

VILNIUS UNIVERSITY

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LABOUR MIGRATION MANAGEMENT: EVALUATION OF ECONOMIC
FACTORS AND CONSEQUENCES

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VILNIAUS UNIVERSITETAS

Miglė Sarvutytė

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RESUME OF DOCTOR'S DISSERTATION

INTRODUCTION

Issue relevance Free mobility of persons in the European Union (EU) is one of four liberties completing the basis of general market. According to Article No 39 of the Agreement of European Community, an employee is provided with a possibility to choose a vacancy in the whole area of the EU in a free way. Economical grounding of the liberalization concerning the labor force mobility is based on the presumption that having eliminated obstacles related to the labor force mobility, workers will emigrate to places where there is a shortage of labor force, and as a result the provided payment of labor force is higher. In turn that phenomenon will encourage productive and efficient distribution of resources in the area of general market. A right to move freely in order to live and work abroad is one of the European citizens' key rights, which is consolidated in the Treaty of Rome (Foundation of the European Community).

Europe presents a great opportunity of employment. It provides persons who are looking for a job, with the development opportunities of own skills and experience, as well as opportunities to improve own long-term career perspectives. Europe provides employers with a greater employee selection possibility. This factor is particularly beneficial when an employer looks for persons with specific qualifications, whose supply in their state might be very limited.

Recent migration is the greatest mobility/movement of people through ages. During current decades, this phenomenon includes about 200 million people. Such a factor is becoming a more and more serious problem in terms of social, cultural, political, religious and economical approach. Despite all, there is no state that avoids the outcomes of one or another migration.

The evaluation of migration outcomes depends on the selected object for that these outcomes are measured – i.e. for an individual, society, particular community, state or separate system. Evaluation outcomes depend on the evaluative period – short-term, average or long-term.

Scientific issue and its research level On the basis of scientific theoretic level there have been prepared a lot of fundamental works allocated to the analysis of the topic related to the labor force migration reasons and outcomes. There are a lot of foreign authors who are analyzing labor force migration, 'push' and 'pull' factors; 'brain-drain' caused by the migration; however, they do not provide with specific means how to solve problems caused by migration. R. Ehrenberg, G. Smith, (1996); Ø. Fuglerud (2001); J. Issac (2000), P. White and R. Woods (1980); M. Porter (2002); R. Skeldon (2005) J. Bogardi (2007), etc. wrote on the labor force migration. There can be mentioned the following Lithuanian authors who have been analyzing labor force migration: A. Kazlauskienė, B. Mrazauskienė (2003); R. Matiušaitytė (2003), R. Kripaitis, B. Romikaitytė (2005); J. Krumplytė, Ž. Obrikaitė (2005), A. Sipavičienė (2006), etc. Center for strategic studies (2006) performed a gradual research and prepared the long-term strategy for the state of Lithuania. Civil societies and Free Market Institutes carry out research of the same nature. (2005; 2006)

The most famous authors' (*M. Porter, 1990, 2000, P. Krugman, 1994, 1996, A. M. Rugman and others., 1998, D. S. Cho, 1994, D. S. Cho, H. C. Moon, 1998, J. Reiljan and others., 2000, EC, 2001, 1999, R. Jucevičius and others., 2005, 2007, B. Gardiner and others., 2004*) theories and approaches were allocated to analyze the competitiveness of countries, and at the same time the aspects related to the labor force migration and employment.

Despite increasing interest in the topic of labor force migration, in the scientific literature there have been carried out quite a lot of analyses in methodological aspects concerning the reciprocity of labor force migration factors and outcomes. There is missing methodologically based economical evaluation of labor migration factors and outcomes, excluding the most significant labor force migration factors as well as the most important outcomes of the following process that under the defined determinant labor force factors allows the evaluation of the situation related to the labor force migration in the country. Such an index as migration *saldo* does not allow the perception of the labor force migration situation in the country as well the most significant characteristics of labor force migration those are typical to the country, i.e. such as the competitiveness level of the country, management/control efficiency of migration policy, etc, and it also does not allow to form efficient management/control strategies of labor

force migration those would enable the decrease of negative impact of labor force on the country, as well as would allow to exploit the use provided by the labor force migration for the strengthening of the country competitiveness.

Consequently, significantly high pace of emigration in Lithuania is severely explained and even more severely managed as there has not been created any effective management system of migration based on the management of migration indicators as well as the forecast of outcomes. There have been prepared a lot of fundamental works, allocated to the analysis of the topic related to the labor force migration reasons and outcomes; however, there have not been provided any particular means how to solve migration problems originated in Lithuania as well as to manage/control the following process.

Evaluation methodology allocated to the free movement/mobility of labor force impact on Lithuania may base on the investigations those are carried out in different trends: modeling of free labor force movement from Lithuania to the EU and the USA depending on the change of macro-economic indexes and direct foreign investment in a long-term perspective (20-30 years period); through the analysis of the state policy and strategy that is able to reduce negative impact of free labor force movement on Lithuania; however, in order to create an effective management/control model of labor force migration in the country there are necessary tools those enable versatile research of labor force migration factors and outcomes as well as their reciprocal interaction.

The issue of the scientific thesis is the design of management/control system related to the labor force migration that enables the regulation of migration factors impact on the increase of emigrations flows as well as it enables the reduction of negative impact in labor force migration as well as exploitation of free labor force movement efficiently through the developing of Lithuanian level of economy and the increase in the competitiveness of the country.

The subject of the scientific thesis – evaluation of labor force migration factors and outcomes in the country

There is sought **the thesis** aim according to the theoretic grounding of labor force movement factors and outcomes in order to design a theoretic management/control model of labor force migration that is based on the economic evaluation of labor force migration factors and consequences.

In order to achieve the defined aim there have been stated the following objectives:

1. To provide with the conception of labor force migration as well as to systematize and summarize theoretic basis of labor force migration factors and outcomes;
2. To analyze migration theories and exclude labor force migration factors;
3. Theoretically summarize management/control possibilities for labor force migration;
4. To design a theoretic management/control model for labor force migration that is based on the economic evaluation of labor force migration factors and outcomes;
5. On the basis of management/control model for the labor force migration, to prepare the instrumentation for its practical application;
6. According to the prepared instrumentation to carry out the empiric application of the management/control model related to the labor force migration in Lithuania as well as to examine the posed hypotheses.

Research has been carried out during the period of 2004-2010.

Research methods: theoretic analysis based on different scientists' thesis results and outcomes including the application of systematic and comparative analyses. During the evaluation of migration factors there have been applied the methods of multi-criteria analysis. Carrying out the evaluation of migration factors, there have been applied methods of multi-criteria analysis such as SAW (Simple Additive Weighting) as well as construction of integrated indicators through the application of scenarios methods. Carrying out the application research of management/control model related to the labor force migration, there have been applied the following methods: mathematical and statistical proceeding as well as expert evaluation. In order to define internal factors those determine the solution to emigrate, there has been carried out a questionnaire research concerning the residents' readiness to emigrate, through the application of expectative models as well ones of parameter sensitiveness, and statistic research in the indetermination of results, applying the following software package: SUSA (System for Uncertainty and Sensitivity Analysis).

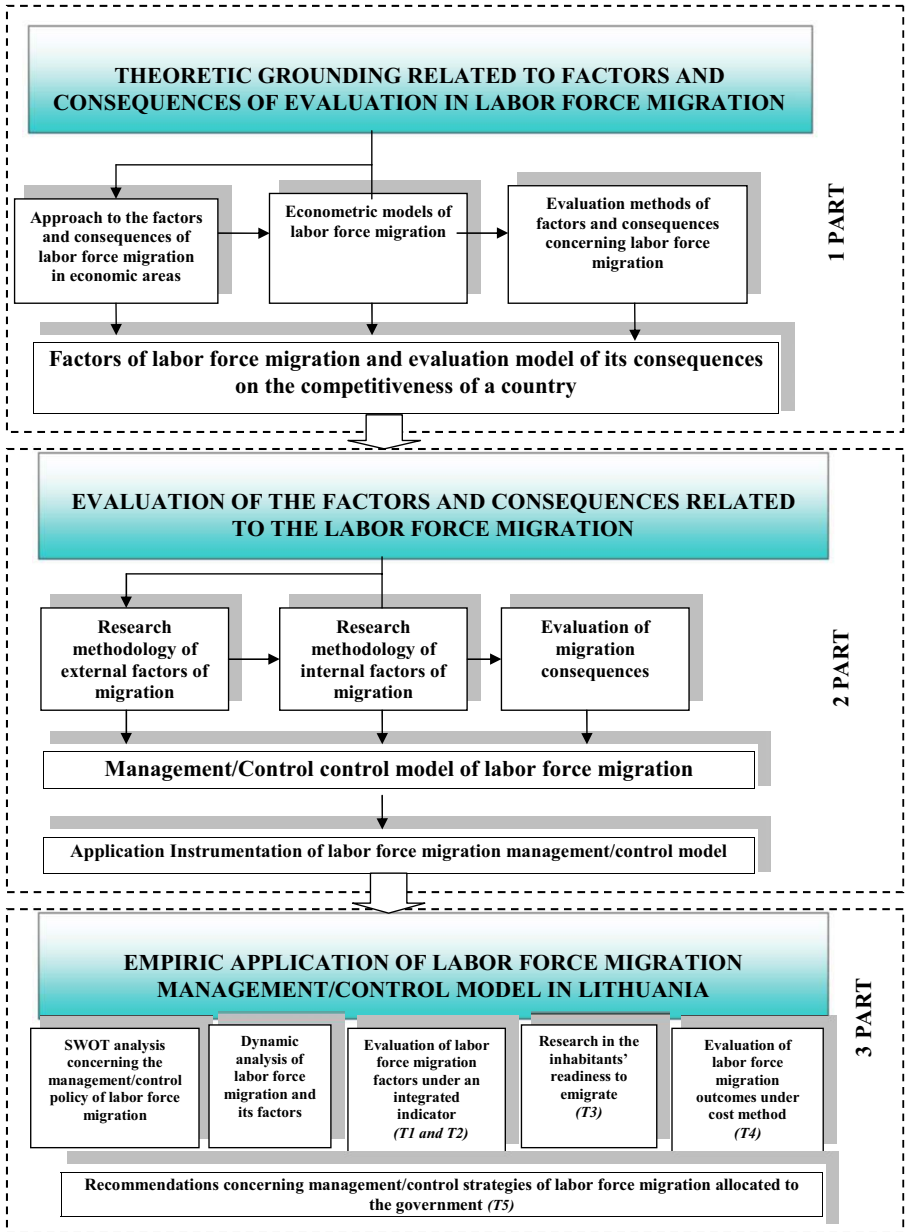


Figure 1 Logical thesis structure

Thesis layout:

