EMPLOYMENT AND MODELS OF ITS DEVELOPMENT

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GYVENTOJŲ UŽIMTUMAS IR JO PLĖTROS MODELIAI

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INTRODUCTION

Problem topicality. Recently population employment and unemployment issues have become especially urgent. Developing Lithuanian work market is at the junction of two processes. On the one hand there occurred the processes conditioned by economy transfer from the planned system to the market system which led to the structural changes of separate economy branches, diffusion of technical and technological advance, change of production scale and range, competition in domestic and foreign markets, etc. On the other hand the integration into the international economic system has come to the fire. These developments have caused quality and quantity parameter changes in complex work resources, the latter determining the causes of irregular population.

New ways of the solution of these problems have been presented by the integration into the European Union promoting the possibility to use the experience of other countries in modeling the development adequate to the country’s social and economic growth.

In recent years the increase of GDP, export and import activities, the growth of bank deposits, etc. Manifest the country’s general development, however, these changes are not sufficiently related to the country’s social development. Regional (local) employment differences become obvious: work resources differentiation and population polarization increase, material gap between various social layers expands. Economic and social processes in society are disturbed by the growing unemployment causing patologic forms. People who face unemployment suffer not only material losses; they are often pushed to social degradation manifesting itself in criminality and poverty increase as well as in the growth of the number of asocial families, etc. All these negative social processes produce an unfavourable influence on the country’s general development. Thus the research of population employment and unemployment processes, their structural dynamics as well as the prerequisites influencing these phenomena becomes very important. Moreover, the indices of population employment and unemployment level are rather sensitive indicators not only of economic, social and political decision, they are considered to be the means for the investigation of the previously mentioned processes and creation of the presumptions for developing an effective, scientifically based social policy.

Scientific problem. Population employment issues have been rather extensively investigated; however, some of them need a deeper insight into their structural dynamics and the factors influencing them. First, not enough attention is paid to the theoretical – methodological validity of the population employment content and the conformity with objective changes and dynamics. Second, the analysis model of population employment based on optimal computation methods is not presented. Third, the research in the field of population employment is highly specialized and it is characterized by the analysis of definite problems.

Having evaluated these disadvantages, it might be noted that in this way research system could be distorted as well as it might be difficult to determine population employment changes conditioning the causes and relationships of the issues investigated. Furthermore, so far no complex research has been conducted in the field
of population employment, i.e. the investigation that could serve as a basis for designing a population employment model integrating micro- and macro-level factors.

**Level of problem research.** Most contemporary theoretical and empiric research is based on the standard *model of labour supply* (Houseman, Ruud, 1984; Berkovec, Stern, 1995; Stillman, 2000). Unemployment, as an absolute antagonism of employment became a traditional theme of economic research. Going deeper into the problems preconditioning employment changes it was noticed that the economic analysts concentrate on the *unemployment reasons and length* in the *micro-economic context*, while in the *macro-economic space* the employment structure and dynamics of unemployment level are analyzed, identifying the changes caused by the activity cycle. (Dynarski, Sheffrin, 1990; Layard, Nickell, Jackman, 1991; Imbens, Lynch, 1992; Nikitina, 2000; Markauskiene, 2000; Matiusaitiene, 2004; Gruževskis, 2002; Pocius, 2003 and others). The research combining the influence of both micro- and macro-factors into the unemployment dynamics were carried out by Frederiksen and Westergaard-Nielsen (2001) in Denmark, although the studies of similar contents have not yet been carried out either in Lithuania or in other EU countries.


A considerable amount of research is devoted to the investigation of the behaviour of the unemployed in the process of job search. The standard job supply model is not suitable for this situation, therefore based on the job search theory special dynamic models have been derived, which allow to evaluate the behaviour of the unemployed under the conditions of indefiniteness and limited amount of information, which is supported by statistical theoretical viewpoints of the decision making consequences (Miller, 1984; Narendranathan, Nickell, 1985; Mortensen, 1986; Wright, 1987; Wolpin, 1987; Van den Berg, 1990; Mortensen, Pissarides, 1999). The reasons of distribution of the unemployed were researched by Damidavičius (1999).

The opportunities of labour mobility, as a means of employment increase, and the reasons for migration were researched by Hick John (1962), who also identified the differences of economic advantages as essential motivators for labour migration. In contemporary theories the personal migration is attributed to one of the investment types, based on the rule of cost return (Sjaastad L. A., 1962). Analyzing the migration streams B. R. Chiswick notices the Kohort (assimilation) effect, based on the preferences of personal assimilation in order to achieve better work and pay conditions


When the opportunities of governmental labour market control are discussed, the works of R. Adamonienė (2002), M. Damidavičius (1999), R. Laužackas (1999), should be stressed as dealing with the mechanism of the active labour market policy and its influence on controlling the employment of the country’s inhabitants. The analysis of the country’s passive labour market regulation means (unemployment benefits, etc.) is non-existent though, the statistical data of the Labour Market Office about the local unemployment related payments are presented.

In most Eastern and Middle European countries, including Lithuania, having rather limited natural and material resources, social-economic development is basically determined by the quality of human capital and the ability to maximally use current human resources applying different means of innovation dissemination as well as science and technological development. The opportunities to use human factors, as basic preconditions for employment opportunities were presented by Ben Porath (1967), R. Mikulėnienė (2000), social partnership problems were analyzed by A. Stancikas (1997), the importance of vocational training for the labour market was discussed by B. Čėsnaitė (2000), B. Gruževskis (1998, 2000), R. Stankevičienė (2000).
The subject of research: population employment.

The object of research is to create the integrated analysis model of population employment based on theoretical – methodological approaches to population employment, and serving as a macro-economic indicator and as a means of presenting a complex assessment of population employment; to propose the development model of population employment integrating micro- and macro- level factors.

Research tasks:
1. To analyse and substantiate fundamental theoretical and methodological approaches to the conception of population.
2. To specify the theoretical definitions of employment and work.
3. Having carried out the analysis of theoretical and methodological aspects of population employment, to substantiate the presumptions of population employment development.
4. To work out an integrated analysis model of population employment serving as a macro – indicator.
5. On the basis of the analysis model, to present a complex evaluation of the population employment level, structure, influencing factors, local differentiation and other issues in the context of the country and EU developments.
6. To suggest the model of population employment integrating micro- and macro-level factors, and based on the theoretical and practical research conducted for the purpose.

Research methods and data bases:
– The abstract theoretical method was applied for the analysis of scientific literature, enabling to define and base the theoretical rules of population employment and to emphasize the employment changes which stipulate the interrelation of the factors.
– The systematic comparative and logical analysis made the presumptions to evaluate the dynamics of the Lithuanian population employment and base the local differentiation.
– Mathematical statistical method (time lines, correlation and regressive analysis, etc.) allowed to base the statistical conclusions on the practical model level.
– The methods of descriptive statistics (indication characterization, frequency charts, graphical methods of data presentation, dispersion and numeric data characteristics) enabled to give a descriptive interpretation of the research results.

