

# The quality of institutions in shaping women's entrepreneurship: A perspective of European Union member states

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## ABSTRACT

**Objective:** The objective of the article is to investigate the influence of the quality of institutions on women's entrepreneurship from the perspective of European Union (EU) member countries. Quality of institutions is understood as a feature of a well-functioning society and it is considered from four dimensions.

**Research Design & Methods:** Based on the panel data for 27 EU member countries in the years 2009 to 2021, we estimate the model of women's entrepreneurship as a dependent variable and four dimensions of institutional quality as independent variables, namely, quality of public governance, quality of wealth distribution, quality of youth perspectives, and quality based on gender.

**Findings:** The results confirm the mixed effects of institutional quality in shaping women's entrepreneurship. Failures in quality of governance in the aspects of control of corruption, government effectiveness, political stability and absence of violence, and Gini coefficient, can push women into entrepreneurship instead of paid employment as necessity-driven motivators. Aspects of institutional quality such as gender-based political and managerial empowerment, citizens' voices and accountability, and inclusion of younger generations in society act as opportunity-driven enablers of women's entrepreneurship.

**Implications & Recommendations:** The mixed effects of the impact of the quality of institutions on women's entrepreneurship indicate the challenges in combining the goals of reaching well-structured societies and reducing the gender gap in entrepreneurship. To overcome these challenges, policymakers and other stakeholders should focus on opportunity-driven enablers of women's entrepreneurship such as gender-based political and managerial empowerment, citizens' voices and accountability, and inclusion of younger generations in the society.

**Contribution & Value Added:** The novelty of the article lies in the proposed various dimensions of institutional quality: quality of public governance, quality of wealth distribution, quality of youth perspectives, and based on gender. The research results contribute to the theory of entrepreneurship, institutional theory, and gender studies by investigating the impact of various dimensions of quality of institutions on women's entrepreneurship. The mixed explanatory power of institutional quality in shaping women's entrepreneurship is discovered, with respect to both the opportunity-driven enablers and the institutional failures impacting women.

**Article type:** research article

**Keywords:** women's entrepreneurship; quality of institutions; entrepreneurial enablers; European Union countries; panel regression

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## INTRODUCTION

Despite the progress made in achieving gender equality, entrepreneurship still exhibits a persistent gender gap (Delmar & Davidsson, 2000; Mustafa & Treanor, 2022; Ughetto *et al.*, 2020), and the explanation of women's entrepreneurship is often rooted in institutional theory (Gimenez-Jimenez *et al.*, 2020; Hägg *et*

*al.*, 2023), particularly in informal institutions, regarding aspects such as national culture or gendered roles. Further, entrepreneurship is often seen as a stereotypically masculine occupation (Jones *et al.*, 2019; Williams & Patterson, 2019), which can act as a barrier preventing women from entering that domain.

The institutions play a pivotal role in shaping entrepreneurship at the societal level (Boudreaux & Nikolaev, 2019), and the quality of institutions, which refers to the well-functioning society (Thai & Turkina, 2014), creates the surroundings for entrepreneurs to operate in. The reason for exploring the role of institutions refers to the dual position of entrepreneurs: their autonomy as individual actors (Markowska *et al.*, 2019), and their interactions with the institutional environment during the entrepreneurial process (Su *et al.*, 2019). Following the narrow understanding of entrepreneurship as ‘running one’s own business’ (Pardo & Ruiz-Tagle, 2017), we operationalised women’s entrepreneurship in this article as the share of women among entrepreneurs as a whole (Gawęł & Mroczek-Dąbrowska, 2022).

To go beyond the state-of-the-art in understanding the societal impact, this article follows the recognition of different responses of women and men to the institutional environment (Dheer *et al.*, 2019; Gawęł & Toikko, 2023), and aims to explore the influence of quality of institutions on women’s entrepreneurship. We contribute to the field of entrepreneurship theory, institutional theory, and gender studies by implementing the various dimensions of quality of institutions, namely quality of public governance, quality of wealth distribution, quality of youth perspectives, and quality based on gender. These dimensions reflect both norms and values, as well as gender-neutral aspects of institutions, and aspects specifically related to women. By proposing different dimensions of institutional quality, we aim to respond to the suggestion of incorporating the interdependence of institutional conditions on women’s entrepreneurship (Xie *et al.*, 2021). The main value added to this study lies in examining the impact of various dimensions of institutional quality on women’s entrepreneurship. Based on panel data for the European Union (EU) member states, we investigated the significance of institutions’ quality as predictors of women’s entrepreneurship.

