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<https://doi.org/10.26366/PTE.ZG.2016.37>

Gender inequality on the labour market in highly developed countries

1. Introduction

For many decades, the different position of women and men on the labour market has constituted an object of interest for social sciences, including economy. The forerunner of the study of the economic position of women was J.S. Mill (1869, pp. 15-16), who pointed to the legal restrictions of women's access to education and gainful employment. F. Edgeworth (1922, p. 432), on the other hand, noticed that women were crowded in a small number of professions, which resulted in lower wages (crowding hypothesis). In the second half of the 20th century, the problem of women's economic situation became an object of wide interest for economists (Arrow 1972, p. 3; Becker 1990, p. 43; Stiglitz 1973, p. 287), as a result of actions aimed at increasing the civil rights of formerly discriminated groups, including women, and the increased percentage of women on the labour market. The new perspective of research into gender inequality is focused on socio-cultural factors (Piketty 2015, pp. 8-9; Therborn 2015, p. 99), following the dynamic growth of sociological research within gender studies. Moreover, restricting gender inequality on the labour market has become the goal of many international organisations, such as: United Nations Organization, OECD, International Labour Organization and European Union.

The aim of the article is to identify and analyse the scale of the phenomenon of gender inequality on the labour market. The geographical scope of the study includes highly developed countries belonging to the Organisation for Economic Co-operation and Development (OECD). The time scope covers the period between 1990 and 2013, which is based on the availability of statistical data. The research hypothesis in the paper is following: highly developed countries are significantly different with regard to the scale of gender inequality in the professional context. The article will implement two research tasks, whose main purpose will be to determine the validity of the proposed research hypothesis. The tasks are as follows:

1. Definition of the notion of gender inequality and identification of its measures.

2. The analysis of the diversity of scales of gender inequality on the labour market in the highly developed countries.

The article is based on the bibliographical resources including thematic studies, scientific articles, reports and statistical analyses, as well as reports of national and international institutions. The source of data about gender inequality will primarily consist in OECD's and the World Bank's data base. The paper will also use data on gender inequality published by: UNDP (United Nations Development Programme), World Economic Forum and International Labour Organization will be used in the paper. The qualitative methods will be applied: critical analysis of literature and documents of international organisations, and deductive reasoning. The following quantitative methods are going to be employed: descriptive statistics and cluster analysis.

2. The concept of gender inequality on the labour market

The researchers who deal with the problem of gender inequality (Bergmann 1974; Hartmann 1976; Kalinowska-Sufinowicz 2013; Kryńska and Kwiatkowski 2013) often connect it to the imperfections of the labour market, which have their source in its institutional structure. On the other hand, it follows from the analyses carried out by S. Shulman (1992, pp. 434-439) or A. Giddens (2005, pp. 133-134) that occupational gender inequality should be perceived as a vicious circle of historical conditions and socio-cultural norms. A different perspective is presented by international organisations (UN, OECD, International Labour Organization, European Union), which treat gender inequality as all kinds of differentiation, exclusion or preference in the use of fundamental rights on the labour market. Therefore, it is justifiable to specify the scope of the studied problem and identify the measures which characterize it in pursuit of its detailed analysis in the studied highly developed countries.

The research into the literature (synthetically juxtaposed in Table 1) allows a supposition that gender inequality on the labour market is a certain set of limitations that differentiate the situation of women and men in respect of employment, promotion and remuneration.

Here, it is worth adding that, in its recent report devoted to human development (*Human Development Report 2014. Sustaining Human Progress: Reducing Vulnerabilities and Building Resilience*), the UN criticises the small progress of highly developed countries (according to the Human Development Index) in reducing gender inequality in women's access to power: both political and economic (Malik 2014, p. 159). Another

UN report (*The Millennium Development Goals Report 2013*) points to gender-based inequality in opportunities to make decisions, both in the sphere of state decision-making bodies and in the household (UN 2013, p. 5). On the other hand, in its recent report (*The Global Gender Gap Report 2014*), the World Economic Forum points to worsening gender inequality in the sphere of politics and labour market (Bekhouche et al. 2014, p. 15).

