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Gender Diversity on BoDs and Multi-Stakeholder Value Creation: Empirical Evidence from the European Banking System

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Abstract

This study investigates the influence of European bank board characteristics, in particular the presence of women, on value creation from a multi-stakeholder perspective. It covers 472 European banks from 2019 to 2022. Corporate governance characteristics identified as best practices in the literature were included in the set of explanatory variables. Our study provides new insights and knowledge on the importance of corporate governance characteristics for the creation of value for stakeholders, which goes beyond the creation of economic value for shareholders as measured by financial indicators. Our findings suggest that gender diversity on bank boards is associated with value creation from a multi-stakeholder perspective. Based on this study, academics, stakeholders, and regulators will better understand the important role of board characteristics, especially gender diversity, as determinants of shareholder and stakeholder value creation.

Keywords: Banking System, Board, Gender Diversity, GLS Estimator, Stakeholders, Value Creation

Introduction

By July 2026, all large listed EU companies must take steps to increase the presence of women at the top. That's what the European Parliament said in November 2022. The aim is to introduce transparent recruitment procedures so that by the end of June 2026, 40% of non-executive directorships and 33% of all directorships are held by the under-represented gender. Currently, only 30.6% of the directors of the largest listed companies in the EU are women, with large differences between EU countries (from 45.3% in France to 8.5% in Cyprus). Therefore, although considerable progress has been made in women's rights, full gender equality is still a goal to be achieved. Given the increase in the number of women on company boards in the face of the proliferation of gender quotas and recommendations, the question arises as to the impact of gender diversity on company value creation.

Although previous studies provide useful information on the value effects of board diversity, they focus on financial performance indicators and assume that economic returns are central to a company's main stakeholders (i.e., shareholders). This excludes other important stakeholders (Bosse et al., 2009) who seek 'value' beyond economic returns. It, therefore, seems clear that a measure of value creation beyond economic returns must be used to assess the value impact of an important corporate governance mechanism such as gender diversity on the board. Furthermore, in the current global economic environment, stakeholders are demanding non-financial reporting, whereas traditional accounting practices focus exclusively on the financial results of corporate activities. This has led companies to seek to raise their profile by seeking to engage with their stakeholders. As a result, many companies have been publishing sustainability reports in response to stakeholder demands for greater attention to environmental, social, and governance (ESG) issues.

The focus of our study is on the European banking system. Regarding banks, a recent study by the European Banking Authority (EBA, 2020) found that about two-thirds of banks in Europe are headed by men only. This prompted the authority to urge banks to take all necessary measures to balance their boards. Furthermore, scholars have highlighted the involvement of financial institutions

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in environmental and social responsibility (Gallego-Álvarez & Pucheta-Martínez, 2020; Galletta et al., 2021a; Galletta et al., 2021b), although financial performance is generally more relevant to banking sector issues. Moreover, focusing on the banking sector allows for a more homogeneous target population. This is important because banks, through the transfer of significant funds, are one of the main economic drivers that can facilitate the transition to a more sustainable economy.

Based on these considerations, this study aims to identify board characteristics that determine stakeholder and shareholder value creation in European banks. Following the concept of stakeholder value (Freeman, 1984), this analysis aims to go beyond economic returns. Therefore, in our study, we define the value of a firm as the total financial and non-financial returns that a firm can provide to its stakeholders. More specifically, we follow the performance indicators proposed by Harrison and Wicks (2013) from a multi-stakeholder perspective and base our measurement of value, in addition to the notion of economic value, on environmental, social, and governance performance indicators, as these are of interest to multiple stakeholders. Following previous studies (Birindelli et al., 2018; Di Tommaso & Thornton, 2020; El Khoury et al., 2021), we use the Refinitiv ESG score for listed European banks for the period 2019–2022. The ESG score is a comprehensive and verified measure of a company's attention to sustainability. It is used for both financial and non-financial companies. Our analysis shows a significant positive relationship between the presence of women on the board of European banks and value creation for both stakeholders and shareholders.

To summarise, our study adds to the literature by focusing on a multidimensional measure of value creation from an economic perspective for shareholders, but more importantly from an environmental, social, and governance perspective for stakeholders. This provides a different perspective on the relationship between having women on the board and creating value for the firm. Second, we believe that this study is among the first to empirically link the gender diversity of the board of directors to multi-dimensional value creation for stakeholders and shareholders in the banking industry. Indeed, to the best of our knowledge, most studies on this topic have mainly focused on the world of the corporate sector.