The remainder of the article proceeds as follows. It will begin with a review of the literature, which presents a theoretical discussion on institutions in shaping women’s entrepreneurship, followed by an explanation of the research method. Subsequently, we will present the results, discuss them, and conclude with implications.

## LITERATURE REVIEW

### Institutions Underlying Entrepreneurship

The perspective of a sociological theorist, Talcott Parsons (1902-1979) (Parsons, 1956), regarding organisations as components of a broader social system, affirms the necessity for organisations to establish a suitable relationship with society (David *et al.*, 2019; Meyer & Rowan, 1977).

Despite operating as independent agents, navigating uncertainty and subjective risk perceptions (Markowska *et al.*, 2019; Wach & Głodowska, 2022), entrepreneurs need to adjust to their societal environment. Consequently, the institutional context significantly influences entrepreneurial activity (Aparicio *et al.*, 2016; Saunoris & Sajny, 2017; Boudreaux & Nikolaev, 2019), and the diversity of entrepreneurship outcomes among countries can be explained by the differences in institutional contexts (Dilli *et al.*, 2018). When referring to Baumol’s (1996) concept of types of entrepreneurship, in countries with weak institutions, unproductive or even destructive entrepreneurship dominates, while in countries with strong institutions, productive entrepreneurship dominates (Acs *et al.*, 2018; Nair & Njolomole, 2020). Failures of formal institutions or the asymmetry between formal and informal institutions are related to the size of informal entrepreneurship (Williams & Bezeredi, 2018; Shahid *et al.*, 2022).

In the realm of institutional theory, scholars examine entrepreneurship through various approaches (Scott, 1995), mainly in differentiating between formal and informal institutions (Omri, 2020), or within the regulative, normative, and cognitive pillars (Estrin & Mickiewicz, 2011). Scott (1995) identified three institutional pillars influencing entrepreneurial activity (Meyer & Rowan, 1977): the regulative pillar assumes entrepreneurs follow state-created rules, the normative pillar drives entrepreneurs to adhere to broader societal norms and values, and the cognitive pillar stems from observing and collectively participating in organisational behaviour, fostering entrepreneurs’ interaction

with the society (Bosma *et al.*, 2018). Another attitude towards institutions is their division into formal and informal, thus affecting entrepreneurship (Stiglitz, 2000). Specifically, formal institutions include rules and regulations established to shape the economic and legal structure of a society, while informal institutions encompass traditions, values, societal norms, and unwritten codes of behaviour (Estrin & Mickiewicz, 2011; Williams & Shahid, 2016; Wu & Li, 2019).

The existing norms and values, to which entrepreneurial endeavours conform, determine the legitimacy of the state in influencing entrepreneurship (Scott, 1995). Aspects such as the rule of law, political stability, the absence of violence, and accountability contribute to the quality of governance in a well-structured society, thereby fostering an environment that is conducive to entrepreneurship (Raza *et al.*, 2019; Thai & Turkina, 2014; Stuchly *et al.*, 2023). Norms serve to establish societal predictability, a crucial facet of successful societies. Enhanced organisation within a society leads to better internalisation of its rules, thus fostering economic growth (Temple, 1999; Shchegolev & Hayat, 2018). Values are intertwined with social responsibility at the state level in varying ways (Esping-Andersen, 1998; Schwartz, 2012; Scruggs & Ramalho Tafoya, 2022).

Due to contributing to enhanced company productivity, reduced transaction costs, increased returns on investment, and reduced uncertainty levels (Dorożyński *et al.*, 2020), the norms signifying the quality of governance are considered as predictors of entrepreneurship (Raza *et al.*, 2019). The relative costs and benefits of entrepreneurship can be influenced by values (Saunoris & Sajny, 2017), as these values affect the entrepreneurial environment (Bruton *et al.*, 2010). In turn, this impacts the comparative advantage of entrepreneurship versus paid employment.

### **Women's Entrepreneurship From an Institutional Perspective**

Despite progress in achieving gender equality through enhanced women's workforce participation (Alsos *et al.*, 2016; Madsen & Scribner, 2017), entrepreneurship still exhibits a consistent gender gap in many countries. Gender is a robust predictor of nascent entrepreneurship; in that, women are less likely to establish and run their own companies (Delmar & Davidsson, 2000; Mustafa & Treanor, 2022; Ughetto *et al.*, 2020; Prabhu *et al.*, 2023). Compared to male-led businesses, women's companies are predominantly smaller, have lower growth aspirations (Reichborn-Kjennerud & Svare, 2014), are less profitable, possess limited access to external financial capital (Coleman & Robb, 2009; Morazzoni & Sy, 2022; Pistilli *et al.*, 2022), and operate within traditional women-dominated sectors (Damelang & Ebersperger, 2020; Gawel & Mroczek-Dąbrowska, 2022). More often women are negatively motivated by necessity-driven factors rather than opportunity-driven factors when becoming entrepreneurs (Martínez-Rodríguez *et al.*, 2022).

