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GENDER MATTERS FOR THE ENTREPRENEURIAL ACTIVITY: CASE OF EUROPEAN STATES

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Abstract:

The gender inequality is the hot topic for most countries in the world. However, sometimes the talks about the risks and threats are more dramatic than the reality is. The paper aims to test the gender gap in the selected states and to consider the hypothesis that gender matters in entrepreneurial activity. The methodology of the regression and statistical analyses is proposed to access the main hypothesis and to trace the dynamics of the gender indexes and ranks. The preliminary results show that gender affects the level of entrepreneurial activity; besides government support programs and socio-cultural factors have a significant impact as well. The valid results for all states represented positive correlation and dependence between Entrepreneurial Motivation for TEA and Female/Male ratio for all analysed states. We can conclude that the change in the ratio of women and men engaged in entrepreneurial activity in the state (i.e. Poland) will affect the level of business innovation. For example, when the gender structure of entrepreneurs in Poland changes towards the number of women compared to men, the level of innovation of products and services will increase, or vice versa.

Key words: *econometric models, gender equality, economic growth.*

1. Introduction

XXI century actualizes the issue of building an equal society, with an emphasis on the gender component of research. The principle of gender equality has been consistently developed and maintained by the international community in the last third of the twentieth century. The world has made progress in achieving gender equality and the advancement of women in the context of the Millennium Development Goals, including equal access to basic education for boys and girls. "Gender equality is not only a fundamental human right but a necessary foundation for a peaceful, prosperous and sustainable world" (The United Nations, 2020). Women rights and gender equalities are equal rights and opportunities for

all. The idea of a society that adheres to democratic human rights and principles operates in a system of gender equality with a long historical tradition. The long-term struggle for the equal existence of women and men in society confirms the relevance and prospects of studying this issue. Gender equality is one of the socially significant dominants of our time, as a social phenomenon, but note that it develops in different societies differently due to economic, political reasons and cultural traditions and so on.

Gender is a more capacious concept than the biological differences between men and women. Gender, as a social construction, is described by the following social characteristics: age, education, social status, ethnicity, which affect the definition of the role of men and women in society. Gender defines the mean of being a man or a woman in a given society. It refers to the social differences that are deeply rooted in each culture but change over time and vary both within and between cultures. Gender, along with the class, racial and other social factors, defines the roles, contributions and resources of women and men in each culture, as they have different access to economic, social and political opportunities and maintain diverse status in the context of economical, social and political institutions. Interstate gender differences are due to the legal framework, culture and established moral norms, which, in turn, affect the processes of economic growth.

In the past (or: For centuries) the formation of gender relations did not involve the implementation of the principle of equality in the field of labor relations, and, consequently, the right to choose the type of professional activity for women is not guaranteed. This situation has inevitably led to gender discrimination in the labor market, but today the boundaries between them are blurring and some progress is being made in promoting gender equality and women's empowerment in the world. In recent decades, the number of women in the labor market has been growing rapidly around the world. Many changes have taken place, but their socio-economic situation has not always improved. Not all jobs held by women can be considered decent work for them. It is necessary to create jobs that, among other things, offer decent pay, security, social protection and prospects. For human resources policymakers, developing a strategy to achieve these goals is certainly a challenge. In addition, it will be recalled that women make a significant social contribution to the care of family members and relatives, which is assigned to them within the traditional division of labor by gender.

2. Literature review

The issue of gender inequality, which develops into social inequality, has been widely studied in the last few decades (Cuberes & Teignier, 2014; Hakura, et al., 2016; Thébaud, 2015; Amin, Kuntchev & Schmidt, 2015; Jayachandran, 2015; Bandiera & Natraj, 2013). The interaction of gender equality and economic growth has been the subject of in-depth analysis by scholars over the past two decades, as it has been shown that reducing the gender gap stimulates economic growth (Mason & King, 2001).

