




CHANGES IN HUMAN CAPITAL RESOURCES IN THE LABOUR MARKET IN POLAND FROM THE PERSPECTIVE OF THE EUROPEAN UNION AND OTHER COUNTRIES

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ABSTRACT

The theoretical part of the paper presents conclusions from the literature review. The empirical part of the paper includes findings of the research carried out by the authors. Amending the human capital definition, based on the new approach from the perspective of equal opportunities, mainly for women, was the main aim and added value of the paper. Based on the previous research, authors hypothesized that the equality of opportunities in the labour market, social life, education and public life generates economic benefits, while the lack of such equality causes losses. To prove that the equality of opportunities enhances the value of human capital, the authors carried out their own research and referred to the findings of other empirical studies, data from the Central Statistical Office, Eurostat and expert opinions from such institutions as the European Institute for Equality of Women and Men in Vilnius (EIGE) and the World Economic Forum, OECD.



Key words: human capital, labour market, equality of opportunities, women


INTRODUCTION

Samuelson defines human capital as the useful and valuable qualifications and knowledge acquired during the process of education and vocational training of the individual human being [Samuelson and Nordhaus 1980]. Individuals acquire these qualities, decide to invest in themselves in order to develop their work potential. Such investments include investment in e.g. education, long life learning and health improvement measures, as well as the cost of missed opportunities. The time spent on education could be used in other ways, e.g. for gainful employment. On the other hand, measures to improve health and well-being contribute to increasing productivity [Kryńska 2000].

Human capital can be regarded as a set of qualifications and skills, determining how advanced products or services can be produced by a given sector of the economy. This makes human capital one of the most important elements of economic processes, including economic growth and technical progress [Domański 2000].

The crucial importance of human capital for the economic and social development cannot be overestimated in any way. It is assumed that human capital influences social welfare, individual earnings of employees, efficiency and effectiveness of entrepreneurs, as well as the amount of added value generated by the national economy. The usefulness of the research is evidenced by the fact that, already in the

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middle of the last century, it was believed that conducting economic growth analyses without determining the impact of human capital on this growth is a significant simplification. Presently published, modern scientific articles in this field confirm this thesis [Baron and Armstrong 2012]. The human capital definition contains not only areas of demography, labour market, but also: health, education, culture, science, technology and innovation [GUS 2017b].

MATERIAL AND METHODS

From the definition of OECD we know that: “human capital is a knowledge, skills, abilities and other relevant attributes that facilitate the creation of personal, social and economic well-being” [OECD 2001]. Our research objective is to add the perspective of equality opportunities and chances to the human capital value. We would like to investigate how the discrimination and lack of equal chances approach is not allowing to take advantage, for example, from the better education level for some group of people on the labour market.

The new approach and the goal and added value of this research is enrichment the definition of human capital with the perspective of equal opportunities and equal chances for different groups of people. Equality opportunities on the labour market and in social life bring economic benefits, while their lack – losses.

Our statement is that: improvement of the quality of human capital, understood as educated society, enjoying good health and tailored to the needs of the labour market could not be achieved without equal opportunities and chances approach.

For proving that equality of chances enrich the definition of human capital, the own research findings were used, with support from other empirical studies, data from Central Statistical Office of Poland (GUS), Eurostat and expert opinions from such institutions as European Institute for Equality of Women and Men in Vilnius (EIGE), World Economic Forum (WEF), Organisation for Economic Co-operation and Development (OECD).

DISCUSSION AND FINDINGS

The economic context of equality policy

The equality perspective is important in the economic dimension. There is a correlation between a higher level of economic growth and respect for equality rights, because a higher level of development consequently leads to progress in such areas as: education, culture or health care. There is also the reverse influence of a greater entitlement to economic development, because the greater is the activation of women, people with disabilities, people excluded from the labour market, the greater is the growth of domestic product through the use of larger labour resources in qualitative and quantitative terms. Equal opportunities bring economic benefits, and their lack generates losses [Sawicka (Ed.) 2013].