Although the multiple embeddedness of women when becoming entrepreneurs is recognised (Ojong *et al.*, 2021), scholars often use institutional theory as a lens serving to explain the gender gap in entrepreneurship (Gimenez-Jimenez *et al.*, 2020; Hägg *et al.*, 2023; Noguera *et al.*, 2015; Webb *et al.*, 2020; Wu & Li, 2019). Perspectives on institutions are employed to explain women's participation in entrepreneurship, drawing from the regulatory, normative, and cognitive pillars of institutions (Bui *et al.*, 2018), and the concept of formal and informal institutions (Wu & Li, 2019). The explanation that is most often used is 'stereotypes of entrepreneurship' but these stereotypes are associated with masculinity and individualism, and they are rooted in the perspective of national culture as an informal institution (Gimenez-Jimenez *et al.*, 2020; Jones *et al.*, 2019; Williams & Patterson, 2019; Xie *et al.* 2021). Gender-related stereotypes reduce women's participation in entrepreneurship (Anambane & Adom, 2018; Naguib & Jamali, 2015; Van Ewijk & Belghiti-Mahut, 2019). Gender differences in entrepreneurship are often attributed to women's domestic responsibilities (Pérez-Pérez & Avilés-Hernández, 2016). For instance, high fertility rates negatively affect women's entrepreneurship (Dutta & Mallick, 2018).

To go further with understanding the societal impact, we aimed to explore how women entrepreneurs adapt to the quality of institutions, by following the institutional framework to explain the gender gap in entrepreneurship. However, we went well beyond the commonly used context of national culture as an informal institution in explaining women's entrepreneurship (Anambane & Adom, 2018; Naguib & Jamali, 2015; Van Ewijk & Belghiti-Mahut, 2019), as well as the distinction between strong and weak institutions (Acs *et al.*, 2018) and concepts of institutional failures (Williams & Bezeredi, 2018), and we explored the impact of institutions' quality. We agree with Bosma *et al.* (2018) that

institutional quality is not easy to define, because, for those authors, institutional quality is reflected in the institutional variables which support opportunity-oriented, productive entrepreneurship, to support economic growth. This means that the quality of institutions is perceived through the perspective of the well-functioning of institutions (Boudreaux & Nikolaev, 2019; Nair & Njolomole, 2020). However, in the present article, we define the quality of institutions as a feature of a well-functioning society (Thai & Turkina, 2014). Being aware of difficulties in defining a well-functioning society, we incorporate the Sustainable Development Goals (SDGs), proposed by the United Nations in the 2030 Agenda for Sustainable Development (United Nations, 2015) as the most accepted, worldwide, perspective of directions towards well-functioning societies. As the variety of institutional conditions as well as entrepreneurial outcomes are recognised (Audretsch *et al.*, 2022), we develop the concept of various dimensions of institutional quality as our contribution to the field.

The undertaking of entrepreneurship by women is a multi-dimensional decision influenced by a diverse set of factors overlapping each other, which allows to propose a typology of factors. Women are influenced by both gender-neutral factors (Holmén *et al.*, 2011), that affect all entrepreneurs, regardless of their gender, and women-specific factors (Dutta & Mallick, 2018; Pérez-Pérez & Avilés-Hernández, 2016), that reflect women's specific situation. Factors influencing the decision to become an entrepreneur are categorised into individual factors, which are related to a person's personality and individual situation, and external factors, that are rooted in the social, economic, and institutional environment (Dileo & García Pereiro, 2019; Saunoris & Sajny, 2017; Wach & Głodowska, 2022). Predictors are also recognised as opportunity-driven factors, being a positive pull towards entrepreneurship, or as necessity-driven factors, which serve as a negative push towards entrepreneurship, often stemming from a lack of prospects in paid employment (Angulo-Guerrero *et al.*, 2017; Nikolaev *et al.*, 2018).

