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The Effect of Women's Rights on Emigration Patterns among Working Age Women within the EU-27 Countries

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Colophon

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Version: Final version

Date: June 2022

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Image: Clean Clothes Campaign

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Abstract

This paper investigates the effects women's rights have on the emigration rates of women of working age (age 25-64) within the EU-27 countries. Existing literature has shown that gender inequality and discrimination are connected to the migration patterns of women. On the world stage, higher gender inequality and discrimination result in a higher migration rate among women. This research has, however, not been conducted at the European Union level. Indicating a research gap is present in the literature on female migration motives. A literature review is combined with secondary data analysis, consisting of data extracted from multiple databases, combined into a dataset to run a linear regression analysis. The dependent variable within this analysis is the age-standardised out-migration rate (ASOR) for the age group 25-44, 45-64, and 25-64. The regression is run against nine independent variables, each displaying an aspect of women's rights. Results show that two independent variables were significant, the Human Development Index and the estimated female GNI per capita.

Recommendations are made to research further the relation between women's rights and migration within the European Union. However, by conducting this research on the intention of migration, instead of the absolute number of emigrants, a broader picture can be achieved regarding the influence women's rights have on female migration.

1. Introduction

Until the second part of the last century, migration was a phenomenon that, from an academic perspective, was very male-oriented. It was the men that migrated, driven by different factors. Women were mainly migrating in the role of a wife, mother, or daughter. The male decided the migration, and the women followed. On the occasions that women migrated without a male counterpart, it was presumed they followed the same factors as male migration. In 1885 Ravenstein was the first academic to connect gender and migration (Ravenstein, 1885). Ravenstein marked that migration patterns differ between the two genders. However, the early remarks from Ravenstein were not followed by further work on the gender dimension of migration until much later.

Still, academic literature on female migration is under-researched compared to that of male migration, even though for decades, women have accounted for around half of the migrating stock (Kenny, C. O'Donnell, M. 2016). Large migration flows are intercontinental, meaning they migrate to different continents. Less research has been conducted on continental migration, especially on European grounds.

A motive to migrate that is particularly sensitive to the gender dimension is human rights. For this thesis, the role of women's rights in the country of origin is being researched. Women's rights consist of a broad scale of components. From equal pay to harassment laws and political representation to the share of women in place of power.

Equality among genders is still not accomplished. Even in the most developed countries, inequality between men and women still exists in multiple aspects of society (Gender Equality Index, 2021). This is also the case within the countries of the European Union. For example, the EU scores 68,0 out of 100 points on the Gender Equality Index of 2021 (Gender Equality

Index, 2021). With 100 points being complete equality. This is only 0,6 points higher than in 2020. However, there is a great difference in gender equality between the countries in the European Union. Sweden is the most gender-equal country, scoring 83.9 points on the index, whereas the least gender-equal country, Greece, scores 52.5 points on the index (Gender Equality Index, 2021).

This inequality could lead to an intention to migrate among women within the 27 EU countries.

To my knowledge, female migration patterns within the European Union, in connection with the status of women's rights in the country of origin, have not yet been researched. Even though it is important to map out the different factors going into the decision to relocate to a different country. Existing literature is available on the intention of migrating within the European Union and the effect women's right could have on the decision to relocate. However, it has not yet been researched in connection with each other.

This thesis seeks to be an empirical addition to the existing literature on women's migration phenomena. Migration is a phenomenon consisting of multiple factors happening on multiple scales. For this research, the scale is set to the 27 countries within the European Union. Migration within one of the EU-27 countries is not being considered. This thesis aims to study the effect women's rights within the EU-27 countries have on the migration patterns of women migrating to a different country within the European Union. The following research question has been formulated: "To what extent do women's rights affect female emigration patterns within the European Union?"

To be able to answer the main research question, the following sub-questions are of importance:

- What components play a role in women's rights within the different EU-27 countries?
- Do women's rights play a more significant role in deciding to emigrate within different age groups?

The remaining of this paper has been divided into four more chapters. Firstly, in the theoretical framework, multiple migration theories are discussed. Furthermore, the literature review presents previous research on migration and women's rights within the European Union. This is followed by the methodology, in which the data gathering is explained and variables are laid out. A linear regression analysis has been conducted to see if there is a significant relation between multiple women's rights variables and female emigration patterns within the EU-27 countries. These results will be explained and connected to the literature discussed in the literature review. In the conclusion, a further interpretation of these results regarding the sub-questions and the research question is made.

