legal literature, gathering of statistical data available from different sources, calculation and interpretation of correlation among the indicators. Also the comparison of the assessment of different Lithuanian National Quality Prize (LNQP) indicators and categories was made. The resultant generalizations and suggestions have been made based on the results of the analysis.

How can the level of organizational management be assessed at the scope of the country? What tendencies of management development can be identified in Lithuania? These are the core questions that are being analyzed in this article.

The Aspects of Competitiveness

Competitiveness can be studied and analyzed at three levels: country, industry sector and organization (Ambastha, 2005). Different definitions of competitiveness can be found in management literature. In its report “Raising productivity growth: key messages from the European Competitiveness Report” the European Commission (EC) uses the following definition of competitiveness, where it is described as a sustained raise in the standards of living of a nation or region with the lowest possible level of involuntary unemployment. At the level of industrial sectors, maintaining and improving the position in the global market is the main criterion for competitiveness. In the same EC report it is stated that productivity is the most reliable indicator of competitiveness in the long-run (Raising..., 2007). Other authors also agree with the approach, e.g. Porter states that the real competitiveness is assessed by the productivity (Porter and Ketels, 2003). McKee agrees that organization, industry or country

which reaches the highest level of productivity can be referred to as the most competitive one (McKee, 1989). Krugman, 1994 also claims that “productivity is not everything, but in the long run it is almost everything”. The importance of productivity for the competitiveness of the country is also emphasized by the World Economic Forum – “at the World Economic Forum we understand national competitiveness as the set of factors, policies and institutions that determine the level of productivity of a country” (World..., 2006).

The importance of productivity is also stressed in a forthcoming report from the World bank “Unleashing Prosperity“, which shows how improved productivity leads to the economic growth in developing countries from 1999 to 2005. The banks economists first calculated how much the growth was explained by a bigger workforce and how much by more plant. What is left is the total factor of productivity – how efficiently capital and labor were combined. It might be seen what major part is influenced by the total productivity factor (Unleashing..., 2008). The split among the reasons of increased productivity is shown in the Figure 1 below.

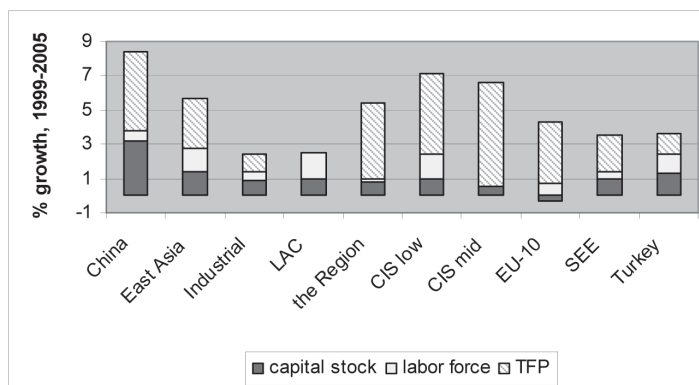


Figure 1. Sources of real GDP growth (Source: *Unleashing...*, 2008)

Here: TFP – Total factor productivity, EU-10 – Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, the Slovak Republic, Slovenia, Bulgaria and Romania. CIS – Common Wealth of Independent States, EU – European Union, LAC – Latin America and Caribbean, SEE – Southeastern Europe.

According to *IMD* (International institute for Management Development – one of the world’s leading competitiveness assessment institutions) in its annual report *World Competitiveness Yearbook*, competitiveness can be assessed by these criteria:

1. Economic performance – macro-economic evaluation of the domestic economy: domestic economy, international trade, international investment, employment and prices.
2. Government efficiency – extent to which government policies are conducive to competitiveness: public finance, fiscal policy, institutional framework, business legislation and societal framework.
3. Business efficiency – extent to which the national environment encourages enterprises to perform in an innovative, profitable and responsible manner: productivity and efficiency, labor market, finance, management practices and attitudes, and values
4. Infrastructure – extent to which basic, technological, scientific and human resources meet the needs of business: basic infrastructure, technological infrastructure, scientific infrastructure, health, environment and education (Rosselet-McCauley, 2005).

M. Porter states that competitiveness at the level of organizations influences the competitiveness of the whole country. Companies and not countries compete in a global market (Porter, 1998). Moreover, the factors which influence competitiveness of an organization have a direct impact on the competitiveness of the country.

Business effectiveness is one of the factors influencing competitiveness used in IMD research mentioned previously. Differently from other authors, IMD does not even productivity and competitiveness. Productivity and management of organizations are among the factors determining business efficiency which in turn influence the level of competitiveness of the country. According to the methodology used by IMD, both productivity and management practices account only for 5 % of the final competitiveness score of the country (Rosselet-McCauley, 2005).

