



Szent István University
Management and Business Organizational Sciences
Ph. D. School

Theses of PhD Dissertation

**Analysis of some factors influencing the competitiveness of Hungary and
the EU member states**

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INTRODUCTION

The topicality of the choice of topic

Competitiveness can also be examined at national, regional and company levels. A sharp separation of levels is not practical because in a given country, economic actors affect each other's performance, thus intertwining the competitiveness of the national economy, the competitiveness of companies, and the competitiveness of the region. Thus, competitiveness can only be examined in an aggregated way, with a combined and systemic approach of all levels, but the examination of sub-areas is also very important.

The topic of the dissertation is the analysis of the competitiveness of the EU and Hungary, referring to the effects of foreign trade. Competitiveness was originally a microeconomic concept, so significant scientists say it is difficult to interpret it at the macroeconomic level.

In the competitiveness country rankings, the rankings of each country should be treated with caution. The main reason for this is that there is no consensus among economists on the definition of macro-level or national economic competitiveness.

More recently, OECD documents have also defined a common concept of competitiveness. It is: "the ability of companies, industries, regions, nations and supranational regions to generate relatively high incomes and relatively high levels of employment on a lasting basis while exposed to foreign (global) competition". This OECD definition can, in my view, be considered a compass and taken into account in a subsequent literature review.

According to international comparisons, Hungary performs poorly in terms of competitiveness. Due to this disadvantage, a thorough examination of competitiveness is important, which gives the dissertation the topicality.

The topic of my dissertation is the analysis of the correlations of competitiveness. In addition to the systemic approach to competitiveness, I pay special attention to the performance of domestic SMEs, and I analyze the extent to which small and medium-sized enterprises contribute to strengthening competitiveness at the national level.

The main objectives of the dissertation

- Tasks include a systematic interpretation of competitiveness, analysis of national and corporate competitiveness; a summary of the factors determining the competitiveness of the EU-28 countries, taking into account the WEF ranking, and grouping of countries by statistical methods and comparison of the groups with other groups identified in the literature. I perform the analysis based on the WEF database.

- Presentation of Hungary's competitiveness, evaluation of trends for the 12 pillars between 2007-2017. Evaluation of indicators for estimating national competitiveness. International comparison in the examination of some sub-areas.

- The performance of small and medium-sized enterprises has a significant impact on a country's competitiveness. A detailed analysis can be carried out in the areas affecting innovation and competitiveness to determine how small and medium-sized enterprises have lagged behind in terms of competitiveness and where they need to be improved. The performance of domestic small and medium-sized enterprises can be examined and compared with the EU average in certain areas affecting competitiveness, or with countries that perform well in certain areas of competitiveness.

- Competitiveness and innovation are strongly linked. International innovation analyzes show that the competitiveness of countries depends not only on the competitiveness (innovativeness) of the business sector, but also on the innovativeness of the non-business sector and society. It is advisable to analyze the innovation performance of the member states and to compare them in each group of countries on the basis of international statistics and the WEF database. Hungary's moderate innovation performance worsens our competitiveness, and to avoid this I will determine the main directions and opportunities for change.

- My aim is to examine the indicators considered important in the EU principles in the case of Hungary and some selected EU countries. The examined areas give evaluable results for the groups of countries, which are listed as follows:

- Inflation,

- debt,
- budget balance,
- GDP per capita,
- export ratio,
- import ratio,
- national savings.

Based on the data, it is possible to examine changes over 12 years.

The importance of research on this topic is given by the fact that relations between EU member states decisively strengthen international regional economic integration, thus ensuring the decisive role of the EU in the world economy. Based on the above aspects, the analyzes lead to new scientific findings, conclusions and recommendations. The dissertation also presents Hungary's competitiveness in detail for comparison. Using the results and experiences of the literature review, I formulated and examined the following research hypotheses in my dissertation.

Hypotheses

H1 Significant indicators filtered by stepwise discriminant analysis based on the results of cluster analysis determine the ranking value of global competitiveness. These ranking values make it possible to assess the countries examined and to compare / compare the priorities of the economic policies adopted for sustainable development with the effectiveness of implementation.

H2 Based on the evaluation of the 12 pillars of the WEF, Hungary's competitiveness situation can be determined, and the ranking changes can be described by linear trends, and new results can be established through their analysis.