2. Theoretical Framework

2.1 Literature Review

When it comes to studying migration from a life course perspective, four general processes have been identified. They were summarised notably by Kulu et al. (2005) in the context of fertility, but they apply to many different outcomes. The four general processes are socialisation, adaption, selection, and disruption. One crucial point raised within the general process of selection is that migrants are often not representative of their home society, meaning that they are selected along different dimensions. People who migrate are thus different from those who stay. At a later point, they might change their behaviour, but within the frame of the selection process, those that migrate are not representative of their home society. They migrate towards a location with similar beliefs and/or customs to the person intending to migrate.

As previous research has shown, women are more likely to migrate toward a destination where she connects more to the inhabitants at the destination location (Kulu, 2005). Following this hypothesis, women are more likely to migrate to areas where their beliefs and goals are mirrored. In the case of this research, this goal would be the desire for gender equality.

Migration is a phenomenon that has long existed for a substantial period of time, as well as the study of migration. However, the connection between migration and gender was not made until 1885, by Ravenstein, in his seven "laws of migration". Law number five states that "females appear to predominate amongst short journey migrants" (Ravenstein, 1885). Even though this marks the beginning of the connection between gender and migration, research on the migration of women has explicitly not taken off before the second half of the last century. For decades it was presumed that women predominantly migrated to follow their (male) spouse, migrating as one's wife, mother, or daughter (Oishi, 2002). In the case women migrated independently, it was presumed they followed the same motives as their male counterparts. However, very little research has been conducted on female migration compared to male migration. Even for some decades, female migrants have already made up half of the migrant stock, and this number has been increasing (Ruyssen et al., 2018).

Recent studies on female migration have shown a certain degree of gender inequality and discrimination regarding migration patterns (Ruyssen et al., 2018). Gender discrimination in the home country is one of the main reasons why females form an intention to migrate. Ruyssen et al. (2018) found that women who feel like there is a great deal of gender discrimination in their country, such as not feeling treated with respect and dignity, have a higher intention of migrating. Especially high-skilled, younger females living in urban areas have a higher chance of feeling more discriminated against, leading to a higher chance of developing intentions to migrate (Ruyssen et al., 2018). Not only gender discrimination plays a role in the intention of migrating but also the level of education and the annual wage can play a role in this, as women, on average, still earn less than their male counterparts (Bang et al., 2011). Looking into the pay gap within the European Union, the average gender pay gap between men and women was 13% in 2020 (Eurostat, 2020). Women's average gross hourly earnings were 13% below men's in the European Union. This percentage differs per member state, with the lowest gender pay gap being Luxembourg (0,7%) and the highest member state Latvia with 22,3% (Eurostat, 2020). Within the European Union, there is thus still a lot of inequality between males and females, which could be a driver behind migration intentions.

For mainly highly educated women, this gender pay gap could be a reason to migrate to a different country, contributing to the brain drain of the country of origin. Bang et al. (2011)

state that this brain drain is largest in countries where women have lower education and higher fertility. Predominantly less developed countries. In these countries, women still face unequal access to tertiary education. If those who do obtain tertiary education relocate to different countries, they will be overrepresented in the total (male and female) brain drain (Docquier et al., 2009). Based on the dataset of Docquier et al. (2009), even in 88 percent of non-OECD countries, female migration rates are higher than male migration rates. The female brain drain rates are, on average, even 17 percent higher than men. Even though these percentages are based on non-OECD countries, they show the large-scale female migration taking place worldwide.

Female migration holds a solid relation to women's rights. According to Nejad (2013), this relation differs whether a country holds initially low or high levels of women's rights. At initially low levels, increases in women's rights increase the female brain drain. At initially high levels of women's rights, increasing rights decreases the female brain drain. According to the existing literature, female brain drain thus holds a quantitatively meaningful connection to women's rights. These rights exist, among others, as civil, economic, and political rights.

Most of the research on the drivers of female migration has been conducted on the world stage but not within the European Union. To assess these factors, the history of the European Union first has to be examined, which explains how these differences got into place. The European Union is one of the world's most developed regions. However, among the members of the EU, there are substantial differences regarding women's rights. These differences are evident in different quantities in countries that, until 1989, belonged to or had strong relations with the Soviet Union and its communism. These countries are Poland, Hungary, Slovakia, Romania, Bulgaria, Estonia, Latvia, Lithuania, and the Czech Republic. Before these countries could enter the European Union, they had to fulfil accession requirements set by the European Commission (Avdyeva, 2015). These accession requirements consisted of thirty-five chapters of the European Community Law. This included ten directives on gender equality in the workplace and social security calculation (Avdyeva, 2015). Among all twenty-seven member states, these ten directives are implemented into the national law, forming a legal gender equality basis. Other laws on gender equality and women's rights differ per member state.