In the first part ‘Theoretic grounding of international labor force migration reasons and consequences’ there are discussed various scientists’ approach, who analyzed the issue of labor force migration and labor force migration factors; there is provided a wide systematized author’s approach related to the migration theories, the analysis of migration factors, the systematization of econometric migration models, as well as the analysis and summary of evaluation methods and methodologies concerning labor force migration outcomes.

In the second part ‘Management/control model of labor force migration’ there is delivered a conceptual model of economic evaluation concerning labor force migration factors and consequences as well as prepared adjustment instrumentation for it.

In the third part there is carried out ‘Empiric application of the management/control model concerning labor force migration’. There is given evaluation of tendencies concerning labor force migration. There is provided SWOT analysis in the management/control policy of migration in Lithuania. In the following part there is stated the analysis in macro-economic factors of labor force migration. There is given the evaluation of macro-economic factors with an integrated indicator concerning labor force migration. There is also provided the evaluation of cultural, institutional and psychological factors related to the labor force migration with an integrated indicator. There is also completed a research in internal emigration factors and readiness to emigrate. There is presented the analysis of labor force migration costs and benefit. There is completed a model for the reduction of negative impact concerning labor force migration and management/control of migration factors in Lithuania.

Statements defended in the thesis:

1. Macro-economic situation in the country, cultural, institutional and psychological environment as well as internal factors determine high emigration indexes in Lithuania;
2. The economic evaluation of labor force migration factors with the aid of integrated factors enable the evaluation of the general situation in countries according to labor force migration factors as well as enable their comparison;
3. Lithuanian residents’ readiness to emigrate depends on their social-economic state as well as values;

4. Labor force migration costs in Lithuania exceed its benefit;
5. Labor force migration process can be managed efficiently, and in case of appropriate planning of human resources labor force migration might be economically beneficial.

Scientific novelty of the thesis:

1. Systematize and summarize approaches concerning economic migration theories towards the reasons and consequences of labor force migration, and defined concepts of migration and related concepts too.
2. Excluded labor force migration factors through the relation of them to labor force migration outcomes;
3. Excluded economic evaluation peculiarities concerning labor force migration through the adjustment of theoretic factor selection and combination of specifics in general indicators provided in the scientific literature;
4. Designed conceptual management/control model for labor force migration, based on the evaluation of macro-economic factors and consequences as well as on their correlation related to labor force migration;
5. Defined indicator estimation phases of the evaluation concerning the macro-economic, cultural, institutional and psychological factors of labor force migration, through the systematization of index estimation methodology;
6. Excluded key labor force migration factors and formed evaluation model of labor force migration factors, combining factors into general system of evaluation depending on their reciprocal correlations;
7. Carried out a questionnaire research concerning the readiness to emigrate, allocated to the evaluation of impact concerning internal emigration factors related to the readiness to emigrate in Lithuania;
8. Performed evaluation of emigrations costs and benefits in Lithuania.

Practical benefit of the thesis:

Management/control model of labor force migration might be applied as an economic social means excluding competitive strengths and weaknesses of separate countries, estimating and evaluating the change of labor force migration factors in terms of time and other countries as well as analyzing the efficiency of the applied management/control strategies concerning labor force migration.

The designed management/control model of labor force migration might be applied in any country as a means of strategic planning in order to take strategic decisions concerning the management/control of migration process, smoothing of negative migration outcomes as reducing migrations costs and increasing migration benefit.

1. THEORETIC GROUNDING OF FACTORS AND CONSEQUENCES RELATED TO INTERNATIONAL LABOR FORCE MIGRATION

E. Ravenstein (1876) is well known as the earliest migration theorist, who stated that migration is conditioned under the process of *'push'* and *'pull'* as well as he provided conclusions which were the basis for major modern scientists who have been formulating new theories which are E. Ravenstein's statement transformations, i.e. they have been applying peculiar terminology, and their focus is based on the variations of push and pull theories.

In the first part of the thesis the analyzed issue is related to the identification of reasons and outcomes concerning labor force migration in order to define the reciprocity of factors and outcomes related to labor force migration as well as to foresee necessary state policy means allocated to the control of the following process.

In the chapter 1.1 'Theories of labor force migration and their social transformations in the economic system' there is analyzed the migration concept that needs agreement in turns of political and statistical level due to its consensus. However, due to versatile description of migration kinds there are still no universal definitions, therefore there are most frequently presented definitions of considered migration kinds in migration statistics and research.

Having analyzed different authors' works, it can be stated that it is difficult to formulate a universal theory of migration process that could explain the nature of migration, its factors and formation of flows due to the complex of the following process; however, the key migration theories are significant as they might aid at the comprehension of the population's migration in a wide context, i.e. political and economical. Modern literature of migration states that the following theoretic methods, although they suggest different hypotheses, however, due to the multiplicity of the

migration process, they should not be excluded and even perceived as being complementary ones.

In the chapter 1.2 'Theories of migration process: the aspect of arguments (independent variables)' there reviewed migration theories while excluding arguments (independent variables) those may explain flows of labor force migration. The key variable of neoclassical migration theory is wage that determines the migration decision. Counterbalance to the following theory is modern migration theory that changes the level of analysis and states that a decision to migrate is not separated or determined by an individual, consequently, migration presumptions and migration variables are related. Dual labor market theory and the theory of global systems propose a set of structural variables. The level of analysis changes as the actions of a decision-making process pass from a micro-level into an international level. The last group of migration theories (Migration network theory) possesses a social pattern and present national groups or the Diasporas as a factor of migration.

In the scientific literature there is a trial to explain the process of labor force migration through its expression under a mathematical function, i.e. through the design of various mathematical models related to migration process, those seek to explain the causality of migration in a rational way. Migration model turned to be more and more complex due to the addressing to a wider spectrum of problematic issues (chapter 1.3 Development of migration argument (independent variables) variations in econometrical models). According to the scientists' works in behavioral economics, it can be stated that plenty of decisions are taken under undetermined conditions, therefore they systematically deviate from the theory of traditional economics as well from the forecasts of foreseen theory of benefits.

In the final chapter of the theoretic part (1.4 'Evaluation of labor force migration outcomes') there are summarized theoretic fundamentals proposed by economic theories in terms of evaluation of labor force migration reasons and consequences in the area of migration policy of the country under which in the forthcoming chapter of the thesis there was prepared a conceptual model for the management/control of labor force migrations that would be based on the evaluation of labor force factors and outcomes as well as on the evaluation of their reciprocity and the determination of political means addressed to effective management/control of labor force migration.

2. MODEL OF ECONOMIC EVALUATION RELATED TO THE FACTORS AND OUTCOMES OF LABOR FORCE MIGRATION AND MANAGEMENT/CONTROL OF MIGRATION

The highlighted methodological management/control presumptions of labor force migration in the first part of the thesis, conditioned the necessity for the evaluation of the whole employment resources state in the economic system and the foreseeing of perspectives, and that was the basis for the research analysis in labor force migration.

In the chapter 2.1 'Modeling of economic evaluation related to the labor force migration factors and outcomes and management/control of migration' there is formed a conceptual model. A significant component of the following model is the formation of a labor force migration index that reflects important characteristics of migration, as well as the evaluation of the general impact related to migration factors on the labor force migration, in the country. The aim of the following model is to manage/control the migration process: first, under an economic aspect that migration could be as much economically useful as possible. The model will enable the verification of the key defended statements.

