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## OVERCOMING GENDER DISPARITIES

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**Abstract.** The article deals with the contemporary situation of gender and its implementation peculiarities in European countries. The article analyzes various approaches to the notion, gender disparity situation and reveals the burning challenges which the contemporary world faces now. The article highlights the present situation with gender asymmetry in STEM and ways of its transformation due to the unequal ratio of men and women employed in educational and scientific areas that would lead to employment problems in future.

Much attention has been paid to the criterion for assessing gender equality, namely Gender Equality Index, an indicator that reflects the disparity in achievement opportunities between men and women in the European Union. Also, statistical data was presented that shows the great gender gap and identifies countries with a high / low gender equality index. Gender Equality Index is compared to the Global Gender Gap Index that shows the extent of the gender gap across four key dimensions that serve as a basis for developing effective measures to reduce the gender gap.

The article points out the ways promoting the implementation of the principles of gender equality in European countries.

**Key words:** gender equality, gender equality index, gender implementation, gender issue, gender gap.

**Introduction.** The issue of gender continues to be a perplexing one in our contemporary world. One can find numerous publications touching this issue on, starting with the meaning of the word “gender”, its peculiarities, problems, misconceptions etc. and finishing with the results of the researches with the plausible ways of implementations. When dealing with the notion of gender some scientists primarily mean the social component of constructed role of the individual.

Gender issue can be viewed in several aspects, but the main aspect lies in changing role of the categories of femininity and masculinity which is understood as a product of the socio-cultural context. The issue of gender identity is closely connected with the issue of gender relations and therefore of gender disparities. One can face with the problem of gender disparity practically in any sphere of our life, e.g. employment educational, medical, environmental, political etc. The most acute problem of gender asymmetry lies in educational and professional spheres that later will lead to research, employment and professional training disproportions.

Nowadays the gender issue is not only social, cultural or biological issue, but also becomes a philosophical one; when we regard our role in a society and ask ourselves “who we are, what we are and what role in a society we would like to play?”

It is vitally important not only to mention this problem, but also to develop some mechanisms to prevent the existing discrimination at the state level.

**Analysis of current scientific research and publications.** Much attention to the problem of gender in various aspects is paid by American and European researchers. Dealing with the problem of gender identity and gender relations, examining and analyzing the intercultural reasons for gender differences we should mention the research works of both foreign and Ukrainian researchers, psychologists such as Butler, J, Heidi, G, Goyan, I. Kimmel, M, Perez, C., Sadusky, J Skyba, E., Storozhuk, S Tkachenko T, Yarhouse, M., and others. The issue of gender disparity is quite actual and seeks for careful consideration as well as the ways of its overcoming also need further examination.

**The main purpose of the article** is to study the peculiarities of solving the gender issue in the world in general and in Europe in particular. To this aim we have to 1) determine the criterion for assessing gender equality; 2) to study the present situation with gender issue in Europe, identifying countries with a high / low gender equality index and 3) look at the ways promoting the implementation of the principles of gender equality in the social process in Europe.

**Formulation of the main material.** Nowadays the issue of gender is widely spoken about. The problem of gender equality continues to be quite acute both in Europe and in our country. Analyzing the recent publications, we can say that the notion “gender” today refers primarily to the social role of the individual in our world. Gender issue demonstrates which social roles a woman or a man has to play in a given socio-cultural context through behavior, gait, manner of dress, speech, ways and forms of self-realization as a person (Skyba, Tkachenko, 2021: 18–24). The changes taking place in the social and professional role of individuals, both for men and women, are influencing the strengthening of gender asymmetry. Gender asymmetry is a disproportionate representation of the social and cultural roles of both sexes (as well as ideas about them) in various areas of life. As we can see from the UNESCO report: “Only 17 women have won a Nobel Prize in physics, chemistry or medicine since Marie Curie in 1903, compared to 572 men. Today, only 28% of all of the world’s researchers are women. Such huge disparities, such deep inequality, do not happen by chance. Too many girls are held back by discrimination, biases, social norms and expectations that influence the quality of education they receive and the subjects they study”. This report was commissioned by the United Nations Educational, Scientific and Cultural Organization and reveals the burning problems which the contemporary world faces now (UNESCO science report, 2015).

Although, we must pay tribute to the fact that the education system is trying to do everything possible to interest girls in previously purely male disciplines. Recently, there has been a humanization of technical school education. STEM is being transformed into STEAM, and then into STREAM by adding liberal arts that girls prefer (Nikitina, Ishchenko, 2022). In the system of higher education, gender asymmetry is manifested in the unequal ratio of men and women employed in this area. Formally, there are several times more women in education than men, but at the same time, there are much more men in management.