In these typologies of factors, the quality of institutions is regarded as an external potential predictor of women's entrepreneurship, influencing the macroeconomic level. To contribute to the understanding of the varieties of institutions (Audretsch *et al.*, 2022), we propose to consider four dimensions of the quality of institutions, assuming that they reflect a well-functioning society (Thai & Turkina, 2014). Our proposed dimensions related both to societal norms and values, as well as gender-neutral and gender-specific factors. We conceptualised the following dimensions of institutional quality which reflect diverse aspects of well-functioning societies, related to Sustainable Development Goals (United Nations, 2015) of the 2030 Agenda:

- the quality of positive governance (norm-based, and gender-neutral factors, related to the 16th (peace, justice and strong institutions) SGD),
- institutional quality of wealth distribution (value-based, and gender-neutral factors, related to the 1st (no poverty), 2nd (zero hunger), and 10th (reduced inequalities) SDGs),
- institutional quality of youth perspectives (value-based, and gender-neutral factors; related to the 4th (quality education) and 8th (decent work and economic growth) SDGs),
- institutional gender-based quality (value-based, and gender-specific factor, related to the 5th (gender equality) SDG).

Having conceptualised the various dimensions of the quality of institutions, we aimed to investigate their impact on women's entrepreneurship.

## RESEARCH METHODOLOGY

To explore the impact of societal institutions on women's entrepreneurship, we conducted this research using aggregated data and official country statistics. We selected European countries with research years as members of the European Union (EU), because they represent relatively similar levels of institutional environment related to the EU membership and cultural background. We undertook the panel data analysis (PDA) based on the annual data from the European Statistical Office (EUROSTAT) and The World Bank databases for the years 2009 to 2021 for 27 countries, which means that we collected the panel data set with observations for 13 years multiplied by 27 countries. The data availability determined the choice of the research period. The panel data included the following coun-

tries based on their membership in the EU: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, and Sweden. The panel data used in the research influence the choice of panel regression as an estimation method of modelling. We may find similar research attitudes in numerous research (*i.e.* Audretsch *et al.*, 2022; Bosma *et al.*, 2018; Martínez-Rodríguez *et al.*, 2022).

**Table 1. List of variables and their abbreviations**

Variable	Abb.	Operationalisation	Source of data
<b>Dependent variables</b>			
Women's entrepreneurship	InFE	'Women's entrepreneurship as a share of women in total number of entrepreneurs, aged 20-64 years'	Eurostat
<b>Independent variables – quality of public governance</b>			
Control of Corruption	InCC	'Control of Corruption captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as 'capture' of the state by elites and private interests'	World Bank
Government Effectiveness	InGE	'Government Effectiveness captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.'	World Bank
Political Stability and Absence of Violence	InPV	'Political Stability and Absence of Violence/Terrorism measures perceptions of the likelihood of political instability and/or politically-motivated violence, including terrorism.'	World Bank
Regulatory Quality	InRQ	'Regulatory Quality captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.'	World Bank
Rule of Law	InLR	'Rule of Law captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.'	World Bank
Voice and Accountability	InVA	'Voice and Accountability captures perceptions of the extent to which a country's citizens can participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.'	World Bank
<b>Independent variables – institutional quality of wealth distribution</b>			
Gini coefficient	InGINI	'Gini coefficient of equivalised disposable income as a measure of income concentration.'	Eurostat
People at risk of poverty	InROP	'The share of persons with an equivalised disposable income below the risk-of-poverty threshold.'	Eurostat
<b>Independent variables – the quality of youth perspectives</b>			
Drop-out youth	InDOY	'The share of the population aged 15 to 29 years who are not employed and not involved in education or training.'	Eurostat
Early leavers	InEL	'The share of the population aged 18 to 24 years with, at most, lower secondary education who were not involved in any education or training during the four weeks preceding the survey.'	Eurostat
<b>Independent variables – institutional gender-based quality</b>			
Women on boards of directors	InFBM	'Share of women as management board members'	Eurostat
Women in national parliaments	InFNP	'Share of women among members of national parliaments'	Eurostat

Source: own study based on the methodology of Eurostat and World Bank.

The measure of women's entrepreneurship, as the dependent variable, reflects the proportion of women among the total number of self-employed individuals. We sourced these data from the open-access EUROSTAT database, which we generated from the EU Labour Force Survey (EU-LFS). The Eurostat webpage presents methodological details regarding the data (Eurostat, 2023).

The independent variables reflect several aspects of institutions: quality of public governance (measured by 'control of corruption,' 'government effectiveness,' 'political stability and absence of violence,' 'regulatory quality,' 'rule of law,' 'voice and accountability'), quality of wealth distribution ('Gini coefficient,' 'people at risk of poverty'), quality of youth perspectives ('drop-out youth,' 'early leavers') and institutional gender-based quality ('women in boards of directors,' 'women in national parliaments'). Details on definitions, abbreviations, and sources of data for all variables are presented in Table 1.