Another internationally acknowledged body which annually announces Global Competitive Index is the World Economic Forum. As it was mentioned above, the productivity is understood as the main measure of competitiveness, all the factors of the index are analyzed as the ones explaining

and determining the level of productivity of the country. Moreover, the Global Competitive Index tries to explain the actual level of productivity in the country. According to the Global Competitiveness Index of the World Economic Forum, company operations and strategy are among the factors which explain the level of productivity (and competitiveness of the country). In a more detail split of the category we can see such criteria as – strategy and operational effectiveness, organizational practices and internationalization of firms can be seen.

The usage of advanced management principles and methods and the level of management are stated among the reasons of UK's problems with competitiveness (Porter and Ketels, 2003). N. Bloom has made a study in order to test the association between specific management practices and company performance. According to the results of the research, up to 10 % of total variance in firm performance is explained by differences in specific management practices (Bloom *et al.*, 2005).

From the initial analysis it can be concluded that management is seen as one of the factors influencing the level of competitiveness of the country. How can the level of management in the country be measured? Searching for objective data in order to assess the level and quality of management of Lithuanian companies we can refer to the data from Lithuanian National Quality Prize contest. A number of the most popular ISO 9001 and ISO 14001 certificates can also be presumably quoted as one of the indicators of management level in the country.

Factors Influencing Competitiveness

There are two main internationally acknowledged bodies which annually announce reports on competitiveness of countries – World Economic Forum and IMD. First of all let's compare both indexes.

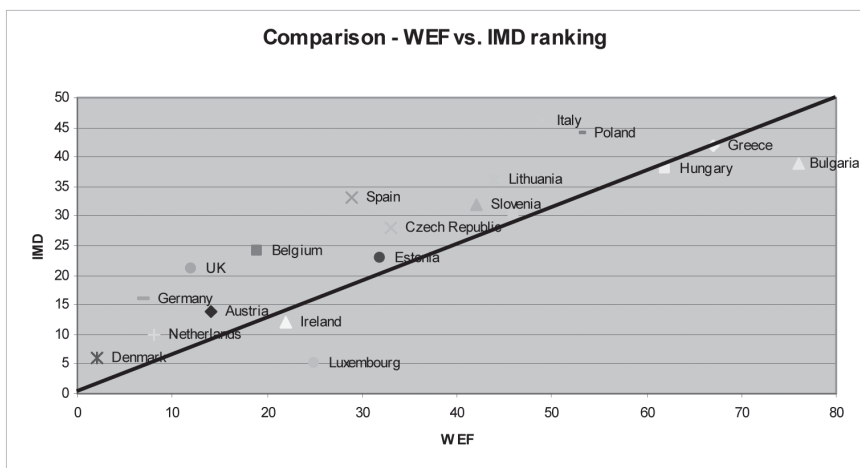


Figure 2. IMD World Competitiveness Index compared with World Economic Forum's Global Competitiveness Index (Source: IMD, 2008; World Economic Forum, 2008)

From the comparison we can see the linear correlation of the indexes. The Pearson correlation² (RSQ) between IMD and WEF indexes is 91%. WEF clearly states productivity as a main measure of competitiveness, IMD puts productivity as one of the factors defining the level of competitiveness of the country (as it was stated above, according to IMD, only 5% of the final competitiveness score of the country). However, the level of competitiveness of the country might be explained by a linear correlation with productivity by (RSQ is 47%).

Knowing the facts stated above we presume that productivity is the main objective measure defining the current level of competitiveness of the country. Therefore, further we try to analyze what relation among the quantity and penetration of management system standards can be defined.

For the purposes of analysis of what objective factors influence the competitiveness and productivity of the country, the authors used data about the competitiveness of countries (IMD, 2008), productivity (EC, 2007), number of ISO 9001 and ISO 14001 certificates (ISO Survey, 2007), population (Eurostat, 2007), and number of companies (OECD, 2004-2005). In order to assess the correlation between different indicators, the Pearson correlation² indicator was calculated. Factual data is provided in the table below (Table 1).

Table 1. Results of Pearson correlation² (RSQ) (Authors' calculation)

Criteria	GDP per person employed, 2006; EU-27=100
Quantity of ISO 9001 certificates	2,97%
Quantity of ISO9001 certificates per 1000 population	0,07%
Quantity of ISO9001 certificates per 1000 companies	0,67%
Quantity of ISO14001 certificates per 1000 population	1,25%
Quantity of ISO14001 certificates per 1000 companies	0,45%
Quantity of ISO 14001 certificates	3,88%
ISO 9001 + ISO 14001	3,12%
ISO9001 + ISO14001/ Number of companies*1000	0,72%

From the analysis above we can see that mostly general quantity of certificates of ISO 9001 and ISO 14001 have a slight correlation with the productivity (competitiveness) of a country (2,97 % and 3,88 % respectively). The parameters of penetration of ISO 9001 and ISO 14001 certification in countries has a very little correlation with the productivity. Remarkably, the quantity of ISO 14001 certificates has a comparatively bigger correlation with productivity of a country than ISO 9001. It can be explained by the fact that companies usually reach for ISO 14001 certification after they achieve ISO 9001 certificate, therefore it usually show a higher level of maturity of management. Correlation between the quantity of certificates of ISO 9001 and ISO 14001 (RSQ – 81 %) also prove the fact. Moreover, from the primary analysis we can make a preliminary conclusion that there is a correlation among the productivity and quantity of ISO 9001 and ISO 14001 certificates in a country. However, the correlation is low. Possible reasons which might explain the low correlation are listed further:

- ISO 9001/ISO 14001 management standards do not concentrate on efficiency and mainly focus on effectiveness.
- ISO 9001/ISO 14001 certification shows the basic level of management of a company. They are mainly focused on stabilization of management systems. It can be defined as a first step of the organizations striving for the

efficiency and increased productivity. Presumably more advanced methods of management has a more specific and direct impact on organizations' productivity.

