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THE INTERCONNECTEDNESS OF THE LEVEL OF EDUCATION AND GENDER EQUALITY IN SELECTED COUNTRIES

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Abstract. The Sustainable Development Goals (SDGs) cover different human and planet well-being areas, and their achievement is interdependent. Which of the goals are crucial and leading in this process is a question that often arises. Quality education is considered a cornerstone for all the SDGs. On the other hand, gender equality is very connected with other goals, as most of them have gender-specific indicators. Quality education and gender equality are two of the SDGs in the social dimension that can reinforce the achievement of all other SDGs. However, quantitative research on the relationship between these two phenomena, taking into account other factors, is rarely taken in the literature. This article aims to fill this gap and investigate the nature of the interconnectedness of quality education and gender inequality in selected countries. We also examined other factors (i.e., economic, political, and cultural) that may influence the education level, gender equality problems, and the relationship between them. The methodology used in the research is the propensity score method, and the data cover 153 countries in the world. The results confirm the undisputable relationship between the level of education and gender equality but also identify other factors influencing the variables of interest. These are GDP per capita, level of democracy, and major religion, to name a few. The influence of these factors differs in strength and direction.

Keywords*: Gender inequality, propensity score matching (PSM), quality education, sustainable development goals (SDGs).*

JEL Classification: I24, C21

INTRODUCTION

Sustainable Development Goals (SDGs) (UNESCO, 2015) are developed to ensure prosperity for people and the planet in three dimensions – economic, social, and environmental. Among the seventeen SDGs, designed to end humanity's most urgent problems now and in the future, this article focuses on two of them: the fourth SDG for quality education and the fifth SDG for gender equality, especially on the interconnections between them. Both of them belong to the social dimension of sustainable development. Quality education is considered to be a crucial goal because it influences all other goals. According to UNESCO (2017), "higher education is a cornerstone of sustainable development". On the other hand, gender

equality as a fundamental human right is also necessary for a peaceful, prosperous, and sustainable world. The importance of the fifth SDG is reflected by the fact that most other SDGs have gender-specific indicators.

If we look at some facts reported by UNESCO, "the two-thirds of 771 million adults without basic literacy skills are women, 244 million children and youth are out of school, of which 118.5 million are girls and 125.5 million are boys"[*].

The relationship between the two goals of quality education and gender equity is manifold. Education could lead to a greater awareness among people in society and enhance job opportunities for women in the labour market, which has a noticeable impact on the well-being of a country. On the other hand, equal opportunities and gender equality generally lead to a higher level of quality education in a country.

All seventeen SDGs are interconnected to a greater or a lesser extent, and their achievement depends on many other economic, political, and cultural factors.

The aim of the paper is to investigate the relationship between quality education and gender equality while taking into account other important factors that could influence the achievement of these goals (i.e., economic development of the country, level of freedom, political regime, religion, etc.).

The research questions are: What is the impact of higher education on gender inequality, and how does gender inequality affect higher education? Does this relationship depend on other factors, and to what extent? The analysis is based on the most up-to-date data from 153 countries.

1. LITERATURE REVIEW

There has been a significant increase in publications on the SDGs in recent years. According to a bibliometric analysis of scientific publications on SDGs (Sweileh, 2020), the number of research papers published in the Scopus database increased more than 12 times between 2015 and 2019. Papers related to SDGs 4 and 5, respectively, account for approximately 3.7 % and 2.2 % of all published articles. The scope of the analysis presented in the research papers related to quality education (SDG 4) and gender inequality (SDG 5) is extensive. Some articles provide an overview of SDG indicators, policy, and practical recommendations, while others use quantitative methods to analyse the current state worldwide or in selected countries. As for SDG 4, for example, Boeren (2019) presents quality education goal indicators from micro-, meso- and macro-perspectives and policy recommendations. Saini et al. (2022) employed an exploratory data analysis and a genetic algorithm approach to explore the association among SDG 4 indicators. Regarding SDG 5 (gender inequality), many papers report gender inequality evidence. Laberge et al. (2022) focus on gender inequality among U.S. computer faculty. The gender wage gap in the Tech industry was discussed by Mickey (2022). Some authors are interested in the problems of gender inequality in connection to other SDGs. For example, Deshpande & Bhat (2019) focus on gender inequality in

[*] https://www.unesco.org/en/gender-equality/education

the Indian context and the interconnection between SDGs, especially between SDG 5 and SDG 3.