In the chapter 2.2 'Evaluation of macroeconomic factors related to labor force migration', there is suggested an integrated index of macroeconomic rate analysis for the evaluation of labor force migration; under the basis of which there was performed a research in labor force migration based on estimations, and it brought to presumptions to evaluate and scientifically ground structural indicator characteristics (migration, key economic, social, demographic and other factors) as well as to formulate and provide with conclusions for the rational management/control of labor force migration applying possibilities in hand effectively those have been applied before. There was prepared an evaluation model of macroeconomic factors related to national labor force migration under an integrated indicator. IMFI (Integrated Indicator of Macroeconomic Factors) is formed under five stages. In the first stage of the following model there are indicated labor force migration factors, and they are grouped. In the second stage there are indicated 52 rates/indexes of labor force migration factors and their meanings. The rating of indexes/rates is performed in the third stage, and in the fourth stage there are indicated weight coefficients of labor force migration factors under the experts' evaluation. In the fifth stage there is estimated the integrated indicator of labor force migration, i.e. there is

completed the function of labor force migration factors while grounding on five key macro-factor groups of labor force migration: human capital, physical infrastructure, knowledge resources, external and internal capital, economical development level as well as state policy for those the most significant indexes are selected:

$$\begin{aligned}
 \text{IMFI} &= (w_1) \text{HC} + (w_2) \text{Pfl} + (w_3) \text{KR} + (w_4) \text{C} + (w_5) \text{W} + (w_6) \text{ESP} & [1] \\
 \text{HC} &= (w_7) \text{SP} + (w_8) \text{QP} + (w_9) \text{PM} + (w_{10}) \text{API} & [2] \\
 \text{Pfl} &= (w_{11}) \text{IIT} + (w_{12}) \text{INCE} & [3] \\
 \text{KR} &= (w_{13}) \text{IS} + (w_{14}) \text{SI} + (w_{15}) \text{CSBO} & [4] \\
 \text{C} &= (w_{16}) \text{OC} + (w_{17}) \text{IC} + (w_{18}) \text{SEM} & [5] \\
 \text{W} &= (w_{19}) \text{API} + (w_{20}) \text{SEM} + (w_{21}) \text{PL} + (w_{22}) \text{II} & [6]
 \end{aligned}$$

Here:

HC – Human capital; Pfl – Physical infrastructure and geographical location; KR – Knowledge resources; C – Capital; W- welfare level; ESP – efficiency of state policy.
 SP – structure of population age; QP – qualification of population; PM – population migration;
 IIT – Infrastructure of information technologies and telecommunications; INCE – Infrastructure of the new construction estate;
 IS – Infrastructure of studies; SI – Science infrastructure; CSBO – Cooperation with scientific institutions and business organizations from other regions; Cooperation
 OC – Outside capital; IC- Inside capital ;
 API – Average population income; SEM – scope of export markets; U –employment; PL- poverty level; II – income inequality.

Under the propose integrated indicator it would be possible to evaluate the changing situation of economy as well as evaluate indexes in a complex way, ones those reflect qualitative aspects, dynamics in retrospectiveness as well as forecasts. Integrated indicators in a form of index are formed, trying to reflect key aspects, testing migrations factors and their relationship to macro-economic factors. They show significant qualitative sides of the researched phenomena and together show how the change of the following factors in time influence the change dynamics of an integrated indicator. Estimating the meaning of an integrated indicator there was applied a multiple method of evaluation (SAW –simple additive weighting).

In the sixth stage there is carried out the indicator analysis of sensitivity in the evaluation related to the macroeconomic factors of labor force migration that enables the identification of the variability of indicator meanings after a change of one parameter.

Having performed the evaluation of the impact related to national macroeconomic indexes or national economic competitiveness on the migration factors, it is also necessary to indicate the impact of cultural, psychological and institutional factors on the migration *saldo* in the country. In order to carry out an empiric research, there was completed a model that reflects the correlation between migration factors and outcomes (2.3 ‘Evaluation of cultural, institutional and psychological migration factors’). In the

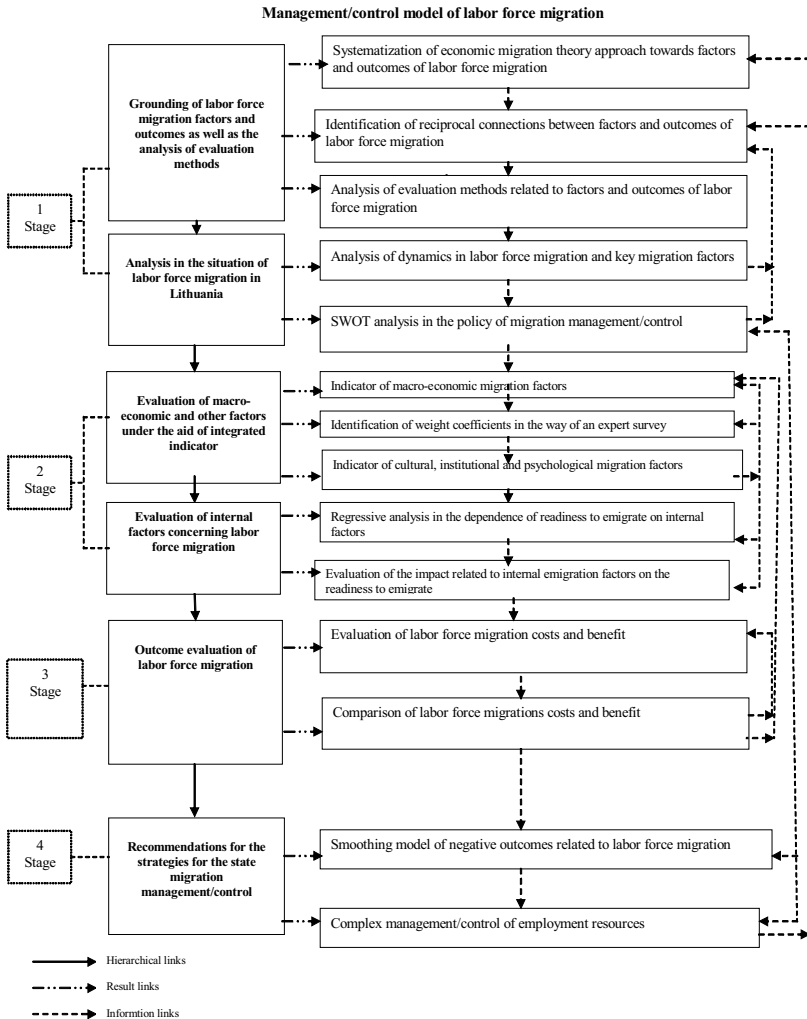
following section there is completed an evaluative indicator of the impact related to cultural, institutional and psychological factors (CIPI) on migration according to which it is possible to research cultural, institutional and psychological indexes of countries as well as to indicate if there exists a link among the following indexes and migration ones.

In the chapter 2.4 'Research in the impact of internal factors on the readiness to emigrate' there is estimated the readiness of residents to emigrate. The following research is popular among social psychologists; however, such research is criticized by economists whose point of view is that there can not be made a conclusion concerning behavior according to the revealed priority (Ch. F. Manski, 1990). It is necessary to highlight that there is some evidence in the performed research under the migration context concerning the fact that intentions to migrate strongly correlate with factual results (G. F. De Jong, 2000). It can be stated that there is a link between an individual's considered or supposed migration in the certain time and real behavior of migration. Readiness to emigrate might be evaluated during the completion of econometric models. In the following thesis selected methodology evaluates the impact of input data, their application and algorithm indeterminacy of mathematical processing on the final estimative result, and the methodology based on the statistical methods grounds on the subjective expectative distributive evaluation that conditions indeterminate factors and provides with some information for the decision-making in a convenient way. Additional evaluative method of the impact related to the model on the results is a method of dispersion separation.

Another significant management/control part of the labor force migration includes the evaluation of macroeconomic outcomes related to labor force migration (2.5 'Economic evaluation of macroeconomic outcomes related to labor force migration'). The evaluative model for economic outcomes of emigration, formed in a simple way might be summarized as following: the key components of economic evaluation for emigration outcomes are: emigration benefit (impact of emigrants' monetary transfers on the increase of GDP; GDP increase due to the decrease of unemployment) and emigration costs (decrease of the return into the national budget in a tax form due to emigration; GDP losses due to the decrease of employed population).

During the collection of the management/control means of labor force migration there is applied qualitative analysis of several aim costs-benefits (2.6

‘Management/control of labor force migration), as this method enables a qualitative evaluation of the fact how the implementation of different alternatives will aid at the achievement of several incommensurable political aims. A qualitative analysis of several aim costs-benefits is carried out in a few stages.



Source: completed by the author

Figure 2 Management/control model of labor force migration

First, there identified political aims; the second stage: there is performed the identification of alternatives and analysis of their priorities/drawbacks. Having performed the analysis, there is formed the management/control model of labor force migration that reflects the increasing of employment plays the most significant role that includes the whole course of means concerning the creation of new vacancies and retention of present ones.

In the final section of the following chapter 2.7 'Management/control model and instrumentation of labor force migration' there was created management/control model of labor force migration according to the results of the following thesis (see Figure 2).

According to the management/control model of labor force migration there has been created a piece of instrumentation. It reflects thesis aim, research aims, research methods as well as key indicators (Table 1).