- Arguably decreasing value of ISO 9001/ISO 14001 certification for the companies (in Lithuania). These standards can be used as models for the improvement of management of organization, however, mostly it depends on the organization itself and how effectively it will be used. Another important factor is the interpretation and approach of certification organizations. However, this area requires further analysis.

Context of Lithuania

While analyzing the productivity of countries it can be stated that it is growing in all countries. However, in the former Soviet block countries it is still far behind the European average. Lithuania is among the countries with the lowest productivity in European Union leaving just Latvia and new EU member states, such as Romania and Bulgaria behind (Figure 3).

In IMD report World Competitiveness Yearbook of 2008 Lithuania fell to the 36th place from the 31st in 2007. In 2007 the World Economic Forum gave Lithuania the 40th place for competitiveness (the 34th place in 2006). The authors have analyzed strategic documents of the Republic of Lithuania in order to define the state vision and actions to increase competitiveness and productivity of the country. Also we looked for actions to improve management as a tool for enhancing the competitiveness of country. The documents analyzed included – “Long-term state development strategy”, “Long-term development strategy of Lithuanian economy, until 2015” and “National Lisbon strategy implementation programme”.

Long-term state development strategy defines “Competitive economy” as one of long-term development priorities. Although there are some references to more specific goals, e.g. among goals in the strategy there is a goal to “create a national innovation system, which would assure favorable conditions for

integration of science and industry, creation and deployment of new technologies and practices”, productivity and management practices are not directly addressed in the document as tools to improve competitiveness of the country. In the “Long-term development strategy of Lithuanian economy, until 2015” as one of weaknesses it is stated that “There were no complex research of national competitiveness and there is no development policy of competitiveness” (Lietuvos..., 2002). One goal (“To create economically efficient, internally and externally competitive, based on innovations and IT sector of small and medium enterprises”) partly addresses the issues of productivity and improvement of management practices, however, among specific strategic goals (IIInd and IIIrd level) there is not enough attention paid to the issues which influence competitiveness of the country.

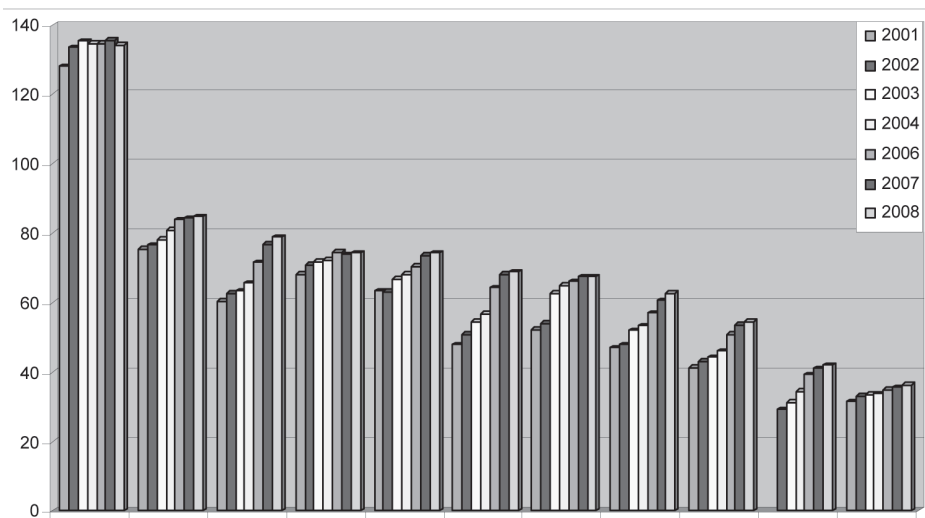


Figure 3. Labor productivity per person employed (Source: Eurostat, 2008)

In “The National Lisbon strategy implementation programme” one of the priorities is to “Enhance the competitiveness of Lithuanian companies”. The main focus in the priority is on new technologies and innovations. The Guideline No.10 is “Improvement of competitiveness of national industry”. Low productivity is stated as one of the main problems of Lithuanian industry here,

however there are no specific complex action planned to increase productivity. There is also no focus on improvement of management practices in the document (Nacionalinė..., 2005). Generally it can be said that there is a lack of focused and complex actions planned and implemented at the state level in order to increase the competitiveness of Lithuanian organizations and state. A more clear vision of aspects influencing competitiveness would be valuable. Also a more clear understanding of management as a tool for increased competitiveness is needed.