H3 Small and medium-sized enterprises are able to have a positive effect on the development of the competitiveness of the national economy mainly through their position in employment, so their role is significant in improving competitiveness. The size of SMEs has an impact on their competitiveness. The performance of domestic SMEs lags significantly behind that of

small and medium-sized enterprises in the developed countries of the EU, so it is necessary to improve the performance of small and medium-sized enterprises in the areas that determine domestic competitiveness. Some areas of the SBA profile (eg second chance, skills and innovation, efficient administration) give modest results compared to the EU average, so even a quick intervention can bring immediate results in improving competitiveness.

H4 It is necessary to shift the priorities of domestic economic policy towards an economy with advanced knowledge and greater added value. There is a strong correlation between the country ranking according to the Innovation Union scoreboard (based on 25 innovation performance indicators) and the ranking in the WEF competitiveness country ranking. Countries that perform well in innovation in global competition are more competitive.

H5 Based on the examination of macro indicators (56 trend analysis), Hungary's positions are stable in the research period from 2006-2007 to 2017-2018, but its catching up with the developed countries of the EU is slow. I compare Hungary with the three best-performing European countries in the WEF ranking (Germany, Netherlands, Sweden) and three countries with the average ranking in the same ranking (Czech Republic, Poland, Spain).

The hypotheses were developed taking into account the objectives of the dissertation. By correctly preparing and implementing the research, I intend to provide methodologically grounded answers to confirm or reject the hypotheses.

PROCESSING OF DOMESTIC AND INTERNATIONAL LITERATURE

The literature on competitiveness is extremely extensive and has been analyzed by others. The European Union also considers the issue important and analyzes it in its documents.

In my literature review I analyze:

- concepts and models related to competitiveness,
- separation of levels,
- the levels of competitiveness of economic systems,
- measuring competitiveness and new approaches.

I present Porter's diamond model.

An important topic of analysis is the situation of small and medium-sized enterprises, their opportunities to improve their competitiveness and foster innovation. Opportunities are enhanced by the development of the network economy and the role of clusters, through which we can count on increasing economic opportunities.

Trade makes it possible to sell the produced values, I present its literary background in detail. In secondary research, I use the data and results of others. The main topics analyzed were:

- interpretation and measurement of competitiveness,
- innovation, research and development,
- competitiveness program,
- networks and clusters,
- competitiveness factors, trade situation.

I used data from WEF, Eurostat and CSO.

Material and method

In my dissertation I used a database containing a significant amount of data. The WEF GCI database contained data for the last time, 2017/2018, for 137 countries. My work only required data from the EU-28 countries, but it also means an extremely large amount of data. The database allowed for evaluation from 2006 to 2018. A database is a set of data whose elements can be considered as related by their specific properties.

A database is a system of data and the relationships between them stored side by side. Based on the database, we can store and manage large amounts of data with the same structure. In my primary research, I sought to identify new scientific findings. One of the methods used was the analysis of time series. Time series show the change in socio-economic processes as a function of time. This requires:

- sufficient data,
- the data must relate to times spaced in the order specified by the time criteria,
- the content of the data examined must be identical.

I believe that the examination of the indicators considered important in the EU principles gives measurable results for both the Hungarian and European economies. Such areas are:

- inflation,
- government debt,
- the budget balance,
- GDP per capita,
- the export ratio,
- the import ratio,
- national savings.

The data of the interconnected tables can be arranged and grouped according to the aspects corresponding to my research. From the data we can compile functions that we can evaluate.

We can always observe basic trends (increase, decrease, etc.) in the development of time-varying presentations. Based on the experience of the observed phenomena, we can write a function that expresses the basic trend of the change over time. Depending on the type of function:

- linear
- exponential,
- parabola,
- logistic (S-shaped).

Based on my data, I was able to apply linear functions.

In **discriminant analysis**, we seek to differentiate certain groups of people based on some of the characteristics examined. The task is to find the function that provides the best separation among the elements that cannot be separated perfectly. The discriminant analysis is simplified as follows: it lays a straight line (I.) through the intersections of the two sets, and then fits a perpendicular line (II.) Through the origin. If the points represented in the two dimensions are shown in Table II. projected onto a straight line, the overlap between the univariate (normal) distributions of the two groups will be less than for any other straight line.

For the analysis of competitiveness, the more reliable VGF, Eurostat and IBM sources provide an opportunity for static and dynamic comparisons and the exploration of correlations. To analyze the time series, I checked the VGF (WEF) database with Eurostat and IBM data.

I examined the period and time series data of the VGF database between 2005 and 2016 with linear trends. The benefits of this longer period are that it reduces the significance of minor data errors and provides opportunities for predictions.

The trend calculations provided measurable results for the main direction of the changes in the whole statistical analysis system, both for the EU Member States and for the domestic changes:

- where our country is located in the EU-28 environment,
- trends in change, how convergence is achieved,
- what is the development direction of our country.