Table 1. Selected opinions of researchers in the context of gender inequality on the labour market

K.J. Arrow (1972, pp. 3-5)	Individual traits not connected with productivity constitute valuable information on an employee, which leads to inequality and constitutes the essence of discrimination and differentiates remunerations.
G.S. Becker (1990, pp. 44-78)	Gender inequality is a result of the inclination of certain groups – employers, coworkers and customers – to treat women and men differently. The resulting economic discrimination is accompanied by an increase in economic segregation.
H. Hartmann (1976, pp. 137-140)	The patriarchal structures of the labour market put women in a less favourable position when it comes to occupation and remuneration. Gender inequality results from gender-based division of labour.
B. Krug (2003, p. 60)	Gender inequality has its source in an institutional structure, which differentiates salary, life opportunities and chances of promotion without consideration for individual effort, skills and education.
S. Polachek (1981, pp. 60)	Occupational gender inequality results from certain educational choices dictated by auto-selection based on gender, which influences human capital and determines the socio-occupational determination.
J.E. Stiglitz (1973, pp. 287-289)	Wage discrimination as an element of occupational gender inequality means that despite comparable traits connected with performance, the individuals receive different wages depending on their individual traits (such as gender, race or religion).
H. Zellner (1972, pp. 157-159)	The mechanism (purposeful – feeling of discomfort when entrusting women with certain professions; or erroneous – underestimation of women's skills required in certain professions) of discrimination is based on occupational segregation, which generates gender inequality when it comes to remuneration.

Source: own elaboration.

3. The measures of gender inequality on the labour market

In the next part of the article, some criteria will be derived that will enable the determination of the scale of gender inequality on the labour market in highly developed countries. The study has been conducted in the data bases of OECD, the World Bank, the International Labour Organization and the World Economic Forum. According to it, a group of criteria has been distinguished that characterise the conditions of the labour market in the context of gender inequality in the analysed countries, including the indices of: economic activity, employment, unemployment, functioning on the labour market, occupational imbalance (including a wage gap) – presented in detail in Table 2.

Table 2. Labour market conditions in the context of gender inequality – index selection

Area	Criteria	Data source
Economic activity	Women's economic activity to men's economic activity rate (in %)	International Labour Organization
Employment	1. Employment diversification rate – gender gap between women's and men's employment (in %) 2. Percentage of women employees in part time employment	World Bank: World Development Indicators; OECD Statistics
Unemployment	Women's long-term unemployment to men's long-term unemployment rate (in %)	World Bank: Gender Statistics
Functioning on the labour market	Efficiency and flexibility of the labour market measured with the Labour Market Efficiency Index	World Economic Forum: The Global Competitiveness Index
Gender wage gap	The relative difference in the average gross hourly earnings of women and men within the economy as a whole.	OECD Statistics

Source: own elaboration based on: (ILO 2015; OECD 2015; World Bank 2015a, 2015b; World Economic Forum 2015).

4. The analysis of the diversity of scales of gender inequality on the labour market

In order to define differences in the 34 studied OECD member countries with regard to gender inequality on the labour market, an analysis will be carried out of the compiled criteria with the use of descriptive statistics. This will enable the identification of the areas of inequality that differentiate these countries the most. The analysis of the preliminarily gathered indices points to a substantial differentiation of the studied countries with regard to such areas as: percentage of women and men in workforce resources and among the unemployed, functioning of the labour market in the context of flexible employment and working time, earnings of women and men.

Subsequently, a cluster analysis will be conducted, which will enable classification of OECD countries with regard to gender inequality on the labour market. It will be conducted a study with the use of this method, which will result in a division of the studied countries based on six equivalent variables (presented in detail in Table 2). The aim of this analysis is to identify groups of countries that are similar with regard to the mentioned variables. The analysis¹ allows to identify four clusters:

Cluster 1) Chile, Greece, Italy, Mexico, Spain, Turkey;

Cluster 2) Japan, Korea, Rep.;

Cluster 3) Austria, Belgium, France, Germany, Iceland, Luxemburg, Switzerland;