According to competitiveness results Lithuania is in the middle among EU-10 new member states. However, low productivity and high salaries is a dangerous situation for Lithuanian business. Even more worrying is the fact that the growth of salary is higher than the growth of productivity (Figure 4). The gap between the value created by labor and the labor cost is narrowing which implies dangers for the competitiveness of Lithuanian business.

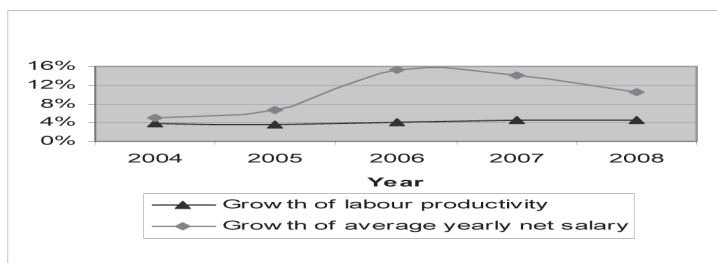


Figure 4. Comparison of growth of labor productivity and growth of average yearly net salary in Lithuania (Source: Eurostat, 2008)

For the analysis of the level of management in Lithuania we used data about ISO 9001 and ISO 14001 certification and information from the Lithuanian National Quality Prize (further – LNQP) contest. ISO 9001 and ISO 14001 certificates were chosen as the most popular management system certificates in Lithuania and the world. From the figures 5 and 6 below it can be seen that among EU-10 member states Lithuania has the lowest number of ISO 9001 certificates as a ratio with population and is the next to the last by the quantity of ISO 9001 certificates as a ratio with the quantity of companies in the country, leaving only Poland behind. However, Lithuania is doing better

with ISO 14001 certification – it is in the middle among EU-10 member states by the ratio with population and it is the second by the ratio of the quantity of ISO 14001 certificates and the number of companies in the country, surpassed only by Slovakia. It should be noted that the ratio between the quantity of ISO 9001 and ISO 14001 certificates in the country in Lithuania is the highest among EU-10 member states. It is 36 %, when the average of EU-10 is 16 % (for example in Poland it is 10%, in Bulgaria – 3 %). It might imply a bigger gap between the companies which use more advanced management techniques and the rest of the companies, which do not. Companies in Lithuania which have ISO 9001 certificates are on average keener to also strive for ISO 14001 certification.

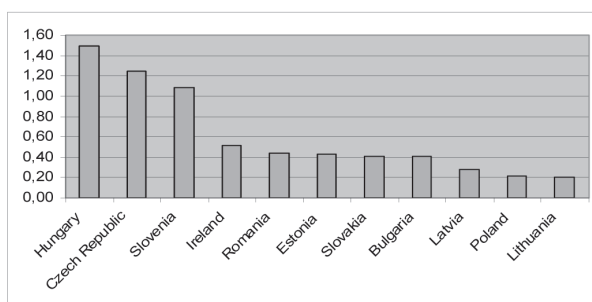


Figure 5. Quantity of ISO 9001 certificates per 1000 of population.
(Source: ISO, 2006; Eurostat, 2007)

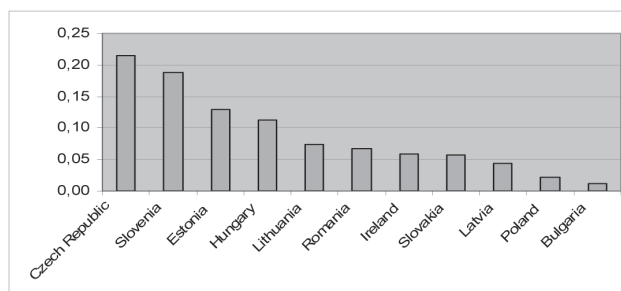


Figure 6. Quantity of ISO 14001 certificates per 1000 of population
(Source: ISO, 2006; Eurostat, 2007)

Lithuanian National Quality Prize contest has been organized for 10 years already. As the basis for the evaluation of Lithuanian companies is slightly changed EFQM Excellence model. We have data about the tendencies of as-

assessment of Lithuanian companies of all criteria of EFQM Excellence model. The average number of participants is 9 each year (Table 2). Low popularity of the contest is not exceptional among EU member states, e.g. in Ireland the average number of participants is 9, Estonia – 10, Slovakia – 10, Romania – 10, Germany – 15-25 (Kuisys and Mikulis, 2004).

However, presuming that usually the similar segment of organizations participates in the contest we can follow how this segment develops and see some tendencies among various categories of the assessment. The segment of companies participating in the contest might be defined as companies interested in management and investing time for the assessment and improvement of the management system.

Although statistically the number of companies is not representative we still can analyze some tendencies in management making an assumption that the participating companies are on average more advanced than the rest of Lithuanian companies.