Klasen (2018) provided a short overview of the empirical literature on the link between gender inequality and growth by type of gender gap: Education, Labor Market, Social Institutions and Laws. The author draws on the scientific work of Minasyan et al (2019), in which researchers conducted a systematic review and meta-analysis of the empirical literature on the link between gender inequality in education and per capita

economic growth and confirmed a positive correlation between educational gender equality and economic growth. Klasen and Lamanna (2009) using cross-country and panel regressions (1960-2000) come to the conclusions that in the Middle East the employment gaps have a major impact on economic growth than the education gaps, and in South Asia, the picture is reversed.

Kochkina & Stavytskyy (2016) discussed the impact of gender asymmetry on the socio-economic development of the country. The analysis showed that the level of individualism, indulgence, economic participation, and political empowerment of women in society have a direct linear correlation with GDP per capita. Power distance has the opposite inverse correlation with the level of GDP. It led to the conclusion that stimulation of economic growth should be based on the gender gaps smoothing.

The question of equal opportunities for women and men is considered by Kharlamova & Stavytskyy (2020). Authors analysed the GEM data and tested the hypothesis of whether gender entrepreneurship differs among the world. The results showed that the gender difference still exists in the direction of greater entrepreneurial activity of women in the country, which shows higher economic performance today.

Gender inequality slows down the development of society, which is confirmed by the following negative consequences: reduced labor productivity, slowing economic growth, the enhancing of social misbalance and prosperity lag between people. Thus, Mitra et al (2014) verified a hypothesis on the dissimilar impacts of varying aspects of gender equality on economic growth by using regression analysis, and found a strong positive impact of the opportunity aspect for developing societies, where is the significant impact of the outcome aspect – for countries had already attained a margin level of development.

Australian scholars Jayasuriya & Burke (2013) examined whether there is a link between the number of women parliamentarians and the country's economic growth. To do this, they used data from the World Bank and Penn World Table from the University of Pennsylvania on 119 countries in 1970-2009. After analyzing the data, the researchers concluded that a greater representation of women in parliament has a positive impact on economic growth, and is important for growth.

The European Institute for Gender Equality (2017) made economic arguments in favour of gender equality in the EU, pointing out that gender equality has the greatest positive impact on GDP, which is growing over time. By 2050, improving gender equality will increase GDP per capita by 6.1-9.6%, ranging from 1.95 to 3.15 trillion euros. Improving gender equality will create an additional 10.5 million jobs in 2050, which will benefit both women and men. Women will occupy about 70% of these jobs, but in the long run, the employment rates of women and men will coincide, reaching an employment rate of 80% by 2050.

Restricting women participation in the labor force has serious consequences. In countries that exclude women from the labor market, there is a slowdown in economic growth. Estimates by researchers Teignier & Cuberes (2014) from the University of Barcelona shown that gender inequality leads to a reduction in average income by 13.5%: 5% due to lack of career choices for women and 8.5% due to employment restrictions.

According to the American consulting agency McKinsey & Co. (Woetzel et al., 2015), gender equality will increase the world economy by \$ 12 trillion.

Based on macroeconomic, industry data, and microdata companies, a recent IMF study (Ostry et al., 2018) found that men and women complement each other in the workplace through the prism of different skills and attitudes, including different attitudes toward risk and cooperation.

According to the key facts of The World Bank Group (2020), women labor force part participation declined from 51% in 2000 to 48% in 2019 worldwide; women spend three times as many hours in housework as men (devoting 1 to 5 hours more a day on unpaid household chores, child care and other caregiving responsibilities). "Women in all countries face earnings gaps. If women could have the same lifetime earnings as men, global wealth could increase by \$ 172 trillion, and human capital wealth could increase by about one fifth globally" (The World Bank Group, 2020). Thus, gender stereotypes permeate all social relations: employment, politics, family relations, and others. Today, politicians, governments and corporations recognize the benefits of giving women equal opportunities for economic growth and social development and seek to improve their policies and practices in this area (Dabla-Norris & Kochhar, 2019).

The study of the relationship between cross-cultural characteristics and gender aspects (entrepreneurship) is one of the relevant topics of global research because achieving gender equality is necessary to stimulate economic growth and competitiveness, increase employment and strengthen social cohesion.