Equality contribute to increasing the competitiveness of the economy and better economic results, and is also a determinant introducing positive changes in society. The level of social awareness is increasing, contributing to breaking stereotypes. These changes cause the release of blocked human capital, which is women. Equal opportunities have a positive impact on the economic performance of the entire economy. It is expressed through the possibility of obtaining higher GDP. Apart from quantitative aspects, equal opportunities approach also have qualitative aspects, namely the aspect of diversity on the labour market. Therefore, arguments not only related to the issue of justice but also to economic efficiency argue for inclusion the issue of equal opportunities in the mainstream of all areas of society activities affecting quality of human capital as the primary economic resource.

Discrimination, as the opposite of equal opportunities, brings a decrease in economic efficiency. The situation in which the economic role of individuals is determined by gender or disability rather than by skills leads to mismanagement and not sufficiently using the skills of a given, discriminated group of women, in this case. In striving to eliminate discrimination and segregation, it is possible to achieve the development of human capital resources with different skills and thus improve the work organization process. The participation of, for example, women in the economy on

an equal bases with men, can also have a positive impact on family life if women's interests are supported by a policy promoting the balance between family and professional life.

Qualifications and skills adding value to human capital

Analysing the importance of human potential, Becker [1975] distinguished the theory of human capital. This theory introduces an additional element, which is the time devoted to investment in human capital, that is, the development of the individual in order to raise qualifications and skills. The increase in the value of human capital increases the opportunities for promotion, increase in salaries, employment stabilization and reduces the risk of discrimination. With time, a change occurred in relation to work, the type of work performed, as well as the possibilities of intellectual development, played an increasing role. The rapid development of modern technologies has resulted in increased demand for various types of training, bearing in mind that "active shaping of the labour supply structure by professional qualifications is one of the forms of employment policy instrumentalisation".

Nowadays the digital economy, internet use, advancing skills of workers. There are some indicators which allow to measure and compare the value of human capital [EU 2018]. The Digital Economy and Society Index (DESI) summarizes relevant indicators on Europe's digital performance and positioning the EU Member States. The human capital dimension of DESI has two sub-dimensions covering "basic skills and usage" and "advanced skills and development". The former includes indicators on internet use by individuals and digital skills. The latter includes indicators on ICT specialist employment and graduates in science, technology engineering and mathematics disciplines. According to 2017 data, the Netherlands, Sweden and Luxembourg are the top performers in basic skills and usage; Finland, Ireland, Sweden and the UK had the highest scores in advanced skills and development. Romania, Bulgaria, Greece and Italy rank the lowest overall on DESI's human capital dimension. Estonia is better than Poland, but scores are lower than average in UE.

Equality of opportunities and human capital value

Equality of opportunities on the labour market, in social life, in education and in public life bring economic benefits, while their lack – losses. The new approach and the goal and added value of our research is the enrichment of the human capital definition with the perspective of equal opportunities and chances.

At the beginning we comment some indicators using as measures of gender disparities and gaps. The Global Gender Gap Index is one of such a measures. Index was first introduced by the World Economic Forum in 2006 and since that time, every two years reports were published on gender-based disparities and progress over time [WEF 2018].

The last 2018 year edition of the report rang 149 countries on gender parity on a scale from 0 (disparity) to 1 (parity) across four thematic dimensions so call sub indexes such as: Economic Participation and Opportunity, Health and Survival, Educational Attainment, and Political Empowerment and allows for comparisons across and within income groups, countries and regions. The 2018 report's key findings: globally, the average (population-weighted) distance is at 68.0%, it means that there is still a 32.0% average gender gap. Across the four sub indexes, on average, the largest gender disparity is on Political Empowerment, with a gap of 77.1%. The second-largest gap is at Economic Participation and Opportunity at 41.9%, while the Health and Survival and Educational Attainment gaps are significantly lower at 4.6 and 4.4%, respectively.

All eight geographical regions assessed in the report have achieved at least 60% gender parity, and two have progressed above 70%. Western Europe is, on average, the region with the highest level of gender parity (75.8%). North America (72.5%) is second and Latin America (70.8%) is third. They are followed by Eastern Europe and Central Asia (70.7%), East Asia and the Pacific (68.3%), Sub-Saharan Africa (66.3%), South Asia (65.8%) and the Middle East and North Africa (60.2%).

The most gender-equal country is Iceland. It has closed over 85% of its overall gender gap. Iceland is followed by Norway (83.5%), Sweden and Finland

(82.2%). Although dominated by Nordic countries, the top ten also features a Latin American country (Nicaragua, 5th), two Sub-Saharan African Countries (Rwanda, 6th, and Namibia, 10th) and a country from East Asia (Philippines (8th). The top ten is completed by New Zealand (7th) and Ireland (9th) [WEF 2018].