Political representation and position of power have been a domain in which males have been significantly overrepresented since the beginning of democracies (Celis, K., Lovenduski, J. 2018). However, the share of women in politics and positions of power has increased very slowly. The European Institute for Gender Equality (EIGE) publishes an annual index of seven domains on a scale from 0 to 100. The domain of power consists of women's political representation and share of power. Since 2010, the domain of power has increased by 13.1 points (EIGE, 2021). However, the domain of power still scores the lowest of the seven, with only 55 points. This means that within this domain, gender inequalities are the largest. With only 30% of board members among the largest EU companies being women and women accounting for only one in three members of EU national parliaments (Gender Equality Index, 2021), a long road to gender equality is ahead of us.

Political representation and position of power are important factors in gender equality and female safety. Violence against women is a very broad phenomenon, ranging from verbal harassment to assault to femicide. Actual factual numbers on violence against women are inconsistent, as much violence stays unreported. However, data collected throughout surveys conclude that among the EU-27 countries, over 39% of women in all age groups have experienced harassment in the previous five years before the survey of 2019 (Gender Equality

Index, 2021). Harassment is thus present at a large scale within the EU. Not only on the streets but also at work, home, nightclubs and more.

A more severe form of violence against women is femicide. EIGE defines femicide as '(the) killing of a woman by an intimate partner and the death of a woman as a result of a practice that is harmful to women' (EIGE, 2016). In 2018, in 14 member states, 600 women had been murdered by an intimate partner/family member (Gender Equality Index, 2021). All the aspects of violence against women could form a legitimate reason for women to migrate to a different country, with a lower risk of becoming a victim of violence.

The United Nations has included female safety and migration in their development goals for 2030 (United Nations). At the global compact of migration held in 2017, the countries within the UN decided to adjust policies to empower women's positions. They included: "Develop gender-responsive, human rights-based migration policy without delay, which recognises the agency of women in migration, promotes their empowerment and leadership and moves away from addressing migrant women primarily through a lens of victimhood." (UN Migration, 2017).

2.2 Conceptual Model

In figure 1, the conceptual model used for this research is presented. The main research question is if there is a relationship between women's rights and women's emigration patterns within the EU-27 countries. Women's right is subdivided into three main categories: civil liberties, politics, and economics. These categories are divided into subcategories: individual women's rights, female representation, political rights, income, and education. According to the literature, each of these subcategories affects equality within a country. For example, the higher the female representation within politics, the higher the chance that that country has greater equality between men and women. The relation between these subcategories and women's emigration rate is being tested within the analysis. To indicate to what extent, they influence migration patterns of female inhabitants of the EU-27 countries.