Table 1

Instrumentation of the application of management/control model related to labor force migration

Research aims	Research methods	Key indicators
Excluding and definition factors and outcomes related to labor migration factors	Analysis of scientific literature, synthesis, comparison, induction, deduction, generalization and abstracting	Grouping and systematization of labor force migration factors and outcomes
Analysis of evaluation concerning labor force migration factors and outcomes	Analysis of scientific literature, synthesis, comparison, induction, deduction, generalization and abstracting	Systematization of evaluation methods related to labor force migration factors and outcomes and the definition of application areas
Analysis of labor force migration and macro-economic factors in the country	Graphical analysis of statistical data, grouping and correlative regressive analysis	SWOT analysis in the management policy of labor force migration Time series of migration and macro-economic indexes/rates
Evaluation of macro-economic factors concerning labor force migration	Statistical analysis and estimative methodology of integrated indicators (indexes)	Weighted and unweighted integrated indexes of macroeconomic factors related to labor force migration
	Identification of index rate weights related to the macro-economic factors of labor force migration under the method of expert survey and the analysis of sensitiveness	Weights of index rates, scenarios of sensitiveness
Evaluation of cultural, psychological and institutional factors related to labor force migration	Statistical analysis and estimative methodology of integrated indicator (indexes)	Weighted and unweighted integrated indexes of cultural, psychological and institutional factors related to labor force migration
		Weights of index rates, scenarios of sensitiveness

Research aims	Research methods	Key indicators
Research in internal emigration factors	Research in the readiness to emigrate applying a method of a direct interview	Evaluation of the impact of internal emigration factors on the readiness to emigrate
	Regressive analysis in the dependence of the readiness to emigrate on the internal factors	Statistic research in the sensitiveness of regression parameters and indetermination of results
Evaluation of macro-economic outcomes related to labor force migration	Analysis labor force migration costs-benefits in a macro-economic level	Migration costs
	Evaluation of the labor force migration impact on the competitiveness of the country	Migration benefit of labor force
Recommendations for the strategies of the migration management/control in the country	Qualitative analysis of several aims and costs	Smoothing model of negative outcomes related to labor force migration Management/control scheme of complex employment resources
	Strategic planning of migration management/control	System of strategic usefulness and indexes of monitoring

Source: completed by the author

The following instrumentation is also easily applied for other problematical economic phenomena such as inflation, unemployment and other research as well as for the recommendations how to run the following processes and smooth negative impact of these economic phenomena on the preparation of the country for the competitiveness. This proposed model and instrumentation enable versatile research of migration factors and outcomes as an economic phenomenon as well as the efficiency of the management/control means concerning the following processes applied by the state and in terms of research providence aids at provision with some recommendations concerning the expansion and development of state policy means in order to control labor force migration successfully and seek for the fact that its delivered benefit exceeded costs.

In order to ground the management/control model of labor force migration, it will be tested during empiric research in Lithuania, having exploited the instrumentation presented above.

3. EMPIRIC APPLICATION OF ECONOMIC EVALUATION FOR LABOR FORCE MIGRATION FACTORS AND OUTCOMES AS WELL AS MANAGEMENT/CONTROL MODEL OF MIGRATION IN LITHUANIA

Various historical periods and under them conditioned migration model, has been a presumption for the occurrence and continuation of current migration processes. The

negative problem of migration impact might be revealed under the dynamical analysis of labor force migration flows and key factors. The research, carried out in the section 3.1. 'Evaluation of labor force migration trends and forecasts in Lithuania' grounds on the analysis of statistical data in order to reveal migration process changes throughout different periods; there are analyzed different aspects of the following process, Lithuanian migrant's portrait, and under the development tendency of the country there were reviewed two scenarios (pessimistic and optimistic).

SWOT analysis for the migration policy states (3.2. 'SWOT analysis in Lithuanian policy concerning labor force migration') that legally there is foreseen the state policy, vision, mission, aims, objectives and action trends; however, there are not regulated the means those would reduce labor force migration and increase the competence of the state to manage the process of migration.

The comparative competition of Lithuanian Economy in the world and dynamics of separate macroeconomic indicators are reviewed in the section 3.3 'Analysis in labor force migration factors and macroeconomic environment'. According to the provided five key groups of labor force migration macro-factors in the methodological section: human capital, physical infrastructure, knowledge resources, external and internal capital, development level of economics as well as the state policy, there are selected most significant factors for the following factor groups under the information of the Statistics Department. There are applied the methods of statistical analysis for the completion of integrated macro-indexes and estimations, and they are described in the second part of the thesis in order to be capable to carry out the evaluation of the changing economical situation as well as the complex evaluation of the factors, those reflect qualitative aspect dynamics retrospectively and in the forecast sections: 3.4. Evaluation of macroeconomic environment factors in labor force migration through the application of an integrated indicator and 3.5. Empiric research in the impact of cultural, psychological and institutional factors on migration *saldo*.

In the section 3.4, the integrated macro-economic indicator for the tendency research is formed under the index support, where the components of the integrated complex index or indexes of a structural indicator, are estimated as indexes. If during the formation of an integrated indicator, the growth of the indicator meanings those form it are assessed as a positive and favorable process. The index variation of such an indicator

from 0 to any larger values should emphasize a favorable process or quality increase, and indicators, the decrease of those is a favorable process, are re-estimated as reciprocals.

The estimated unweighed indicator dynamics of macroeconomic factors in labor force migration show that until the year 2007 the situation was bettering in Lithuania, i.e. there decreased the impact of push factors on the labor force migration and there increased the positive impact of pull factors on labor force migration. The dynamics of an integrated weighed complex macro-indicator is formed under the same principal through the indicators' provision with weight, indicated during the experts' survey. Kendal's concordance meanings of coefficient W, those describe the concurrence of experts' approaches in the evaluation of factors and their groups, are provided in Table 2.

Table 2

Kendall's test outcomes of macroeconomic factors in labor force and their group migration

Groups of interpedently compared factors	W	p -meaning	Notice
Human capital: Structure of residents' age, residents' qualifications	0,497	0,000 (<0,05)	Experts assessed the factors at one
Environment and physical infrastructure: ITT application possibilities, opportunities for the acquiring of new real estate/lease possibilities, environmental pollution	0,324	0,000 (<0,05)	Experts assessed the factors quite at one.
Knowledge resources: Quality of study infrastructure, quality of science infrastructure, cooperation with scientific and business in other regions	0,346	0,000 (<0,05)	Experts assessed the factors quite at one.
External and internal capital: Investment attractiveness (in general and international level)	0,144	0,063 (>0,05)	Experts did not possess a unified approach, as a result there defined equal weight coefficients.
Development of economics: export markets, inflation, employment, level of material welfare	0,557	0,000 (<0,05)	Experts' approaches match credibly.
State Policy	0,138	0,001 (<0,05)	Experts' approached match poorly.

Source: completed by the author.

In the table 3 there are provided integrated macro-index weights of labor force migration factors, obtained during the experts' survey.

According the section 2, there was prepared weight proposition methodology of integrated indicators consisting of indexes, and there are completed three scenarios. The first scenario – weights provided by experts. In the following scenario, the greatest weight is laid on the competitiveness (there are allocated capital indicators as well). In the second scenario all indicators are provided with the same weights, and in the third

scenario, the same weights are given to four groups of indicators as the groups consist of different number of indicators, thus coefficients of indicator weights are different too.

Table 3

Integrated macro-economic indicator (IMFI) weights in labor force migration factors

	Criteria	Weights
Human capital	A part of employable residents.	0,02
	A part of persons with higher education.	0,01
	Level of life-long learning (students at the age of 25-64 per 1000 residents)	0,02
Environment and physical infrastructure	Emissions of greenhouse gases and classical emissions made	0,03
	A part of households possessing a personal computer.	0,01
	A part of households possessing Internet access.	0,01
	Number of constructed flats for 1000 residents.	0,01
Knowledge resources	Area of constructor nonresidential buildings for 1000 residents.	0,02
	Number of university students for 1000 residents.	0,02
	Number of universities for 100.000 residents.	0,01
	Number of publications for 1000 residents	0,01
	R&D expenditure to GDP ratio, %	0,02
	Applications provided to the European patent office.	0,03
Capital	Direct foreign investments per capita (one resident).	0,05
	Attraction index for direct foreign investments.	0,05
Economic competitiveness	Export	0,05
	Inflation	0,04
	Level of poverty	0,1
	Inequality of income (quintile ratio)	0,03
	Employment	0,2
	Unemployment %	0,05
	Level of material welfare: ((GDP) per capita (for one resident) according to the standards of purchasing power),	0,05
	Average income	0,06
	Work productivity%	0,1
Amount of scores having evaluated weights of criteria		1

Source: completed by the author.

During the analysis of the indicator dynamics, it is noticed that according to all three scenarios, the indicator approximately coincides up to the year 2002; however, in later years correlation of meanings reduces according to the second and third scenarios. There is a necessity to carry out the analysis of sensitiveness through the exchange of an indicator that forms the number and weight of indexes; as well as it is of necessity to perform the ranking evaluation of an indicator according to the adjustment of three scenarios. In order to define the factors, that impact the estimation preciseness under the integrated indicator related to the labor force migration factors in countries there was executed a research in five countries (Lithuania, Latvia, Estonia, Slovenia and Denmark).

The analysis in the impact of identification techniques concerning different scope weight coefficients on IMFI and ranks has proved that index scope and rank directly depends on the identification way of coefficients, and the following stage is the most complicated one in the process of formation as well as it requires peculiar attention in terms of methodological, empirical and political aspect. The estimations under the factorial analysis have revealed that event though Kendal's coefficient meanings of concordance are close to one; however, the selection technique of factors have a greater impact on separate groups of indexes than the identification technique of weights, and that prove the importance of the complex indicator analysis in complex country indicator under determinant factors related to the labor force migration.

The statistic fact of emigration in Lithuania is based on the basis that during the period of research emigration increases in case of unemployment decrease and the increase of GDP. The latter indexes are allocated to the essential factors those impact different economic power and competitiveness of countries and those form the impact of pushing and pulling factors on the labor force migration. Therefore, there were compared the economic indexes of competitiveness in the following five countries (see Table 4).

Table 4

Average ranks of different countries according to the indexes of economic competitiveness

Determination scenarios of weight coefficients	Countries					Statistic test	
	Lithuania	Latvia	Estonia	Slovenia	Denmark	The years 1998-2008. (n=5)	
						W	p - meaning
Selection technique of methodological IMFI factors (24 indexes)						0,956	0,022 (<0,05)
SC1	3,455	4,545	3,727	2,273	1		
SC2	2,818	4,727	3,455	3	1		
SC3	3,364	4,818	3,545	2,273	1		
Factorial analysis of IMFI factors (19 indexes)						1	0,017 (<0,05)
SC1	3,364	4,909	3,727	2	1		
SC2	2,909	4,818	4	2,273	1		
SC3	3,273	4,909	3,818	2	1		

Source: completed by the author.