For situational, static analysis I used the method of cluster analysis and discriminant analysis. Thus, my main goal is not to compare data and research results, but to examine multivariate relationship systems based on trends and competitiveness indices. In-depth analysis of competitiveness and the presentation of its multivariate relationship system have been published less frequently, therefore I group EU countries in a novel way with cluster analysis.

When presenting the trends, it is advisable to place the EU Member States belonging to each cluster group in a confidence band (confidence band). Then, based on the results of the clustering (which countries, which group they belong to), the step-wise discriminant analysis (SDA) method can be used to filter out indicators and competitiveness indicators that play a significant role in the grouping.

The role of SMEs is crucial for competitiveness, mainly due to their role in employment. For the evaluation of SMEs, I used the 2018 data of the SBA Fact Sheet for Hungary. Based on this, it was possible to identify the areas where the performance of domestic SMEs is weak compared to the EU average. Such areas are entrepreneurship, innovation, efficient administration and the environment. The most important of these is research and innovation, which I was able to assess on the basis of the Innovation Union Scoreboard. The *European Innovation Scoreboard (2016)* analyzes 25 innovation indicators and divides countries into four groups based on the innovation index generated from them. Based on this, we can classify Hungary as a group of “moderate innovators”. Competitiveness, R&D and innovation go hand in hand, they determine the development of a company. Evaluation for SMEs is an important part of my dissertation.

Evaluation of the calculation results

In accordance with the objectives, I analyzed the competitiveness of Hungary and the EU Member States. In the case of indicators considered important in the EU principles, I examined an 11-year trend. I carried out my activities on the basis of an extensive database.

I present in detail the WEF's competitiveness rankings in the case of Hungary for the 12 pillars. I present the importance of network cooperation for organization and the role of the cluster system in increasing competitiveness.

Competitiveness and trade are related, I describe the situation and changes in international and domestic trade. I evaluate Hungary's foreign trade on the basis of the latest CSO data.

In my research, I used a pyramid showing the foundations and goals of competitiveness (Figure 1).

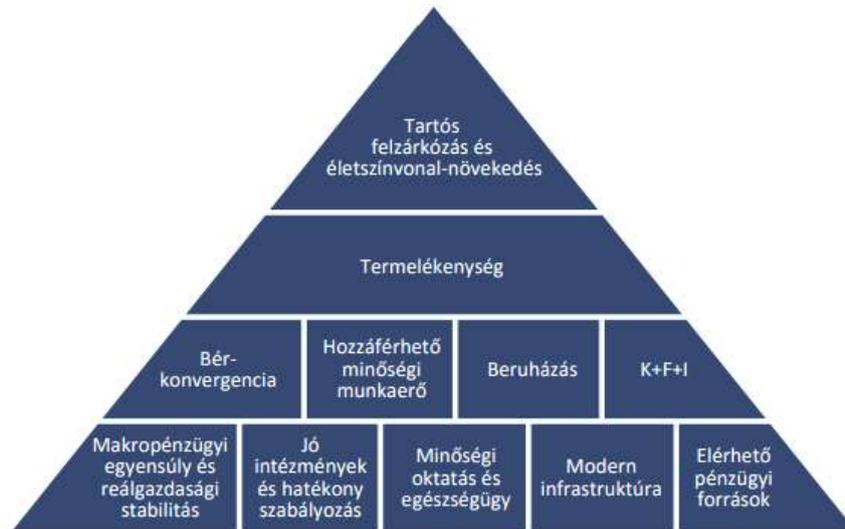
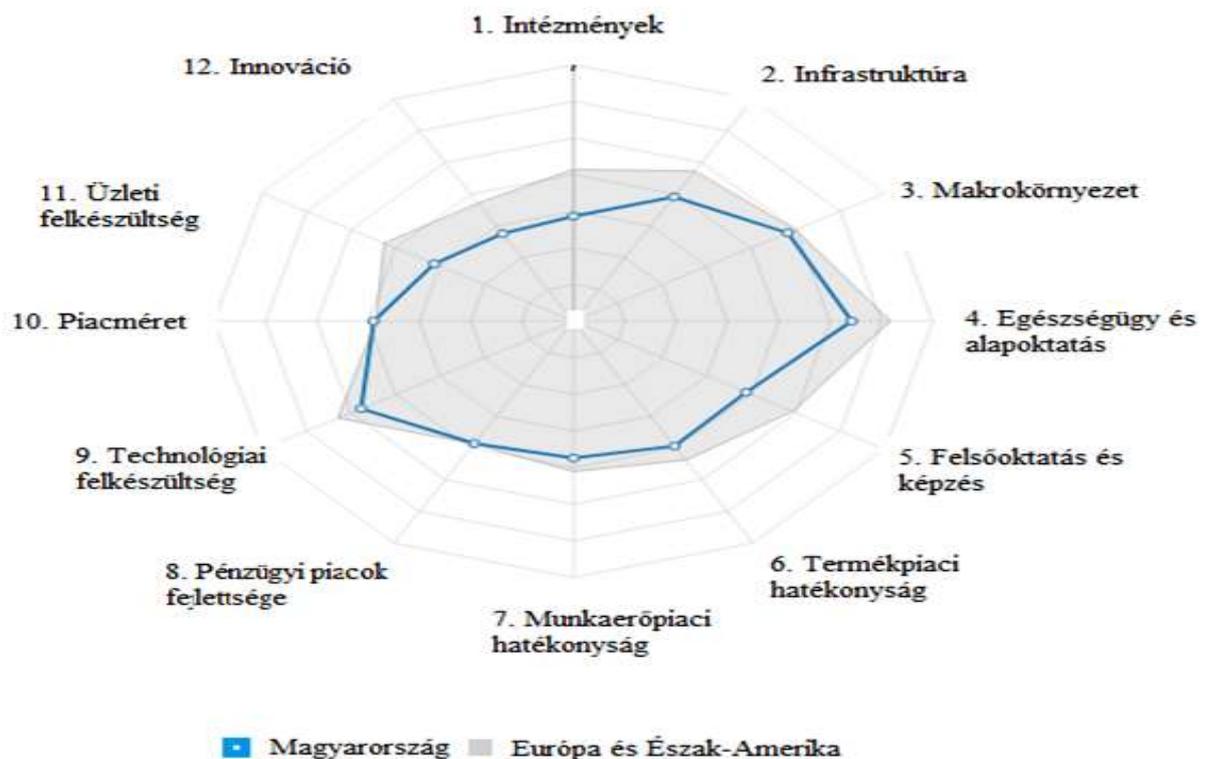