As the research presented in this article is concerned with the interconnectedness between education and gender inequality, in particular, it is worth mentioning that this relationship was addressed in the book "Gender Equality and Education" edited by Julia Wrigley (Wrigley, 1992). Twelve articles were solicited for this book. The authors, in detail, analyze some aspects of education and gender equality and emphasize that "there is no simple relation between education and gender equality". They explain that schools are a place where inequality issues can be resolved but also maintained, and this antagonism occurs at every level of education. More recent papers (Gilbert & Gilbert, 1998), (Murphy-Graham, 2009) also underline that increasing access to education is not a sufficient solution because, in schools, the problems of inequality can be reproduced rather than solved. Peppin Vaughan (2016) also claims that "education can reinforce gendered stereotypes, but it is also a place in which they can be challenged". Nevertheless, the primary role of education in achieving all other SDSs is emphasized in the literature. Briede (2017) highlights that "university graduates will be influential problem-solvers and decision-makers, and they will educate society and professionals".

Another key issue in the literature concern relations of gender inequality problems with other social and economic problems like poverty and economic development (Duflo, 2013).

Klasen & Lamanna (2009) attempt to assess the relationship between gender inequality, education and economic performance of the country using regression analysis. Their results suggest that "current barriers to female employment are not only disadvantageous to women, but also appear to reduce economic growth in developing countries, particularly in MENA and South Asia".

Friedman et al. (2020) also emphasize that education is "a key dimension of well-being and a crucial indicator of development". The authors show that "although the world is largely on track to achieve near-universal primary education by 2030, substantial challenges remain in the completion rates for secondary and tertiary education. Globally, the gender gap in schooling had nearly closed by 2018, but gender disparities remained acute in parts of sub-Saharan Africa, and North Africa and the Middle East".

Given the crucial importance of these two SDGs – Quality Education and Gender Inequality – quantitative research of their interconnectedness using an appropriate methodology appears to complement the literature related to the topic.

2. DATA

First, it is necessary to provide a measure of gender equality (or inequality) and the level of education in the analyzed countries. According to the definition provided by the World Health Organization (WHO), there are three dimensions of gender inequality – health, empowerment, and labour market. Health is represented by the "maternal mortality ratio" and "adolescent birth rate". Empowerment is measured by the "female and male population with at least secondary education"

and the "female and male shares of the parliamentary seats". The labour market is presented by "female and male labour force participation rate". All these variables are considered in constructing the Gender Inequality Index (Fig. 1).