The research was based on the secondary statistical data of The Statistical Department of the Republic of Lithuania, the data of the Lithuanian Labour Market, OECD, the statistical data of Eurostat; questionnaires were used to carry out the qualitative methodology of the empiric research.
Scientific novelty and importance of the research
1. The study of economic literature dealing with theoretical population employment issues was conducted. It served as a basis for the generalization and eclectic approach to the theoretical methodological conception of employment formation and development.
2. The systematization of the interpretation of theoretical work market segmentation made it possible to expose and found the factors conditioning population employment changes.
3. Theoretical work and employment definitions reflecting the content of a contemporary work process conception were specified.
4. According to the differentiation principle of two levels (a person and the whole society), there were substantiated the presumptions of population employment expansion from the point of view of social-economic integrity aspirations.
5. The analysis model of the integrated employment as a macroeconomic indicator was designed. It was based on the selection of optimal evaluation methods sufficient for the identification of the indicator structure changes.
6. The integrated analysis model served as a basis for the complex research of employment and unemployment which revealed the following issues:
   • static characteristics of employment and unemployment;
   • dynamic peculiarities of the analysed structural indicators viewed retrospectively;
   • development tendencies of the phenomenon from the point of view of perspective;
   • interrelationalship of factors conditioning employment and unemployment changes;
   • theoretical indicator diffusion of the analysed structure.
7. Empirical research results enabled to specify the causes of inexhaustible possibilities of employment.
8. The worked out expansion model of population employment integrating micro- and macro- level factors might become the foundation for developing socially oriented economic policy.

The scope and structure of the work
The work consists of the introduction, three chapters, conclusions, references and appendixes. The volume of the work amounts to 150 pages. There are 43 figures, 22 tables and 15 appendices. The dissertation refers to 245 literary sources.

Approbation of research results
The research results are announced in 19 scientific publications including 3 Lithuanian publications enrolled in the list approved by the Lithuanian Department of Science and Education. The results of the thesis-related research have been introduced in 16 International and Regionational conferences.
CONTENTS OF THE DISSERTATION

PART ONE. THEORETICAL ASPECTS OF POPULATION EMPLOYMENT

Part One of the work is devoted to the theoretical study of population employment in scientific literature (Chapter 1.1.). The subdivision deals with the evaluation level of tackling these problems in this country and worldwide. Having evaluated the fact that the preconditions defining population employment and unemployment changes are related to the peculiarities of labour market functions, this part of the work emphasizes the specific qualities of labour market, which distinguish it from other markets. In the context of scientific theories and the specific ground of labour market functioning unemployment is viewed as a potential of unused employment opportunities creating conditions for a rational modeling of population employment modeling (Chapter 1.2.).

Chapter 1.1. – Labour market theories, founding the changes in the economical system – presents a short review of research done by Lithuanian and foreign authors on population employment. The study of scientific literature revealed that the roots of employment and unemployment analysis are related to the historic roots of taking on work relations. The works of foreign authors of that period present various theories explaining the contradictions of processes going on in the labour market. The major representatives of classical economics theories: A. Smith (1962), D. Ricardo (1964), J. S. Mill (1980), J. B. Say (1896) name price, demand and supply as the essential regulators of the market, the interrelation of the three regulate the market and labour market alongside with it.


J. Keynes’ study of labour market is based on the principle of self-regulation negation; therefore the main role in the market regulation is played by the state (F. Jaeger, 1999; Kulincev I. I., 2001; O. Landmann, 1999). The representatives of the institutional viewpoint (J. Dunlop, L. Ulman, 1993) paid most attention to the professional and structural differentiations and the study of the corresponding work pay. The supporters of institutional viewpoint based the manner of the market on the specific features of different economical activities, qualification and demographic parameters and the specific features of the institutional activities themselves (Layard R., Nickell S., Jackman R., 1991). It is necessary to point out that the representatives of the latter view supported the idea that related equilibrium and harmony with the political, rather than economical regulation of labour market.

Although the problems of population employment are tackled with in a considerable amount, certain drawbacks should be mentioned. Firstly, the research of population employment does not describe the concept of this phenomenon and the
employment function in the evolution of the individual, too little attention is paid to the theoretical-methodological foundation of the employment contents, and objective laws of its changes and dynamics. **Secondly**, the research of population employment is noted for its specialization, where more attention is paid to the analysis of certain problems. Without neglecting the importance of the latter research, it is necessary to note that the systemic structure suffers; it becomes difficult to define the cause and effect relationships of population employment and processes related to them. **Thirdly**, while employment analysis is performed, it must be based on the empiric data of a given country, in parallel evaluating its specifics, macroeconomic processes and legislation. Detailed and systematic research of Lithuania’s population employment has not been performed so far. The main drawback of the research is that the scholars tend to analyze the data which is 5-10 years old, paying more attention to the employment dynamics and tendencies, also looking for common tendencies among countries, while inadequate attention is paid to the analysis of the employment influence on the changes of labour market structure.

The analysis of theoretical studies pointed out the peculiarities and the labour market concept and functioning, which stipulated a specific place of the labour market among other markets. The peculiarities being as follows: the specifics of the labour subject, multiplicity of labour market, *the nature of labour supply and demand interaction*, which revealed the influence of inertiveness of non-economic factors for labour supply and demand, *the limited information, social aspect, the nature of labour costs, the principle of heterogeneity and market segmentation*.

Having evaluated the fact that the labour market is an open system, effective functioning of which is influenced by many factors (interior and exterior). The structure of factors influencing labour market is presented in **Figure 1**.

![Figure 1. Factors influencing labour market](image)

While analyzing the functioning of labour market, an interpretation of differential concept of work has become clear, preconditioning the clarification of the definition of the latter concept.
Work is people’s activity, expressed by the potential, physical and mental abilities used in the process of value creations and directed towards the satisfaction of personal and public needs, seeking economic aims.

Substantiated by the theoretical analysis of labour market, the dissertation formulates the methodological basis of population employment research, based on the matching principle of labour supply and demand, evaluating both the vertical and the horizontal principle of labour market segmentation. Multiple labour market segmentation is employed to analyze the influence of labour market precondition factors, in order to:

- **Evaluate the opportunities of labour market.** Segmentation methods help to reveal the opportunities of labour supply and demand, also to evaluate the prospects of labour market development.
- **Formulate a common model of labour market: functioning and development.** The analysis of separate labour market segments provides an opportunity not only to know more deeply, but also assess and predict the tendencies of individual indications and criteria.
- **To creatively evaluate the processes in the labour market.** The analysis performed at different levels enables to evaluate the problem areas in the whole labour integration process.
- **To rationally distribute the resources.** While orientating to the problem segments of the market to efficiently redistribute the resources related to the rational distribution of the population employment.
- **To increase the competitiveness of the labour market.**

Having generalized the analysis of the classical, neo-classical and contemporary concepts, it became clear that no theory is able to explain in a systematic way the factors preconditioning employment changes, the preconditions of unemployment appearance, due to the complicated morphological structure of labour market. Without neglecting the importance and value of the latter theories, and seeking a more detailed analysis of employment, as a macro-economic structure indicator, it is necessary to eclectically integrate their basic rules of the contemporary theories, which would enable to fulfill the following tasks:

- **the theory of labour market segmentation** made up the preconditions to base and supplement the employment research from the standpoint of labour formation, localization and integration opportunities;
- **heterogenic labour supply and demand theory** enabled to identify and clarify the different opportunities of potential integrability;
- **the theory of human capital** created the preconditions to base the correlation of specific qualificational abilities with the realization of successful work activity;
- **the theory of labour mobility** which enabled the relationship of mobility preconditions opportunities in the interior and exterior labour markets;
- **the theory of employment search** enabled to evaluate the preconditions and opportunities of the process of getting employment;
- **the behaviour theories of the unemployed supplemented decisions approaching them motivationally.**
Chapter 1.2. – *Unemployment issues in the literature on economics* – gives basis on the preconditions of the formation of unemployment and presents the theoretical assessment of the losses caused by unemployment (Subchapter 1.2.1).