There were estimated average ranks according to the indexes of economic competitiveness according to different techniques of factor selection. The gained outcomes are statistically meaningful, thus it might be stated that Denmark and Slovenia are the most economically competitive, i.e. the pushing factor impact in the following countries is little, and pulling factor impact is large. According to the indexes of economic competitiveness the situation of Lithuania is better (average rank changes in

the interval from the rank of 2.8 to 3.45) and it is not the lowest rank in comparison with other countries. The situation of Lithuania is better than in Latvia and Estonia; however, the migration *saldo* rank of the following countries is higher, i.e. there is a better emigration and immigration balance. According to the average migration *saldo*, Lithuania is the last one and its average rank is 3.8, meanwhile in Latvia (3.7), Estonia (3.5), Slovenia (1.7), and Denmark (2.1). Consequently, not only do economic factors determine high indexes of emigration in Lithuania. There is carried out a research in the impact of cultural, psychological and institutional factors on the migration *saldo*.

In order to create an integrated indicator that reflects cultural, psychological and institutional factors of emigration those present what impact might institutional work of state control/management, cultural values of that country and psychological kinds of personalities have on the migrations tendencies, there was applied multi-criteria method of evaluation (SAW – simple additive weighting). In the section 3.5, using the weight defined under the experts’ survey support or scenarios methods when there are constructed scenarios applying different weight of indexes in CIP indicator. In the following research there were formed four scenarios and created an integrated complex indicator of cultural-institutional-psychological migration factors that enables the comparison of countries under their cultural, psychological and institutional quality of environment as well as migration indexes and the determination of the fact what indexes those complete indicator meanings, are favorable, i.e. increasing or decreasing, influencing positive meaning of migration index (see Table 5).

Table 5

Cultural, institutional and psychological integrated indicator of factors (CIP) which forms index meanings in order to achieve positive *saldo* of migration

Meanings of cultural indexes	Meanings of institutional indexes	Meanings of psychological indexes	
Power position			
Avoidance of indeterminacy			
Individualism			
Masculinity			
Voting and responsibility			
Absence of political stability and violence /terrorism			
Governmental efficiency			
Quality of regulation			
Legitimacy			
Corruption			
Manageability			
Neuroticism			
Thoroughness			
Extrovertsism			
Openness to novelties			
		Index meanings of migration saldo	
		HUMAN SOCIAL DEVELOPMENT INDEX	
		GDP/resident.	

Source: completed by the author.

Research outcomes reveal that quite good cultural, institutional and psychological factors of the Baltic States do impact migration scope in a positive way as the residents of the following countries are likely to leave their country.

T1 – Macroeconomic situation of the country, cultural, institutional and psychological environment as well as internal factors impact high emigration indexes in Lithuania. Following the outcomes of researches, which were obtained having evaluated the state of Lithuania according to the complex indexes (IMFI and CIP), it can be stated that during the research period pushing factors of migration were decreasing, and positive cultural, psychological and institutional factors did not decrease the deficit of emigration. Consequently, high emigration flows in Lithuania are determined not only by social-economic factors, institutional and psychological environment, but by internal factors as well.

T2 – Economic evaluation of labor force migration factors under the support of integrated indexes enables the evaluation of the state situation according to labor force migration factors as well as it enables their comparison. In order to ground the statement there was formed an integrated indicator that consists of several significant indexes is allocated to the evaluation of labor force migration factors. The following integrated indicator is formed under the support of indexes. There was applied an expert evaluation in order to provide labor force migration factors with some weight coefficients which form the indicator. There was tested the sensitivity of the indicator. The conclusion of research outcomes is that during the comparison of state IMFI, the position of Lithuania is not the lowest one, although the *saldo* of migration is the highest one.

The analysis of general macroeconomic and cultural, institutional and psychological factors alone can not reflect why persons take a decision to migrate. Due to the fact that the outcomes of the surveys related to the factual state of migrants in the labor market are poor, because emigrants reside abroad, it is purposeful to research the behavior of migration in an indirect way while grounding on the data concerning the intentions of emigration. In the section 3.6, called ‘Evaluation of the readiness to emigrate in Lithuania’, for the directly performed survey there was created a form of questionnaire as well as there were indicated variables. According to the technique of uncertainties evaluation as well as software package SUSA (System for Uncertainty and sensitivity

analysis), described in the second part of the thesis, there were estimated expectative values of readiness to emigrate, those reflect the marginal impact of separate migration factors on the readiness to emigrate. The research outcomes prove that the youngest labor force members (the age of those is not less than 25 years) value the migration possibility more favorably. Besides, educated people, who usually possess secondary and not higher education, are more likely to migrate abroad. The most expected fact that the unemployed (the key group in this case) will consider the possibility of emigration, and not the persons who possess the state of employment. The sex has the highest impact on the readiness to emigrate. There was defined the impact of the residents welfare on the readiness to emigrate. The outcomes show that after the household expenses have increased by 5 percents, the expectancy of migration threats increases by 0.8 interest point. The evaluated impact of regional labor market level, the estimated marginal impact on the unemployment level reveals that regional unemployment level has increased by one percent, there increases expectation of approximately 0.4 interest point that an average person is considering a possibility to migrate. The research reveals that the tendency to migrate is more sensitive in terms of any changes in salary level. During the following research there was also evaluated the impact of values that is usually expected as persons are more likely to emigrate if they give priority to the market economy, have some relatives abroad or the bad environment quality has some impact too.

T3 – Lithuanian residents' readiness to emigrate depends on their social-economic state and values. The statement has been proved following the research of the intentions to emigrate as well as the technique of uncertainty evaluation. The gained outcomes and variable values enable the conclusion that the decision to migrate depends not only on social and economic state, although it is influenced by the appreciable values too.

In the section 3.7 'Evaluation of labor force migration outcomes in Lithuania', there is provided the economic evaluation of emigration outcomes for Lithuania after having invoked the model and the executed evaluative empirical research in economic emigration outcomes in Lithuania. The summarized outcomes are provided in the Table 6.

As it can be seen from the outcomes presented in the table, the emigration costs of Lithuania significantly (almost twice) exceed emigration benefit in the short-term and

middle perspective. In the long – term perspective emigration costs would increase even more, and economic losses due to migration would also increase.

Table 6

Economic evaluation of emigration outcomes in the year 2008

<i>Benefit</i>	<i>Evaluation</i>	<i>Costs</i>	<i>Evaluation</i>
Increased GDP/for a resident due to monetary transactions, %	3,11	Decreased GDP due to the decreased employment, %	3,4
Increased GDP due to the decreased unemployment %	0,3	Decreased GDP due to the reduced budgetary incomes after the number of the taxed persons reduced, %	3,4
Totally	3,43	Totally	6,8

Source: completed by the author.

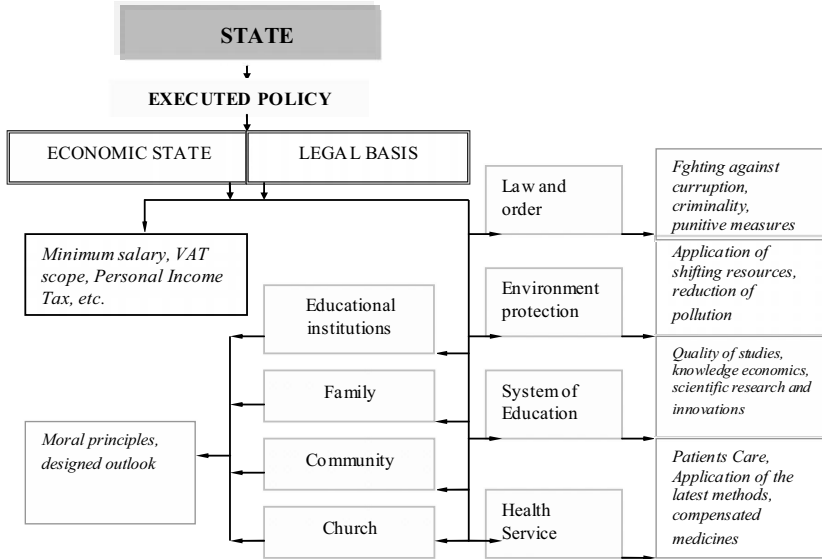
T4 – Migration costs of Labor force in Lithuania exceed its benefit. The following statement was verified under the formed evaluation model of emigration outcomes that is divided into sectors (demographic, social, political and cultural) that there were evaluated costs and benefits of labor force. According to the law of Okano, there were estimated GDP losses due to the emigration as well as there was assessed the impact of emigrants’ monetary transactions. The research outcomes show that costs exceed benefit twice.

In the final section of the thesis (3.8 “Reduction Model of negative migration impact on the labor force in Lithuania”) there is presented a model under which there is revealed what institutions the state can influence through the reduction of emigration from Lithuania (Figure 3).

There are provided suggestions which could aid at the reduction of migration as well as its harm committed to countries. The following could be applied for many other states those are losing their citizens as well; however, after having analyzed the economic situation and migration trends, they are designed for the Baltic States.

T5 – migration process of labor can be efficiently managed if properly planning human resources; then migration of labor force can be economically beneficial. According to the outcomes of all research, the reduction of migration is the key solution that could aid at the harm coursed by migration in Lithuania. Due to the fact that migration process is multi-dimensional and the increase of the competence in migration management depends on the state, people and employers. In order to decrease the impact of migration factors and facilitate consequences it is necessary to indicate the role of

family, educational institutions, community and church as well as emphasize their importance.