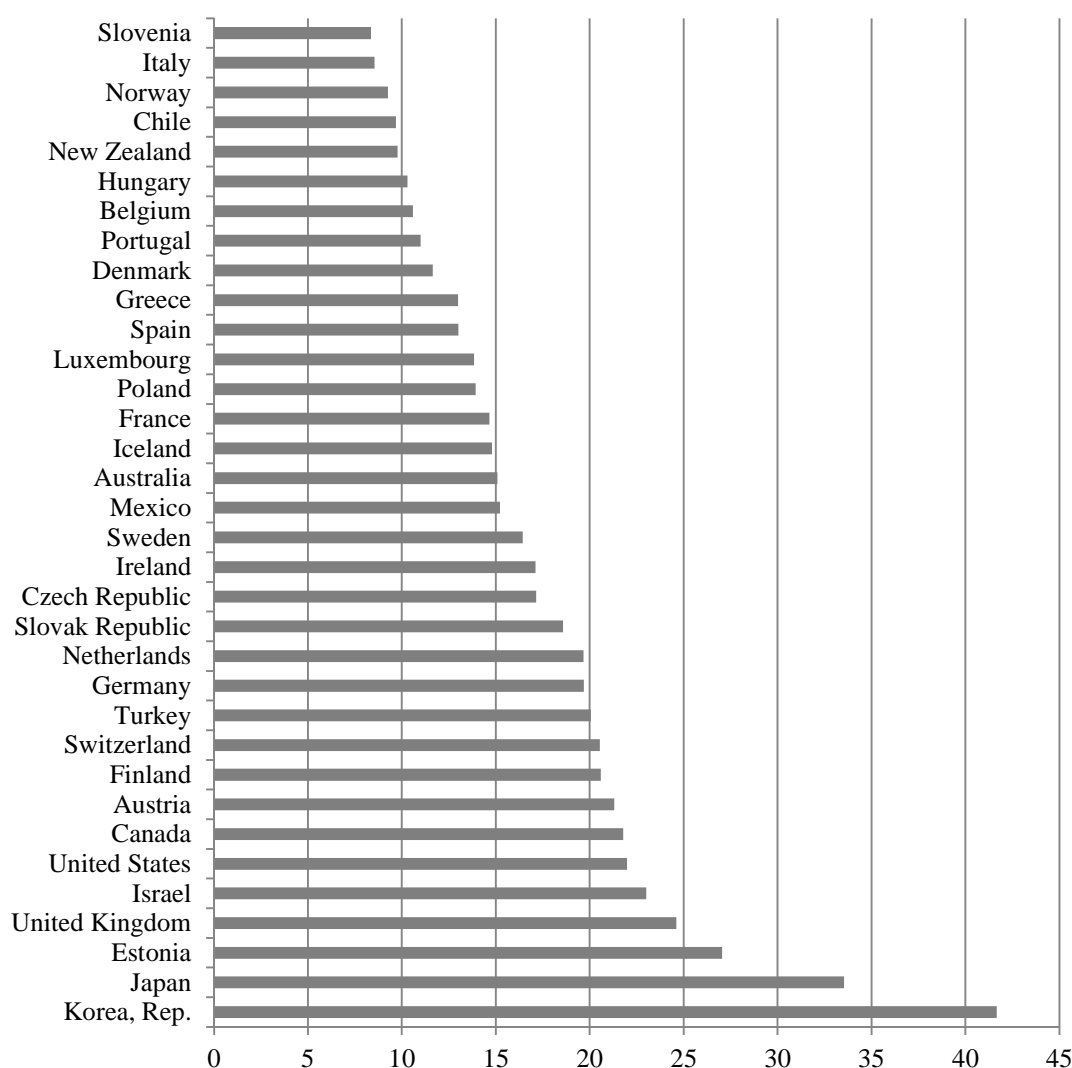
¹The Ward method for hierarchical clustering was used. The geographical scope of the study included 34 highly developed countries belonging to the Organisation for Economic Co-operation and Development (OECD). The analysis assumed average values of variables for the years 1990-2013. The variables were standardised and missing data were filled with the average values of particular variables in the analysed years.

Cluster 4) Australia, Canada, Czech Republic, Denmark, Estonia, Finland, Hungary, Ireland, Israel, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Sweden, United Kingdom, United States.

The indicated analysis allows an assumption that, above all, the countries in individual clusters share geographical proximity and socio-cultural norms. Interestingly enough, participation of atypical countries in certain group was also observed (e.g. participation of Iceland in group 3 instead of group 4; participation of the Netherlands in group 4 rather than group 3).

As part of research, the Author conducted an analysis of the scale of gender wage gap in selected highly developed countries. The aim of the mentioned index is to measure the relative difference in the average gross hourly earnings of women and men within the economy as a whole. The analysed data is presented in Figure 1.