The remainder of the study is structured as follows: Section 2 provides a literature review and presents the research hypothesis; Section 3 presents the sample and research methodology; Section 4 presents the results of the empirical analysis and the discussion of the results; and finally, Section 5 presents the conclusions, implications, and research scope for further studies.

Literature Review and Hypothesis

Theoretical Background

Gender diversity on the Board of Directors (BoD) is an issue that is addressed extensively in the existing literature. Most empirical studies have used three main theories to analyse the relationship between the presence of women on boards and the ability of firms to create value. These are the agency theory, resource dependence theory, and the stakeholder theory (Yoder, 1994; Shapiro, 2005; Davis & Cobb, 2010; Ullah et al., 2020).

According to the agency theory perspective, firms exist and operate to create value for those who provide risk capital (i.e., shareholders). Therefore, previous studies investigated how board gender diversity creates shareholder value (Adams & Ferreira, 2009; Joecks et al., 2013; Liu et al., 2014; Nguyen et al., 2015). More specifically, these studies have analysed the relationship between the presence of women on the board of directors and the economic returns of companies in terms of financial performance (ROA) and market valuation (Tobin's Q) (Erhardt et al., 2003; Campbell & Mínguez-Vera, 2008). From the perspective of resource dependence theory (Pfeffer & Salancik, 1978), some studies have shown that gender diversity in the BoD of firms allows for more connections with the market, ensuring a higher quality of resources, as women are equipped with better networking skills than men (Nadeem et al., 2020; Cordeiro et al., 2020).

Finally, stakeholder theory (Freeman, 1984) states that companies have interactions with various stakeholders (customers, employees, suppliers, government, community, and the environment) during their activities, all of whom have an interest in the value of the company. As a result, companies and their stakeholders become interconnected and interdependent. Value creation for companies does not end with shareholders but must

consider multiple stakeholders. Thus, according to Barney (2011), financial performance measures are important because they are primary for the company's main stakeholders (shareholders) but remain incomplete. Based on these theoretical considerations, some studies in the literature focus on a broader measure of firm value that incorporates the value demanded by all stakeholders, rather than focusing on the relationship between gender diversity on corporate boards and economic returns (Groening, 2019; Nadeem et al., 2020). However, particularly when looking at the financial and banking sectors, empirical studies investigating whether board gender diversity creates value for multiple stakeholders remain scarce.

Board Gender Diversity in the Banking Industry

In line with stakeholder theory, our study aims to investigate whether the presence of women on the boards of European banks is associated with stakeholder value creation as well as economic value creation for shareholders.

In this regard, the existing literature (Bear et al., 2010; Elmagrhi et al., 2019) points out that women on boards encourage companies to undertake more corporate social responsibility initiatives (e.g., charitable contributions) and to be more eco-friendly. As a result, they show that women on boards are more likely to develop corporate policies aimed at maximising stakeholder value, rather than focusing exclusively on shareholder value because they are more benevolent and universalistic and have a greater concern for the welfare of others.

Gender diversity is included in the debate on the complexity of corporate governance principles for banks (European Banking Authority (EBA), 2020a). Indeed, the banking environment is in a state of rapid evolution, and the governance of banks must implement business models and corporate policies that are compatible with the future horison of banking regulation. In this regard, corporate governance scholars have highlighted the need to expand the presence of women in bank management, as they generate benefits in terms of effective decision-making mechanisms through the avoidance of cognitive biases (Frias-Aceituno et al., 2013; Galbreath, 2018; Valls-Martinez et al., 2019; Naciti et al., 2019).

The existing corporate governance literature has provided empirical evidence that a relationship exists between board structure and characteristics and bank performance (De Andrés & Vallelado, 2008; Adams & Mehran, 2012). Some scholars have shown (García-Meca et al., 2015; Sahay et al., 2017; Owen & Temesvary, 2018; Cardillo et al., 2020) that, in addition to larger board size, the presence of women on the board has a positive impact on bank performance and greater bank stability. From this point of view, gender diversity on the board of directors contributes positively to the effectiveness of corporate governance. Having women on the board is expected to improve firm performance (Campanella & Serino, 2019). Empirical evidence shows that, following other firms, banks with significant female board presence outperformed, on average, firms with male boards in financial performance (Campanella & Serino, 2019; Orazalin & Baydauletoy, 2020). Moreover, as they are associated with a prudent and more stability-oriented outlook (De Cabo et al., 2012; García-Sánchez et al., 2015), banks with a female presence on the board have, on average, a lower risk profile.