We converted all raw variables to natural logarithm to linearise the relationships among them, and to use the log-log model in further estimation. To mitigate the impact of collinearity among variables, which could lead to biased results, we calculated the variance inflation factors (VIFs) among the variables (Table 2). In the initial set of variables, the VIF value for the 'rule of law' variable (lnRL) exceeded the threshold of 10, commonly accepted in research in the body of literature (Markowska *et al.*, 2019; Dheer *et al.*, 2019). Consequently, we excluded this variable from the estimations and recalculated the VIF values. The adjusted set of variables did not exhibit any collinearity (VIF values ranged up to 5.6, remaining below 10), thus making them suitable for inclusion in the panel regression estimation.

**Table 2. VIFs collinearity tests of explanatory variables**

Variables	VIFs an initial set of variables	VIFs in a corrected set of variables
lnCC	5.738	4.665
lnGE	7.228	5.380
lnPV	1.588	1.588
lnRQ	4.744	4.398
lnRL	11.613	X
lnVA	5.722	5.626
lnGINI	3.796	3.772
lnROP	3.790	3.736
lnEL	1.462	1.343
lnDOY	2.620	2.478
lnFBM	2.354	2.336
lnFNP	3.351	3.205

Source: own study.

Equation (1) specifies the general research model, with women's entrepreneurship rates as dependent variables, and factors representing the quality of institutions as independent variables, based on panel data:

$$\ln FE_{it} = \beta_0 + \beta_1 \ln CC_{it} + \beta_2 \ln GE_{it} + \beta_3 \ln PV_{it} + \beta_4 \ln RQ_{it} + \beta_5 \ln VA_{it} + \beta_6 \ln GINI_{it} + \beta_7 \ln ROP_{it} + \beta_8 \ln EL_{it} + \beta_9 \ln DOY_{it} + \beta_{10} \ln FBM_{it} + \beta_{11} \ln FNP_{it} + v_{it} \quad (1)$$

in which:

$\ln FE_{it}$  - indicator for the scale component of public innovation support index in the country referred as  $i$ ;

$i$  - countries (1, 2, ..., 27);

$t$  - years (2009, 2010, ..., 2021);

$v_{it}$  - total random error, consisting of a purely random part  $\varepsilon_{it}$  and individual effect  $u_i$ , which refers to the specific  $i$  unit of the panel ( $v_{it} = \varepsilon_{it} + u_i$ );

$\beta_0, \beta_1, \dots, \beta_{11}$  - vectors;

$\ln CC_{it}, \ln GE_{it}, \ln PV_{it}, \ln RQ_{it}, \ln VA_{it}, \ln GINI_{it}, \ln ROP_{it}, \ln EL_{it}, \ln DOY_{it}, \ln FBM_{it}, \ln FNP_{it}$ , - independent variables in  $t$  period and in  $i$  country, converted into natural logarithms.

To determine the method of regression estimation, we performed both the Breusch-Pagan test and the Hausman test. The results of the Breusch-Pagan test ( $\chi^2(1)=882.004$ , p-value=8.01727e-194) point towards the use of the panel regression method, instead of the ordinary least squares (OLS)

method. The results of the Hausman test ( $\chi^2(11)=13.020$ ,  $p$ -value=0.292) imply the estimation method employing the panel model with random effects.

## RESULTS AND DISCUSSION

Following the results of the Breusch-Pagan test and the Hausman test, we employed the panel regression with random effects as the preferred estimation method (Table 3). We omitted two countries, *i.e.* Bulgaria and Romania, because of collinearity, meaning the final model estimation included 25 countries. The subsequent discussion of the findings relies on the statistical significance ( $p$ -value) as well as the values of the regression function parameters, which signify the influence of the independent variables on the dependent variables.