Figure 1. Gender wage gap in the OECD countries for years 1990-2013

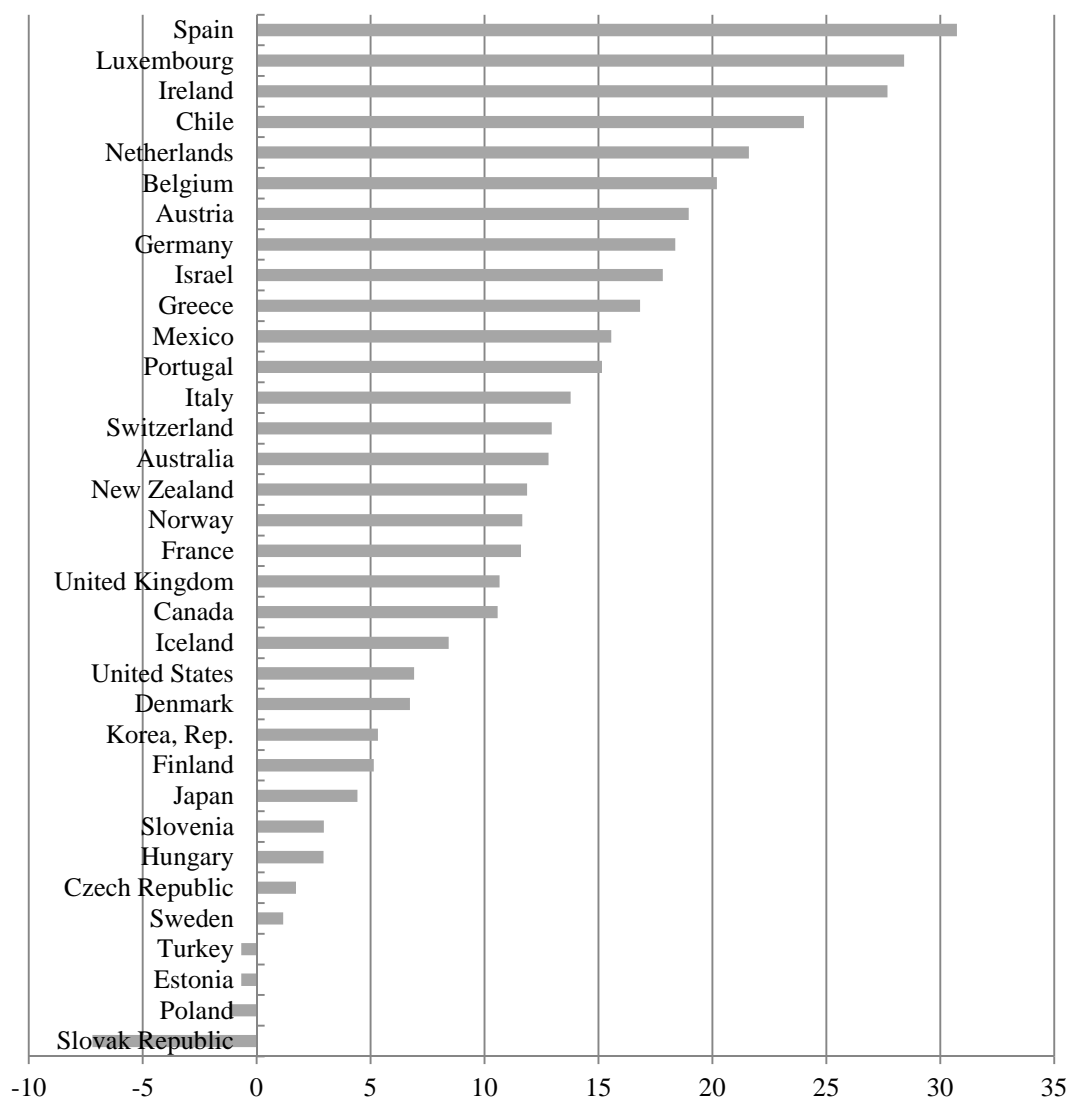


Explanation: The analysis assumed average values of variable for the years 1990-2013.

Source: own elaboration based on: (OECD 2015).

The analysis of the gender wage gap points to some differences in the studied highly developed countries with regard to gender inequality in the economic sphere. In the analysed period, the smallest wage gap was observed in the Slovenia and Italy. On the other hand, the greatest wage gap were observed in Japan and Korea, Rep.