Globally, women have less access to research funding. The performance evaluation includes such performance characteristics as the number of publications and patents of the author, the frequency of citation of these works and the amount of funding received. In science, performance is measured in terms of research, teaching, and other scientific activities (such as board membership), with research having the highest weight. Publications in prestigious journals or conference proceedings are ranked highest, while teaching is ranked lowest. US studies show that women scientists tend to be more likely to teach and be involved in research than in research, in particular, as evidenced by the number of publications. At the same time, young scientists are expected to spend 80-120 hours a week in the laboratory, which creates inconvenience for women with children (UNESCO science report, 2015).

The situation related to research funding is also typical for patents. In all countries, in all sectors and in all fields, the percentage of women who obtain patents is less than that of their male counterparts.

**The criterion for assessing gender equality.** In 2010, the Secretariat of the World Economic Forum in Geneva introduced The Gender Equality Index, an integral indicator that reflects the disparity in

achievement opportunities between men and women. The index takes into account four parameters: economic equality, access to education, health status and survival prospects, and political influence. Each of them are divided into sub parameters. When calculating the indicator of economic equality, the gender ratio in the national labor force, income of men and income of women, the number of men and women in leadership positions and the number of men and women in technical occupations are taken into account. The Gender Equality Index is a tool to measure the progress of gender equality.

Gender Equality Index was acknowledged as a reliable measurement tool for gender equality in the European Union, in an audit carried out by the European Commission's Joint Research Centre (Gender Equality Index, 2021).

Since the same year (2010), The Gender Equality Index has been used by the United Nations in the Human Development Report. It gives more visibility to areas that need improvement and ultimately supports policy makers to design more effective gender equality measures.

**Gender equality index data.** The World Economic Forum annually compiles and publishes the Global Gender Gap Index. This report measures the extent of the gender gap across four key dimensions: economic participation and opportunity, educational attainment, health and survival, and political opportunity, and then assigns each country a score of 0.000 (or 0%, the lowest possible gender equality) and 1000 (100%, the highest possible gender equality). The analysis of each country is intended to serve as a basis for developing effective measures to reduce the gender gap. The 2021 edition of the Global Gender Gap Index examined and ranked 156 countries and territories around the world (Gender Equality by Country, 2022).

According to The World Economic Forum Report, Top 10 Countries with the Highest Gender Equality (2022 World Economic Forum) are as follows:

- Iceland – 89.2%
- Finland – 86.1%
- Norway – 84.9%
- New Zealand – 84.0%
- Sweden – 82.3%
- Namibia – 80.9%
- Rwanda – 80.5%
- Lithuania – 80.4%
- Ireland – 80.0%
- Switzerland – 79.8%

At the other pole there are Top 10 Countries with the Least Gender Equality (and Largest Gender Gaps):

- Afghanistan – 44.4%
- Yemen – 49.2%
- Iraq – 53.5%
- Pakistan – 55.6%
- Syria – 56.8%
- DR Congo – 57.6%
- Iran – 58.2%
- Mali – 59.1%
- Chad – 59.3%
- Saudi Arabia – 60.3%

As we can see, 7 out of 10 European countries are in the top. They include four Nordic countries: Iceland, Norway, Finland, and Sweden; as well as their European neighbors Ireland, Switzerland, and Lithuania (the lone Eastern European country). Overall, the EU scored 68 out of 100 in the Gender Equality Index published by the European Institute for Gender Equality (2021). Compared to last

year, this figure increased by only 0.6 points. Luxembourg, Lithuania and the Netherlands made the biggest improvements compared to last year's edition. Slovenia was the only country that fell behind. There are large differences in gender equality scores across countries. They range from 89.2 in Iceland to 52.6 in Greece.

Iceland, which is in Europe's top, began to implement the principle of gender equality back in the 19th century. In the year 1850, "Iceland was the first country in the world to grant equal inheritance rights to both men and women." Prior to that proclamation, women had rights to just one-third of the inheritance. In 1917, Iceland gave women and men equal rights over their children. Iceland enacted the Act on Equal Status and Equal Rights Irrespective of Gender in 2008 "to prevent discrimination on the basis of gender and to maintain gender equality and equal opportunities for the genders in all spheres of society." (Eimieho, 2022).

As of 2017, for the seventh year running, Iceland has topped the World Economic Forum's survey for gender equality. Out of 144 countries, this small island has ranked number one in political empowerment amongst women, number one for closing the gender income gap (government ambitions look to finalize this in 2022) and boasts corporate quotas which ensure women currently hold 44% of representation on company boards (Chapman, 2022).

Since 2015, the Swedish innovation agency VINNOVA has successfully integrated a gender perspective into its activities and promoted gender equality in the allocation of funds for research and innovation. VINNOVA recognizes gender equality as a necessary condition for the sustainable development of society and innovation. Funds managed by VINNOVA must benefit women and men equally. Since 2015, the number of female project managers has increased by about 10% (from about 30% to 40%), and the overall distribution of funding is now 40–60%, in line with national gender equality goals. VINNOVA's work is based on three key questions:

- Who is funded? The focus is on the project team and its gender composition;
- What is funded? This is an attempt to include a gender perspective in the goals and methodology of the project, if appropriate. Applicants should provide information about their motivation (or justification against) including a gender perspective;
- How is the process carried out? The Review Committee is composed with gender equality in mind, trained in gender bias and knows how to assess the relevance of gender to the subject area (EIGE, 2022).