3. Gender impact

To analyze how gender equality contributes to economic growth internationally, we need to examine the impact of gender inequality in those areas that are significant from a macroeconomic perspective: entrepreneurship in science and technology, labor market activity, and wages.

3.1. Gender impact on entrepreneurship

There is much less research on the gender gap in employment, while most of the few studies show that such a gap in employment slows down economic growth.

Nowadays we see an extremely big number of start-ups that are in different fields from IT to medicine. However, the problem is that there are not so many start-ups founded by women due to some reasons. The research by Guzman & Kacperczyk (2019) has shown the proof that the problem of investing in venture business that was founded by women is relevant today. It happened due to the next reasons: women are less likely to found risky businesses; investors are more likely to invest in male-based business due to cultural reasons, a higher level of potential growth of the company. Their research shows that this problem is even relevant in the biggest economy of the world, in the USA. It also gives opportunities to research other regressions between, for example, level of education, spheres of start-ups and female-based business. Also, there is a big possibility to research

any differences between performing start-up led by women and, on the other hand, by men.

Jüttler & Schumann (2019) decided to find out whether economics is a men business based on the longitudinal and representative data from 1397 Swiss students at the end of the upper secondary level (824 female students). They tested the gender impact of economic competencies on students' intention and desire to study economics. Results demonstrated that male students had stronger correlations between economic competencies and school grades in economics and the intention/decision to study economics. However, negative correlations between further competencies (mathematic and verbal skills) and the intention/ decision to study economics could only be found for male students. Indeed, female students had stronger correlation between the intention and decision to study economics than male students. Female students were only more likely to decide to study economics if they had higher economic knowledge and skills and were more interested in economics, compared to male students. The main limitation of the study was in the lack of empirical evidence that there are the causal mechanisms behind the gender-specific effects of economic competencies in detail. As well authors did not provide any differentiation by courses.

Huertas, Ramos & Simon (2017) have found out that there is a regional difference in wage especially in theme of gender in Spain. The results showed that individual, job and workplace characteristics are relevant to explain the gender wage gap in Spanish regions. A higher union density and a higher female employment rate imply larger wage gaps, although it is worth mentioning that both variables are only statistically significant at a 10 % significance level. On the other side, a higher population density reduces the gap. Authors also mentioned that the higher the minimum wage and the age gap at the first marriage; the lower the union density, the employment rate and the fertility rate, the lower the gender wage gap.

In general, the level of wages for women is much lower compared to men. Actually, in spite of large and growing number of proofs of a gender pay gap, there is a lack of awareness of the gap yet (Lips, 2013). Moreover, gender wage gaps and occupational segregation persist.

The study by Vieito (2012) is among the first to detect the impact of gender on the correlation between the compensation gap of the CEO and Vice-Presidents on company capacity, using data for the USA during the period 1992 to 2004. Main results of research are quite interesting: firstly, companies where CEO is women are likely to perform better and have a smaller compensation gap between CEO and VP than male ones. The Chow test also provided empirical evidence that factors which explain the compensation gap between the CEO and company VPs are not identical in companies managed by a female CEO and those managed by a male CEO. In addition, there are some limitations of this research: firstly, data is from public companies, secondly, research is based on data from USA, and thirdly, there should be other data resources. The relevance of research is proved by rapid changes in today's world and need in revising approaches to give CEO role.

Hiring females on TOP management positions can lead to reduce in gender gap at all aspects in long perspective. Rocha & Van Praag (2020) proved that employees joining

a founder of the same gender are more likely to become entrepreneurs lately. Female founders can influence the career choices of their female joiners via a broadly defined role modeling function. According to research, female joiners who become entrepreneurs more often worked in a female-founded firm and had a larger share of female co-workers. Female founders running relatively high-performing firms influence joiners' entrepreneurial choices more strongly. In addition, there are some limitations: firstly, data is limited. While start-ups provide an appropriate setting to investigate whether and how founders affect joiners' future entrepreneurship transitions, was recognized that joiners of young firms may differ from employees in established companies, thirdly, not included all role models.