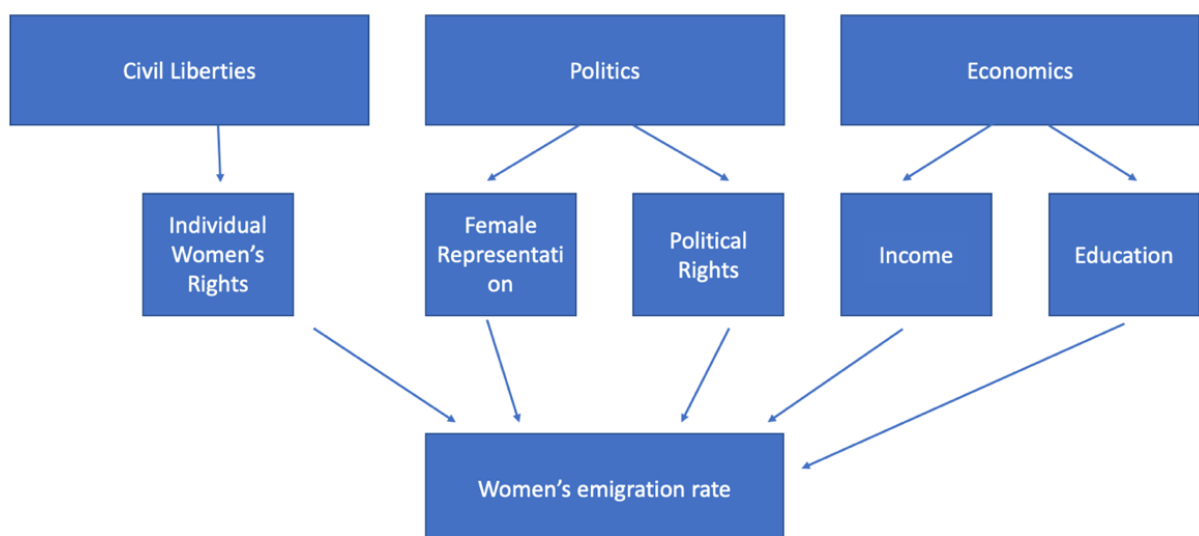


Figure 1: Conceptual Model

3. Methodology

3.1 Data

The research will be conducted using a quantitative research method. Due to the type of research question and area of research with a qualitative method, this research could not be conducted with the measures and time available. Due to these conditions, primary data collection was not an option. Therefore, secondary data sources have been utilized. Within this thesis, the distinction between two genders, male and female, has been made. This is due to the fact that the collected data makes the distinction between only males and females.

This data has been extracted from multiple datasets and combined into a specific dataset for this research-specific dataset. The dependent variable for this research is the age-standardized out-migration rate (ASOR), focusing on the female emigration for the age group 25-64. The independent variable is the women's rights variable, divided into multiple variables. The datasets used have been retrieved from the Gender Equality Index (2021), the standardized European population (2013), and the Eurostat migration database (Eurostat, 2020). All of which are publicly available for the retrieval of data.

Dependent variable

The dependent variable is thus the age-standardized out-migration rate (ASOR). The choice has been made to look into the age group 25-64, the female working population, excluding students. The dependent variable is the female migration numbers. To see if there is a significant change between the younger female working population (age 25-44) and the older female working population (age 45-64), separate variables have been tested. The ASOR consist of the following components: The crude emigration rate, calculated by dividing the absolute emigration numbers of a given country by the absolute female population of the same given country. The crude rate then is multiplied by the standardized European population, resulting in the ASOR.

For the ASOR, three separate variables have been made, divided by age.

1. ASOR per EU-27 country, ages 24-44.
2. ASOR per EU-27 country, ages 45-64.
3. ASOR per EU-27 country, ages 24-64 (1+2)

The ASOR does not contain a value for all EU-27 countries. Due to certain countries not reporting their absolute emigration numbers to Eurostat. No data was available for the following five countries, excluding them from the analysis: Austria, Slovenia, Malta, Greece, and Romania.

Independent variables

The independent variables capture women's rights. This concept has been divided into multiple variables, each implying a different aspect of women's rights. Thus, there is no variable named women's rights, as it is divided into separate variables.

Gender Equality Index

The Gender Equality Index (2020) is based on six different domains, measuring gender equality. The following domains are included in the index: the domain of work, the domain of money, the domain of knowledge, the domain of time, the domain of power, and the domain of

health. Together, these domains form the gender inequality index. This index is based on a score between 0-100, with 0 meaning the largest inequality and 100 meaning no inequality. The average of the EU in 2020 was 67.4, an increase of 0.5 points from 2019.

The gender equality index is a ratio variable which can be used as an explanatory variable.

Gender Equality Power Index

Gender equality within the domain of power is an important indicator of gender equality. The more equality between positions of power, the more gender equality can be achieved in all aspects of society. The domain of power is part of the gender equality index, meaning it is also being measured through this variable. However, the decision was made to include it as a separate variable in the analysis due to its importance. The power index follows the same structure as the gender equality index, meaning the scores are assigned equally.

Female share of members of parliament (%)

The female share of members of parliament (%) is a variable indicating the division of male and female members of parliament. This variable falls under the gender equality power index, as equal distribution of gender within parliament results in an equal society. Due to its importance, however, this separate variable has also been included in the analysis.

Life expectancy at birth

The life expectancy at birth variable is a variable indicating the difference between the life expectancy between males and females in 2020. Through this, the difference in life expectancy for both genders is being addressed. The variable is calculated in the following manner: life expectancy male – life expectancy female.

Expected years of schooling

The expected years of schooling variable indicates the difference between the expected years of schooling for males minus the expected years of schooling for females in 2020.