H. Schmid (2000), defines the losses caused by unemployment as the costs of unemployment, which are distributed into 3 groups, 1) *economic*, 2) *fiscal*, 3) *public*. The latter consequences of unemployment are understood generally, i.e. as making influence on the whole country’s economy (B. Martinkus, 1996).

Having generalized the theoretical sources while explaining the phenomenon of unemployment, it is possible to state that the formation development of unemployment, reflecting *unused employment opportunities*, is hardly explained in the context of a given scientific theory. It is difficult enough to define quantitively the separate types of unemployment because of the multiple interpretations of separate unemployment types and lack of sufficient data. In the course of theoretical studies the different interpretation of the concept of natural unemployment based on the interpretation of implied statements of this concept is noticed.

**PART TWO. THEORETICAL BASIS FOR THE PRECONDITIONS OF THE POPULATION EMPLOYMENT DEVELOPMENT**

In the second part of the dissertation paper the methodological basis of population employment research, based on the specific features of labour market functioning is grounded (Subchapter 2.1). Having evaluated the fact that detailed and systematic research of Lithuania’s population employment has not been carried out due to the various diagnostic methods and evaluation, the author proposes the integrated methodology of population employment, as an indicator of macro-economical index, research, which is based on the choice of constructive and optimal evaluation methods (Chapter 2.2).

**Chapter 2.1 – Methodological principles of population employment development** – presents population employment functions in the evolution of the individual, paying attention to the importance of theoretical methodological essence of employment, and emphasizing the objective regularity of its changes and dynamics. The chapter evaluates the interpretation of differential employment category, and presents a revised definition of employment. *Employment is a legal work activity of able-bodied population, based on economic and legal relationship of the people participating in the process of value adding in order to satisfy public and personal needs and providing income, as well as reflecting the general economic status of the country.* Basing on differentiated indications of the *employment* concept and formulating the methodological basis of the employment development model as well as on satisfying the needs of every individual and the whole society, seeking economical-social homogeneity, the dissertation paper substantiates the methodological principles uniting the economic relationship of the market, and the preconditions of all the members of society.
Subchapter 2.2 – The theoretical basis for labour resource evaluation is devoted for the creation and optimal base of methodology of employment, as a macro-economical index. The emphasized presumptions of rational population employment development preconditioned the necessity of evaluating the status labour resources, which substantiated the analysis of employment population. To solve this problem a choice of optimal economical statistical calculation methods is essential. The factors preconditioning the changes of employment levels are distributed into demographic, geographic, economical, social and behavioural, all of them influencing the changes in the employment level, as well as influencing each other (Figure 3).

**Figure 2.** Conditions of socio-economic homogeneity. Designed by the author.

**Figure 3.** Factors influencing the level of population employment. Designed by the author.
Generalizing the theoretical methodological rules of structural indicator research, the analysis model of the integrated macro-economic indicator (AMIMEI) is proposed, substantiating the survey of the country’s population. In order to justify the model realization, optimal economic statistical methods were searched for, so that it might be possible to evaluate the changing economic situation, as well as to assess the changes of employment and economic structure. The sources of specialized literature do not present deeper attempts to identify and evaluate the complex changes of economic structure.

The practical realization of the (AMIMEI) model allowed to evaluate the following indicators of our country’s, as well as the EU countries’ employment and unemployment:

- static characteristic, identifying the factual features of the structural indicator (FFSI);
- the retrospective of the phenomenon dynamics (RD), emphasizing the features of the structural indicator changes (FSIC);

**Figure 4.** The analysis model of the integrated macro-economic indicator (AMIMEI). Compiled by the author
• the tendencies of the phenomenon development \( (RD) \), identifying the deviations of the structure indicators’ constituent parts \( (DSICP) \);
• the correlation relationship of the phenomenon \( (CR) \), identifying and evaluating the correlation of the structural indicators \( (CSI) \);
• the concentration and non-uniformity of the phenomenon \( (NUP) \), measuring the unevenness of structure indicators dispersion \( (USID) \).

Based on the described statistical methods, the author proposes the analysis model of the integrated macro-economic index \( (AMIMEI) \) presented in Figure 4.

Based on the integrated macro-economical indicator analysis model the dissertation paper carried out the research of population employment, also made up the preconditions to evaluate and base scientifically the features of the structure indicator (employment, unemployment, dispersion of the unemployed, etc.) features, also to formulate and present conclusions for a rational formation of population employment, using the available resources effectively.

**PART THREE. EMPLOYMENT RESEARCH OF LITHUANIA’S POPULATION AND THE MODEL OF RATIONAL DEVELOPMENT**

Part 3 of the work is, based on the theoretical study of the factors determining employment changes, according to the research methodology developed in Part 2. In the context of Lithuania and the EU countries, a complex research of empirical employment and unemployment indexes is carried out. The research starts with the analysis of general labour resources, disclosing demographic, geographic, economic, and social-psychological factors (Subchapter 3.1). Further the research identifies and evaluates the static characteristics of macro-economical structure indicators, dynamics retrospective, the tendencies and deviations of constituent parts development, the index dissemination unevenness, factor correlation which pre-conditioned employment changes. While building the model of rational population employment development, a survey of employment regulation means effectiveness is carried out (Subchapter 3.2). In order to present a complete picture, the work is supplemented with the survey results unemployment, as unused employment opportunities reasons and motivation. (Subchapter 3.3). On the basis of the survey, a complex spectrum of factors, which preconditioned the employment changes in the country, allowed formulate generalizing conclusions and presenting a model of rational population employment development. (Subchapter 3.4).

**Subchapter 3.1 – Generic changes of labour resources** deals with the analysis of the country’s and the EU demographic data from the viewpoint of retrospective and perspective. The analysis of the country’s population showed that the total number of population between 1995 and 2004 was decreasing. The latter index decreased by 197300 people. The population growth rate in the given period was \( Tp = -5.5 \% \) (decrease rate). The decrease in the number of population was pre-conditioned by the decreasing birth rate. The study of demographic data in the world and the EU countries revealed that essential population concentration and high growth rates are typical of less developed countries. During recent 20 years population growth rate in the less developed countries was 150 \% \( (T_p = 50 \%) \), predicted for the year 2015 up to 205 \%
Population growth rate in the more developed countries is predicted to reach 117% ($T_p = 17\%$). Population growth rate in European countries was 99% ($T_p = -1\%$).

Analyzing the general urban and rural population distribution, the population concentration in agglomerations and a fast decreasing number of population in rural areas can be observed. Urban growth preconditioned 48% of urban population in the year 2000. (Patterns of Urban and Rural Population Growth, United Nations publication, 2000). Generalizing the dynamics of population demographic changes in the context of Lithuania, the EU and the world, it is possible to state that growing life expectancy reflects the population life quality growth, but constant labour force aging is considered an economically negative process. General aging of the society preconditions problems in the social insurance sector (growing of retirement payments, increasing needs for health services, etc.).

Having revealed general tendencies of population decrease, the analysis of the country’s demographic factors, preconditioned an adequate general dynamics of labour and population employment. In the period between 1999 and 2003 labour quantitative parameters tended to decrease ($\Delta y = -63,600$). The increase of labour force in the abovementioned period decreased by 3.7% ($T_p = -3.7\%$). The number of males among the labour force decreased by 38000 ($T_p = -4.6\%$). The number of females among the labour force decreased less dramatically and was 25700 ($T_p = -3.1\%$). A lower negative dynamics of female labour force was preconditioned by the decrease of females in the country’s population.