However, it must be borne in mind that, although financial performance is generally more relevant for the banking sector, banks are becoming more and more involved in social and environmental issues. Banks operate in an extremely complex institutional environment, which is highly regulated and supervised, and in which there is considerable public distrust, particularly following crises, and misconduct in recent decades (Carnevale & Mazzuca, 2014). For this reason, CSR strategies are a tool for banks to increase the level of trust in their relationships with their stakeholders. According to the existing literature (Goss & Roberts 2011; Mohammad & Wasiuzzaman, 2021), adopting CSR strategies allows a bank to differentiate itself and gain the trust of investors, improving the reputational capital (Fafaliou et al., 2022) derived from community involvement. This strategy implies that a bank wants to go "beyond the bottom line" (Godfrey, 2005). In the literature (Arora & Sharma, 2016; Birindelli et al., 2018; Di Tommaso & Thornton, 2020; (Campanella & Serino, 2019; El Khoury et al., 2021), the composition of the board of directors of the bank is the essential factor related to corporate governance that influences CSR strategies. Some empirical studies show that female board members have a different perspective compared to male board members, who are more likely to

be oriented towards compassion-driven strategic decisions such as CSR (Orazalin & Baydauletov, 2020; Shakil et al., 2020). In this sense, a gender-balanced board of directors can encourage the board to promote environmental and social initiatives and help the organisation gain a certain degree of social recognition and trust (El Khoury et al., 2021; Cornell & Shapiro, 2021).

However, it must be said that, although the issue has been receiving increasing attention from banking authorities, only a few studies in the literature have been devoted to analysing the relationship between gender diversity on the board and banks' focus on sustainability and stakeholders. Therefore, based on the above considerations, we propose the following research hypothesis to be tested:

H1a. The relationship between the presence of women on the boards of European banks and the creation of value for bank stakeholders is positive and statistically significant.

In our study, stakeholder value creation is measured differently than it has been in the mainstream literature. In fact, economic measures such as return on assets (ROA) or Tobin's Q are mainly used as proxies for stakeholder value creation in most empirical studies (Joecks et al., 2013; Liu et al., 2014; Nguyen et al., 2015). However, these are purely financial measures without considering multistakeholder perspectives. Therefore, following the suggestion of Harrison and Wicks (2013), we use a measure based on archival sources, i.e., the ESG score calculated by Refinitiv, to proxy the value created by the bank for its stakeholders. This choice is justified by the fact that this measure objectively and comprehensively assessed banks' attention to environmental, social, and governance issues as key drivers of stakeholder value creation. Specifically, the social component measures banks' CSR actions to provide customers with financial products and services that incorporate ethical principles, their commitment to the community and employees, respect for diversity and human rights, and the provision of equal opportunities. On the other hand, the corporate governance component measures whether banks integrate CSR values into the overall and strategic vision of business plans, decision-making processes, and communication practices concerning the development and disclosure of sustainability reports. Finally, the environmental component measures banks' contribution to minimising resources, reducing emissions, and innovating products (Refinitiv Eikon, 2022).

However, to fully adopt a multistakeholder approach and consider the value created for the bank's shareholders, we also want to investigate whether the presence of women on bank boards is associated with creating shareholder value. Therefore, we use the financial performance expressed by ROA as a proxy for the bank's shareholder value creation, in line with previous literature (Joecks et al., 2013; Liu et al., 2014; Nguyen et al., 2015; Tampakoudis et al., 2022). We therefore suggest testing the following research hypothesis:

H1b. The relationship between the presence of women on European bank boards and bank shareholder value creation is positive and statistically significant.

Board Characteristics in the Banking Sector

Several studies in the literature (Bhagat & Bolton, 2008; Malik & Makhdoom, 2016; Assenga et al., 2018) have investigated whether and how board characteristics are associated with firm value creation. The variable most commonly used by researchers for the description of board structure is the degree of independence of the board of directors. Independent directors are non-executive directors who have an incentive to influence disclosure practices to maintain their reputation, and they are seen as a unique resource that is a link between the company and its stakeholders. Therefore, the proportion of independent directors increases the effectiveness of the board in the monitoring of management and is an objective control mechanism (Shaukat et al., 2016). According to the corporate governance literature (Amran et al., 2014; Arena et al., 2015), board independence improves the efficiency of investing and the quality of disclosing information. Moreover, empirical evidence (Bhagat & Bolton, 2008; Malik & Makhdoom, 2016) shows that the presence of independent directors has a positive impact on the economic value creation of firms. Furthermore, if a company has a certain percentage of independent directors who can bring a diversity of knowledge, skills, experience, and expertise, it is more likely to develop an effective CSR strategy that is more responsive to stakeholder needs (Shaukat et al., 2016; Naciti, 2019). Indeed, while inside directors are associated with short-term financial performance, more independent boards tend to be more socially responsible, encouraging management to maximise long-term value (Ho & Williams, 2003; Naciti, 2019).