**Table 3. Estimations of panel regression with random effects for women's entrepreneurship (lnFE) as dependent variable based on equation (1)**

Variable	Coefficient $\beta$	Standard errors	p-value
constans	2.044	0.307	<0.0001***
<b>Independent variables – quality of public governance</b>			
lnCC	-0.034	0.009	<0.0001***
lnGE	-0.082	0.029	0.004***
lnPV	-0.017	0.010	0.087*
lnRQ	-0.033	0.029	0.256
lnVA	0.093	0.042	0.028**
<b>Independent variables – institutional quality of wealth distribution</b>			
lnGINI	0.345	0.104	0.001***
lnROP	0.001	0.057	0.987
<b>Independent variables – the quality of youth perspectives</b>			
lnEL	0.019	0.020	0.359
lnDOY	-0.095	0.027	0.0004***
<b>Independent variables – institutional gender-based quality</b>			
lnFBM	0.041	0.011	0.0001***
lnFNP	0.097	0.025	<0.0001***
<b>Fit statistics of models</b>	'Between' variance = 0.019 'Within' variance = 0.003 No of observations = 309 No of countries = 25 Wald $\chi^2(11)=167.664$ with $p=0.000$ Country effect – YES ( $\chi^2(12) = 1354.24$ with $p=0.000$ ) Pesaran CD test: $p = 0.6947$		

Source: own study.

The panel regression model (Table 3), which estimates the impact of the quality of institutions on women's entrepreneurship, presents a diverse picture of interdependencies. Out of the 11 factors considered, 8 of them prove to be predictors of women's entrepreneurship. Based on  $p$ -values, we confirmed the statistical significance of the following independent variables: control of corruption (lnCC), government effectiveness (lnGE), political stability and absence of violence (lnPV), voice and accountability (lnVA), Gini coefficient (lnGINI), drop-out youth (lnDOY), women in boards of directors (lnFBM), and women in national parliaments (lnFNP). Meanwhile, three next factors were not statistically significant in explaining women's entrepreneurship, namely, regulatory quality (lnRQ), people at risk of poverty (lnROP), and early leavers (lnEL).

The results indicate that aspects of all four considered perspectives on the quality of institutions play a role in shaping women's entrepreneurship, at least to some extent. Variables presenting the

quality of public governance, quality of wealth distribution, quality of youth perspectives and quality based on gender are predictors of women's engagement in entrepreneurship, highlighting the importance of both norms and values, as well as gender-neutral and women-specific aspects of institutions.

The most intriguing aspect of the results relates to the direction of relationships between the quality of institutions and women's entrepreneurship. Despite the previous debate highlighting the necessity of improving institutional quality to enhance entrepreneurship (Williams & Bezeredi, 2018; Shahid *et al.*, 2022), the situation is considerably more varied regarding women's participation in entrepreneurship. Women's entrepreneurship responds positively to certain aspects of institutions, namely, on voice and accountability (InVA), drop-out youth (InDOY), women on boards of directors (InFBM), and women in national parliaments (InFNP). These predictors can be treated as opportunity-driven motivators. Other factors, control of corruption (InCC), government effectiveness (InGE), political stability and absence of violence (InPV), and Gini coefficient (InGINI) impact women's entrepreneurship negatively, being necessity-driven motivators. These impacts are summarised in Table 4.

**Table 4. Results of quality of institutions as motivators for women's entrepreneurship**

Category	Necessity-driven motivators	Opportunity-driven motivators
Gender-neutral factors	InCC, InGE, InPV, InGINI	InVA, InDOY
Women-specific factors	–	InFBM, InFNP

Source: own study based on modelling results.

The absolute values of all function parameters suggest the strongest impact of income inequalities on women's entrepreneurship, as measured by the Gini coefficient. Regarding the absolute values, the next four predictors have an effect with similar strength (*i.e.* absolute values of  $\beta$  between 0.083 and 0.097), namely, the voice and accountability, drop-out youth, women in national parliament, and government effectiveness. The lowest absolute values of parameters are in the case of corruption control, political stability and absence of violence, and women on boards of directors.

### Discussion

Investigating entrepreneurship through the lens of institutional theory leads to perceiving entrepreneurs as actors integrated within societal systems, and seeking appropriate connections with the broader society (Meyer & Rowan, 1977). In the present study, the focus is on the gendered aspects of entrepreneurship at the multinational level, by exploring how the quality of institutions impacts women's entrepreneurship. Four different dimensions of institutional quality are researched, encompassing both gender-neutral and women-specific factors.

Based on panel data for 27 European Union countries from 2009 to 2021, the overall picture suggests mixed effects of institutional quality on women's entrepreneurship, because various aspects of institutional quality serve as both positive and negative motivators.

The first considered aspect of an institution is the quality of governance. Three out of four statistically significant predictors of women's entrepreneurship, namely, control of corruption (InCC), government effectiveness (InGE), political stability and absence of violence (InPV), affect women's entrepreneurship negatively, while the last predictor, voice and accountability (InVA), affects women's entrepreneurship positively. The lower level of control of corruption, government effectiveness and political stability, as well as the higher level of citizens' voices and accountability impact the higher level of women's entrepreneurship.