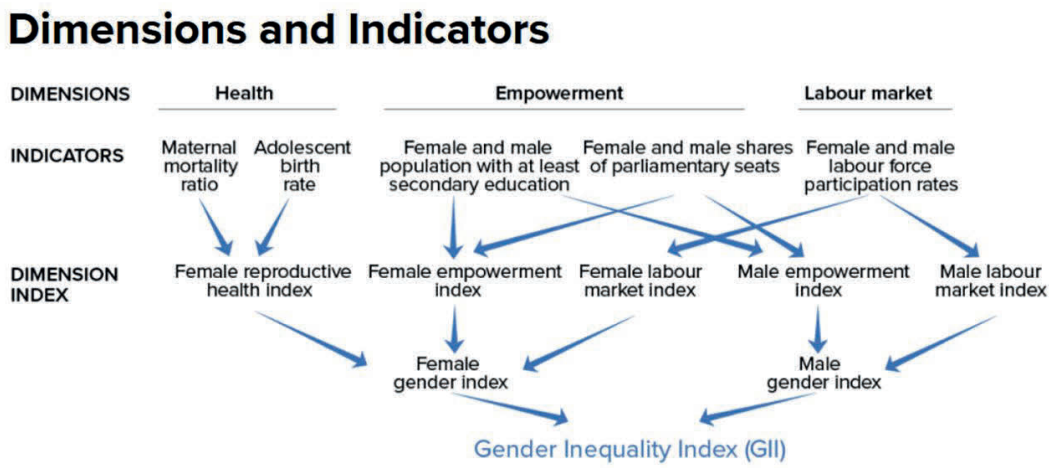

Fig. 1. Gender inequality index (WHO, UNDP).

The level of education in the selected countries is represented by an education index. The education index is a component of the human development index published annually by the United Nations Development Programme. A country's education index is calculated as follows:

$$EI = \frac{\frac{EYS}{18} + \frac{MYS}{15}}{2}, \quad (1)$$

where EYS (expected years of schooling) is "the number of years a child of school entrance age is expected to spend at school, or university, including years spent on repetition" (UNESCO, 2022). The maximum value is 18 years of schooling, which is equivalent to achieving a master's degree in most countries;

MYS (mean years of schooling) is "an average number of completed years of education of a country's population aged 25 years and older, excluding years spent repeating individual grades" (The World bank, 2022). The projected maximum of MYS for 2025 is 15 years of schooling.

In order to measure the nature, strength, and direction of the relationship between gender inequality and the level of education, it is necessary to define other variables that could affect the interrelationships of the studied variables (e.g., economic, socio-political, and cultural variables). We used publicly available data representing economic (GDP per capita), social (freedom indexes), political (democracy index and dictatorship indicator), and cultural (dominant religion) factors. A description of all variables is provided in Table 1.

Table 1. Description of Variables

Variable	Meaning	Year
GII	Gender Inequality Index[(1)]	2021
EI	Education Index[(2)]	2021
Freedom	Freedom in the world[(3)]	2022
IEF	Index of Economic Freedom[(3)]	2022
PFI	Press Freedom Index[(3)]	2022
DI	Democracy Index[(3)]	2022
Dictatorship	Political regime (Dictatorship or Democracy) [(4)]	2008
RDI	Religion Diversity Index[(5)]	2010
PC	Percentage of Christians[(5)]	2010
PM	Percentage of Muslims[(5)]	2010
PU	Percentage of Unaffiliated[(5)]	2010
PH	Percentage of Hindu[(5)]	2010
PB	Percentage of Buddhists[(5)]	2010
PFR	Percentage of Folk Religions[(5)]	2010
PO	Percentage of Other Religions[(5)]	2010
PJ	Percentage of Jewish[(5)]	2010
Population	Population of the country[(5)]	2010
GDP	GDP per capita[(6)]	2022

Note: Symbols [(1), (2),..., (6)] mean the sources of the data, presented in References.

3. METHODOLOGY

The relationship between two variables may be of a different nature. The simplest causal relationship is when one variable is a cause of the other. The two variables could also be interconnected in a positive or negative loop, or other factors could cause the correlation of the variables. Variables may also not be correlated in any way, or they may be spuriously related. If one wants to conduct a causal inference, the gold standard is to use a control group and a treatment group and compare the output of interest in these groups. The comparison groups should be similar in terms of other characteristics, which could be obtained by performing randomized controlled experiments. If this is not possible and the researcher has non-experimental data, the advisable matching is as follows: try to assign units from the treatment group to similar units from the control group so that these groups become more similar due to other than treatment characteristics.