Adequate to the tendencies of labour force shifts a general employment of the country’s population was changing. In the period between 1999 and 2003 population employment decreased by 18500 ($T_p = -1.3\%$). The rate of employed males in the 5-year period decreased by 0.5%. Having evaluated this, it is possible to state that the change of the number of employed males was considerably slower, compared with period of 1990 – 1999 ($T_p = -18.8\%$). The quantitative parameter of employed females in the analyzed period also tended to decrease by 15600. The rate of the index change was $T_p = -2.2\%$. It is possible to state that the number of employed women in the 5-year period was decreasing more slowly that in the period of 1990 – 1999 ($T_p = -21\%$). Since 2001 the dynamics of the number of employed population acquired a positive growth. The perspective analysis in the dissertation carried out on the basis of segment function, allowed to emphasize general features of separate periods. The economic indicators of employment, level of unemployment, the dynamics of the unemployed are expressed by the sum of three components: $X(t) = f(t) + z(t) + e(t)$, here: $f(t)$ – the main tendency of the variable X, i.e. trend, $z(t)$ – periodically changing seasonal component, $e(t)$ – random deviations. Predicting the development tendencies of the structural indicator various forecasting methods are employed, the reliability of which is evaluated by different criteria. Based on the positive changes in the employment dynamics of the recent three years, the employment growth in the coming two years is predicted up to 1614,100 employed citizens of the country. In order to prove the index of the predicted general population employment, the calculated approximation error $\mu_{\text{approximation}} = 2.7$ shows that the prediction results are to be trusted. Generalizing the changes of the country’s employed population, it is possible to state that the decreasing speed of this index growth for both males and females have change direction since
2001, which demonstrates a generally favourable influence of the country’s economic development on the processes in the labour market.

The study of the employment level in the EU countries demonstrated that the highest employment level in the beginning of 2004 could be observed in the Netherlands (73.5 %), Sweden (72.9 %), Great Britain (71.8 %). The lowest one is in Poland (51.2 %), Malta (54.6 %) and Italy (56.1 %). At the beginning of 2004 the equivalent number in Lithuania was 61.1 %, in neighbouring Latvia and Estonia 61.8 % and 62.9 %. On May 1, 2004 the labour market of the EU was supplied with approximately 1.6 m. of labour force, which accounted for 0.9 % of the total EU labour force. The average index of employment in the EU countries (15 member countries) is 63.6 %, while in the 25 members this number being 62.9 %. Analyzing the distribution of male and female employment level, a higher male employment level could be observed in all EU countries. The most dramatic difference between the employed males and females could be observed in Malta: male employment level being 41.6 %, in Greece – 28.6 %, while in Lithuania this difference being only 5.6 %.

Clear dynamic changes could be observed in the distribution of the employed population from the viewpoint of both, the horizontal and vertical segregation.

The analysis of employment changes according to the population distribution in their economical activities (1999-2003) demonstrated that adequately to the general decrease of employment, the population number dissemination also decreased. In agricultural, hunting and forestry sectors the number of employed population decreased by: $T_p = -8.6 \%$, in the industry by: $T_p = -2.9 \%$, educational sector by: $T_p = -11.3 \%$. The decrease in the number of employed in agriculture was preconditioned by the processes of production substitution and changes in the structure of people’s needs. The structural shifts and the decrease of those employed in the agricultural sector were influenced by the modifications of life-style and social organization modifications, which preconditioned the countryside’s depopulation and urbanization. The changes in the life-style encouraged the changes of needs unfavourably to the agricultural sector. In the dissemination of positive economical activities positive shifts have taken place in the quarrying and mining activities, in which employment grew by: $T_p = 68 \%$, building and construction by: $T_p = 16.7 \%$, real estate rent activities by: $T_p = 29.9 \%$. The positive tendency of the latter indexes demonstrates that alongside with the economic growth of the country, certain types of activities started growing as well, the dynamic changes of which pre-conditioned the growth of workers’ demand in the sectors.

Evaluating the dynamic changes of employment in the people’s distribution in the professional activities, a decrease in the number of employed can be observed in most professional activities. In the general professional dissemination in the period of 1999 to 2003 mostly decreased the following groups: the group representing legislators, officers and executives ($T_p = -21.8 \%$). Junior specialists and technicians’ professional groups acquired the largest positive change ($T_p = 16.5 \%$). The dynamics of the latter indexes was pre-conditioned by the general demand of professional groups. The differentiations of professional activities could be related to the evaluation of vertical segregation in the labour market. It is necessary to note that the difference in number of males and females taking executive positions is decreasing. At the beginning of 2004 the group of legislators, senior officers and executives included males up to
65.9 %, females – 41.7 %. The latter difference is 9 % lower than the analogous number in 1999. In the EU countries the segregation of males and females in economic sectors is also clear; females dominate in social and health sectors (76.2 %), education (66.3 %), hotel and restaurant sectors (52.5 %), also in the sectors of various services (interest representation, culture, sport, leisure: 58.7 %) Males dominate in the building and construction sector: 91.6 %, mining 89.6 %, and energy and water supply sectors: 86.2 %.

Analyzing the factors pre-conditioning the general situation in the country’s employment it was noticed that the latter index is settled by various factors: demographic, geographic, economical, social, and psychological. Because of the lack of data most factors are impossible to be investigated, therefore the relations best reflecting the country’s current economical mechanism have been selected in the paper. Based on the correlation analysis the country’s correlation and relation cohesion have been set. Positive relations between the population demographic index dynamics and employment changes have been noticed: the less the general number of population, the lower the quantitative parameter of the employed. The economic growth of the recent years pre-conditioned the growth of population employment in certain activity sectors only, i.e. with the increase in general productivity of enterprises, the demand for labour in certain economical sectors is decreasing. Negative relation between the average pay and employment indicator is noticed: while increasing salaries, the enterprises tend to reduce the number of employees.

Realizing the model of (AMIMEI) analysis the inconsistency analysis of the country’s territorial units has been carried out. The inconsistencies of structure values dissemination have been evaluated with the help of Ginny concentration coefficient and Lorenz curve. Ginny concentration coefficient has been applied, the formula of which is as follows: 

\[
K_c = \frac{10000 - \sum_{i=1}^{N} f_i \times \left( d_i + 2\sum_{i=1}^{l-1} d_i \right)}{10000},
\]

and it demonstrates that clear differences prevail in the economic activities of different regions, as well as in the indexes of population employment. To emphasize the inconsistencies of regional economic indicators the Lorenz curve has been applied, which demonstrated the uneven distribution of employment and the created GDP in different regions. Analyzing the regional differentiations of the year 2000 according to the GDP and population distribution the Ginny coefficient was as follows: Ginny coefficient = \[\sum p_i q_{i+1} - \sum p_{i+1} q_i = 0,673\], but in 2003 the index was Ginny coefficient = \[\sum p_i q_{i+1} - \sum p_{i+1} q_i = 0,125\]. Based on Ginny coefficients of the years 2000 and 2003, the tendencies of Lithuania’s region uneven development increase were revealed.

Based on the correlation analysis the paper emphasizes correlation ties and their tightness from the viewpoint of the country regions’ economical indicators. The results of the research approved the theoretical presumptions of setting up the relations in the viewpoint of leader regions (Vilnius, Klaipėda, and Kaunas). The latter regions enjoy stronger correlation ties between GDP and average employment. Preconditioning the growth of productivity at the expense of decreasing employment, The GDP is also strongest among the leader regions. In order to evaluate the links between population employment and economical activities, and having performed the correlation analysis
between those employed in economic activities and a corresponding activity in the GDP value, significant results have come up. The strongest correlation tie can be observed between the employed in the educational sector and the GDP, $R^2 = 0.8806$ and the correlation coefficient $r = 0.9384$ ($y = 33.695x + 2843.3$) demonstrates that the development of educational sector is preconditioned by the GDP growth, which enables to form and forecast the perspectives of the country’s educational system.