Source: completed by the author

Figure 3 State and its institutions

Only through the cooperation and striving for the posed aims and implementation of versatile means, there will be reduced factors of pushing and increased factors of pulling, i.e. there are decreased VAT flows of emigration and stimulated remigration and migration.

CONCLUSIONS

1. Having analyzed the factors and migration theories those impact migration it was defined that most frequently and widely applied separation of migration factors is into ,pulling‘ and ,pushing‘ factors as well as the division of factors into three groups i.e. macro-economic, micro-economic and non-economic ones. According to A.H. Maslow ‘Pyramid of Needs’, it was defined that macroeconomic factors possess the greatest impact on a human being and his/her solutions.
2. The executed purposeful analysis of migration proves that equal external conditions or factors will be evaluated differently in an individual way. The reasons for

migration as well as for any other decision, motives, their reciprocal relationship and relative value of each motive are individual.

3. According to the approach of economic theories, there was designed a theoretic evaluative model for emigration factors and outcomes as well as for the management/control of migration. According to the following model there was prepared some instrumentation of empiric research that enables the application of this model for the economic evaluation of migration factors and outcomes in the peculiar country as well as for the management/control of migration. Having applied the prepared research instrumentation, there was carried out the economic evaluation of migration factors and outcomes in Lithuania as well as there was provided a set of some recommendations concerning the management/control of the migration process in Lithuania.
4. The empiric research in migration factors and frequencies revealed that national economic competitiveness impacts migration in Lithuania. In Lithuania there are present factors of 'push': low wages and living standards, poor social guarantees, poor self-realization conditions, etc. In order to compare emigration factors of Lithuania and other countries, there are estimated integrated indicators of migration factors; and having compared social-economic migration factors in Lithuania with other countries, it was defined that macroeconomic indexes do not explain high emigration indexes in Lithuania; therefore, there was performed additional research in the impact of cultural, institutional and psychological factors on the migration indexes forming an integrated indicator of cultural, institutional and psychological environment. The comparison of indicators concerning cultural, institutional and psychological environment, also do not enable the determination of the most significant cultural, institutional or psychological factors, those condition high indexes of emigration in Lithuania; therefore, according to the economic theory of behavior there was carried out a research in the readiness to emigrate in Lithuania under the experiment of an integrated/united selection.
5. Research in the readiness to emigrate enabled the determination of the Lithuanian population's readiness to emigrate and the evaluation of the key factors related to the population's decision-making concerning emigration as well as their comparison with analogical research performed in other European countries. Key internal emigration

factors are low income and unemployment. Besides, young, educated people and ones who speak foreign languages well tend to emigrate. Research results concerning readiness to emigrate in Lithuania slightly differ from the results of the research performed in other members of the EU according to the evaluation of the general readiness to emigrate. It is higher in Lithuania than in the Czech Republic, Hungary and Slovakia; however, they are very similar to ones in Albania.

6. The research in readiness to emigrate allowed the identification of Lithuanian residents' readiness to emigrate and evaluate key factors related to the decision taken by residents to emigrate and compare then with analogical research performed in other European countries. The key internal factors of emigration are low income and unemployment. Besides, younger people, ones who are educated and know languages well, tend to emigrate more. High disappointment with Lithuanian institutions, management and distrust towards the state policy has high impact on the readiness to emigrate. Research outcomes in the readiness to emigrate differ from the research performed in other countries – members of the EU slightly, according to the general evaluation of the readiness to emigrate. It is higher in Lithuania than in the Czech Republic, Hungary and Slovakia, but very similar to Albania.
7. Having analyzed benefits and losses experienced by Lithuania due to migration, it can be stated, if migration is long-term, and its damage is twice higher than benefits. Losses impact the whole economy of the country: a number of residents are decreasing, there is lower return of taxes into the state budget, the country is losing labor force and minds, and that in its turn decreases the competitiveness level of the country. Having evaluated emigration costs as losses of GDP and having compared them with the benefit provided by emigration, it was defined that emigration costs exceed emigration benefits in Lithuania even in short-term and medium/average-term perspective.
8. Due to the fact that state means influence only limited part of general actions those impact migration. Demographic, cultural, political, economical, social, psychological, safety, geographical and other factors are differently and limitedly influenced with state means, therefore, expectations related to the state management/control of migration have to focus only on those means which are influenced by state means. The development of the state management, increase of

transparency and decrease of corruption are one of the most significant aspects for increase of the state trust.

9. According to the management/control model of migration, it was defined that the key way to decrease negative migration losses in Lithuania should be the growth of economic competitiveness that can be achieved as following: through the increase of work productivity; attraction of as much investment as possible and development of knowledge economics.
10. Growth of work productivity is one of key means able to increase wages in Lithuania. Productivity has to increase proportionally to the growth of wages. One of the key means that can increase work productivity is the implementation of new technologies and investment into human capital and employees training, refreshment of qualifications and designing of good social environment at workplace.

DAKTARO DISERTACIJOS SANTRAUKA

ĮVADAS

Temos aktualumas. Laisvas asmenų judėjimas Europos Sąjungoje (ES) – viena iš keturių laisvių, sudarančių bendrosios rinkos pagrindą. Remiantis Europos Bendrijos sutarties 39 straipsniu, darbuotojui suteikiama galimybė laisvai pasirinkti darbo vietą visoje ES teritorijoje. Ekonominis darbo jėgos judėjimo liberalizavimo pagrindimas remiasi prielaida, kad panaikinus kliūtis darbo jėgos judėjimui, darbininkai migruos ten, kur yra darbo jėgos stygius, o siūlomas darbo jėgos užmokestis yra didesnis.

Bendrosios rinkos teritorijoje tai skatins našumą ir efektyvų išteklių paskirstymą. Teisė laisvai judėti, siekiant gyventi ir dirbti užsienyje, yra viena pagrindinių Europos piliečių teisių, kuri įtvirtinta Romos (Europos Bendrijos įkūrimo) sutartyje.

Asmenims, ieškantiems darbo, suteiktos galimybės išplėsti savo įgūdžius ir patirtį, o taip pat pagerinti savo ilgo laikotarpio karjeros perspektyvas. Darbdaviams Europa gali pasiūlyti didesnę darbuotojų pasirinkimo galimybę. O tai ypač naudinga ieškantiems specifinės kvalifikacijos darbuotojų, kurių pasiūla jų pačių valstybėse gali būti labai ribota.

Šiandieninė migracija rodo didžiausią visų laikų žmonių judėjimą. Per pastaruosius dešimtmečius šis reiškinys apėmė apie 200 milijonų žmonių. Migracija tampa vis sudėtingesne problema socialiniu, kultūriniu, politiniu, religiniu ir ekonominiu požiūriu. Kad ir kaip būtų, nė viena valstybė neišvengia vienokių ar kitokių migracijos padarinių.

Migracijos pasekmių vertinimas priklauso nuo pasirinkto objekto, kuriam tos pasekmės matuojamos – individui, visuomenei, konkrečiai bendruomenei, valstybei ar atskirai sistemai. Vertinimo rezultatai priklauso nuo vertinamojo laikotarpio – trumpalaikio, vidutinio ar ilgalaikio.

Mokslinė problema ir jos ištyrimo lygis. Teoriniame lygmenyje parengta nemažai fundamentalių darbų, skirtų darbo jėgos migracijos priežasčių ir pasekmių problematikos nagrinėjimui. Yra daug užsienio autorių, kurie nagrinėja darbo jėgos migraciją, „stūmimo“ bei „traukos“ veiksnius, dėl migracijos atsiradusį „protų nutekėjimą“, tačiau konkrečių priemonių, kaip spręsti dėl migracijos atsiradusias problemas nepateikia. Apie

darbo jėgos migraciją rašė: R. Ehrenberg, G. Smith, (1996); Ø. Fuglerud (2001); J. Issac (2000), P. White, R. Woods (1980); M. Porter (2002); R. Skeldon (2005) J. Bogardi (2007) ir kiti. Iš lietuvių autorių, nagrinėjančių darbo jėgos migraciją, jos veiksmus galima paminėti: A. Kazlauskienė, B. Mrazauskienė (2003); R. Matiušaitytė (2003), R. Kripaitis, B. Romikaitytė (2005); J. Krumplytė, Ž. Obrikaitė (2005), A. Sipavičienė (2006) ir kiti. Strateginių Studijų Centras (2006) atliko nuoseklų tyrimą ir parengė Lietuvos valstybės ilgalaikę strategiją. Pilietinės visuomenės ir Laisvosios rinkos Institutas atliko tokio paties pobūdžio tyrimus (2005, 2006).

Žymiausių autorių (*M. Porter, 1990, 2000, P. Krugman, 1994, 1996, A. M. Rugman ir kt., 1998, D. S. Cho, 1994, D. S. Cho, H. C. Moon, 1998, J. Reiljan ir kt., 2000, EC, 2001, 1999, R. Jucevičius ir kt., 2005, 2007, B. Gardiner ir kt., 2004*) teorijos ir požiūriai buvo skirti analizuoti šalių konkurencingumą, o kartu ir su juo susijusius darbo jėgos migracijos bei užimtumo aspektus.