Causal inference in some cases can be biased, especially when only a few units in the control group are comparable to the treatment units. In other cases, creating such a match is difficult when there is a need to obtain a similarity across many other pre-treatment characteristics. Propensity score matching (PSM) is a method proposed by Rosenbaum & Rubin (1983) to address these problems, and the authors' purpose is to provide a tool to resolve them. They indicate that speculations

about the effect of one treatment may occur when, for e.g., "only the worst cases from one untreated control group are compared to only the best cases from the other treatment group, then the result may be biased. The treated group may look better than in reality." In other situations, the treatment group can receive some other treatment, which makes the group different, or they may generally differ.

The first step of PSM is to calculate propensity scores using logistic regression. Propensity scores are predicted probabilities of a group membership. They are calculated using information about other observed characteristics, named covariates that might cause differences between the treatment and control groups. Let T means membership of a treatment group ($T = 1$ means that the unit is a member of the treatment group, and $T = 0$, a unit is a control group member). If the dependent variable in logistic regression is T and X_i are covariates, then the propensity score is calculated as follows:

$$\text{logit}(T) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \ldots + \varepsilon . \tag{2}$$

In this step, it is essential to use appropriate covariates. These could be all variables that may be associated with both treatment and outcome variable.

The obtained propensity scores are used for matching similar units from the treatment and the control groups. As a result, it is possible to create a new dataset, which makes comparisons more meaningful. The matching procedure could be exact matching, nearest neighbour matching, optimal full matching, stratification matching, etc.

The final step is to estimate the effects of the treatment and covariate(s) on the outcome variable (Outcome):

$$\text{Outcome} = \alpha_0 + \gamma T + \alpha_1 X_1 + \alpha_2 X_2 + \ldots + \xi , \tag{3}$$

using a new matched sample.

4. RESULTS

Before the PSM was applied, the preliminary analysis of the data was performed. The correlation coefficients are presented in Table 2. GII shows a strong negative correlation with EI, as well as with such variables as Freedom, IEF, PFI, DI, and PU, and a positive correlation with Dictatorship, PM, and PFR. EI is negatively correlated with Dictatorship and PM and positively correlated with Freedom, IEF, PFI, DI, RDI, PC, and PU.

Fig. 2 illustrates GII versus EI. We can notice a very strong negative correlation between these two variables (–0.9). However, it is important not to automatically attribute causality where there are correlations, as another underlying factor may be behind this correlation and contribute to it.

Table 2. Correlation Coefficients

	GII	EI	Freedom	IEF	PFI	DI	Dictatorship	RDI	PC	PM	PU	PH	PB	PFR	PO	PJ	Population	GDP
GII	1.0																	
EI	−0.9	1.0																
Freedom	−0.48	0.52	1.0															
IEF	−0.7	0.68	0.63	1.0														
PFI	−0.39	0.39	0.77	0.57	1.0													
DI	−0.51	0.55	0.87	0.69	0.71	1.0												
Dictatorship	0.34	−0.36	−0.61	−0.45	−0.49	−0.64	1.0											
RDI	−0.24	0.19	0.17	0.27	0.12	0.13	0.03	1.0										
PC	−0.16	0.26	0.45	0.27	0.42	0.41	−0.37	−0.07	1.0									
PM	0.28	−0.36	−0.51	−0.37	−0.44	−0.49	0.41	−0.28	−0.78	1.0								
PU	−0.47	0.47	0.37	0.42	0.32	0.33	−0.22	0.46	0.08	−0.41	1.0							
PH	0.06	−0.05	0.04	−0.06	−0.02	0.08	−0.05	0.18	−0.22	−0.05	−0.13	1.0						
PB	0.00	−0.04	−0.14	−0.03	−0.12	−0.01	0.03	0.12	−0.32	−0.13	0.01	0.09	1.0					
PFR	0.22	−0.26	−0.21	−0.18	−0.20	−0.29	0.22	0.42	−0.14	−0.11	0.08	−0.04	0.14	1.0				
PO	−0.09	0.09	0.00	0.12	−0.08	0.05	0.09	0.26	−0.13	−0.06	0.14	0.12	0.21	0.01	1.0			
PJ	−0.10	0.10	0.09	0.03	0.01	0.06	−0.06	0.04	−0.11	−0.02	−0.04	−0.02	−0.02	−0.03	−0.04	1.0		
Population	0.02	−0.03	−0.08	−0.12	−0.18	−0.02	0.00	0.12	−0.17	−0.04	0.17	0.34	0.05	0.14	0.12	−0.02	1.0	
GDP	−0.76	0.71	0.43	0.72	0.38	0.47	−0.23	0.28	0.08	−0.19	0.36	−0.03	0.00	−0.20	0.25	0.07	−0.05	1.0