Figure 1: **Stylized structure, foundations and purpose of competitiveness**

Source: MNB, 2019.

Sustained catching up and rising living standards
 Productivity wage Convergence
 Quality workforce available
 Investment R + D + I
 Macro-financial balance
 Good institutions and effective regulation
 Quality education and health
 Modern infrastructure
 Available financial resources

I present the performance of Hungary in the 12 pillars of the WEF ranking and evaluate it in my calculations (Figure 2).



Note: Performance reflects an absolute competitive position as measured on a scale of 1 to 7: 1 is the worst and 7 is the best.

Figure 2: **Hungary's performance in the 12 pillars of the WEF ranking, 2017 (compared to the average of Europe and North America)**

Source: WEF GCI, 2017.

- 1 Institutions 2 Infrastructure 3 Macro environment 4 Health and basic education
 5 Higher education and training 6 Product market efficiency 7 Labour market efficiency
 8 Development of financial markets 9 Technological preparedness 10 Market size
 11 Business preparedness 12 Innovation

Hungary is not doing well among the Central and Eastern European countries either. We are particularly poor on institutions (114), the macro-environment (47), labor market efficiency (80), technological preparedness (54), business preparedness (113) and innovation (80).

Based on the WEF GCI rankings, Hungary's competitiveness deteriorated in the period between 2007 and 2017. Both the V3 average and the EU average lag significantly behind (Figure 3) and the trend line is also downwards.