Nepaisant didėjančio susidomėjimo darbo jėgos migracijos problematika, mokslinėje literatūroje darbo jėgos migracijos veiksnių ir pasekmių tarpusavio sąveikos metodologiniai aspektai mažai nagrinėti. Pasigendama metodologiškai pagrįsto darbo jėgos migracijos veiksnių ir pasekmių ekonominio vertinimo, išskiriant svarbiausius darbo jėgos migracijos veiksmus, o taip pat ir svarbiausias šio proceso pasekmes, leidžiančio pagal nustatytus darbo jėgos migraciją lemiančius veiksmus įvertinti darbo jėgos migracijos situaciją bei jos įtakas šalyje. Toks rodiklis kaip migracijos saldo neleidžia suvokti darbo jėgos migracijos situacijos šalyje bei svarbiausių darbo jėgos migracijos charakteristikų, būdingų šaliai, tokių kaip šalies konkurencingumo lygis, migracijos valdymo politikos efektyvumas ir kt., o taip pat neleidžia formuoti efektyvių darbo jėgos migracijos valdymo strategijų, kurios leistų sumažinti darbo jėgos migracijos neigiamas pasekmes šaliai bei išnaudoti darbo jėgos migracijos teikiamą naudą šalies konkurencingumui sustiprinti.

Ypatingai aukšti emigracijos rodikliai Lietuvoje yra sunkiai paaiškinami ir dar sunkiau valdomi, nes nėra sukurtos efektyvios migracijos valdymo sistemos, paremtos migracijos veiksnių valdymu bei pasekmių prognozavimu. Yra parengta nemažai fundamentalių darbų, skirtų darbo jėgos migracijos priežasčių ir pasekmių problematikos nagrinėjimui, tačiau konkrečių priemonių, kaip spręsti dėl migracijos atsiradusias problemas Lietuvoje bei kaip šį procesą valdyti nėra pateikta.

Laisvo darbo jėgos judėjimo poveikio Lietuvai įvertinimo metodika gali remtis tyrimais, kurie vykdomi keliomis kryptimis: modeliuojant laisvą darbo jėgos judėjimą iš Lietuvos į ES, JAV, priklausomai nuo makroekonominių rodiklių kitimo ir tiesioginių užsienio investicijų ilgalaikėje perspektyvoje (20-30m. laikotarpiu); analizuojant valstybės politiką ir strategiją, galinčią sumažinti laisvo darbo jėgos judėjimo neigiamą poveikį Lietuvai. Tačiau norint sukurti efektyvų darbo jėgos migracijos valdymo modelį šalyje, būtinos sąlygos, leidžiančios įvairiapusiškai tyrinėti darbo jėgos migracijos veiksnius ir pasekmes bei jų tarpusavio sąveiką.

Mokslinio darbo problema yra darbo jėgos migracijos valdymo struktūros sukūrimas, leidžiantis sureguliuoti migracijos veiksnių įtaką emigracijos srautų didėjimui bei sumažinti neigiamą darbo jėgos migracijos įtaką ir efektyviai panaudoti laisvos darbo jėgos judėjimą, keliant Lietuvos ekonominį lygį bei didinant šalies konkurencingumą.

Mokslinio darbo objektas – šalies darbo jėgos migracijos veiksnių ir pasekmių vertinimas.

Siekiamas **darbo tikslas** – remiantis teoriniu darbo jėgos judėjimo veiksnių ir pasekmių pagrindimu sukurti teorinį darbo jėgos migracijos valdymo modelį, pagrįstą darbo jėgos migracijos veiksnių ir pasekmių ekonominiu vertinimu.

Siekiant užsibrėžto tikslo buvo iškelti tokie uždaviniai:

1. Pateikti darbo jėgos migracijos sampratą bei susisteminti ir apibendrinti teorinius darbo jėgos migracijos veiksnių ir pasekmių pagrindus.
2. Išnagrinėti migracijos teorijas ir išskirti darbo jėgos migracijos veiksnius.
3. Teoriškai apibendrinti darbo jėgos migracijos valdymo galimybes.
4. Sukurti teorinį darbo jėgos migracijos valdymo modelį, paremtą darbo jėgos migracijos veiksnių ir pasekmių ekonominiu vertinimu.
5. Remiantis teoriniu darbo jėgos migracijos valdymo modeliu, parengti jo praktinio pritaikymo instrumentariją.
6. Remiantis parengtu instrumentarijumi atlikti darbo jėgos migracijos valdymo modelio empirinį pritaikymą Lietuvoje ir patikrinti iškeltas hipotezes.

Tyrimas atliktas 2004-2010 m.

Tyrimo metodai: teorinė analizė, pagrįsta įvairių mokslininkų darbų rezultatais ir išvadomis, naudojant sisteminę ir lyginamąją analizes. Atliekant migracijos veiksnių vertinimą, naudoti daugiakriterinės analizės metodai, tokie kaip SAW (Simple Additive

Weighting) ir integruotų indikatorių konstravimas, taikant scenarijų metodus. Atliekant darbo jėgos migracijos valdymo modelio taikomumo tyrimą buvo naudoti matematinio ir statistinio apdorojimo ir ekspertinio vertinimo metodai. Siekiant nustatyti vidinius veiksnius, lemiančius sprendimą emigruoti, atliktas gyventojų pasirengimo emigruoti anketinis tyrimas, taikant tikimybinus modelius bei parametų jautrumo ir rezultatų neapibrėžtumo statistinius tyrimus, panaudojant SUSA (System for Uncertainty and Sensitivity Analysis) programinį paketą.

Darbo struktūra:

Pirmoje dalyje „Tarpautinės darbo jėgos migracijos priežasčių ir pasekmių teorinis pagrindimas“ yra ištyrinėtos įvairių mokslininkų, nagrinėjusių darbo jėgos migracijos bei darbo jėgos migracijos veiksnių problemą, publikacijos. Pateikiamas susistemintas autorės požiūris į migracijos teorijas, atlikta išsami migracijos veiksnių analizė, migracijos ekonometrinių modelių susisteminimas, darbo jėgos migracijos pasekmių vertinimo metodų ir metodikų analizė bei apibendrinimas.

Antroje dalyje „Darbo jėgos migracijos valdymo modelis“ yra pateiktas darbo jėgos migracijos veiksnių ir pasekmių ekonominio vertinimo ir migracijos valdymo koncepcinis modelis bei parengtas jo pritaikymo instrumentarijus.

Trečiojoje dalyje „Darbo jėgos migracijos valdymo modelio empirinis taikymas“ yra pateiktas darbo jėgos migracijos tendencijų vertinimas. Lietuvos migracijos valdymo politikos SSGG analizė bei darbo jėgos migracijos makroekonominių veiksnių analizė. Šioje dalyje atliktas darbo jėgos migracijos makroekonominių veiksnių vertinimas taikant integruotą indikatorių. Remiantis antru integruotu indikatoriumi buvo atliktas darbo jėgos migracijos kultūrinių, institucinių ir psichologinių veiksnių vertinimas integruotu indikatoriumi. Taip pat, rašant disertaciją, atliktas vidinių emigracijos veiksnių arba pasirengimo emigruoti tyrimas. Įvertinti darbo jėgos migracijos kaštai ir nauda, sudarytas darbo jėgos migracijos neigiamo poveikio mažinimo ir migracijos veiksnių valdymo modelis Lietuvai.

Darbe ginami teiginiai:

T1 – Aukštus emigracijos rodiklius Lietuvoje lemia makroekonominė šalies situacija, kultūrinė, institucinė ir psichologinė aplinka bei vidiniai veiksniai.

T2 – Darbo jėgos migracijos veiksnių ekonominis vertinimas, pagal integruotus rodiklius, leidžia nustatyti bendrą šalių situaciją, atsižvelgiant į darbo jėgos migracijos veiksnius ir tas šalis palyginti tarpusavyje.

T3 – Lietuvos gyventojų pasirengimas emigruoti priklauso nuo jų socialinės-ekonominės padėties bei vertybių.

T4 – Darbo jėgos migracijos kaštai Lietuvoje viršija jos naudą.

T5 – Darbo jėgos migracijos procesas gali būti efektyviai valdomas, o tinkamai planuojant žmogiškuosius išteklius, darbo jėgos migracija gali būti ekonomiškai naudinga.

Darbo mokslinis naujumas:

1. Susisteminti ir apibendrinti ekonominių migracijos teorijų požiūriai į darbo jėgos migracijos priežastis ir pasekmes, apibrėžta *migracijos* ir ja susijusios sąvokos.
2. Išskirti darbo jėgos migracijos veiksnius susiejant juos su darbo jėgos migracijos pasekmėmis.
3. Išskirti šalies darbo jėgos migracijos veiksnių ekonominio vertinimo ypatumai, derinant mokslinėje literatūroje pateiktų teorinių veiksnių parinkimo ir sujungimo į bendrą indikatorių specifiką.
4. Sukurtas darbo jėgos migracijos valdymo koncepcinis modelis, pagrįstas darbo jėgos migracijos makroekonominių veiksnių ir pasekmių bei jų tarpusavio ryšių vertinimu.
5. Nustatyti darbo jėgos migracijos makroekonominių, kultūrinių, institucinių ir psichologinių veiksnių vertinimo indikatoriumi skaičiavimo etapai, sisteminant indekso skaičiavimo metodologiją.
6. Išskirti pagrindiniai darbo jėgos migracijos veiksnius ir suformuotas darbo jėgos migracijos veiksnių vertinimo modelis, jungiant veiksnius į bendrą vertinimo sistemą, priklausomai nuo jų tarpusavio ryšių.
7. Atliktas pasirengimo emigruoti anketinis tyrimas, skirtas vidinių emigracijos veiksnių įtakos pasirengimui emigruoti įvertinimui Lietuvoje.
8. Atliktas emigracijos kaštų ir naudos vertinimas Lietuvoje.