Table 1

<table>
<thead>
<tr>
<th>Counties</th>
<th>GDP (m Lt) – turnover of retail trade and catering (m. Lt), 1998 – 2002</th>
<th>GDP (m Lt) – average annual number of employed people, (thous.) 1998 – 2002</th>
<th>Industry products sold (excl. VAT and excise) at the existing prices (m. Lt) – average annual number of employed people (thous.) 1998–2002</th>
<th>GDP (m Lt) – average monthly (brutto) work pay (Lt) 1998–2002</th>
<th>Industry products sold (excl. VAT and excise) at the existing prices (m. Lt) – average monthly (brutto) work pay (Lt) 1998–2002</th>
<th>Average annual number of employed people thous. – average monthly (brutto) work pay (Lt) 1998–2002</th>
<th>Average annual number of employed people thous – average monthly (brutto) work pay (Lt) 1998–2002</th>
<th>Number of population (end of the year, thous.) – the turnover of retail trade and catering (m. Lt), 1998 – 2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alytus</td>
<td>0.0808</td>
<td>-0.440</td>
<td>0.6993</td>
<td>0.9602</td>
<td>0.0832</td>
<td>-0.3893</td>
<td>-0.9449</td>
<td></td>
</tr>
<tr>
<td>Kaunas</td>
<td>0.5567</td>
<td>-0.533</td>
<td>-0.5082</td>
<td>0.9466</td>
<td>0.7191</td>
<td>-0.3849</td>
<td>-0.9963</td>
<td></td>
</tr>
<tr>
<td>Klaipėda</td>
<td>-0.6871</td>
<td>-0.687</td>
<td>-0.6393</td>
<td>0.9416</td>
<td>0.8303</td>
<td>-0.4094</td>
<td>-0.9988</td>
<td></td>
</tr>
<tr>
<td>Marijampolė</td>
<td>0.1607</td>
<td>-0.220</td>
<td>-0.6042</td>
<td>0.7788</td>
<td>0.1620</td>
<td>-0.1222</td>
<td>-0.9900</td>
<td></td>
</tr>
<tr>
<td>Panevėžys</td>
<td>0.5707</td>
<td>-0.670</td>
<td>-0.8023</td>
<td>0.7702</td>
<td>0.6052</td>
<td>-0.7696</td>
<td>-0.9574</td>
<td></td>
</tr>
<tr>
<td>Šiauliai</td>
<td>0.8393</td>
<td>-0.454</td>
<td>-0.1142</td>
<td>0.8479</td>
<td>-0.2732</td>
<td>-0.6398</td>
<td>-0.9987</td>
<td></td>
</tr>
<tr>
<td>Tauragė</td>
<td>0.6642</td>
<td>0.692</td>
<td>0.6294</td>
<td>0.7756</td>
<td>0.4372</td>
<td>0.5440</td>
<td>-0.8802</td>
<td></td>
</tr>
<tr>
<td>Telšiai</td>
<td>0.9304</td>
<td>-0.336</td>
<td>-0.2350</td>
<td>0.8439</td>
<td>0.3401</td>
<td>-0.1051</td>
<td>-0.9976</td>
<td></td>
</tr>
<tr>
<td>Utena</td>
<td>-0.5376</td>
<td>-0.662</td>
<td>-0.5378</td>
<td>0.9749</td>
<td>0.6839</td>
<td>-0.7065</td>
<td>-0.8555</td>
<td></td>
</tr>
<tr>
<td>Vilnius</td>
<td>0.9853</td>
<td>-0.326</td>
<td>-0.2198</td>
<td>0.9557</td>
<td>0.8042</td>
<td>-0.0867</td>
<td>-0.9907</td>
<td></td>
</tr>
</tbody>
</table>

A strong negative interdependence between the employed in industries and GDP, $R^2 = 0.813$, the correlation coefficient $r = 0.9016$ ($y = -103.94x + 39341$), allowed to state that the growth of gross national product is not preconditioned by only the human labour results.

The research of unemployment, as unused opportunities of employment, made up the basis to formulate recommendations for a rational development of the country’s employment.

The analysis of the structural changes of the unemployed demonstrated that in the period between 1999 and 2003 the number of unemployed males and females was increasing. ($Δy = 55500$). The general growth of the number of unemployed was $T_d = 137.1 \%$, although the number of unemployed females in that period increased by 28,399 ($Δy = 28300$), males by 26,500 ($Δy = 26500$) The age analysis of the unemployed demonstrated that the majority of registered unemployed are of most employable age, i.e. 53.9 \% were the unemployed aged 30 and 49. It was also defined that in the period described the growth of unemployed males was by 5 \% higher than that of females. Analyzing the changes of unemployment level it was defined that in the period between 1999 and 2003 the index decreased by 2.2 \%, and at the beginning of 2004 it was 12.2 \%. Analyzing the interrelations of the factors preconditioning the level of unemployment it was defined that the level of unemployment correlates with GDP ($r = -0.6967$), GDP per capita ($r = -0.784$), industry products sold ($r = -0.6217$),
number of small and medium size enterprises per 1000 of population \((r = -0.7317)\) the balance of citizens migration \((- r = 0.6542)\), crime rate \((r = -0.8514)\).

Developing the methodological rule of the freedom of associations and government support to people seeking employment, effective activities of institutions, seeking both, integrated support to people in the labour market, and rational and effective employment of the population, a detailed analysis of the country’s labour market means of increasing employment and decreasing unemployment is presented. Having evaluated the growth of the number of unemployed, their participation level at the active performances, also the scope of financing the employment programmes, it was noticed that the latter indexes change differently. In the period analysed, the general number of unemployed grew most of all, the growth of which reached \(T_p = 37.1\ )\%, while the index of employment programme finance grew by: \(T_p = 16.1\) %. The analysis the latter indexes demonstrated The strongest correlation tie can be observed between the employed in the educational sector and the GDP, \(R^2 = 0.8806\) and the correlation coefficient \(r = 0.9384\) \((y = 33.695x + 2843.3)\) demonstrates that the development of educational sector is preconditioned by the GDP growth, which enables to form and forecast the perspectives of the country’s educational system. ts that the scope of programme financing partially effected the number of participants in those programmes. The correlation of programme financing and participation in these programmes demonstrated that there is a significantly negative correlation link between these two indexes: correlation coefficient \(r = -0.58138\) \((y = -11.84x + 23659)\). It means that if the scope of financing is decreasing, the real opportunity to participate in the employment programmes is also decreasing, although the obvious negative correlation tie makes the presumption that the part of finance for maintaining the skills of the unemployed are used ineffectively.

The unused employment opportunities are attributed to the phenomenon of long-term unemployment, the reasons being mainly of a social nature. Based on the results of the analysis carried out in the work it, was defined that the tendency of uneven development of regions is growing, which makes presumptions to look for the reasons and to get rid of them, submitting suggestions to the state policies of regional development, in order to decrease the disproportions in all economic and social activities, and seeking a rational employment of the population. To reach the aim, an empyric analysis of the reasons of unemployment and the motivation of the unemployed are used.