Brixiová, Kangoye & Said (2020) explored the role skills and training that play in gender disparities in entrepreneurial performance of developing countries and especially in Africa. Firstly, in theoretical model authors show that targeted training geared towards women entrepreneurs can raise the overall rate of productive start-ups while reducing the gender gaps in outcomes. Only training programs do not have a big impact on entrepreneurship. More important in high-performance of women entrepreneurs is tertiary education. In addition, women who were tenacious were more likely to record stable growth in sales as compared to their counterparts who lacked it.

Gupta, Goktan & Gunay (2014) researched how stereotypes influence gender gap in entrepreneurship in Turkey among business students and working professionals in the United States. When experiment was in Turkey, authors received next results: without stereotype influence men are likely report more favourable evaluation of new business opportunity. When stereotypical information was presented, men had a more favourable opportunity evaluation when the masculine stereotype presented in comparison without one. The same happened with women when was presented feminine stereotype: women are more likely report more favourable opportunity evaluation when it presented in comparison without one. Nevertheless, masculine stereotype did not play big role as in case with feminine one. Moreover, gender-neutral characteristics as a descriptive of entrepreneurs eliminated the gender-gap. Results of experiment in the US showed that when no stereotypical information was presented, men assessed new business opportunity more favourably than women did. Men and women assimilated to the presentation of masculine stereotypes: men increased; women decreased in their opportunity evaluation. Results in Turkey and in the US were similar. However, the research had some limitations as lack of contextual information, focus on a business opportunity with commercial potential for evaluation.

Bardasi, Sabarwal & Terrell (2011) used the World Bank Enterprise Survey data to acknowledge gaps between male- and female- owned companies in Eastern Europe and Central Asia (ECA, 27 countries), Latin America (LA, 13 countries), and Sub-Saharan Africa (SSA, 22 countries). In the aspect of firm size there is the considerable gender gap between male- and female-owned companies, but less than in aspects of firm efficiency and growth (exception - LA). Firstly, one of the main points is female entrepreneurs are a minority: 27% in ECA, 37% in LA and 27% in SSA. On average, female-owned enterprises are significantly smaller (in terms of overall sales) than those of their male-owned counterparts in each region. The findings on the other performance measures are mixed - gender gaps in firm productivity are observed in both ECA and LA, but not Sub Saharan

Africa. The LA region is marked with the gender gaps in firm growth (measured as growth in sales and in employment), but not other considered regions. In ECA and LA female-owned firms appeared to be younger than male-owned firms on average, despite the differences are small. Authors revealed that gender gaps in total sales and value added are larger within female-dominated sectors. There is no strong evidence that there are credit constraints in any region.

The cultural factors are important but do not fully reflect the situation with the gap in entrepreneurship between women and men in a particular country (Rubio-Bañóna & Esteban-Lloret, 2016).

We can conclude that the socio-cultural dynamics of female and male roles reflects the social realities of a changing society, which is characterized by deep transformations

3.2. Gender impact on ICT

Kim et al (2020) examined the factors that influence the success of women entrepreneurs in ICT sector from in-depth interviews with women entrepreneurs in eight non-Western countries about their entrepreneurial experience. The research revealed that dynamic interactions between environmental factors (e.g. gender equality and women entrepreneurship policies, ICT infrastructure, and mentoring support) and individual factors (e.g. active use of ICT and a sound business philosophy) developed women entrepreneurial practices and have an impact on women entrepreneurship.

Segovia-Pérez et al (2019) investigated the gender wage gap and discrimination in ICT-related professions in Spain used the Spanish Earning Structure Survey data for 2014, and applied wage decomposition methods to the wage distribution. Their findings confirmed women ICT professionals have lower wages than male and unfavourable working conditions, notably in highly skilled positions and in ICT-intensive industries, due to gender stereotypes strong affect women showing vertical segregation.

Bach et al (2016) discovered many authors and highlighted the pending issues related to the relationship between innovativeness, gender, and entrepreneurial intentions. They showed the significant impacts of gender, country, attitudes toward entrepreneurship, and innovative cognitive style on entrepreneurial intentions in Croatia and Slovenia using a sample of students specializing in information and communication technologies. Men and women tend to become an entrepreneur differently: extrinsic motivation among men, intrinsic motivation in the case of women.