Table 2. Participation of Lithuanian companies in Lithuanian National Quality Prize contest
(Source: Kuisys, 2004; Authors' data, 2005 – 2007)

Year	Size of organization			Total number of participants	
	Large	Medium	Small	Total participants	First-time participants
1998	6	4	2	12	12
1999	4	2	-	6	3
2000	2	5	2	9	7
2001	2	6	2	10	3
2002	2	5	4	11	6
2003	3	4	3	10	5
2004	2	6	2	10	6
2005	2	4	1	7	5
2006	3	1	1	5	5
2007	3	1	2	6	5
Total	29	38	19	86	57

The EFQM Excellence model which is used as a basis for Lithuanian National Quality Prize contest constitutes nine criteria in two major categories – “Enablers” and “Results”. “Enabler” criteria are concerned with how the

organization undertakes key activities; “Results” criteria are concerned with what results are being achieved. Each criterion has a maximum value appointed. The company assessed receives points for each criterion. For the purpose of analysis we used percentage from the maximum available evaluation (from 0 % to 100 %). The results are shown in figures 7 and 8.

First, we can look at an evaluation of “Enabler” criteria of EFQM Excellence model (Figure 7). There is an obvious tendency that “Resources” are always the best managed enabler in Lithuanian companies. On average it is assessed at 5 percentage points higher than other enabler criteria. The evaluation of other criteria is more even. The average difference is not higher than 2 percentage points among them. The lowest assessed enabler criteria are “Personnel management”. It can also be seen that all enabler criteria have a positive tendency over the years.

Next, let’s look at an assessment of “Result” criteria of EFQM Excellence model. We can match the lowest evaluated enabler criteria “Personnel management” with the lowest evaluation of the “Employee results” criteria. We can also match the highest evaluation of “Resource management” among enablers and “Key performance results” among the results criteria.

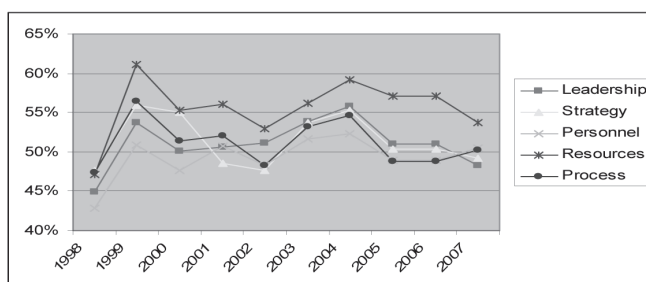


Figure 7. Average assessment of enabler criteria of companies in LNQP contest, 1998-2007
(Source: Developed by authors using primary data from the results of LNQP contest)

The tendencies stay almost the same through the years – the highest evaluation is of financial results, then follow customer results, society and employee related results. We can see that although the importance and salary of employees are growing, the personnel management and the employee related results

are relatively lowest assessed criteria. The second lowest assessed criterion among “Results” is society related results. Although socially accountable management is becoming more relevant among Lithuanian companies, there is still too little attention paid to these issues. The statement is also supported by the low popularity of SA 8000 (Social Accountability standard also used for the certification purposes) among Lithuanian companies. At the start of 2009 there were only three SA 8000 certified companies in Lithuania.

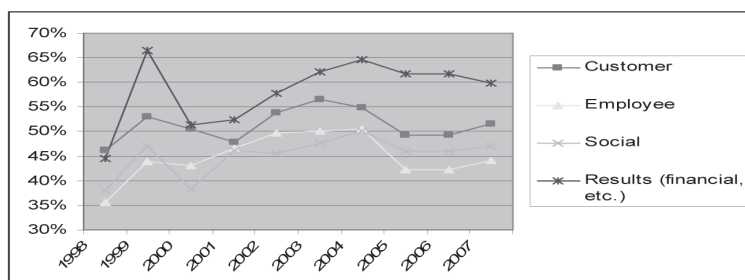


Figure 8. Average assessment of “Results” criteria of companies in LNQP contest, 1998-2007
 (Source: Developed by authors using primary data from the results of LNQP contest)

All criteria show positive tendencies. Comparison of an average assessment of criteria in the first 5 years of the contest with the next 5 years showed that none of the criteria decreased. Only ‘Process’ criteria got the same average evaluation, ‘Leadership’, ‘Personnel management’, ‘Customer results’ and ‘Employee results’ increased by 2 percent points. ‘Financial and other results’ criteria increased the most – by 8 percent points. It might be also explained by the fast increasing economy of Lithuania in the last 5 years. The ‘Society results’ average assessment has increased by 4 percent points but still remains the second lowest after the ‘Employee results’, the ‘Resource management’ average assessment has increased by 3 percent points.

The comparative disposition among criteria remains the same which show that the basic patterns of management remain unchanged among Lithuanian companies – low attention to the less tangible criteria (as personnel, leadership, process) in comparison to a more tangible aspects (as resources, finan-

cial results, etc.). Also little attention is paid to the personnel management and society related results.