The motivation of the analysis in the paper was defined by the the research of the country’s employment and unemployment, as well as the analysis of the EU experience. The analysis of the EU countries’ employment and unemployment demonstrated that the problem of the unemployment is also urgent in the Western countries. Having evaluated the fact that the EU countries have a long-term experience fighting unemployment, it is possible to state that long-term unemployment, as a reserve of unused opportunities, is a constant satellite of the developed countries. According to the data of Lithuanian Labour Market, in the period between 1996 and 2003 the number of the long-term unemployed grew up from 11.7 to 35.1 %. The tendencies of long-term grown of the country’s unemployment, finding expression in the uneven index growth in the regions, preconditioned the aim of their research:

- to clarify the reasons for unsuccessful search of employment;
• to evaluate the work motivation of the unemployed. The justify the set objectives the following research hypotheses are formulated:

H1 – increasing period of unemployment preconditions the passiveness of the people regarding their work motivation and self-dependence.

H2 – the motivation of the persons’ oriented towards qualification training and requalification as well as integrational job opportunities are higher.

To carry out the research, the country’s depressed regions which the highest rates of unemployment have been chosen: Šiauliai, Panevėžys, and Marijampolė. To realize the qualitative methodology of the empiric research a questionnaire method was chosen. 725 regionally registered unemployed people, whose registration exceeded 1 year, were asked to submit the questionnaires. To process the survey results “Microsoft Excel” and “Statistica” software packages were used.

Table 2

Respondents’ characteristics

<table>
<thead>
<tr>
<th>Age</th>
<th>Education</th>
<th>Place of residence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criterion</td>
<td>Percentage</td>
<td>Criterion</td>
</tr>
<tr>
<td>Until 18 years of age</td>
<td>0</td>
<td>Higher</td>
</tr>
<tr>
<td>19-25 years of age</td>
<td>11</td>
<td>College</td>
</tr>
<tr>
<td>26-29 years of age</td>
<td>11</td>
<td>Secondary</td>
</tr>
<tr>
<td>30-39 years of age</td>
<td>29</td>
<td>Vocational</td>
</tr>
<tr>
<td>40-49 years of age</td>
<td>32</td>
<td>Main (8-9 years of educ.)</td>
</tr>
<tr>
<td>Over 50, 5 years until retirement</td>
<td>13</td>
<td>Primary (without primary)</td>
</tr>
<tr>
<td>Less than 5 years until retirement</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

The general conclusion of the empirical research:

• The results of the research demonstrated that the main reason for their unemployment is their inadequate education. However, having performed the statistical analysis of the data obtained in the questionnaire, it was noticed that a stronger motivation of the less educated unemployed provides them with greater opportunities to get a job, rather than the passiveness of the more educated unemployment in their search for employment.

• It was also noticed that the activeness of the unemployed registered at Panevėžys, Šiauliai and Marijampolė labour offices increases between the ages of 19 to 49 (the most active being between the ages of 40 and 49), while it decreases from 50 years of age.

• The research demonstrated that the period of unemployment for those living in towns is shorter that of those living in the country. Moreover, their motivation for work is higher than of those living in the country. These preconditions were based on the Kendall correlation coefficient between the town and country residents’ motivation for work: \( k_{\text{Kendall}} = 0.31, \) country- \( k_{\text{Kendall}} = -0.26. \) A stronger motivation could be considered as one of the main reasons, explaining why the average period of unemployment of town residents is higher that of country residents.
Having lost their job, people first offal a visit to the labour office expecting its help in search for employment. The established relationship between the search methods used by the unemployed and job offers is weak, although it exists \((r = 0.17)\). The results of cluster analysis showed that the persons passively looking for employment could be characterized by weak motivation.

It was determined that the unemployed start looking for employment on their own in 6 months on average after having registered in the labour office. There is no match between the unemployed period and the period of job search. The relationship between the unemployment period and the period of job search is weak \((r = 0.4)\), and this demonstrates that the unemployed do not put effort to find a job in a short period of time. After getting registered in the labour office the unemployed do not look for employment intensively, or do not do that at all for a certain period of time. The motivation of those having no employment is weak.

The results of the research demonstrated that the investigated unemployed of Šiauliai, Panevėžys and Marijampolė towns and districts are not very active in their search for employment; most of them wait for the offers from the labour office or other sources. Having no strong motivation they do not get offers form other sources. Essential differences between various regions were not observed.

It was also determined that the majority of the long-term unemployed having no job for 2 or more years, do not get job offers at all. They are not educated or have no profession have lost hope and do not try to find employment themselves. Such people make up the largest part of the long-term unemployed. While the period of unemployment increases, the number of job offers increases very insignificantly. While the period of unemployment is increasing, the people’s motivation for work and its search are decreasing.

Evaluating hypotheses:

First hypothesis: H1 – the increasing period of unemployment predetermining people’s passiveness in terms of job motivation and self-dependence came true.

Second hypothesis: H2 – people orientated towards qualification increase, retraining motivation and integration have higher opportunities, was proved only partially. The research determined that the long-term unemployed instead of professional training put priority to public and temporary jobs, unrelated to qualification increase.

The problems exposed and founded made up preconditions to formulate the model of rational population employment. Having evaluated the fact that the education system formulates the basis for work motivation, and the employers, labour offices and professional orientation authorities take care of the people’s qualifications and retraining, it is suggested that these institutions unite in terms of gathering and distributing information.

Rationalizing the structure of employment is one of the major functions in the activities of institutional organizations, reflecting the infrastructure of labour market. The situation in the labour market is expressed by the balanced mechanism of labour supply and demand. The rational employment of population is formed in creating and maintaining necessary conditions, and reaching for an optimum result as well as
matching the possibilities of personal and material work factors. To reach the target it is purposeful to adjust the activities of employment institutions in such a way that the activities of the latter would enable to balance the number of job vacancies and the structural equivalent for the economically active part of the population.

Having evaluated the fact that different participants in the labour market formulates the concept of rational population employment, it is suggested to segment the model of rational population employment into five independent stages (steps):

1. **Collection and evaluation of data.** At this stage the information is collected using the census and questioning market participants (enterprises);
2. **Analysis of employment situation** uses the methodology of analysis of macro-economic index (**IMRA**), the statics, dynamics, tendencies and level of concentration is evaluated;
3. **Decision taking and forecasting the means.** The system of unemployment prevention means and projects is evaluated and developed;
4. **Realizing the means of employment development.** Proposals to the institutions influencing the labour market policy are submitted in order to stimulate the opportunities of population employment;
5. **Developing work motivation.** Education and professional orientation system is developed.
Figure 5. Development model of population employment integrating micro- and macro-level factors
The realization of every activity step unites all the participants of labour market: employers, labour force, intermediary institutions, legislation organs, as well as education and research institutions.

Having implemented these proposals, the results of the first step would provide information about the potential of the total labour resources, the structure of which in the labour marker would be analyzed in the second step.

The result of the third activity step would allow to clarify the supply and demand tendencies of the labour force. To increase the opportunities of labour force, and qualifications, the projects of active labour market means are proposed.

The realization of the fourth step is directed towards the institutions acting as intermediaries, labour offices, professional orientation authorities, and legislation organs. Amendments to business laws, promoting entrepreneurship, increasing the motivation of the unemployed would make a basis for a rational employment development formation.

It is suggested to direct the realization of the fifth activity step towards education and professional orientation. Having evaluated the fact that the beginning of the work motivation is formulated at educational institutions, a close interrelation of the latter is necessary in order to formulate a rational employment potential.