The role of education and workers skills system have a tremendous influence on the human capital value. Not only formal education level where women use to be better educated than men, but the situation on the local labour market are important. The topic is how to bring together a suitably skilled potential workforce (supply) with the needs of employers (demand). The required workforce and the skills needed are determined by the economic activity and by employers' business strategies. The potential of workforce, human capital value on the market is determined by skills (by education and training, and lifelong learning systems) and by the activation (or participation) of workers in the labour market [ECDVT 2018].

With the rapid changes in today's labour markets, analysis also took a look at gender gaps in artificial intelligence (AI), a critical in-demand skill set of the future. Based on collaboration with LinkedIn, was find that only 22% of AI professionals globally are female, compared to 78% who are male. This gape has remained constant over the years and does not indicate a positive future trend [WEF 2018]. The implications of this finding are alarming because AI skills gender gaps may exacerbate disparities in economic participation in the future. Low integration of women into AI professions indicates a significant missed opportunity in supply and effective use of adequately qualified labour.

Gender pay gaps

A lot has been written on this topic and a many research across the world is aimed at explaining the reasons why men continue to be paid more, for similar job, than women. The 2018/2019 ILO *Global Wage Report* provides a detailed examination of gender pay inequalities [ILO 2018]. The second part of this report is devoted to the gender pay gap. The estimate covering 70 countries and about 80% of wage employees worldwide, show that on average women currently continue to be paid approximately 20% less than men.

Secondly, the report analyses and breaks down gender pay gaps to better understand what lies behind this figure. The evidence shows that, in fact, much of the gender pay gap cannot be explained by any of the objective labour market characteristics that usually underlie the determination of wages. In high-income countries, for example, almost all of the gender pay gap remains unexplained. So what could then be the factors that lie behind gender pay gaps? The report shows that education is not, in most countries, the main issue: women wage employees across the world have just as good, if not better, educational attainments than men. However, occupational segregation and the polarization by gender of industries and economic sectors stand out as key factors. Women continue to be under-represented in traditionally male-occupied categories and within similar categories women are consistently paid below men, even if women's educational attainments are just as good or better than those of men in similar occupations. Gender polarization is also an important factor: the report shows that in Europe, for example, working in an enterprise with a predominantly female workforce can bring about a 14.7% wage penalty compared to working in an enterprise with similar productivity attributes but a different gender mix [ILO 2018].

Women in Poland

Analysis of indicators by gender is the most illustrative way of describing the diversity in the labour market. Women and men use to work in other professions and sectors, they also have different average wages and working hours, which is beyond doubt, while problems arise from the persistent feminisation of certain industries and professions and the economic undervaluation of women's work (gender pay gap). One of the reasons for these differences is the historical and cultural conditions. The changing political system policy (support for democracy, including equality practices) also has a significant impact.

Statistical data (the table) at the national level presenting the situation on the labour market in Poland prove that the female population is characterised by lower economic activity and employment and a higher unemployment rate than in the case of men. The trend towards lower pay for women for the same work as men (gender pay gap) also remains unchanged. Lower

Table. Economic activity of the population in Poland aged 15 and more by sex and place of residence in the years 2010–2017 (%)

Year	Economic activity rate				Employment rate				Unemployment rate			
	females	males	rural areas	urban areas	females	males	rural areas	urban areas	females	males	rural areas	urban areas
2010	47.6	63.7	55.5	55.2	42.8	57.8	50.4	49.7	10.0	9.3	9.2	9.9
2011	47.8	64.0	55.7	55.4	42.8	58.3	50.4	50.1	10.4	9.0	9.5	9.7
2012	48.1	64.3	56.1	55.7	42.9	58.2	50.4	50.1	10.9	9.4	10.2	10.0
2013	48.2	64.4	56.1	55.8	42.8	58.2	50.3	50.1	11.1	9.7	10.4	10.3
2014	48.5	64.7	56.3	56.2	43.8	59.2	50.9	51.4	9.6	8.5	9.5	8.7
2015	48.4	64.6	56.0	56.3	44.7	59.8	51.6	52.2	7.7	7.3	8.0	7.2
2016	48.3	64.8	56.2	56.2	45.3	60.9	52.6	52.9	6.2	6.1	6.5	5.9
2017	48.4	65.2	56.5	56.4	46.1	62.0	53.5	53.8	4.9	4.9	5.2	4.7

Source: Own study based on Central Statistical Office of Poland (GUS) data.

wages not only increase the risk of financial dependence on others, they also increase the gender gap in the elderly population (women have lower or no any pensions).