Conclusions

1. Productivity is one of the factors which mostly influence competitiveness. The correlation analysis showed the biggest relationship between productivity and competitiveness among all factors analyzed at the scope of the countries. Moreover in order to improve competitiveness, the main focus shall be made on the measures to increase productivity. Preliminary analysis of major competitiveness reports and works of other authors showed that management can be identified as one of the factors which have influence on a competitiveness of a country.
2. Quantity of ISO 9001 and ISO 14001 certificates in a country has a slight correlation with the productivity. There were almost no correlation identified between productivity and penetration of ISO 9001 and ISO 14001 certification (measured as a ration of quantity of ISO 9001 and ISO 14001 certificates with the population and quantity of companies in a country).
3. Analysis of Lithuanian situation among other EU-10 new member states among the indicators analyzed showed that comparatively Lithuanian position is higher among the EU-10 countries with regard to ISO 14001 certification and Lithuania is among the laggards among EU-10 countries with regard to ISO 9001 certification both as a ratio with population and number of companies in the country. It also showed that there is a wider gap of management quality among Lithuanian companies. The companies which are interested in ISO certification more usually receive not only ISO 9001 but also ISO 14001 certificates. However, there is still a comparatively big number of companies which are not ISO 9001 certified in Lithuania.
4. Low productivity and faster increase of net salary (and labor cost) in comparison with the speed of rise of productivity creates a dangerous situation to the competitiveness of Lithuanian companies and the country. The fact that this situation will continue for several years even more stresses

the importance of more systematic actions at the level of the country and organization in order to increase the productivity.

5. LNQP results show positive tendencies of development of management in Lithuania. The criteria of EFQM Excellence model have a tendency to increase which implies the improving situation with management in the country. However, the comparison among the criteria showed that personnel management criteria usually receive the lowest assessment. At the same time resource management and (financial) results criteria usually receive the highest assessment. It shows the focus of Lithuanian companies to the shorter-term and more tangible aspects of management.
6. The authors provide the following recommendations for the improvement of national policy with regard to competitiveness of the country:
 - more systematic and focused state strategy and policy to increase the competitiveness and productivity of Lithuania – integration of relevant actions in the strategic plans of the country and state Lisbon programme;
 - deeper analysis and assessment of management quality in the country state-level planning and implementation of systemic actions for the improvement of management quality as one of the factors influencing the competitiveness of the country;
 - popularization of management systems (ISO 9001, ISO 14001, SA 8000, OHSAS 18000, ISO 22000, etc.) certification among Lithuanian companies by the means of publicity, requirements in the public tenders, etc.;
 - deeper analysis of the factors influencing the competitiveness and productivity of the country would be scientifically valuable in order to define appropriate actions for the increase of the competitiveness of the country;
 - development of the methodology of measuring the management quality in the country is also the area of further research.

References

1. Ambastha, A.; Momaya, K. (2005). Competitiveness of firms: review of theory, frameworks, and models. *Singapore Management Review*, 26 (1), 45-61.

2. Bloom, N.; Dorgan, S.; Dowdy, J.; Van Reenen J; Rippin, T. (2005). *Management Practices across Firms and Nations*. London: London School of Economics, Centre for Economic Performance. 47 p.
3. European Commission. (1999). *Sixth Periodic Report on the Social and Economic Situation of Regions in the EU*. Brussels: European Commission. 242 p.
4. Franceschini, F.; Galetto, M.; Gianni, G. (2004). A new forecasting model for the diffusion of ISO 9000 standard certifications in European countries. *International Journal of Quality and Reliability Management*, 21 (1), 32-50.
5. Hendricks, K. B.; Singhal, V. R. (1996). Quality awards and the market value of firm: an empirical investigation. *Management Science*, 1, 415-436.
6. *IMD World Competitiveness Yearbook 2008*. Available at: <http://www.imd.ch/research/publications/wcy/World-Competitiveness-Yearbook-2008-Results.cfm>.
7. Krugman, P. (1994). *The Age of Diminished Expectations*. Cambridge: MIT Press. 267 p.
8. Kuisys, P.; Mikulis, J. (2003). Nacionalinio kokybės prizo dalyviai - išskirtiniai požymiai ir dalyvavimo konkurse nauda. *Respublikinės konferencijos "Lietuvos ir Europos Sąjungos kokybės rėmimo ir teisinio reglamentavimo derinimas" medžiaga*. Kaunas: Technologija, p. 161-166.
9. Kuisys, P.; Mikulis, J. (2004). Nuolatinis gerinimas - veiklos principas. Lietuvos įmonių patirtis. *Respublikinės konferencijos "Kokybės vadybos poveikis šalies ūkiui, Lietuvai įstojus į Europos Sąjungą" medžiaga*. Kaunas: Technologija, p. 78-86.
10. *Lietuvos ūkio (ekonomikos) plėtros iki 2015 metų ilgalaikės strategija*. (2002). Vilnius: Lietuvos Respublikos ūkio ministerija, Lietuvos mokslų akademija. 60 p.
11. McKee, K.; Sessions-Robinson, C. (1989). Manufacturing productivity and competitiveness. *Journal of Manufacturing*, 2, 35-39.
12. *Nacionalinė Lisabonos strategijos įgyvendinimo programa*. (2005). Vilnius: Lietuvos Respublikos Vyriausybė. 93 p.
13. Porter, M. (1998). *The Competitive Advantage of Nations*. Macmillan Business. 896 p.
14. Porter, M. E.; Ketels, C. H. (2003). UK competitiveness: moving to the next stage. *DTA Economics Paper 3*. London: Department of Trade and Industry.
15. *Presidency Conclusions. Lisbon European Council*, 23 and 24 March 2000. European Commission: Press Release Library. 49 p.
16. *Raising Productivity Growth: Key Messages from the European Competitiveness Report*. (2007). Brussels: Commission of European Communities. 110 p.
17. Rosenzweig, P. (2007). *The Halo Effect*. New York: Free Press. 232 p.
18. Rosselet-McCauley, S. (2005). *IMD World Competitiveness Report-2005: Methodology and Principles of Analysis*. IMD, p.18-25.
19. Ruževičius, J.; Adomaitienė, R.; Sirvydaitė, J. (2004). Motivation and efficiency of quality management systems implementation: a study of Lithuanian organizations. *Total Quality Management & Business Excellence*, 15 (2), 173-189.
20. Ruževičius, J. (2007). Economic globalization challenges to quality management of Lithuanian organizations. *The Survey of the Lithuanian Economy*, no. 1, 99-109.
21. *The ISO Survey*. (2007). Geneva: ISO Central Secretariat. 25 p.