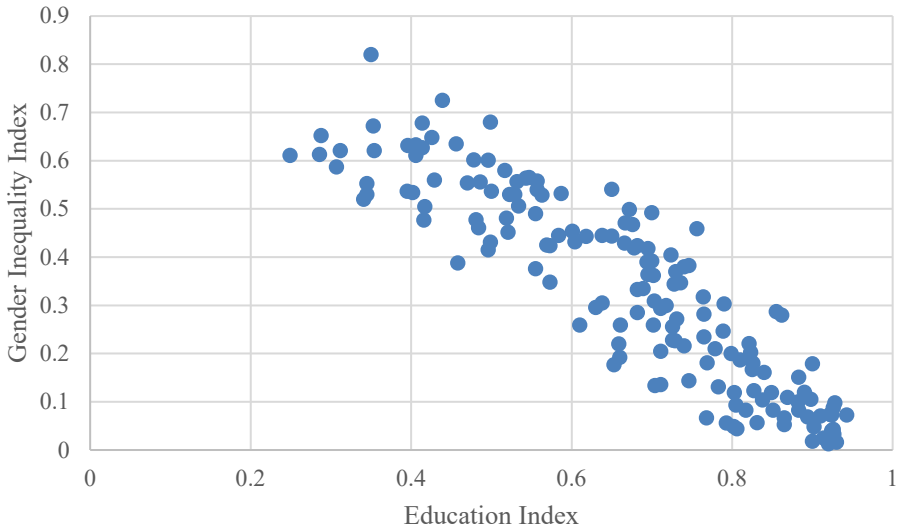

Fig. 2. Gender inequality index versus education index.

The next step of the preliminary analysis is to run a two-sample t-test and to investigate the differences between the means of all covariates in group 0 and in

group 1, where group 0 consists of the countries with GII below the average. Group 1 consists of the countries in which GII is above the average. We compared the means of all other variables to confirm the alternative hypothesis that differences in means between group 0 and group 1 are statistically significant. The results are shown in Table 3 (left panel). The same procedure was repeated, dividing countries into below-average EI (group 0) and above-average EI (group 1). The results are presented in Table 3 (right panel).

Table 3. Results of the Two-sample t-test

Variable	Mean in group 0 (GII below average)	Mean in group 1 (GII above average)	p-value
EI***	0.81	0.53	0.00
Freedom***	2.31	1.80	0.00
IEF***	3.21	1.87	0.00
PFI***	3.08	2.48	0.00
DI***	3.47	2.44	0.00
Dictatorship**	0.30	0.49	0.01
RDI**	3.73	2.81	0.01
PC	0.56	0.51	0.45
PM*	0.23	0.34	0.06
PU***	0.14	0.03	0.00
PH	0.02	0.04	0.10
PB	0.04	0.05	0.77
PFR	0.02	0.03	0.11
PO	0.01	0.01	0.49
PJ	0.01	0.01	0.33
GDP***	44.80	9.04	0.00
Population	41 831	44 449	0.91