Figure 2. Women's economic activity to men's economic activity rate (in %) – change between the oldest and the most recent available data



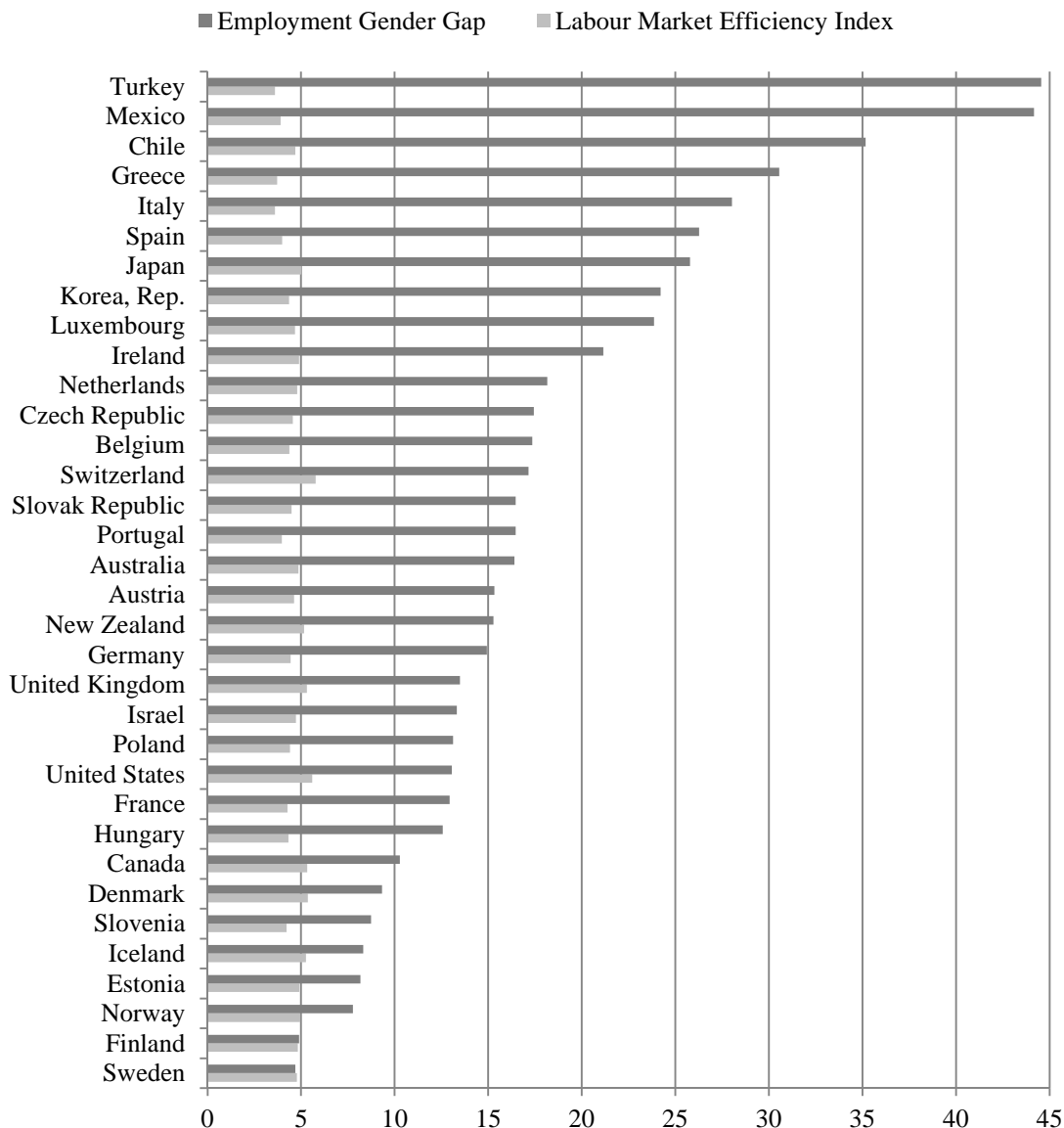
Source: own elaboration based on: (ILO 2015).

The research also involved analyses concerning the evolution of economic activity associated with gender in highly developed countries. The data used in these analyses came from the International Labour Organisation (2015). The purpose of the enquiry was to identify the change, between the oldest and the most recent available data,

concerning women's economic activity to men's economic activity rate. The analysed data is presented in Figure 2.