Estimated female GNI per capita

The estimated female gross national income (GNI) per capita variable displays the GNI per capita per EU-27 country. The variable will be used as a control variable for women's rights. As the GNI is highly correlated with women's rights, the analysis will test if there is a correlation with the emigration pattern.

Human Development Index

The human development index is composed of life expectancy, education, and per capita income indicators. The index is calculated upon the entire country's population, with no distinction between genders. Within this analysis, all three components are tested separately in the previous variable. However, these variables are focused on the female aspect. Thus, the HDI is added to the analysis, marking the relation for the entire population.

Political rights score

The Freedomhouse (2020) dataset conducts the political rights score variable. This score is based on ten questions regarding the political rights of each country in the world. On these ten questions, a maximum score of 40 can be achieved. The higher the score, the higher the country's political rights level.

Civil liberties score

The Freedomhouse (2020) dataset conducts the civil liberties score variable. This score is based on fifteen questions regarding the civil liberties within each country. On these fifteen questions, a maximum score of 60 can be achieved. The higher the score, the higher the level of civil liberties in a country.

All variables are clustered variables for the EU-27 countries. The possible relation to the country in question can thus be tested.

3.2 Instruments

The number of cases in this analysis is 27, the number of countries within the European Union. Even though the number of cases is relatively small a significance level of 5% was selected to measure the relation between the dependent and the independent variables.

The analysis will be conducted through a multiple linear regression, to predict if there is a significant relation between multiple independent variables and the dependent variable.

For this linear regression analysis, the following hypothesis were formulated

H0: In the population there is no relation between female emigration within EU-27 countries and women's rights variables.

H1: In the population there is a relation between female emigration within EU-27 countries and women's rights variables.

3.3 Ethical Considerations

Regarding the data collection, there are no large ethical considerations. All data has been publicly deprived for multiple databases; the data thus does not contain any privacy-sensitive information. Security concerns are thus not applicable.

This study examines the possible linkages between women's rights and migration patterns within the EU-27 countries. As I identify as female and inhabit an EU-27 country, there is a possible bias within the research. Therefore, personal opinions and considerations are involved, even though within this thesis, the aim is to be as unbiased as possible. However, this factor can be considered as there is a personal connection to the research

4. Results

A linear regression analysis was conducted to answer the research question. For this analysis the H0 hypothesis was phrased as follows: In the population there is no relation between female emigration within EU-27 countries and women’s rights variables.

The linear regression analysis was conducted three times, with three different dependent variables. ASOR age 25-44, ASOR age 45-64, and lastly ASOR age 25-64. The regression was conducted against the following independent variables: HDI, Gender Equality Index, Gender Equality Power Index, female share of members of parliament (%), life expectancy at birth, expected years of schooling, estimated GNI per capita female, political rights score, and civil liberties score.

The first linear regression analysis was used to test if the dependent variable ‘ASOR age 25-44’ holds a significant relation to the nine independent variables. The overall regression for this analysis was statistically significant, with a significance of 0.016 (see table 4 in the appendix). Table 1 shows the coefficients for the separate independent variables. Of these variables, under a significance of 5%, two independent variables are significant for the dependent variable ASOR age 25-44. The HDI variable has a significance of 0.013, the estimated female GNI per capita has a significance of 0.008. The null hypothesis can be rejected for these two variables, as with 95% certainty there is a relation between these two independent variables and the dependent variable. The other seven independent variables all hold a significance level well over $P > 0.005$, indicating that there is no relation. Resulting in the acceptance of the null hypothesis.

		Coefficients ^a				
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-802.016	537.340		-1.493	.210
	HDI	9.567	2.233	.998	4.285	.013
	Gender Equality Index	-4.453	8.395	-.279	-.530	.624
	Gender Equality Index Power Domain	3.710	4.142	.446	.896	.421
	Female share of members of parliament (%)	-7.927	7.974	-.525	-.994	.376
	Life expectancy at birth (Male – female)	4.895	21.699	.068	.226	.833
	Expected years of schooling (male-female)	25.523	43.691	.134	.584	.590
	Estimated GNI per capita Female	.020	.004	1.606	4.847	.008
	Political Rights Score Overall	-7.831	22.806	-.193	-.343	.749
	Civil Liberties score	11.191	16.810	.390	.666	.542