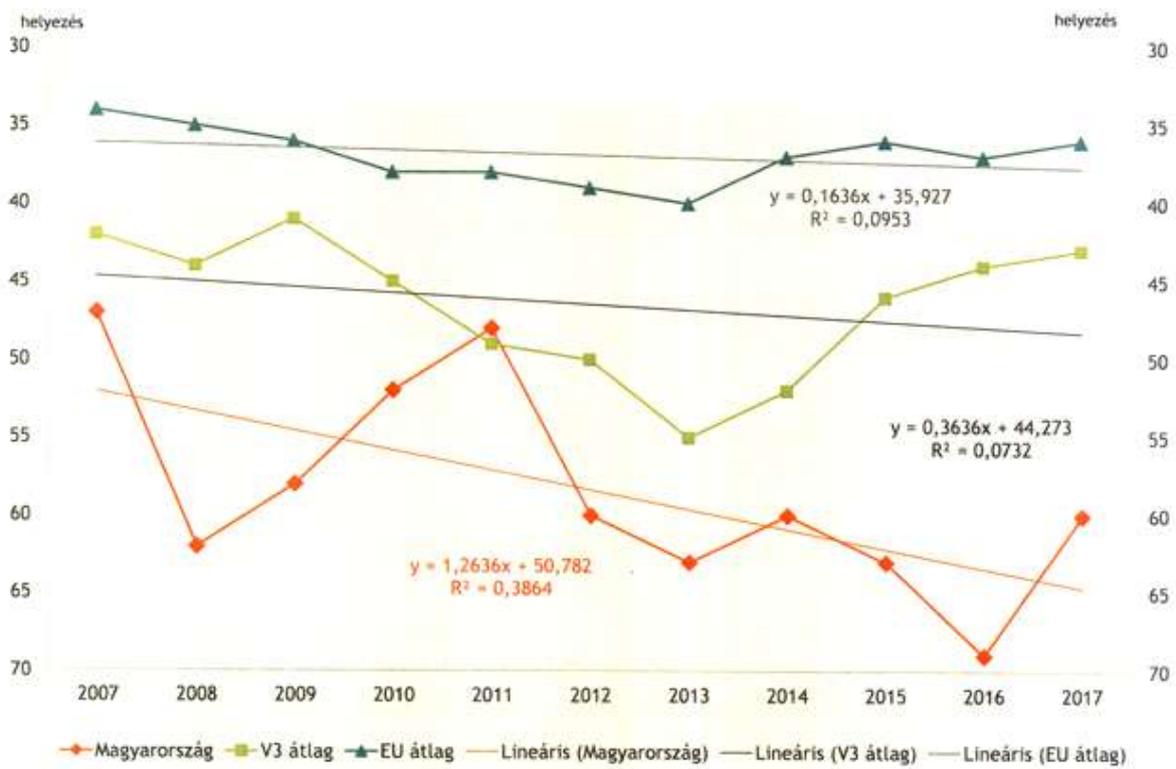


Figure 3: WEF GCI rankings in Hungary, the region and the EU

Source: own calculation

Figure 4 shows the ranking of innovation.

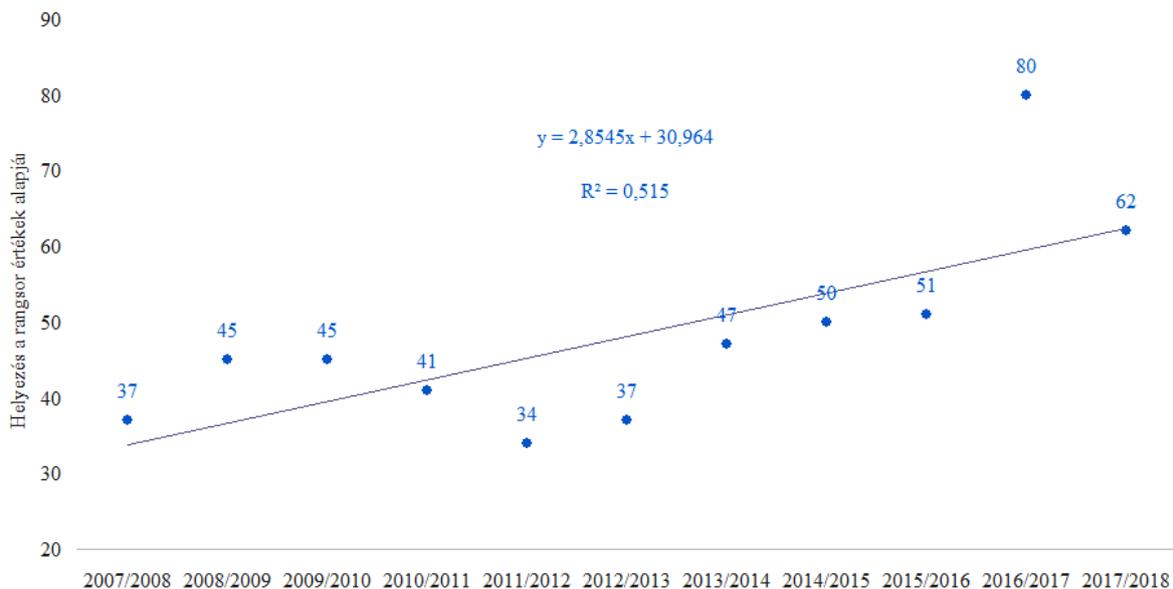


Figure 4: **Trend of innovation placement in Hungary**

Source: WEF (2007-2017) own calculation

An examination of the 12 pillars suggests that significant improvements are needed in terms of competitiveness factors. Domestic competitiveness lags behind that of EU Member States and V3 countries. The country has developed significantly in recent years, and this trend must be maintained.