Peacock & Irons (2017) examined the gender impact in the cyber security sector of economy, in which the majority of men traditionally participated, based on a quantitative study through an online survey, including specifically questions relating to the motivations, experiences and successes by those working in the area. However, the obstacles are kept for women: the respondents to this study believe that society, clients, and customers see computer security as a «men job». Therefore, there are gender inequalities in hiring, opportunities and promotion. On the contrary, the general working conditions in India's ICT sector are favourable for women, but this sector has some restrictions and provides unequal access to employment mostly for young highly educated women from high socio-

economic strata and urban centres (Mehta, 2016). Also stated that it easier to get a job in the ICT sector for women than traditional sectors.

3.3. Gender impact on motivation to start an entrepreneurial activity

Main ideas of recent researches (Bui, Kuan & Chu, 2018; Wulandari & Djastuti, 2017; Cavada, Bobek & Maček, 2017; Ali, 2018; Rey-Martí, Porcar & Mas-Tur, 2015; Mas-Tur, Soriano & Roig-Tierno, 2015) show that there are different motives why women are less likely to run a business. Firstly, authors say that women have different motive in doing business than men. That's why most companies that are led by women are small (in size and sales). In addition, in developing countries we still see a problem with tertiary education for women.

The main factors influencing female entrepreneurship are individual motivation (income, independence, achievement, need for change, balance, obligations, dissatisfaction and "class-ceiling"), family structure, education, demography, unemployment, and social and economic environments (Ascher, 2012); industry (SMEs) characteristics, entrepreneurial goals and motivations, and legal factors (Hasan & Almubarak, 2016). Other substantial factors contributing to the development of women entrepreneurship in developing countries are the direct support of the social environment and community (family and friends), funding, personal savings, English proficiency and digital skills, key behavioural characteristics or favourable attributes involve: determination, inner zeal, will-power, coping strategies / skills and the development of a new identity (Kamberidou, 2020).

Solesvik et al (2019) determined the factors and motivations that drive women when starting such activity in emerging and developing economies by primarily economic factors and social factors, respectively. Despite previous theoretical work, Chamorro-Premuzic et al (2014) obtained results that prove a significant impact of aesthetic and personal factors on women. It should also be noted that their risk appetite is relatively low compared to men. Significant prospects for economic development in the coming years are also based on the prospects for the development of female entrepreneurship since they can contribute to the rapid development of the global economy.

Haussen & Schlegel (2019) used econometric models (autoregressive model and granger-causality) to explain how level of self-employment has the impact on the level of unemployment rate. Then they also researched how it vary between women and men self-employment. The empirical method was used: macro-level panel data from 23 OECD countries during the period 1991-2015. As the result, they received that self-employment rate has a bigger impact on growth of employment rate only in medium and long term. In addition, significant impact of female self-employment can be seen only with 12-year lag, when the same effect of men self-employment is seen 4 years earlier. These differences are due to next reasons: different motives of self-employment (women – additional source of finance, men – prospective of higher financial benefits in future) and the self-selection of women to less productive industries (i.e., IT, engineering and so on).

The women entrepreneurs often start businesses by such motives: freedom and control in decision-making processes, profit, desire for achievement, opportunity to work

exclusively for themselves (i.e., Ramadani et al (2015) considered case of Albania, Macedonia and Kosovo), recognize business opportunities in unmet social needs as absence of necessary childcare services or insufficient set of healthcare services (i.e., case of Norway, Ukraine and Russia (Soleviket al, 2019)). The impact of culture on entrepreneurial behaviour is significant in the Arab region and thus men “tend to benefit much more than women from the right to self-expression perspective, and this increases their likelihood to seek out entrepreneurial opportunities” (Bastian & Zali, 2016). The Saudi and Bahraini women are especially motivated by self-actualization and financial stimulus (Hasan & Almubarak, 2016).