22. *The Lisbon Review*. (2006). Geneva: World Economic Forum. 22 p.
23. *Unleashing Prosperity. Productivity Growth in Eastern Europe and the Former Soviet Union*. (2008). Washington: The International Bank for Reconstruction and Development / The World Bank. 295 p.
24. Uyar, A. (2008). An empirical investigation of the relationship between quality initiatives and financial performance. *Eurasian Journal of Business and Economics*, 1, 25-36.
25. *Valstybės ilgalaikės raidos strategija*. (2002). Vilnius: Lietuvos Respublikos Seimas. 74 p.
26. *World Economic Forum. The Global Competitiveness Report 2000-2005*. (2006). Palgrave: Macmillan. 660 p.

Vadybos sistemos ir šalies konkurencingumas – Lietuvos kontekstas

Juozas Mikulis,
Juozas Ruževičius

Santrauka

Šio straipsnio *tikslas* yra išnagrinėti šalies konkurencingumo sąvoką, identifikuoti ją sąlygojančius veiksnius ir įvertinti vadybos priemonių (ISO 9001, ISO 14001) įtaką šalies konkurencingumui. Darbe siekiama atskleisti ir įrodyti, kad vadybos lygis gali būti įvardytas kaip vienas iš svarbių konkurencingumo elementų. *Metodologija*: straipsnis parengtas naudojant mokslinės, normatyvinės ir teisinės literatūros sisteminę analizę, skirtingų šaltinių statistinių duomenų apibendrinimą bei koreliacijos tarp atskirų konkurencingumą sąlygojančių veiksnių ir priemonių vertinimą. Įvairių vadybos aspektų lygiui ir raidos tendencijoms mūsų šalyje identifikuoti autoriai taip pat atliko pastarųjų 10 metų Lietuvos nacionalinio Kokybės prizo konkurso vertinimo rezultatų analizę. Naudojami konkurencingumo vertinimo modeliai apima skirtingus vertinimo parametrus, jų kiekį ar derinius. Autoriai vadybos priemonių ir konkurencingumo sąsajų tyrimui pasirinko Tarptautinio vadybos vystymo instituto (IMD) konkurencingumo vertinimo metodologiją, šios institucijos Pasaulinėje konkurencingumo ataskaitoje pateikiamą informaciją bei Tarptautinio ekonomikos forumo (WEF) leidinio *Pasaulinė konkurencingumo ataskaita (Global Competitiveness Report)* duomenis, kurie yra pagrindinis konkurencingumo vertinimo šaltinis. Abiejų šaltinių analizė parodė produktyvumo, kaip svarbiausio šalies konkurencingumą parodančio faktoriaus, svarbą ir galimybę. Tą patį patvirtino ir kitų mokslininkų tyrimai, cituojami šiame straipsnyje. Tyrime produktyvumas naudojamas kaip šalies konkurencingumo indikatorius siekiant įvertinti sąsajas tarp produktyvumo bei ISO 9001/ISO 14001 sertifikatų kiekio bei skvarbos. Vadybos priemonių taikymo ir konkurencingumo sąsajų lyginamajai analizei atlikti autoriai surinko ir apibendrinė dešimties naujųjų ES šalių (ES-10), tai yra Čekijos, Estijos, Vengrijos, Latvijos, Lietuvos, Lenkijos, Slovakijos, Slovėnijos, Bulgarijos ir Rumunijos konkurencingumą ir vadybos lygį atspindinčius rodiklius. Iš skirtingų šaltinių buvo surinkta informacija apie šių šalių produktyvumą, gyventojų skaičių, įmonių skaičių, įdiegtas