SMEs play a significant role in the competitiveness of the country and companies. Documents also undoubtedly show that SMEs are essential for more intensive, sustainable growth and more and better jobs.

Economists and politicians agree that everything must be done to strengthen SMEs, because their competitiveness is crucial for the competitiveness of regions, national economies and the European Union. By the competitiveness of SMEs, the users of the term understand the competitiveness of the companies that make up the sector.

For the sector, the positive impact on competitiveness is mainly due to its impact on employment, job creation and prosperity. Of course, economic performance is also an important factor.

The performance of SMEs can be assessed on the basis of the ‘SBA Fact Sheet - Hungary, 2018’ (Figure 5).



Figure 5: **SBA profile** Source: SBA Fact Sheet - Hungary, 2018.

1 Entrepreneurship 2 Second chance 3 Efficient administration
 4 State aid and public procurement 5 Sources of funding 6 Single Market
 7 Skills and innovation 8 Environment 9 Internationality

Evaluation of hypotheses based on test results

H1 Using cluster analysis, I separated three groups of countries, which I analyzed in detail. Examining the global competitiveness ranking values by pillar and country in 2006 and 2018, and presenting the differences in the ranking values, it is possible to compare the competitiveness values of each country, thus each hypothesis is true.

H2 The competitiveness assessment of the 12 pillars of the WEF allows the ranking of the examined countries, the ranking changes of Hungary can be presented with linear trends. The hypothesis is true.

H3 Domestic SMEs lag behind SMEs in the V3 countries and the developed countries of the EU and need to change in order to increase their competitiveness. In detailing some areas of the SBA profile, our lag is significant. The impact of domestic SMEs on competitiveness is positive due to the increase in employment. The hypothesis is partly true.

H4 Innovation improves the competitiveness of SMEs. There is a need to move towards the development of SMEs with greater knowledge and confidence. There is a strong correlation between innovation and WEF ranking. The hypothesis is true.

H5 In the WEF ranking, comparing the data of the best three European countries and Hungary from 2006/2007 to 2017/2018, as well as three medium-performing countries and Hungary, and examining the trends, the lagging areas of Hungary are conspicuous. The hypothesis is true, as the positions of our country are stable, but catching up is slow.

New research results

1. The division of the EU-28 into three groups of countries using a statistically valid method can be considered as a new scientific result. The difference between the three groups of countries is significant. The correctness of the method is supported by the fact that the countries in the WEF GCI ranking have been placed in a separate group and the former socialist countries form another group. This classification can be a scientifically sound basis for new development strategies.

2. The role of SMEs in the field of competitiveness is crucial both in Hungary and in the EU, mainly due to their position in employment. The improvement in the productivity of domestic enterprises is faster than the growth rate of the V4 countries and the EU-28, but lags behind them in value. Productivity is statistically proven to be related to the size of SMEs, while larger SMEs have better productivity and innovation. Based on this, an increase in the size of SMEs is desirable.

3. The method I have developed for comparing individual countries and Hungary can be considered a new scientific result. The comparison is based on the WEF GCI database based on the 12 pillars examined. I have not encountered such a comparison in the literature. Based

on this, any European country can be compared with any European country on the basis of the pillar values in the time interval 2006-2018 allowed by the database. The available data and the calculated values are suitable for drawing conclusions about competitiveness.

4. The country-by-country assessment of the 12 pillars presented by the WEF GCI can be considered as a new scientific result. Based on this, the lagging areas can be separated, so the main directions of development can be determined. Above all, improving workforce training, technological preparedness and rapid innovation development are important.

5. The comparison of the three most developed states and the three moderately developed states of the EU with the results of Hungary on the basis of trends can be considered as a new scientific result. The trends are for the period 2006-2018. The areas examined were annual inflation, government debt, government budget balance, GDP per capita, exports, imports, and gross national savings. These areas characterize the economies of countries, and the evaluative part of the dissertation and the examination of trends provide important information about their competitiveness.

SUMMARY AND RECOMMENDATIONS

In my dissertation I analyzed the factors influencing the competitiveness of the EU member states. Important research area also determining the position of Hungary, the trends change. Presentation of the current situation of foreign trade is especially important because this will be possible by the producers for the cost of production and return of capital. In my research I included the 27 EU member states and Hungary.

We can now talk about global competition in the world. Today, the majority of corporate long-term competitive advantages resulting from the innovation meeting skills, and the tudásteremtésből tudástranszferből this race.