4. Methodology

We present a conceptual model of the study, hypotheses and the nature of the relationships between dependent and independent variables. The research questions form the following hypotheses:

H1: Gender influences Entrepreneurial Motivation for TEA.

H2: Gender affects Percentage of TEA by innovation.

H3: Gender affects Percentage of TEA by industry sector: ICT.

H4: Gender affects entrepreneurial activity.

H5: Supporting entrepreneurs through government programs and socio-cultural factors affects entrepreneurial activity.

To assess the impact of gender on entrepreneurial activity at the international level, we propose to use regression analysis, using the method of least squares, to build and evaluate models of multiple linear regression. This analysis will allow building econometric models for each analyzed country separately to describe the dependence of the resulting feature on factor characteristics based on international statistics.

The following countries were selected to test the hypotheses: Ukraine, Poland, China, France, Russia, Germany, UK and USA. A total of 730 statistical data were collected on 5 indicators (Table 1) for the period 2003-2019, but for the indicator Percentage of TEA by industry sector: ICT the data are presented only for 2015-2019. Global Entrepreneurship Monitoring (GEM) is a source of statistical information. A project emerged in 1997 at the initiative of leading scientists from the United Kingdom, the United States, Finland and Ireland. Institutionally, two reputable institutions in the field of business research - Babson College (USA) and the London School of Business (UK), support the project. To test the hypotheses (H4, H5), the following 75 statistics for 2015 - 2019 are used (Table 2).

Table 1. Indicators for regression analysis (hypotheses H1, H2, H3)

Symbol	Variable	Unit
Regressors		
Inn_	Innovations in general business activity	% of TEA
Ict_	The economic sector in general business activity	%
Mot_	Motivation in general entrepreneurial activity at an early stage	% of TEA (Main motivation: change the

		world)
	Dependent variables	
Male_	The total number of men engaged in entrepreneurial activity in a particular country	% of the total adult male population of the country
Fem_	The total number of women engaged in entrepreneurial activity in a given country	% of the total adult population of women in the country

Source: Created by the authors

Table 2. Indicators for regression analysis (hypotheses H4, H5)

Symbol	Variable	Unit
	Dependent variable	
_Rate	Number of entrepreneurs (Number of people engaged in entrepreneurial activity)	% of the total adult population
	Regressors	
Male_	The total number of men engaged in entrepreneurial activity in a particular country	% of the total adult male population of the country
Fem_	The total number of women engaged in entrepreneurial activity in a given country	% of the total adult population of women in the country
_gov_prog	Availability and quality of programs that directly help businesses at all levels of government (national, regional, municipal)	%
_cul_soc_norms	To what extent do social and cultural norms encourage or allow actions that lead to new business methods or activities that can potentially increase personal wealth and income	%

Source: Created by the authors

ANOVA factor analysis is used to determine the differences between the number of male and female entrepreneurs in the analyzed countries.

5. Results

Based on the ANOVA factor analysis, with a probability <0.05 , we can say that the difference on the gender between doing business is significant. At the same time, on average, the number of male entrepreneurs is 2.5% higher in their group than women, respectively.

Regression analyses is applied to examine the impact of gender on entrepreneurial activity in different countries in three areas: the impact of gender on motivation, the impact of gender on innovation and the impact of gender on the choice of ICT sector. In general, we can see that in the analyzed countries, gender affects the level of entrepreneurial activity. In addition, government support programs and socio-cultural factors have a significant impact. The difference is that in Poland and France, the factor of developing government programs to support doing business has a significant impact, while it is significantly valid only for Germany.

The model results of the impact of gender factors demonstrate the dependence between the creation of support for entrepreneurs through government programs and the impact of social and cultural norms in Ukraine, Poland and Germany on entrepreneurial activity. There is the insignificant model results for UK that could be concluded as the weak impact of government support and cultural factors on the entrepreneurial activity in the state. The statistically significant result is received for Ukraine that demonstrates that gender matters in the entrepreneurial activity of this state. For Germany, we received the significance (10% level) only in the impact of the male gender and cultural factors on the entrepreneurial activity of the state.