CONCLUSIONS

The generalization of the research conducted has made it possible to draw the following conclusions:

1. The analysis of the scientific literature dealing with the employment issues has revealed scanty evidence of some classical theories of the work market in analyzing the formation of population employment and the prerequisites of unemployment occurrence. Having evaluated a complicated morphological structure of the work market conditioned by constant dynamic environmental influence, the theoretical–methodological research of population employment has been on the eclectic approach to the integrated contemporary theories of the work market. Such approach has given the opportunity:
   - to substantiate and supplement the research from the point of view of work force formation, localization, concentration and integrated opportunities applying segmental theoretical approaches to the work market;
   - to identify and expose different, potential possibilities to integrate into the work market after having generalized theoretical aspects of heterogeneous work force supply and demand formation;
   - to reveal the influence of specific qualification capabilities on the realization of successful work activity integrating the theoretical statements of human capital value;
   - to evaluate the influence of various factors on employment duration adapting theoretical approaches to work search;
• to expose the interrelationship of persons’ integrated possibilities and motivational–psychological decisions approached from the standpoint of unemployed behaviour theory;

2. The conceptions related to the decomposition of the generalized theoretical work market into separate segments manifest that uneven distribution of population employment is conditioned by the influence of economic, political, social forces;

3. The multiple interpretation of the employment concept in theoretical studies and contemporary notion of work process has made it possible to specify the definitions of employment as those of macro-economic indicator as well as of a factor preconditioning an employment need:

   Work is people’s activity expressed by potential physical and mental individuals’ abilities used in the process of value creation and directed towards the satisfaction of personal and societal needs in searching for economic aims.

   Employment is a legislative working activity of able-bodied persons based on economic and legislative relationships of people taking part in the value creation process and seeking to satisfy personal and social needs as well as the activity promoting income and reflecting the state’s economic welfare standards.

4. Basing on theoretical generalizations and more precise definitions, the prerequisites of population employment development have been grounded on two levels – a person and the whole society – following the differentiation principle:
   • a person level leading to the growth of needs development and satisfaction of a certain structure;
   • the whole society level oriented to some social, economic integrity of society.

The foundation of population employment expansion model is based on the aspirations of social-economic integrity comprising micro- and macro- level factors.

5. The theoretical analysis of population employment has exposed the need of the micro- economic indicator research model. Having selected an optimal quantity of evaluation methods sufficient for the identification of structure changes, there has been proposed the integrated model of macro- economic indicator research consisting of five phases enabling to assess the following aspects:
   • static characteristics while identifying virtual features of a structure indicator (IS);
   • phenomenon dynamics retrospective while exposing change characteristics of a structure indicator (ID);
   • the tendencies of index development and expansion while indicating the deviations of the structure indicator constituents (DI);
   • correlation relations of the index while identifying and assessing interrelationship correlation of the structure indicator (IR);
   • index concentration and unevenness while measuring the dissemination variations of the structure indicator (RG).
6. The research carried out in the field of population employment in the country’s and EU work markets according to the research model has revealed the following aspects:

1) The general decrease in the number of population not only in the country but also in most EU countries has shown society’s ageing tendencies. Although the increase of average life continuance manifests the growth of life quality, however, constant work force ageing process is considered to be negative from the economic point of view. Aged people are less active and their employment level is lower. These tendencies condition problems in the field of social insurance.

2) Employment indicators analysis has led to the conclusion that the decrease of the country’s employment in 1990 positively influenced the change of the direction, however, the growth of increase was not high. As the end of 2003 the country’s employment level was 61.1 %, in the EU countries (15) – 64.3, and EU (25) – 62.9 %.

3) The analysis of the employment changes according to activity sectors, has shown that in agriculture, hunting and forestry the number of the employed decreased during the research period up to 14.5 %, EU (15) – 6 %, EU (10) –12 %. Industry employment index reached 20.6 %, EU (15) –25 %, EU (10) –18%, service sector – 53.9 %, EU (15) – 69 %, EU (10) – 60%. The decrease of population employment in agricultural sector has been decided by production substitution processes and the changes in people’s needs structure.

4) The country’s market investigated from the point of professional approach has show the decrease in the number of employed publisters, chief officers and executives, however, the most significant change has been noticed in the groups of junior specialists and technicians. All EU countries are characterized by the dominance of women in social and health care (76.2 %), education (66.3 %), hotel and restaurant activity (52.5 %) and various service sectors (interest representation, culture, sports, leisure – 58.5 %). Men are employed in civil building – 91.6 %, mining – 89.6 %, energetics and water supply – 86.2 %.

5) The analysis of the indicators of the identified structure intercorrelation has shown that the general population employment is positively correlated with the country’s economic growth (GDP) ($r = 0.976$), however, the country’s economic development conditioned by the general enterprise productivity has a negative influence on population employment, i.e. productivity increase lowers the need of working persons. Unemployment level indicator is directly proportional to criminality increase ($r = 0.876$), but it is negatively correlated with the country’s general economic growth ($r = 0.696$). Having evaluated the increase of the number of the unemployed, their participation in employment activities and the amount of financed programs, a negative correlation ($r = 0.581$) has been noticed: the decrease in financing results, the reduction of opportunities to take part in employment programs. However, the evident negative correlation link creates prerequisites to think that some part of assignments for developing the skills of the unemployed is used ineffectively.

6) Basing on the measured results of uneven dissemination indicators among the country’s regions (regions GPD and population employment indicator), it has been stated that the country’s regional differences increase ($Gini_{coefficient} = 0.125$, 2003).
The methods of the model supplemented with the research results has exposed psychological causes of work motivation conditioning the tendencies of inexhausted employment opportunities. The hypothetical presumptions identified by the empirical research have been confirmed: H₁ – longer period of being unemployed conditions persons’ inactivity from the point of view of independence and motivation. The second hypothesis: H₂ – the motivation and integration possibilities of the persons who orient themselves to qualification development and changes are better while seeking work integration. This hypothesis has been proved only partly. The research has revealed the fact that the long term unemployed give priorities not to professional development but to temporary jobs which are not related with qualification development.

The model used in population employment research enabled to reveal prerequisites conditioning effective employment by economic and social results (the level of work productivity, general domestic product, average life continuance etc.). Having assessed that the realization of social objectives should not limit economic advance, and economic goals should not ignore social ones in search for the country’s social- economic integrity, the model of population employment development is proposed its realization might unite all the participants related to the functioning of the work market. Having decided that the population employment conception is developed by the different participants of the work market, the population employment model has eclectically integrated micro- and macro- level factors which reflect the objective of the employment policy – to develop the rational structure of population employment increasing economic and social effectiveness of work.