These results contradict the general observation that the quality of governance reflects a well-structured society, thereby supporting a more favourable and predictable environment for entrepreneurship (Raza *et al.*, 2019; Thai & Turkina, 2014). However, we may consider women's entrepreneurship as an occupational choice which is an alternative to paid employment. According to the theory of occupational choice, paid employment is characterised as a form of occupation with a risk-free salary compared to entrepreneurship, which is characterised as an occupation with uncertain or risky profits (Kihlstrom & Laffont, 1979; Pardo & Ruiz-Tagle, 2017). Individuals who are risk-takers are more likely



to become entrepreneurs, while those who are risk-averse tend to prefer paid employment over entrepreneurship (Bergner *et al.*, 2021; Block *et al.*, 2009). The quality of governance impacts the level of uncertainty in the market and the progress made in governance, as it creates a risk-free environment that tends to attract women more towards employment, rather than entrepreneurship. On the other hand, failures in achieving a high quality of governance serve as a necessity-driven motivation for women to engage in entrepreneurship.

The only difference among this group of measures was in the case of voice and accountability, as this aspect of quality of governance affected women's entrepreneurship as a positive motivator. As entrepreneurs are known for their characteristics of independent individuals (Bergner *et al.*, 2021; Markowska *et al.*, 2019; Wach & Głodowska, 2022), the higher level of freedom in impacting the government choice and expressing opinions encouraged women to engage in entrepreneurial activity as an opportunity-driven factor.

Another analysed aspect of the quality of institutions is related to the institutional quality of wealth distribution. In these groups of measures, the Gini coefficient was the predictor of women's entrepreneurship, whereby, the higher the level of income concentration the higher the level of women empowerment.

The interpretation of this result is somewhat controversial. On the one hand, financial motivators are well-known drivers for undertaking entrepreneurial activity (Wach & Głodowska, 2022), and the existence of a positive correlation between income inequality and entrepreneurship is proven (Atems & Shand, 2018). In this context, the higher level of the Gini coefficient indicates better possibilities to reach a higher concentration of income by women when becoming potential entrepreneurs. On the other hand, the value of well-structured societies is the reduction in inequalities, including the decrease in income concentration. In this context, reaching a lower level of income concentration as a goal of more equal societies discourages women from engaging in entrepreneurship. From the point of view of institutional qualities, this factor can be perceived as negative, because higher income inequalities motivate women entrepreneurs.

Among factors indicating the quality of youth perspectives, the measure of dropout youth impacts women's entrepreneurship negatively. The lower share of youth being out of education and out of employment affects the higher share of women's entrepreneurship. The level of dropout youth indicates the involvement of the young generation in society and reflects not only the quality of social structure, but also its future orientation. The societal value of the younger generation and future orientation creates the institutional environment supporting women to engage in entrepreneurial activity as a positive, opportunity-driven motivator.

The clearest picture was generated when we analysed women-specific aspects of institutions. Both measures of institutional gender-based quality, *i.e.* the share of women as members of management boards and the share of women as members of national parliament, were predictors of women's entrepreneurship affecting it positively. The higher share of women in managerial and political power positions affects the higher level of entrepreneurship among women. Gender equality as a value of well-structured societies creates the institutional environment acting positively as an opportunity-driven enabler upon women's decision to be entrepreneurs.

Summing up, the results of this research indicate the mixed effects of quality of institutions in shaping women's entrepreneurship, which is in line with the results of Dilli *et al.* (2018), showing the inexistence of 'perfect' institutional constellation, and with the results of the work of Audretsch *et al.* (2022), advocating a nuanced understanding of institutional impact.

### Theoretical and Practical Implications

The research results contribute to the theories of entrepreneurship, institutional theory, and gender studies. The results also confirm the multidimensional character of women's entrepreneurial motivators, in that gender-neutral (Holmén *et al.*, 2011) and gender-specific factors (Dutta & Mallick, 2018; Pérez-Pérez & Avilés-Hernández, 2016), as well as positive and negative motivations (Angulo-Guerrero *et al.*, 2017; Nikolaev *et al.*, 2018) are not excluding each other, but rather they are overlapping.