The development of the economy after the Second World War and the left-wing equality policy resulted in an increase in women's economic activity. This is shown by the data on the share of women in the total economically active population. The economic activity rate in 1950 was about 31%, at the beginning of the 1970s it exceeded 40%, and since 2010 it has remained at the level of about 48%. Differences in relation to the male population remain unchanged and in 2017 it was 17 p.p. to the disadvantage of women. The largest difference in activity between women and men occurred in the age group of 21–44 years, i.e. in the younger group of the working age population. Women also work part-time more often than men, which is mainly due to bringing up children and caring for other dependants, i.e. 10.6% of women and 4.4% of men respectively [GUS 2018].

What characteristics of human capital are conducive to higher labour force participation? Being in the productive age, important for economic activity is only for the male population, while women, due to caring functions in families, have breaks in economic

activity. The most important determinant of high economic activity is education. In the population of people with higher education level, economic activity is the highest and the difference in activity between women and men groups is the lowest, only 4 p.p. F – 78%; M – 82%.

Comparison between 2011 and 2017 shows that in the working age group the number of working women decreased by 79 thousand, while the number of men increased by 90 thousand.

There are still some industries and occupations where women's work is predominant. In 2017 these were the following industries: health care and social welfare – 82% women's share; education 79%; hotel and catering 67%; other service activities – 66%; financial activities and insurance – 62%; arts, entertainment and recreation activities – 60%.

Unfortunately, these are also the least paid jobs. In 2016, the average gross monthly salary of women was lower by approximately 16%. Gender pay gap was the highest – 26% in the senior officials and managers' group.

The share of self-employed is still low (entrepreneurs): 16.8% of men worked on their own account and did not employ workers. Among women, this situation concerned less than 10%.

An analysis of unemployment shows that unemployment in Poland, similarly as in other European countries, systematically decreased and in 2017 the unemployment rate was 4.6% for women and 4.4% for men [GUS 2018].

How government policy in Poland influencing women situation

In 2016 from April, after 2015 successful election, Polish government introduced a large new child benefit, called “Family 500+”, with the aim to increase fertility from a low level and reduce child poverty. The benefit is universal for the second and further child.

That program is working not so long but there are some studies on the impact of this new benefit on female labour supply, not only using findings from Polish Labour Force Survey data, Central Statistical Office of Poland figures, but also researches using the sophisticated econometric methods [Magda et al. 2018].

The following expert opinion [Ruzik-Sierdzińska 2017] concerns the question whether the benefit granted to children under the “Family 500+” program – in the form in which it was introduced in 2016 – has effects on the labour market. First of all, it was examined whether the program influences the departure from the labour market parents (especially women) from families benefiting from the program.

Nobody dope that the program “Family 500+” effecting positively the economic situation families with children. But in its present form, as the available analysis of Eurostat and BAEL GUS (Central Statistical Office of Poland) data allows to state, that the current structure of the “Family 500+” program is inappropriate, because one of the effects of paying this benefit is the departure from the labour market of 20–33 thousand women. The labour market participation rates of women with children decreased after the introduction of the “Family 500+” benefit, compared to childless women. The effect was higher among women with lower levels of education and living in small towns. In a long ran, it is known that longer interruptions in occupational activity negatively affect the future chances on the labour market and later, the amount of retirement pension, or not any pension for them. From January 2019, woman not working professionally and

having at least four children, will obtain pension on social minimum level.

The another objective of the program “Family 500+” is to increase in Poland fertility rate. The question is does the program influence positively increase fertility from a low level?

There is a positive relationship between fertility and the employment rate of mothers in Europe. More children are born in countries where women are more active in the labour market and less where women find it difficult to combine work with homework and raising children.