vadybos sistemas ir kt. Vadybos kokybės vertinimo kriterijais buvo pasirinkti kokybės vadybos (ISO 9001) ir aplinkosaugos vadybos (ISO 14001) sistemas sertifikavusių organizacijų kiekis šalyje. Visi indikatoriai buvo analizuojami vertinant jų koreliaciją. Nustatyta stipri koreliacija (47%) tarp konkurencingumo ir produktyvumo patvirtina šių parametų svarbą, kadangi *IMD* naudotoje metodikoje šalies produktyvumas yra tik vienas iš svarbių konkurencingumo vertinimo kriterijų. Siekiant identifikuoti bendrą Lietuvos viziją ir strategiją, susijusią su konkurencingumo didinimu šalies mastu, buvo sugretinti ir išanalizuoti strateginiai dokumentai „Valstybės ilgalaikės raidos strategija“, „Lietuvos ūkio (ekonomikos) plėtros iki 2015 metų ilgalaikė strategija“ ir „Nacionalinė Lisabonos strategijos įgyvendinimo programa“. Šiuose dokumentuose dalinai yra minimi veiksmai ir kryptys, susijusios su konkurencingumo ir produktyvumo didinimu. Tačiau pasigendama aiškesnio kompleksinio požiūrio į veiksnius, darančius įtaką šalies konkurencingumui bei kryptingo planavimo ir veiksmų įgyvendinimo, sąlygojant visus šiuos kriterijus. Taip pat šiuose dokumentuose vadyba nėra aiškiai išskirta kaip viena iš priemonių konkurencingumui didinti, nenumatyti konkretūs šios krypties veiksmai valstybės lygmeniu. Pažymėtina, kad tyrimas atskleidė nedidelę koreliaciją tarp ISO 9001 ir ISO 14001 sertifikatų kiekio ir šalies produktyvumo. Pirsono koreliacija sudaro atitinkamai 2,97 % ir 3,88 %. Tai rodo, kad tik apie 3 – 4 % šalies produktyvumo gali būti paaiškinta tiesine koreliacija su ISO 9001 ir ISO 14001 vadybos sertifikatų kiekiu. Tyrimas parodė, kad ISO 9001 ir ISO 14001 sertifikatų skverbtis šalyje (palyginus su gyventojų skaičiumi ir įmonių skaičiumi atitinkamoje šalyje) nėra tiesiogiai susijusi su šalies produktyvumu. Straipsnyje atskleidžiamos galimos minėtos priklausomybės nebuvimo priežastys. Lietuvos nacionalinio Kokybės prizo konkurso 10 metų vertinimo rezultatų sugretinimas atskleidė, kad šalies organizacijos didesnę dėmesį skiria materialių ir konkretesnių aspektų (pvz., išteklių valdymas, finansiniai rezultatai ir kt.) valdymui, lyginant su sunkiau apibrėžiamų, tačiau nemažiau svarbių kriterijų valdymu (pvz., personalo valdymas, lyderystė, procesų valdymas). Paradoksalu, kad didėjant darbo sąnaudoms ir augant personalo svarbai, darbuotojų valdymo instrumentai išlieka organizacijų vadybos prioritetų sąrašo pabaigoje.

Autoriai teikia šias rekomendacijas kryptingiems ir kompleksiniams veiksams, kurie pagerintų šalies konkurencingumą:

- sisteminės ir kompleksinės šalies strategijos ir politikos didinant Lietuvos konkurencingumą ir produktyvumą formavimas (atitinkamų veiksmų strateginiuose planuose ir programose integracija ir sąsajos, didesnis dėmesys visiems konkurencingumą sąlygojantiems faktoriams ir kt.) leistų kryptingiau planuoti ir įgyvendinti konkurencingumo didinimo veiksmus ir priemones;
- skatintina gilesnė vadybos, kaip vieno iš konkurencingumą sąlygojančių faktorių, analizė ir panaudojimas strateginio lygio dokumentuose, planuojant ir įgyvendinant šalies konkurencingumo didinimo veiksmus ir priemones;
- gilesnė veiksmų, sąlygojančių šalies konkurencingumą, analizė būtų naudinga moksliniu požiūriu, siekiant veiksmingiau ir kryptingiau planuoti ir įgyvendinti veiksmus konkurencingumui didinti. Metodologijos, skirtos šalies vadybos lygio kokybės vertinimui, parengimą šio darbo autoriai laiko viena iš prioritetinių vadybos mokslo krypčių.

Reikšminiai žodžiai: konkurencingumas, vadyba, produktyvumas, sertifikatas, ISO 9001, ISO 14001, Lietuvos nacionalinis Kokybės prizas.