Darbo praktinė nauda:

Darbo jėgos migracijos valdymo modelis gali būti naudojamas, kaip ekonominės socialinės analizės priemonė išskiriant atskirų šalių konkurencines stiprybes ir silpnybes,

apskaičiuojant ir vertinant darbo jėgos migracijos veiksnių kitimą laiko ir kitų šalių atžvilgiu, analizuojant taikomą darbo jėgos migracijos valdymo strategijų efektyvumą.

Sukurtas darbo jėgos migracijos valdymo modelis gali būti naudojamas bet kurioje šalyje, kaip strateginio planavimo priemonė priimant strateginius sprendimus dėl migracijos proceso valdymo, švelninant neigiamas migracijos pasekmes, mažinant migracijos kaštus ir didinant migracijos naudą.

IŠVADOS IR PASIŪLYMAI

1. Išnagrinėjus migraciją lemiančius veiksnius ir migracijos teorijas, nustatyta, kad plačiausiai yra naudojamas migracijos veiksnių skirstymas į „traukos“ bei „stūmimo“ veiksnius ir veiksnių skirstymas į tris pagrindines grupes, t.y., makroekonominis, mikroekonominis ir neekonominis veiksnius. Remiantis A. H. Maslow poreikių piramide, nustatyta, kad makroekonominiai veiksniai - poreikiai daro didžiausią įtaką žmogui ir jo sprendimams.
2. Atlikta migracijos priežasčių analizė patvirtina, jog vienodos išorinės sąlygos ar veiksniai individualiai bus vertinami skirtingai. Migracijos, kaip ir bet kurio sprendimo priežastys, motyvai, jų tarpusavio ryšys bei sąlyginė kiekvieno motyvo vertė yra individuali.
3. Remiantis ekonominių teorijų požiūriais suformuotas emigracijos veiksnių ir pasekmių vertinimo bei migracijos valdymo teorinis modelis. Remiantis šiuo modeliu parengtas empirinio tyrimo instrumentarijus, leidžiantis šį modelį pritaikyti konkrečios šalies migracijos veiksnių bei pasekmių ekonominiam vertinimui bei migracijos valdymui. Pritaikius parengtą tyrimo instrumentarijų atliktas migracijos veiksnių ir pasekmių ekonominis vertinimas Lietuvoje bei pateiktos rekomendacijos dėl migracijos proceso valdymo Lietuvoje.
4. Empirinis migracijos veiksnių ir pasekmių tyrimas parodė, kad Lietuvoje migraciją lemia šalies ekonominis konkurencingumas. Lietuvoje veikia „stūmimo“ veiksniai: mažas darbo užmokestis ir pragyvenimo lygis, menkos socialinės garantijos, nedidelės sąlygos savęs realizavimui ir pan. Siekiant palyginti Lietuvos ir kitų šalių emigracijos veiksnius, apskaičiuojami integruoti migracijos veiksnių indikatoriai ir taip palyginus Lietuvos socialinius-ekonominius migracijos veiksnius su kitomis

šalimis nustatyta, kad makroekonominiai rodikliai nepaaiškina didelių emigracijos rodiklių Lietuvoje. Todėl atliktas papildomas kultūrinių, institucinių ir psichologinių veiksnių įtakos migracijos rodikliams tyrimas, formuojant integruotą kultūrinės, institucinės ir psichologinės aplinkos indikatorių.

5. Lietuvos ir kitų šalių integruotų kultūrinės, institucinės ir psichologinės aplinkos indikatorių palyginimas taip pat neleido nustatyti svarbiausių kultūrinių, institucinių ar psichologinių veiksnių, sąlygojančių aukštus emigracijos rodiklius Lietuvoje, todėl, remiantis elgsenos ekonomikos teorija, atliktas pasirengimo emigruoti tyrimas Lietuvoje, remiantis jungtinio pasirinkimo eksperimentu.
6. Pasirengimo emigruoti tyrimas leido nustatyti Lietuvos gyventojų ketinimus emigruoti ir įvertinti gyventojų priimamų sprendimų pagrindinius veiksnius bei juos palyginti su analogiškais tyrimais atliktais kitose Europos šalyse. Pagrindiniai vidiniai emigracijos veiksniai yra žemos pajamos ir nedarbas. Be to, labiau emigruoti yra linkę jauni, išsilavinę ir gerai užsienio kalbas mokantys asmenys. Pasirengimui emigruoti didelę įtaką turi nusivylimas Lietuvos institucijomis, valdymu bei nepasitikėjimas valstybės politika. Pasirengimo emigruoti tyrimų rezultatai Lietuvoje nežymiai skiriasi nuo kitose ES šalyse narėse atliktų tyrimų rezultatų, pagal bendrą pasirengimo emigruoti įvertinimą. Jis Lietuvoje yra didesnis nei Čekijoje, Vengrijoje ir Slovakijoje, tačiau labai panašus kaip Albanijoje.
7. Išanalizavus Lietuvos gaunamą naudą ir nuostolius dėl migracijos, galima teigti, kad jei migracija yra ilgalaikė, jos žala yra dvigubai didesnė už naudą. Nuostoliai turi įtakos visam šalies ūkui: mažėja gyventojų skaičius, surenkama mažiau mokesčių į valstybės biudžetą, šalys praranda darbo jėgą ir protą, o tai savo ruožtu mažina šalies konkurencingumo lygį. Įvertinus emigracijos kaštus kaip BVP nuostolius bei palyginus juos su emigracijos teikiama nauda, nustatyta, kad emigracijos kaštai net trumpalaikėje ir vidutinėje perspektyvoje viršija emigracijos naudą Lietuvoje.
8. Valstybės priemonės veikia tik ribotą dalį bendrųjų veiksnių, kurie turi įtaką migracijai. Demografiniai, kultūriniai, politiniai, ekonominiai, socialiniai, psichologiniai, saugumo, geografiniai ir kiti veiksniai skirtingai ir ribotai veikiami valstybės priemonėmis, todėl lūkesčiai dėl valstybinio migracijos valdymo turėtų koncentruotis į tas priemones, kurios paveiks valstybės priemones. Valstybės

valdymo tobulinimas, skaidrumo didinimas ir korupcijos mažinimas yra vieni svarbiausių pasitikėjimo vyriausybe didinimo aspektų.

9. Remiantis migracijos valdymo modeliu nustatyta, kad pagrindinis būdas, norint sumažinti neigiamus migracijos nuostolius Lietuvoje turėtų būti ekonomikos konkurencingumo augimas, kuris pasiekiamas: didinant darbo našumą, pritraukiant kuo daugiau investicijų ir plėtojant žinių ekonomiką.
10. Darbo našumo didėjimas yra viena iš pagrindinių priemonių galinti padidinti darbo užmokestį Lietuvoje. Našumas turi proporcingai didėti augant darbo užmokesčiui. Viena iš pagrindinių priemonių galinti padidinti darbo našumą yra naujų technologijų diegimas bei .investicijos į žmoniškąjį kapitalą, darbuotojų mokymus, kvalifikacijos kėlimą bei geros socialinės aplinkos kūrimą darbo vietoje.

INFORMACIJA APIE DISERTACIJOS AUTORE

Vardas ir pavardė: Miglė SARVUTYTĖ

Gimimo data: 1981 11 03

Išsilavinimas:

Aukštoji mokykla	Baigimo metai	Įgyta kvalifikacija arba specialybė
Vilniaus universiteto Kauno humanitarinis fakultetas	2004	Vadybos ir verslo administravimo bakalauro kvalifikacija.
Vilniaus universiteto Kauno humanitarinis fakultetas	2006	Vadybos ir verslo administravimo magistro kvalifikacinis laipsnis.

Trumpas darbo veiklos aprašymas:

Metai	Institucija	Užimamos pareigos
2006 – dabar	VU KHF	Lektorė

Mokslinė pedagoginė veikla:

Mokslinių interesų kryptys	Migracijos procesas; darbo rinkos problemos; socialinė antreprenerystė.
Pedagoginės veiklos kryptys (skaitomi kursai)	Mikroekonomika 1 ir mikroekonomika 2, kultūrinių projektų vadyba.
Mokslinės stažuotės	<ul style="list-style-type: none">LAMA (2005-2009) projekte. 6th FP projekto LAMA organizatoriai siekia tokių pagrindinių tikslų – įvairiapusiškai išnagrinėti darbo rinką ir padidinti regioninių darbo rinkų konkurencingumą. Siekinat užsibrėžtų tikslų rengiami seminarai, konferencijos, kuriuose nuolat dalyvauju. Pagal šią projektą yra numatyta mano stažuotė Ščecino Universitete (2007.10-2008.02).

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1. M. Sarvutytė, D. Štreimikienė. New concepts and approaches of migration. „Economics and management, 2010, No 15. P. 226-234. ISSN 1822-6515.
2. D. Štreimikienė, M. Sarvutytė. Sustainability assessment of energy technologies. Economics and management, 2010, No 15. P. 281-288.. ISSN 1822-6515.
3. D. Grundey, M. Sarvutytė „The implications of Financing Higher Education in the Context of Labour Force Migration“, Ūkio technologinis ir ekonominis vystymasis, Nr. 3, Vol. 13, 2007.Vilnius: Technika, ISSN 1392-8619, 208-213p.
4. D. Grundey, M. Sarvutytė „Conceptualizing the Determinants of Labour Market Flexibility: The EU Perspective“, Economics and competition policy, No 7, 2007. Szczecin: Print Group, ISBN 978-83-60903-24-7, 7-17p.
5. D. Grundey, M. Sarvutytė „The management of labour force migration the evidence of migrtion policy making“, Studia i prace Wydzialu Nauk Ekonomicznych i Zarzadzania, No 3, 2008. Szczecin, ISSN 1899-2382, 69-96p.