List of Publications and Proceeding

Science publications of the author in the science periodical reviewed publications

2. Beržinskienė D., Martinkus B. (2001). Nedarbas ir ekonominės bei socialinės jo pasekmės. Inžinerinė ekonomika. Nr.2 (22), p.57-60. (ISSN 1392–2785);

Science publications in the material of Lithuanian and International Conferences


Pastaraisiais metais augantis BVP, didėjantis eksporatai, indelių augimas bankuose ir kt. rodo bendrą šalies ekonomikos augimą, tačiau šis augimas nepakankamai susietas su socialiniu šalies vystymusi. Šalyje didėja regioniniai (lokaliniai) užimtumo
skirtumai, ryškėja darbo išteklių diferenciacija bei gyventojų poliarizacija,auga materialinės atotrūkis tarp skirtingų socialinių sluoksniių ir pan. Nedarbo, kaip neišnaudotų užimtumo galimybių, augimas trikdo ekonominius bei socialinius procesus visuomenėje, sąlygomas patologines jų formas. Asmenys, susidūrę su nedarbu patiria ne tik materialinius nuostolius, bet neadekvacinius stumiamis link socialinės degradacijos, pasireiškiančios didėjančiu nusikalstamumu, skurdo, asociacijų šeimų skaičiaus augimu ir t.t. Visos šios negatyvios socialinės apriškos turi neigiamą dėmesį bendram šalies ekonomikos augimui, todėl gyventojų užimtumo ir nedarbo poveikį turinčių svarbių teorijų pradėtų diskutuoti dinamikai poveikį turinčių socialinių slaugų vartojimui tampą tenacijų šalies ekonominės - socialinės analizēs objektu. Be to, gyventojų užimtumo ir nedarbo lygio rodo ne tik pakankamai jautrius ekonominius, socialinius bei politinius procesus, tačiau ir esminė aukščiaus minėtąjų procesų tyrimo priemonė. Visos šios socialinės aprašos turi neigiamą įtaką bendram šalies ekonominiam augimui, todėl gyventojų užimtumo ir nedarbo struktūras dinamiškai poveikį turinčių svarbių sociolinguistinių tyrimų sistemai sužinoti, atlikiant augimui ir t.t. Visos šios socialinės aprašos turinčios neigiamą įtaką bendram šalies ekonomikai, pagrindinio teorinio metodologinio metodus naudojant, sudaryti diskusiją apie gyventojų užimtumo ir nedarbo struktūras dinamiškai poveikį turinčių socialinių slaugų vartojimui tampą tenacijų šalies ekonominės - socialinės analizēs objektu. Be to, gyventojų užimtumo ir nedarbo lygio rodikliai yra ne tik jautrius ekonominius, socialinius bei politinius procesus, tačiau ir esminė aukščiaus minėtąjų procesų tyrimo priemonė, sudaranti socialinės politikos plėtros modelį.


Mokslinių tyrimų objektas: gyventojų užimtumas.

Mokslinio tyrimo tikslas: remiantis gyventojų užimtumo teoriniems metodologinėms nuostatomis sudaryti integruotą gyventojų užimtumo, kaip makroekonomikos indikatoriaus, analizēs modelį, kurio pagalba kompleksiskai įvertinti gyventojų užimtumą bei pasiūlyti gyventojų užimtumo, integruojančio mikro- ir makrolygmens veiksnius, plėtros modelį.

Tyrimo uždaviniai:
1. Išanalizuoti ir pagrįsti esmines gyventojų užimtumo sampratas bei jo tyrimo teorines metodologines nuostatas.
2. Patikslinti užimtumo ir darbo teorines apibrėžtis.
3. Atlikus gyventojų užimtumo teorinių metodologinių aspektų analizę pagrįsti gyventojų užimtumo plėtros prielaidas.
4. Sudaryti integruotą gyventojų užimtumo, kaip makroekonomikos indikatoriaus analizēs, modelį.
5. Remiantis sudarytu analizės modelių, kompleksiškai įvertinti gyventojų užimtumo lygių, struktūrą, sąlygojančių veiksnų tarpusavio sąryšį, lokalinę diferenciaciją šalies ir ES kontekste.
6. Atliktu teorinių ir praktinių tyrimų pagrindu pasiūlyti gyventojų užimtumo plėtros modelį, integruojantį mikro- ir makrolygmens veiksnius.

Tyrimų metodai ir duomenų bazės:

- Darbe taikytas abstraktus tyrimo metodas – mokslinės literatūros analizė, leidžianti apibūdinti ir pagrįsti gyventojų užimtumo teorines nuostatas bei išryškinti užimtumo pokyčius sąlygojančių veiksnų tarpusavio sąsajas.
- Sisteminė lyginamoji ir loginė analizė sudarė prielaidas kompleksiškai įvertinti Lietuvos gyventojų užimtumo pokyčių dinamiką, pagrįsti lokalinę diferenciaciją.
- Matematinės statistikos metodai (laiko eilutės, koreliacinė bei regresinė analizė ir kt.) leido pagrįsti statistines išvadas praktinių modelių plotmėje.
- Aprašomosios statistikos metodai (požymių charakterizavimas, dažnių lentelės, grafiniai duomenų vaizdavimo metodai, sklaidos ir skaitinės duomenų charakteristikos) leido vaizdžiai interpretuoti gautus tyrimų rezultatus.

Tyrimų pagrindą sudarė antriniai Statistikos departamento prie LR Vyriausybės, Lietuvos Darbo biržos tyrimų duomenys, OECD, Eurostat statistiniai duomenys, kokybini empininio tyrimo metodologijai realizuoti buvo pasirinkta anketinė apklausa.

Mokslinis naujumas ir reikšmė.
1. Atlikta teorinė gyventojų užimtumo problemų ekonominėje literatūroje studija, kurio susipinimo apibendrinta ir eklektišku požiūriu pagrįsta užimtumo formavimosi bei vystymosi teorinė metodologinė koncepcija.
2. Susistemintos teorinės darbo rinkos segmentuotės interpretacijos įgalino išryškinti bei pagrįsti veiksnius, sąlygojančius gyventojų užimtumo pokyčius.
3. Patikslintos darbo ir užimtumo teorinės apibrėžtys, atspindinčios šiuolaikinį darbo proceso koncepcijos turinį.
5. Sudarytas integruotas užimtumo, kai tik makroekonomikos indikatoriaus analizės modelis (IMIA), pagrįstas optimalų vertinimo metodų parinkimu, pakankamų indikatoriaus struktūros pokyčiams identifikuoti.
6. Sudaryto integruoto analizės (IMIA) modelio pagrindu atliktas kompleksinis gyventojų užimtumo ir nedarbo tyrimas, šalies ir Europos Sąjungos kontekste, išryškinęs:
   - užimtumo ir nedarbo statines charakteristikas,
   - analizuotų struktūros indikatorių dinamikos ypatumus retrospektyvos požiūriu,
   - reiškinio vystymosi tendencijas perspektyvos požiūriu,
   - užimtumo ir nedarbo pokyčius sąlygojančių veiksnų ryšius,
   - teritorinę analizuojamo struktūros indikatoriaus skliaidą.
7. Empirinio tyrimo rezultatų pagrindu išryškintos neišnaudojamų užimtumo galimybių priežastys.
8. Parengtas gyventojų užimtumo integruojančio mikro- ir makrolygmens veiksniius (*IMMLV*) plėtros modelis gali tapti pagrindu formuojant socialiai orientuotą ekonominę politiką.

Pirmoje darbo dalyje atlika teorinė gyventojų užimtumo ir nedarbo problemų mokslinėje literatūroje studija. Įvertinas šių problemų įtyrimo lygis šalies ir pasaulio mokslininkų darbuose. Įvertinus tai, kad gyventojų užimtumo ir nedarbo pokyčių sąlygojančios priežastys susijusios su darbo rinkos funkcionavimo ypatumais, šioje darbo dalyje išryškinamos specifinės darbo rinkos susijusios su nedarbo rinkos savybės, išskirią naudotis įvairios rinkų. Atlita literatūros šaltinių analizė išryškino klasikinių darbo rinkos teorijų ribotumą analizuojant gyventojų užimtumo formavimą bei nedarbo atsiradimą priešinės darbo rinkos rūmų. Įvertinus šių problemų išnykimo lygį šalies ir pasaulio mokslininkų darbuose, atlikta literatūros analizė įvertinamas šių problemų išnykimo lygis mokslininkų darbuose.

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integruojančio mikro- ir makrolygmens veiksnius (*IMMLV*) plėtros modelis, paremtas šalies socialinės ekonominės raidos vientisumo siekiu.

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