Variable	Mean in group 0 (EI below average)	Mean in group 1 (EI above average)	p-value
GII***	0.05	0.21	0.00
Freedom***	1.62	2.37	0.00
IEF***	1.76	3.10	0.00
PFI***	2.32	3.11	0.00
DI***	2.12	3.56	0.00
Dictatorship***	0.61	0.24	0.00
RDI	3.06	3.42	0.31
PC*	0.44	0.60	0.01
PM***	0.39	0.20	0.00
PU***	0.04	0.12	0.00
PH	0.04	0.02	0.31
PB	0.05	0.04	0.63
PFR***	0.05	0.01	0.00
PO	0.01	0.01	0.69
PJ	0.01	0.01	0.34
GDP***	9.64	39.20	0.00
Population	65 595	26 703	0.16

Note: *** Statistical significance at the 1 % level. ** Statistical significance at the 5 % level. * Statistical significance at the 10 % level.

Statistically significant differences between the groups can be interpreted as a given variable contributing to the outcome variable (GII for the left panel, and EI for the right panel). Covariates influencing the gender inequality index are Freedom, IEF, PFI, DI, Dictatorship, RDI, PM, PU, and GDP. Analogously, Freedom, IEF, PFI, DI, Dictatorship, PC, PM, PU, PFR, and GDP influence the education index.

4.1. PSM Results

In this section, the results of PSM are presented. As it has been mentioned above, PSM uses three types of variables:

– Outcome – the dependent variable;
– Treatment – this is the impact variable we intend to study;
– Covariates – the variables that may additionally influence the outcome variable.

PSM analysis was performed twice – firstly, the outcome variable was a gender inequality index, the treatment variable was an education index, and secondly, the outcome variable was an education index, the treatment was a gender inequality index. Covariates are all other variables. As the treatment variable should be binary, a new variable (EI01) has been constructed. EI01 is a binary variable that takes a value of 0 if the country has an education index below average and a value of 1 if the country's education index is above average. Table 4 shows the propensity score matching estimation results with GII as an outcome variable, while EI01 is a treatment variable.

Table 4. PSM Results: Gender Inequality Index as an Outcome, Education Index as a Treatment

Treatment (EI01) estimates	Covariates	Estimates	R2
−0.27***	Freedom	−0.05***	0.6
−0.23***	IEF	−0.09***	0.71
−0.28***	PFI	−0.04***	0.62
−0.26***	DI	−0.33***	0.6
−0.28***	Dictatorship	0.03*	0.56
−0.3***	RDI	−0.01**	0.57
−0.31***	PC	−0.02(0.48)	0.59
−0.27***	PM	0.07*	0.56
−0.27***	PU	−0.5***	0.64
−0.33***	PH	−0.002(0.97)	0.6
−0.27***	PB	−0.03(0.75)	0.52
−0.35***	PFR	0.25(0.5)	0.64
−0.33***	PO	−1.87(0.13)	0.61
−0.35***	PJ	−0.15***(biased)	0.62
−0.14 ***	GDP	−0.0029 ***	0.51

Note: *** Statistical significance at the 1 % level. ** Statistical significance at the 5 % level. * Statistical significance at the 10 % level. Values in brackets mean p-value and are reported only for non-significant variables.

The first column presents the estimated parameter of the treatment variable, with the covariate shown in the second column. The estimated parameters of covariates are shown in the third column of the table, and the coefficients of determination R2 are in the fourth column.

The results of all models reveal a statistically significant relationship between GII and EI.

An education index significantly influences the outcome variable GII, no matter what covariate is used[†].

The estimates of the coefficients are between (−0.14) and (−0.35). For example, let us take a covariate GDP per capita. The result means that if the countries are compared, considering GDP per capita, the strength of the relationship between GII and EI is about 0.14, and the direction is negative. If we take the covariate Dictatorship, this means that if the countries are compared, but taking into account political regime, the strength of the relationship between GII and IE is about 0.28, and the direction is negative. The impact of the treatment variable (education index) is weaker when the covariate is GDP per capita because the outcome variable GII depends to a greater extent on GDP per capita than on the political regime.