Sweden has also revised the system of resources distribution for research work at universities. The earlier model led to a deficit in the university's budget and allocated resources based on position. Since 70% of university professors were men, consequently, about 70% of research resources were automatically allocated to men. In the new model, those deemed eligible for funding can apply for additional merit-based research resources (assessment of scientific achievement and collaborations in previous years). Launched in 2018, the overall distribution of research resources at the end of that year was 50% male and 50% female. The old model created a blocking system for junior and novice researchers, especially teachers (often women), who therefore had less opportunity to pursue their research interests. A consequence of gender mainstreaming work is that the research resource allocation model rewards research achievement (resource allocation) in a more transparent and equitable manner (EIGE, 2022).

**Ways of implementing the gender equality principles.** How do European countries that are not in the Top 10 solve the gender issue? Laws on gender equality are included in the Constitutions of all European states, and each of them does its best to involve women in positions that were previously traditionally male.

Poland, for example, launches Small Grant Scheme (SGS) 2020 Call for Women Scientists in Engineering (SGS) – National Research and Development Center. This is part of the applied research program implemented under the Norwegian Financial Mechanism, established under the priority

sector "Innovation, Research, Education and Competitiveness", which aims to improve the efficiency of Polish applied research and was proposed in response to the underrepresentation of women researchers as both in terms of quantity and their professional role in the technical sciences. The purpose of Grant Scheme was to support research projects led by female researchers in the technical sciences. Thus, the objectives of the SGS are twofold: to develop scientific research in Poland and to strengthen the scientific careers of women scientists participating in the program by creating conditions that allow them to advance in their scientific careers.

The SGS Call for Proposals is intended to support research projects, including the following types of research and development:

- fundamental research,
- Industrial research
- Experimental development

One of the challenges facing the Polish scientific community is to increase the proportion of women researchers, both in terms of numbers and in terms of their professional role in technical sciences. Engineering sciences are the least feminized compared to other areas of science. Therefore, measures aimed at solving this problem should use the potential of women researchers and promote their career development.

In 2018, some Hungarian universities launched a new funding scheme for researchers raising young children. The purpose of the competition is to support women researchers with small children and single fathers with small children who are preparing a scientific dissertation for the degree of Doctor of Science. Applicants must meet the following criteria: (1) apply for a grant within four years of the birth of their youngest child; (2) have spent at least one year at home on parental leave; or (3) to care for a disabled or chronically ill child under the age of 14 (EIGE, 2022).

To ensure gender equality, Malta revised its research funding rules in 2017. Priority is given to the project that best takes into account the implementation of gender equality in the study.

In recent years, Ukraine has made sufficient progress in the implementation of gender policy. Much has already been done, but much remains to be done. Thus, the focus remains on the need to improve legislation, the integration of gender approach into sectoral reforms, and the strengthening of the national gender mechanism. This requires political will and the involvement of all relevant actors, as well as an adequate investment of resources. The issue of popularizing the principle of equal rights and opportunities for men and women and the formation of a common anti-discrimination culture remains topical. It is important to strengthen the political representation of women at all levels.

Forward movement is seen in two parallel directions. The first is the strengthening of special gender legislation and specific measures for its implementation, the inclusion of individual gender goals and objectives in the reform agenda, the strengthening of the national gender mechanism and its implementation in real practice. The second is the implementation of an integrated gender approach in all strategies, policies and reforms in Ukraine, which will ensure equal rights and opportunities for women and men in all spheres of public life. The first steps in the field of education have already been taken (Nikitina, Ishchenko, 2022: 108–114).

**Conclusions.** The world has made great strides towards gender equality in the recent past, but we still have a long way to go to ensure that women have equal opportunities to earn a living, participate in society and have a voice.

Women and girls make up half the world's population, which is equivalent to half the potential of humanity. Gender equality, one of the most important human rights, plays a key role in ensuring peace and harmony in society and the full realization of human potential on the basis of sustainable development. Engaging women in society has been proven to increase productivity and economic growth.

In the article we have made an attempt to study the peculiarities of the gender issue in the world in general and in Europe in particular. So, we determined the main criterion for assessing gender equality and studied the present situation with gender issue in Europe. Also, we identified the countries with the highest and the lowest gender equality index. Finally, we offered the ways to promoting the implementation of the principles of gender equality in the social process in Europe.

Unfortunately, humanity has a long way to go to achieve full equality between men and women in terms of their rights and opportunities. It is imperative to end gender-based violence in all its manifestations, ensure equal access for women and girls, men and boys to education, health care, economic resources and create equal opportunities for citizens to participate in political life. This also applies to employment opportunities in general and leadership positions.

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