a. Dependent Variable: ASOR Age 25-44

Table 1: Linear regression Coefficients ASOR Age 25-44

The second linear regression analysis was used to test if the dependent variable ASOR age 45-64 holds a significant relation to the nine independent variables. The overall regression for this analysis was statistically significant, with a significance of 0.047 (see table 5 in the appendix). Table 2 shows the coefficients for the nine independent variables. Again, two independent variables are significant under a 5% significance. The HDI variable has a significance of 0.030,

the estimated female GNI per capita a significance of 0.017. The null hypothesis can be rejected for the HDI and the GNI variable. Indicating that with a 95% certainty there is a relation between the ASOR age 25-44 and the HDI as well as the estimated female GNI per capita. For the remaining seven independent variables $P > 0.05$, meaning that with a 95% certainty there is no relation between ASOR age 25-44 and the remaining independent variables. Resulting in the acceptance of the null hypothesis.

		Coefficients ^a				
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-284.880	309.630		-.920	.410
	HDI	4.248	1.287	1.021	3.302	.030
	Gender Equality Index	-6.242	4.838	-.901	-1.290	.266
	Gender Equality Index Power Domain	2.962	2.387	.820	1.241	.282
	Female share of members of parliament (%)	-2.509	4.595	-.383	-.546	.614
	Life expectancy at birth (Male - female)	-3.727	12.503	-.119	-.298	.780
	Expected years of schooling (male-female)	3.062	25.176	.037	.122	.909
	Estimated GNI per capita Female	.009	.002	1.739	3.953	.017
	Political Rights Score Overall	-11.450	13.142	-.651	-.871	.433
	Civil Liberties score	11.255	9.686	.903	1.162	.310

a. Dependent Variable: ASOR Age 45-64

Table 2: Linear regression Coefficients ASOR age 45-64

The third linear regression analysis was used to test if the dependent variable ASOR age 25-64 holds a significant relation to the nine independent variables. The ASOR 25-64 variable contains the entire researched population, contrary to ASOR 25-44 and ASOR 45-64 which only pertain a section of the researched population. The overall regression for this analysis was statistically significant, with a significance of 0.023 (see table 6 in the appendix). Table 3 shows the coefficients for the nine independent variables. As with the two previous analysis, two independent variables are significant under a 5% significance. The HDI variables has a significance of 0.017, the estimated female GNI per capita a significance of 0.010. The null hypothesis can be rejected for the HDI and the GNI variable. Indicating that with a 95% certainty there is a relation between the ASOR age 25-64 and the HDI as well as the estimated female GNI per capita. For the remaining seven independent variables $P > 0.05$, meaning that with a 95% certainty there is no relation between ASOR age 25-64 and the remaining independent variables. Resulting in the acceptance of the null hypothesis.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1086.896	841.624		-1.291	.266
	HDI	13.816	3.498	1.009	3.950	.017
	Gender Equality Index	-10.695	13.149	-.469	-.813	.462
	Gender Equality Index Power Domain	6.671	6.487	.562	1.028	.362
	Female share of members of parliament (%)	-10.436	12.490	-.484	-.836	.450
	Life expectancy at birth (Male - female)	1.168	33.986	.011	.034	.974
	Expected years of schooling (male-female)	28.584	68.432	.105	.418	.698
	Estimated GNI per capita Female	.029	.006	1.653	4.549	.010
	Political Rights Score Overall	-19.281	35.721	-.333	-.540	.618
	Civil Liberties score	22.446	26.329	.547	.853	.442

a. Dependent Variable: ASOR Age 25-64

Table 3: Linear regression Coefficients ASOR age 25-64

Looking at the results of the analysis only two independent variables hold a significant relation to the dependent variables. The HDI variable as previously explained consist of the life expectancy at birth, education, and per capita income. Contrary to the other independent variable this variable consists of information regarding both men and women. This could indicate why the two out of three separate variables focusing on the female aspect of the HDI components are not significant for a significance of 5%. The human development of the population in total thus plays an effect on the emigration rate of women between the age 25-64. Whereas the human development indicators of the difference between men and women do not hold a significant relation for the variables of education and life expectancy at birth.

The second independent variable that in all three analyses had a significant result is the estimated female GNI per capita. Only this component of the human development index, focus on the female aspect, is significant on its own. This is in line with the existing literature on the connection between the estimated female GNI per capita and female migration (Bang et al, 2011). As on average women still earn less than their male counterpart, mostly highly educated women are more likely to migrate. However, the difference in expected years of schooling between men and women variable is not significant. Indicating that a high expected years of schooling for women does hold a relation to emigration, but the difference in expected years of education between men and women does not hold a relation to the female emigration numbers.