The conducted analysis of the change in the economic activity associated with gender highlighted the prevalence and maintenance of gender inequality in four of the studied countries: Turkey, Estonia, Poland and Slovak Republic. When it comes to the remaining countries, a change in economic activity associated with gender is positive, especially in Spain, Luxemburg and Ireland.

Figure 2. The relation between employment gender gap and Labour Market Efficiency Index – in the OECD countries for years 1990-2013



Explanation: The analysis assumed average values of variables for the years 1990-2013. The lower value of the Labour Market Efficiency Index the better flexibility and efficiency of the labour market in observed country.

Source: own elaboration based on: World Bank 2015b; World Economic Forum 2015.

In order to identify another aspect of gender inequality on the labour market, it is worth to analyse the relation between employment diversification rate, which shows gender gap between women's and men's employment, and Labour Market Efficiency Index, which presents efficiency and flexibility of the labour market. The analysed data is presented in Figure 3.

In the analysed period, the smallest employment gender gap was observed in Scandinavian countries, as well as, these countries were characterised by high values of the Labour Market Efficiency Index. On the other hand, the highest employment diversification rates were observed in Turkey, Mexico and Chile. And according to the mentioned Labour Market Efficiency Index, these countries were characterised by inflexibility and inefficiency of the labour market.

5. Conclusions

This article was aimed at a critical analysis of contemporary economic theories in the aspect of gender inequality. The research into the literature allows a supposition that gender inequality in the labour market is a certain set of conditions that differentiate the situation of women and men in respect of employment, promotion and remuneration.

The analysis of the gathered indices points to a substantial differentiation of the studied countries with regard to such areas as: percentage of women and men in workforce resources and among the unemployed, functioning of the labour market in the context of flexible employment and working time, and the wage gap. Thanks to cluster analysis, the article was able to make an exact classification of OECD countries in respect of gender inequality. It may be presumed that the observed similarities are caused by the strong influence of cultural norms or patriarchal traditions in the particular societies, and geographical proximity too.

The scale of gender inequality in post-communist countries requires further explanation, as despite common historical conditions, these countries are significantly different with relation to the mentioned areas. This may indicate a significant role of market factors or factors associated with the socio-economic policy in shaping the level of gender inequality on the labour market in certain states. Similarly, notable differentiation is also characteristic of the Benelux Union and Scandinavian countries.

Moreover, asking about the scale of gender inequality on the labour market is also vital for reducing the phenomenon of gender inequality in other aspects of social and

economic life. Many researchers and reports of international organizations indicate that different aspects of gender inequality are closely related.

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Streszczenie

Nierówności płci na rynku pracy w krajach wysoko rozwiniętych

Artykuł koncentruje się wokół zagadnienia nierówności płci na rynku pracy. Jego głównym celem jest analiza zróżnicowania i skali występowania omawianego zjawiska w krajach wysoko rozwiniętych należących do grupy państw OECD. Zakres czasowy prowadzonych analiz obejmuje lata 1990-2013. Hipoteza badawcza zakłada, iż kraje wysoko rozwinięte są zróżnicowane ze względu na występowanie nierówności płci na rynku pracy. Prowadzone analizy teoretyczno-empiryczne powinny przyczynić się do identyfikacji obszarów rynku pracy, na których występują omawiane nierówności oraz ich skali. Z kolei zastosowanie analizy skupień będzie miało na celu kategoryzację badanych krajów wysoko rozwiniętych pod kątem występowania nierówności płci na rynku pracy.

Słowa kluczowe: rynek pracy, nierówności płci, kraje OECD.

Abstract

Gender inequality on the labour market in highly developed countries

The article takes into consideration the issue of gender inequality on the labour market in highly developed countries belonging to the Organisation for Economic Co-operation and Development (OECD). The time scope covers the period between 1990 and 2013. The research hypothesis in the paper is following: highly developed countries are significantly different with regard to the scale of gender inequality in the professional context. The theoretical and empirical analysis will be use to identify areas of gender inequality on the labour market and to analyse its scale. Thanks to cluster analysis, the article will be able to make an exact classification of OECD countries in respect of mentioned gender inequality.

Key words: labour market, gender inequality, OECD countries.