The results of all models reveal a statistically significant impact of education on the gender inequality index. An education index binary variable (EI01) significantly influences the outcome variable GII, no matter what covariate is used.

It is worth noting that even if the covariate significantly influences the outcome variable, this does not prevail the influence of the education index. For better interpretation, all covariates that have a significant influence on GII are presented graphically. Figure 3 shows the relative impact of covariates on GII in descending order. In addition, the sign of the influence is given in brackets.

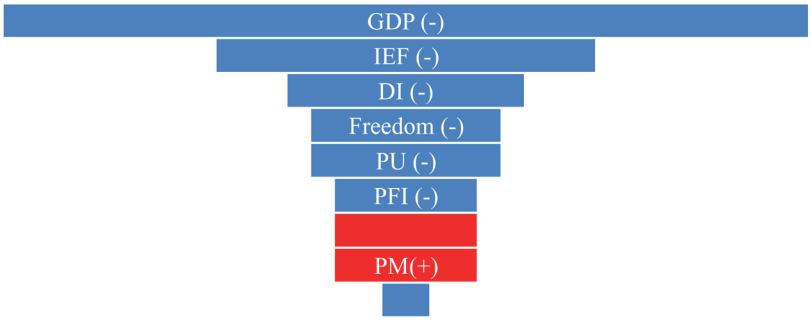

Fig. 3. Relative impact of covariates on outcome GII with treatment EI01.

Next, the results of PSM conducted for outcome variable EI and treatment variable GII01 are presented. Analogously, as a treatment variable should be binary, a new variable is constructed. GII01 is a binary variable that takes a value of 0, if the country has a gender inequality index below average and a value of 1, if the country's gender inequality index is above average. Table 5 reports the estimates for treatment variable GII01 and covariates. The results of all models reveal a statistically significant influence of gender inequality on the education index. A gender inequality index has a significant influence on the outcome variable EI, no matter what covariate is used[‡].

[†] The parameter measuring the influence of the EI01 on the outcome variable without any covariates is also estimated. Its value (−0.31) is not presented in the table.

[‡] The parameter measuring the influence of the GII01 on the outcome variable without any covariates is also estimated. Its value (−0.27) is not presented in the table.

Table 5. PSM Results: Education Index as an Outcome, Gender Inequality Index as a Treatment

Treatment (GII01) estimates	Covariates	Estimates	R^2
−0.22***	Freedom	0.05***	0.57
−0.19***	IEF	0.04***	0.52
−0.22***	PFI	0.03***	0.52
−0.21***	DI	0.02***	0.53
−0.26***	Dictatorship	−0.07***	0.62
−0.26***	RDI	0.001(0.77)	0.58
−0.25***	PC	0.1***	0.62
−0.25***	PM	−0.12***	0.63
−0.22***	PU	0.79***	0.56
−0.28***	PH	0.06*	0.61
−0.28***	PB	−0.01(0.84)	0.52
−0.26***	PFR	−0.47***	0.62
−0.27***	PO	0.94(0.37)	0.59
−0.28***	PJ	−0.15(0.5)	0.54
−0.17***	GDP	0.006***	0.61

Note: *** Statistical significance at the 1 % level. ** Statistical significance at the 5 % level. * Statistical significance at the 10 % level. Values in brackets mean p-value and are reported only for non-significant variables.

Similarly, the relative influence of covariates on EI in descending order is presented in Fig. 4.

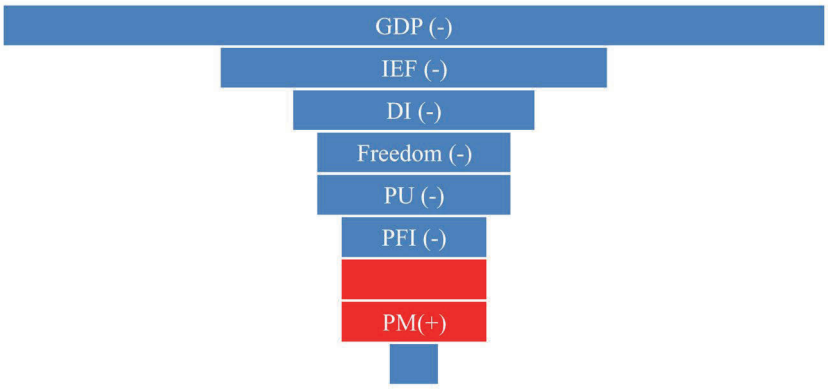

Fig. 4. Relative impact of covariates on EI with treatment GII01.