5. Conclusion

The research conducted aimed to answer whether there is a significant relationship between multiple aspects of women's rights and the age-standardised emigration rates for the EU-27 countries. Existing literature has proven that women have different migration patterns than men. As for decades, it was presumed that women predominantly migrated to follow their (male) spouse, migrating as one's wife, mother, or daughter (Oishi, 2002). However, women's rights in the country of residence have proven to affect the migration patterns of females in these countries (Nejad, 2013). The migration pattern strongly differs whether a country holds initially low or high levels of women's rights. These women's rights are connected to gender inequality and discrimination regarding the migration patterns, in research conducted by Ruysen et al. (2018). However, this study was conducted in a large number of countries worldwide. Within the analysis conducted in this paper on the EU-27 countries, gender inequality was proven not to be significant for the emigration patterns of women aged 25-64. A possible reason for this result is that, on average, gender equality within EU-27 countries is relatively high compared to the world's average.

A component in women's rights is significant according to existing literature and within the conducted regression analysis as well as the estimated female GNI per capita. Within the EU, there is still a large gender pay gap, averaging 13% in 2020 (Eurostat, 2020). Meaning women, on average, earned 13% less than their male counterparts. The estimated female GNI per capita variable was proven to be significant for all three dependent variables, indicating it relates to the age-standardised outmigration rate for women aged 25-64. The human development index, calculated using numbers regarding both genders, was the other independent variable implying a significant relation to the ASOR age 25-64.

The linear regression analysis was conducted three separate times. In each, the dependent variable consisted of a different age group. Most independent variables displayed a lower significance level for the age group 25-44. Indicating that the components of women's rights played a larger role in the decision to emigrate to a different country for females within the age group 25-44, compared to the age group 45-64.

Coming back to the main research question, for only two components of women's rights, a significant relationship can be indicated to affect female emigration patterns within the European Union. This is the HDI and the estimated female GNI per capita. However, the number of cases within this research was relatively low. Thereby, compared to the world average of women's rights, the countries within the European countries score relatively high. Components of women's rights thus might play a smaller role than initially presumed within this research.

Further research on the connection between women's rights and female migration within the European Union could be conducted, focusing on the migration intention of females within the EU. Within this research, absolute migration numbers were used, meaning only females who completed their migration were implemented in the analysis. Analysing the intention to migrate instead of the actual migration, women's opinions and feelings regarding women's rights and gender equality can be included in the analysis.

References

- Avdayeva, O., 2016. *Defending women's rights in Europe*. New York: State University of New York.
- Bang, J. and Mitra, A., 2011. Gender bias and the female brain drain. *Applied Economics Letters*, 18(9), pp.829-833.
- Celis, K. and Lovenduski, J., 2018. Power struggles: gender equality in political representation. *European Journal of Politics and Gender*, 1(1-2), pp.149-166.
- Docquier, F., Lowell, B. L., & Marfouk, A. (2009). A gendered assessment of the brain drain. *Population and Development Review*, 35(2), 297-321
- Ec.europa.eu. (2022). Gender pay gap statistics. [online] Available at: <https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Gender_pay_gap_statistics#Gender_pay_gap_levels_vary_significantly_across_EU> [Accessed 30 May 2022].
- EIGE (2021). *Gender Equality Index 2021, Health*. European Institute for Gender Equality.
- European Institute for Gender Equality (2021). *Gender Equality Index 2021: Health*. EIGE
- European Institute for Gender Equality. (2016). *femicide*. [online] Available at: <<https://eige.europa.eu/thesaurus/terms/1128>> [Accessed 30 May 2022].
- Freedomhouse (2022). *Freedom in the world report* Available at: <https://freedomhouse.org/reports/freedom-world/freedom-world-research-methodology> [Accessed on May 20th, 2022]
- Iom.int. 2022. *Global Compact for Migration | IOM, UN Migration*. [online] Available at: <<https://www.iom.int/global-compact-migration>> [Accessed 3 March 2022].
- Kenny, C., O'Donnell, M. (2016). *Why Increasing Female Migration from Gender Unequal Countries is a Win for Everyone*. Center for Global Development
- Kulu, H. (2005). Migration and fertility: Competing hypotheses re-examined. *European Journal of Population*, 21(1), 51-87.
- Naghsh Nejad, M., 2014. Institutionalized Inequality and Brain Drain: An Empirical Study of the Effects of Women's Rights on the Gender Gap in High-Skilled Migration. *SSRN Electronic Journal*.
- Oishi, N. (2002). *Gender and Migration: An Integrative Approach*. UC San Diego: Center for Comparative Immigration Studies. Retrieved from <https://escholarship.org/uc/item/0s04g29f>
- Ravenstein, E.G. (1885), « The Laws of Migration », *Journal of the Royal Statistical Society*, XLVIII, 2, pp 167-227.