Furthermore, we found confirmation for the explanatory power of institutional theory in women's entrepreneurship (Gimenez-Jimenez *et al.*, 2020; Hägg *et al.*, 2023; Noguera *et al.*, 2015; Webb *et al.*, 2020; Wu & Li, 2019). However, our present study went beyond the most common explanation of national culture and gender-related stereotypes of entrepreneurship (Gimenez-Jimenez *et al.*, 2020; Jones *et al.*, 2019; Williams & Patterson, 2019). We confirmed the impact of institutions in the wider context of norms and values, and gender-neutral and women-specific aspects of the quality of institutions. All four analysed aspects of the influence of quality of institutions in well-functioning societies prove to be motivators for women's entrepreneurship: quality of public governance, quality of wealth distribution, quality of youth perspectives, and quality based on gender. It implies the need to incorporate not only the culture-based informal institutions into the debate on women's entrepreneurship, but also more diverse aspects.

The results also show that the discussion on the impact of institutions on women's entrepreneurship should be more multidimensional, not only in the context of different aspects of institutions, but also in the diversity of overlapping each other, and sometimes with the presence of conflicting factors. As entrepreneurship is an occupational choice alternative to paid employment, some aspects of institutional quality discourage women from entrepreneurship and encourage them to undertake safer paid employment. As necessity-driven motivators, just some of the institutional failures push women towards entrepreneurship. However, there are also aspects of quality of institutions, such as gender, political, and managerial empowerment, citizens' voices and accountability, and inclusion of younger generations, which act as opportunity-driven enablers, and focusing on them in the policy towards a well-structured society can reduce the gender gap in entrepreneurship.

Based on the results of this study, we may recommend the practical implications. In light of the mixed effects of the quality of institutions in shaping women's entrepreneurship, in the progress of the quality of governance, which is a goal of well-structured societies, it should be accepted that women might wish to choose paid employment instead of entrepreneurship. Only failures in achieving a high quality of governance, and in reducing income concentration, serve as necessity-driven motivations for women to engage in entrepreneurship.

However, to combine the goals of reaching well-structured societies and reducing the gender gap in entrepreneurship, policymakers and other stakeholders should focus on and promote opportunity-driven enablers of women's entrepreneurship. This can be achieved by fostering a sense of agency through freedom of expression, association, and access to media. Next, the societal value of the young generation and future orientation is another aspect of institutional quality which affects women's engagement in entrepreneurship as a positive and opportunity-driven motivator. Efforts should be made regarding the improvements of women's empowerment, both economic and political, both by raising women's participation in managerial and political positions, for example through the system of gender quotas, as well as through the higher social visibility of women.

### **Limitations and Further Investigations**

This research has some limitations and potential avenues for further research, which mostly stem from the analysis level and the data used. Firstly, as we adopted a macroeconomic perspective, further investigations should delve into the individual level of women who run their own businesses. Secondly, we conducted the research among European Union states. This suggests the need to confirm the results regarding the impact of the quality of institutions on women's entrepreneurship in other countries, including both developed, transitional, and developing nations. This would provide new insights into the predictors of women's entrepreneurship. Thirdly, as this research relies on official statistics for entrepreneurship, it does not address the issue of entrepreneurship being formal or informal. However, since the institutional context impacts the informal economy, it is worth investigating whether the quality of institutions also affects women in their pursuit of entrepreneurship within the shadow economy or their transition from informal to formal entrepreneurship. Furthermore, while this research focuses primarily on women entrepreneurs, due to their unfavourable situation, it would also be worth investigating other socially disadvantaged groups. For example, ethnically different or elderly entrepreneurs could be examined, to understand the impact of the quality of institutions on these groups.

## CONCLUSIONS

To conclude, this research confirms the significance of institutional quality in shaping women's entrepreneurship, as women are embedded in society, and they are influenced by external factors. The mixed effects of the quality of institutions on women's entrepreneurship are recognised, as institutions act both positively, as opportunity-driven forces, and negatively, as necessity-driven motivators. Some aspects of the quality of governance encourage women to choose the paid employment route as an occupational option, rather than the entrepreneurship route, because with good institutions women might feel safer in paid positions. Necessity-driven motivators, such as failures in quality of governance, can push women into entrepreneurship instead of paid employment.

However, there are some aspects of institutional quality which positively impact women's entrepreneurship. To combine the goals of reaching well-structured societies and reducing the gender gap in entrepreneurship, policy should focus on these three aspects. Gender political and managerial empowerment, citizens' voices and accountability, and inclusion of younger generations into society are the aspects of institutional quality which act as opportunity-driven enablers, and positively motivate women to engage in entrepreneurial activities.

The novelty of this study is the recognition of the mixed effects of various dimensions of institutional quality on women's entrepreneurship and its contribution to entrepreneurship theory, institutional theory, and gender studies.

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The contribution share of authors is equal and amounted to 50% for each of them.  
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The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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