In the first part of my thesis dealing with the interpretation and measurement of competitiveness. The topics covered are innovation and research and development, in which Hungary is not doing well.

In my analysis, I use the WEF report 2017/2018 and present a detailed analysis based on this. In the case of the 12 pillars can be registered in underdeveloped areas, the main directions of development determined on this basis.

I present and evaluate the MNB's competitiveness program. The MNB's competitiveness program is summarized in 330 points, and the proposals cover all relevant areas.

In my dissertation, I discuss the importance of network cooperation in innovations. The role of clusters is becoming increasingly important, but this has only been partially recognized in Hungary. The main element of the clustering process is that competition is replaced by cooperation in certain areas.

Postmodern regional policy envisions development by acquiring information, expanding knowledge and innovation, and building networks. Successful ideas support complex programs, including overlapping projects, and build on the role of small and medium-sized enterprises.

An important part of my dissertation is to describe Hungary's competitiveness according to the 12 pillars of the WEF by presenting the trend of change. Looking at the trend between 2007 and 2017, our rankings tend to deteriorate, with encouraging changes only in recent years.

The essence of the global value chain is to divide the production process into stages and to install each stage in different countries. We should strive to be at those stages of the value chain where we can realize higher added value.

In the next part of my research, I evaluate the Hungarian and European economies based on trends in the following important areas: - inflation, - government debt, - budget balance, - GDP per capita, - export ratio, - import ratio, - national savings.

I see my hypothesis as justified, so Hungary lags far behind most of the EU member states in terms of competitiveness. Areas where we need to improve can be identified. In order to develop faster, we need to improve in several areas. We have serious opportunities in trade.

At the end of my dissertation, I identified new scientific findings that I considered important. These cover the following areas:

- which areas are in need of rapid development,
- the role of trade is also positive in terms of GDP growth and competitiveness,
- Hungary belongs to group 2 of the EU Member States, thus occupying a medium position,
- euro area Member States are growing faster than non-euro area Member States.

In addition to the traditional resources of competitiveness (labor, capital, technology, natural factors), it is advisable to involve new resources (innovation skills, network economy, knowledge, trust capital, etc.) in order to achieve rapid development.

LIST OF PUBLICATIONS

Andrea Vajda PhD student

Journal articles in English

Vajda, Andrea (2019): Economic competitiveness of Hungary by impact of foreign trade pp. 7-12, Economics & Working Capital, Kiadó: WCTC Ltd., London, Science Journal/ tudományos folyóirat angol nyelven, 2019. 3-4. ISSN: 2398-9491

Vajda, Andrea (2020): Role of foreign trade in competitiveness of the EU-28. In.: Journal of Central European Green Innovation. 7. évfolyam 3. szám (in press / megjelenés alatt)

Vajda, Andrea et al, (2015): Waste management and sustainability of natural resources, pp. 71-74. Vol. 64, Supplement, 2015. Növénytermelés, ISSN 0546-8191 (Print), DOI: 10.12666/Novenyterm.64.2015.Suppl., Department of Agricultural Sciences, Hungarian Academy of Sciences.

Vajda, Andrea et al, (2014): Water management in Middle East and North –Africa, pp. 32-38. HUNGARIAN AGRICULTURAL ENGINEERING, N° 26/2014 pp. 32-38. Published online: <http://hae-journals.org/>, HU ISSN 0864-7410
HU ISSN 2415-9751(Online), DOI: 10.17676/HAE.2014.26.32
Periodical of the Committee of Agricultural and Biosystem Engineering of the Hungarian Academy of Sciences.

Journal articles in Hungarian

Andrea **Vajda** (2020). Developments in the EU-28 foreign trade ratio and the economic factors affecting it. (Evolution of the EU-28 foreign trade exchange rate and economic factors affecting it) Controller Info VIII. volume No. 1 / 1st quarter, March 2020, Publisher, Publishing: Copy & Consulting Kft. / Ltd, Budapest, Professional journal, scientific journal, pp. 34-38. ISSN 2063-9309

Andrea **Vajda** (2020): Competitiveness and Innovation. the role of SMEs in increasing competitiveness. In .: Acta Carolus Robertus Volume 10 Issue 2 (forthcoming)

Vajda, Andrea et al, (2015d): Participants in Accreditive business. Controller Info, III. year / quarter, 3rd quarter / quarterly, Publisher, Publishing: Copy & Consulting Kft. / Ltd, Budapest, Professional journal, scientific journal, pp. 24-29, ISSN 2063-9309