Differences in the rate of female employment and fertility rates between developed countries are explained by the availability of institutional childcare, labour market flexibility, parental and parental leave policy or the dominant model of relationships in a given country with a more or less partner-like division of household responsibilities.

It will also be interesting to assess whether fertility is influenced positively by the benefit, as intended by the Polish government. It was expected that the child birth will grow about 200 thousand. Up to now, the changes are not so visible: in 2017 child birth grow up to 12 thousand and in 2018 fold down by 10 thousand.

In other developing countries the birth rate rising with the booming economy, the general rise in incomes, the improved labour market situation and better access to childcare services. All this is helping to make it easier for families to have more children. But is a longer way.

In developed countries, which have been changing the economic model of the family, for a longer time, women specially this better educated want to be implemented in the labour market. Governments know that the easier way to increase the number of children is to help parents reconcile their professional and family roles. Among European countries, Sweden offers the best conditions for combining work and family responsibilities, including: family policy facilitating reconciliation of work and raising children (allowances, kindergartens), labour market regulations allowing for greater employment flexibility, and social standards supporting the partnership-sharing of care responsibilities between parents.

CONCLUSIONS

In the article, in their part concerning theoretical issues, conclusions from the literature review were presented and in the empirical part, however, own analyses and evaluations were done. The new approach and the goal and added value of the research was the enrichment the definition of human capital with adding the perspective of equal opportunities mainly for woman, approach. From previous research, the authors hypothesized that: equality of opportunities on the labour market, in social life, in education and in public life bring economic benefits, while their lack – losses. The new approach and the goal and added value of the research was the enrichment of the human capital definition with the perspective of equal opportunities and chances equality for different groups of people.

The discussion, materials and statistical data of the Central Statistical Office of Poland and Eurostat, comparisons of the European Union countries, as well as the situation in Poland presented against this background, are aimed at showing the economic dimension of the consequences of the existing in equalities between women and men on the labour market for human capital resources. There is a clear correlation between the country's higher level of economic development, respect for democratic rights in the area of gender equality, which, on the basis of feedback, contributes to a higher level of human capital and, consequently, to progress in every area of economic and social life. This applies both to the economy, education and culture, and leads to greater economic equality, including the implementation of the democratic principle of equal opportunities. The existence of discrimination and inequalities in the labour market and the economic and social consequences of this state of affairs is documented by research and statistics. Attempts to solve this problem in different regions of the world are made with different intensity and effects. On a macro-scale, the activities of EU institutions, governments of some countries, social organizations and non-governmental institutions, the business sphere are noticeable. At the household level, on a micro-scale, having equal opportunities for women with men contributes to a more efficient allocation of family labour resources.

The main objective of the nations, institutions, business and societies is to build dynamic and inclusive economies that provide a future of opportunities for all. Future activities should be directed on closing economic gender gaps, fostering diversity and promoting inclusive growth. The aim is to strengthen the value of human capital on the labour market by increasing women's participation in the workforce.

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ZMIANY W ZASOBACH KAPITAŁU LUDZKIEGO NA RYNKU PRACY W POLSCE Z PERSPEKTYWY UNII EUROPEJSKIEJ I INNYCH KRAJÓW

STRESZCZENIE

W artykule, w części dotyczącej zagadnień teoretycznych, przedstawiono wnioski z przeglądu literatury, a w części empirycznej wyniki własnych badań. Nowym podejściem, celem i wartością dodaną jest podjęcie próby wzbogacenia definicji kapitału ludzkiego o perspektywę równości szans, w tym głównie kobiet. Na podstawie wcześniejszych badań przyjęto hipotezę, że równość szans na rynku pracy, w życiu społecznym, edukacji przynosi korzyści ekonomiczne, a ich brak straty. W celu potwierdzenia tezy, iż stosowanie w praktyce zasad równościowych wzbogaca wartość kapitału ludzkiego, wykorzystano zarówno badania własne, jak i inne badania empiryczne, dane Głównego Urzędu Statystycznego i Eurostatu oraz ekspertyzy Europejskiego Instytutu Równości Kobiet i Mężczyzn w Wilnie (EIGE), Światowego Forum Ekonomicznego (WEF) i Organizacji Współpracy Gospodarczej i Rozwoju (OECD).

Słowa kluczowe: kapitał ludzki, rynek pracy, równość szans, kobiety