The valid results for all states are that there is a significant positive correlation (0.94) and dependence between Entrepreneurial Motivation for TEA and Female/Male ratio for all analysed states, same for the ICT factor.

Testing the hypothesis that gender affects the Percentage of TEA by innovation is actual under terms of Innovation 4.0 and digitalization tendencies. In this case, we check whether there is a correlation between the level of entrepreneurial innovation (when products or services created by entrepreneurs are new to at least some customers and few offer the same product) and the gender structure of entrepreneurship in a state. It can be assumed that the change in the ratio of women and men engaged in entrepreneurial activity in the state (i.e. Poland) will affect the level of business innovation. For example, when the gender structure of entrepreneurs in Poland changes towards the number of women compared to men, the level of innovation of products and services will increase, or vice versa. Hypothesis H2 is confirmed in practice for all states considered and shows that the gender structure of entrepreneurial activity really affects the level of business innovation (average result is that 75% change in the level of innovation is due to a change in gender structure). However, mostly we admit that the growth of the ratio of women to men engaged in entrepreneurial activity per unit just decrease the innovation of business goods or services (i.e. by 1,244 in Poland).

The obtained model results fully corresponds and are in the compliance with world rankings on the gender issues (Figure 1). Thus, we see that France had a few waves after stabilising its mostly favourable position in the gender aspect. Ukraine, for example, had better position in 2006 than in 2019, but it is quite stable in the gender issues: no deep worsening and no rapid improvement. The common trend is that after 2013, there is the increasing in the gender gap for China, Russia, and Germany and slightly for Poland and Ukraine. However, France in the contrast decreased significantly its gender gap.

Same trends are traced over the any gender reports, like Human Development reports (Figure 2). The closer the gender development index is to one, the more likely it is that women in the country have as many rights as men. The data demonstrate that there is quite an equality in Poland, Ukraine and Russia. France and the US are also approaching the one. However, China has the least rights for women in this selected group of countries.

Fig. 1. The Global Gender Gap Index

Source: World Economic Forum reports

Fig. 2. Gender Development Index

Source: Human Development report data (<http://hdr.undp.org/en/data>)

6. Conclusions

In conclusion, we can sum up that humanity is currently going through an important stage of its development, which should use intensive factors to create innovations and introduce new technologies. This is due to the most efficient use of all available resources. For this reason, most countries around the world are interested in maximizing the skills and abilities of all sexes, which is why women are rapidly involved in all spheres of life, especially in the creative sphere. This leads to processes of equalization (convergence) between men and women, which reduces the level of gender inequality. Virtually all world rankings record a decline in gender inequality in recent decades, even in countries where the role of women is traditionally underestimated.

In terms of production automatization, the role of entrepreneurial initiative is significantly enhanced. It is very important that women play a comparable role to men in organizing their business. As our study has shown, the difference in the manifestation of entrepreneurship is still existent for women and men in certain countries. In particular, such a difference is observed in Ukraine, Poland, China, France, Russia, Germany, UK and USA. However, it should be noted that it is relatively lower in more developed countries such as Germany. However, the reduction of such gender inequality is primarily in the implementation of social programs for business development. The study found a fairly high relationship between the level of social programs and the role of women in entrepreneurship.

It is equally important to note that the development of women skills in certain progressive fields plays a more important role. In particular, the involvement of women in the ICT industries can significantly reduce gender inequality precisely because of the rapid development of this industry. Thus, social programs should be modified to maximize the involvement of women in those areas that are experiencing rapid growth.

In general, the process of gender equality will continue virtually regardless of the presence or absence of social programs, as this is a requirement of the economy itself. The use of such social programs can only accelerate this process by providing a competitive advantage to the country, which encourages a more active role of woman. It is obvious that in this aspect the world community can help in the creation and implementation of such programs for the world poorest countries, including African countries. This will contribute to a faster and more balanced growth of the world economy. It is equally important to note that such programs will effectively combat the effects of the global pandemic COVID-19, due to which a large part of the population loses their jobs and businesses. In such conditions, the transition to new business projects can be a major factor in even survival.

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