Vajda, Andrea et al, (2015). Legal relations of the letter of credit transaction. Controller Info III. Vol. Issue 4 / Quarter 4, pp. 47-53. Publishing, Publishing: Copy & Consulting Kft. / Ltd, Budapest, Professional journal, scientific journal, September 2015, ISSN 2063-9309

Conference publication in English

Vajda, Andrea et al, (2015): Role of CMIM in integration of Asian Region, pp. 27- 34. 5th International Conference of Economic Sciences and 5th Climate Change, Economic Development, Environment and People (CCEDEP) Conference of the Alliance of Central-Eastern European Universities (ACEU) Session: COLLABORATIVE FINANCE, Editors: Katalin Szendrő, Viktória Szente, Róbert Barna, Kaposvár University – Kaposvár – Hungary - 7-8 May 2015, Published and distributed by Kaposvár University, Faculty of Economic Science, ISBN: 978-963-9821-86-6

Vajda, Andrea et al, (2015): Financial integration process in ASEAN Region at the beginning of XXI. Century, pp. 35-40, 5th International Conference of Economic Sciences and 5th Climate Change, Economic Development, Environment and People (CCEDEP) Conference of the Alliance of Central-Eastern European Universities (ACEU) Session: COLLABORATIVE FINANCE, Editors: Katalin Szendrő, Viktória Szente, Róbert Barna, Kaposvár University – Kaposvár – Hungary - 7-8 May 2015, Published and distributed by Kaposvár University, Faculty of Economic Science, ISBN: 978-963-9821-86-6

Vajda, Andrea et al, (2015): International cooperation for sustainable economic growth, p 558-562. II. Management and Management Scientific Conference; Economics and Economics

Section I. Kecskemét College, Faculty of Horticulture, August 27, 2015, Editor: Ferenc, Árpád. Kecskemét. ISBN 978-615-5192-34-0 II.

Vajda, Andrea et al, (2015): Role of East Asia and China in the world-wide FDI flow (Role of East Asia and China in International Foreign Direct Investment) pp. 563-567, Scientific Conference on Management and Management; Economics and Economics Section I. Kecskemét College, Faculty of Horticulture, August 27, 2015, Editor: Ferenc, Árpád. Kecskemét. ISBN 978-615-5192-34-0 II.

Other publications

School book

Katalin Neubauer - Andrea **Vajda** (2019): Sales Science, Commercial Knowledge Textbook, 100 pages, Műszaki Könyvkiadó Kft., ISBN: 978-963-16-6710-3

Previous notes and book excerpts

Andrea **Vajda** (1993): Ministry of International Economic Relations - Preparation of a proposal for a Professional Advisory Board - Elaboration of the system of requirements for the professional qualifications of Foreign Trade Administrator, Foreign Trade Sales Representative and Foreign Language Correspondent - Preparation of graduation assignments

Andrea **Vajda** - Tibor Török (1994): Application of Standards in International Trade. Education Note, 60 pages. TRAINEX Business Vocational School

Andrea **Vajda** - Tibor Török (1994): The foreign trade transaction. Education Note, 40 pages. TRAINEX Business Vocational School A revised version of the notes marked as second and third, 2006, was used as an educational note at the KVIF Faculty of the Budapest College of Economics. Ministry of Industry and Trade.

Andrea **Vajda** (1995): Final Vocational Exam Exercise Collection, 70 pages, National Institute of Vocational Training

Andrea **Vajda** (2001): National Secondary School Study Competition Task Collection, 60 pages

Book excerpt in Hungarian

Andrea **Vajda** - Tibor Török (2015): The application of the franchise system in Hungary and corporate flexibility. Pp. 105-115. MULTIDISCIPLINARY CHALLENGES, MULTI-COLOR RESPONSES, Volume 5, Part 2. On-line study volume, www.ecosym.wix.com/kvik, Editor-in-Chief: dr. Hamar Farkas Ph.D. Budapest College of Economics, Faculty of Commerce, Hospitality and Tourism, Department of Economics, Volume of Studies, ISBN: 978-963-7159-51-0

Tibor Török - Andrea **Vajda** (2015): Ways and means of financing in the franchise system, pp. 116-123. MULTIDISCIPLINARY CHALLENGES, MULTI-COLOR RESPONSES, Volume 5 Part 1. On-line study volume, www.ecosym.wix.com/kvik, Editor-in-Chief: dr. Hamar Farkas Ph.D. Budapest College of Economics, Faculty of Commerce, Hospitality and Tourism, Department of Economics, Volume of Studies, ISBN: 978-963-7159-51-0