Among covariates, the most influential factors on education index are GDP, freedom indices, political regime, and dominant religion. However, the influence of these factors on education has the opposite direction compared to their impact on gender inequality index.

5. DISCUSSION

The presented research results confirm a strong relationship between the level of education and gender inequality in an indisputable way. Education index and gender inequality index are highly correlated. Additionally, using a PSM enables one to conclude that there is a causal inference between these two phenomena, even considering other factors. However, research does not confirm the hypothesis that education can reinforce gender stereotypes (Murphy-Graham, 2009; Peppin Vaughan, 2016). It is rather a factor in solving gender inequality problems. Research results also confirm the role of economic development represented by GDP per capita. This variable is positively related to education level and negatively related to gender inequality. A country's economic performance is a factor for a higher level of education and a lower level of gender inequality problems – this is in line with results presented by Klasen & Lamanna (2009) and Duflo (2013). Presented research advances the understanding of the role of other associated factors. The index of economic freedom is negatively correlated to gender inequality and positively correlated to the level of education. There is a similar pattern of association of the democracy index, press freedom index, and variable freedom to education level and gender inequality. Dictatorship is, in turn, negatively related to the education index and positively related to the gender inequality index.

The presented results also exhibit the role of cultural factors represented by the dominant religion, lack of religion and religion diversity. Variable PU (Percent Unaffiliated) is positively associated with the EI and negatively associated with the GII. The percentage of Buddhists (PB) is negatively associated with the GII, while the percentage of Muslims (PM) is positively associated with GII. The percentage of Christians is not a significant factor in gender inequality. However, religion diversity index (RDI) is a factor in gender inequality. The higher level of the RDI, the lower the GII. On the other hand, the percentage of Christians (PC) is positively related to EI, while PM is negatively related, as well as PFR (Percent of Folk Religions).

CONCLUSION

The paper has examined the interconnectedness of two important phenomena – education and gender inequality in the world using the most up-to-date data. Both of these phenomena are considered as crucial SDGs. The results confirm the undisputable relationship between the level of education and gender equality, measured by the gender inequality index and education index. The complexity of reality imposes the necessity to consider other important factors (i.e., economic, political, and cultural), which may influence the education level, gender equality problems, and the relationship between them. In order to investigate the impact of variables of interest in the presence of other factors, we have applied the propensity score method, which enables to extract the impact of treatment variable in the presence of other variables.

The relationship between EI and GII is strong, negative, and persistent in both directions no matter of covariates chosen. Among the covariates, the strong and significant influence on both of these variables has economic situation of the country measured by GDP per capita. Other important factors are conditions related to the freedom of the country, measured by Freedom, IEF, PFI, as well as democracy index. The political regime also has a significant influence on both education level and gender inequality.

The dominant religion in the country, presented by percentage of unaffiliated, percentage of Buddhists, as well as percentage of Muslims influences the gender inequality index (positive, positive, and negative impact), even if we take into account an education index. On the other hand, if we look at education index as an outcome, the dominant religion in the country (presented by percentage of Christians, percentage of Muslims, and percentage of unaffiliated as well as percentage of folk religions) influences the education index, even if we take into account gender inequality index. Religion diversity (RDI) influences GII but does not influence EI. The results confirm that economic, political, and cultural factors (e.g., dominant religion) have a substantial impact on realization of the fourth and fifth SDGs.

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