Ruysen, I. Salomone, S (2018). Female migration: A way out of discrimination? Journal of Development Economics, 130, 224-241

UN Women – Headquarters. 2022. Recommendations for addressing women's human rights in the global compact for safe, orderly, and regular migration. [online] Available at: <<https://www.unwomen.org/en/digital-library/publications/2017/3/addressing-womens-rights-in-global-compact-for-migration>> [Accessed 3 March 2022].

Data retrieved from:

EIGE (2020). Gender Equality Index data from 2013-2021. Electronic dataset. European Institute for Gender Equality. Retrieved from:< <https://eige.europa.eu/gender-equality-index/2020>>

Eurostat (2013). Revision of the European Standard Population. report of Eurostat’s task force – 2013 edition. Available at: <https://ec.europa.eu/eurostat/documents/3859598/5926869/KS-RA-13-028-EN.PDF.pdf/e713fa79-1add-44e8-b23d-5e8fa09b3f8f?t=1414782757000> [Accessed 14-05-2022]

Eurostat (2020) Population on 1 January by age group and sex. Available at: https://ec.europa.eu/eurostat/databrowser/view/DEMO_PJANGROUP_custom_2907035/default/table?lang=en. Accessed on: 13-05-2022

Freedomhouse (2020). Freedom in the World Report. Retrieved from <<https://freedomhouse.org/report/freedom-world>>

Appendix

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.981 ^a	.962	.877	52.31538

a. Predictors: (Constant), Civil Liberties score, Expected years of schooling (male-female), Gender Equality Index Power Domain, Life expectancy at birth (Male - female), Estimated GNI per capita Female, HDI, Female share of members of parliament (%), Gender Equality Index, Political Rights Score Overall

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	278681.201	9	30964.578	11.314	.016 ^b
	Residual	10947.596	4	2736.899		
	Total	289628.797	13			

a. Dependent Variable: ASOR Age 25-44

b. Predictors: (Constant), Civil Liberties score, Expected years of schooling (male-female), Gender Equality Index Power Domain, Life expectancy at birth (Male - female), Estimated GNI per capita Female, HDI, Female share of members of parliament (%), Gender Equality Index, Political Rights Score Overall

Table 4. ANOVA results linear regression ASOR age 25-44

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.966 ^a	.933	.783	30.14552

a. Predictors: (Constant), Civil Liberties score, Expected years of schooling (male-female), Gender Equality Index Power Domain, Life expectancy at birth (Male - female), Estimated GNI per capita Female, HDI, Female share of members of parliament (%), Gender Equality Index, Political Rights Score Overall

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	50914.519	9	5657.169	6.225	.047 ^b
	Residual	3635.009	4	908.752		
	Total	54549.528	13			

a. Dependent Variable: ASOR Age 45-64

b. Predictors: (Constant), Civil Liberties score, Expected years of schooling (male-female), Gender Equality Index Power Domain, Life expectancy at birth (Male - female), Estimated GNI per capita Female, HDI, Female share of members of parliament (%), Gender Equality Index, Political Rights Score Overall

Table 5: ANOVA results linear regression ASOR age 45-64

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.977 ^a	.955	.852	81.94044

a. Predictors: (Constant), Civil Liberties score, Expected years of schooling (male-female), Gender Equality Index Power Domain, Life expectancy at birth (Male - female), Estimated GNI per capita Female, HDI, Female share of members of parliament (%), Gender Equality Index, Political Rights Score Overall

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	563497.541	9	62610.838	9.325	.023 ^b
	Residual	26856.945	4	6714.236		
	Total	590354.485	13			

a. Dependent Variable: ASOR Age 25-64

b. Predictors: (Constant), Civil Liberties score, Expected years of schooling (male-female), Gender Equality Index Power Domain, Life expectancy at birth (Male - female), Estimated GNI per capita Female, HDI, Female share of members of parliament (%), Gender Equality Index, Political Rights Score Overall

Table 6: ANOVA results linear regression ASOR age 25-64