Board size has also attracted the attention of academics. Indeed, several empirical studies show that the size of a European bank's board of directors has a positive impact on value creation, as it has a greater diversity in terms of stakeholder representation and is therefore more efficient in terms of accountability (Kyereboah-Coleman & Biekpe, 2006; Jackling & Johl, 2009; Birindelli et al., 2018). Although smaller boards promote good cohesion and coordination (Birindelli et al., 2018; Nekhili et al., 2021), management oversight and accurate reporting require the presence of a significant number of directors with some diversity in terms of education, skills, experience, expertise, gender, and stakeholder representation (Pearce & Zahra, 1992; Kao et al., 2018). Thus, only a large board can create diversification. The academic consensus is that an effective board can lead to proactive managerial behaviour and reduce managerial opportunism at the expense of shareholders, thereby increasing stakeholder orientation. However, empirical studies can be divided into two schools of thought: the first tends to favour smaller boards of directors (Yermack, 1996), while the second tends to favour larger boards of directors (Pfeffer & Salancik, 2003; Guest, 2009; Tricker, 2012; Lückerath-Rovers, 2013).

Finally, scholars have also focused on analysing the impact of the skills and knowledge, as well as the experience of the members of the board of directors. Some corporate governance studies, such as Ujunwa et al. (2012) and Francis et al. (2015), have found that the skills of board members have a positive relationship with the economic value creation of the firm. This implies that since boards are required to operate under complex conditions and face a series of difficulties, improving board skills is necessary to achieve high-value creation (Carter et al., 2003).

Based on the above consideration, we propose the following research hypothesis to be tested:

H2a. The relationship between the board characteristics of European banks and stakeholder value creation is positive and statistically significant.

H2b. The relationship between the board characteristics of European banks and shareholder value creation is positive and statistically significant.

Board Diligence and Sustainability Orientation

Board diligence is another element of a bank's board that enhances its effectiveness (Suttipun, 2021) and is usually determined by the number of board meetings. Therefore, in line with previous studies (Karamanou & Vafeas, 2005; Kamaludin et al., 2022), we use the number of board meetings per year as a proxy for the board's level of diligence in measuring the relationship with stakeholders and shareholder value creation (Pearce & Zahra, 1992; Birindelli et al., 2018). However, to the best of our knowledge, there is no empirical evidence in the literature to support this relationship. Since meetings are a way of sharing financial and non-financial information and viewpoints, which also improves the decision-making process, it must be said that a high frequency of meetings enables directors to better manage and evaluate the company's operations (Arora & Sharma, 2016; Birindelli et al., 2018; Campanella et al., 2021). Our study is in line with previous research that has found a positive relationship between board operations and the adoption of sustainability practices. Indeed, our sample banks operate in dynamic business environments, requiring more frequent meetings and intensive board activity to ensure accurate operational strategy setting.

Moreover, in recent years there has been a trend for companies to set up a CSR committee to deal with key issues related to sustainability. The existence of a CSR committee symbolises the board's orientation and commitment to sustainable development," as Hussain et al. (2018) note.

Establishing a CSR committee helps to spread the CSR culture throughout the organisation, strengthens corporate legitimacy in the community, and becomes a source of competitive advantage (Arif et al., 2020). Having a CSR Committee makes it possible to demonstrate to stakeholders that the company's commitment to environmental and social issues goes beyond mere financial gain (Baraibar-Diez & D. Odriozola, 2019). Many researchers believe that a CSR committee increases the quality of sustainability because the presence of a CSR committee makes sustainability a key strategy (Baraibar-Diez & D. Odriozola, 2019; Suttipun, 2021).

Based on the above considerations, we propose the following research hypotheses to be tested:

H3a. The relationship between board members' diligence and stakeholder value creation is positive and statistically significant.

H3b. The relationship between board members' diligence and economic value creation for shareholders is positive and statistically significant.

H4a. The relationship between board sustainability orientation and stakeholder value creation is positive and statistically significant.

H4b. The relationship between board sustainability orientation and economic value creation for shareholders is positive and statistically significant.

Methodology and Analysis

The application of the methodological approach is a three-step process. In the first place, given the nature of the data, it was decided to carry out panel data analyses. The second step was to carry out the GLS regression model. Finally, we performed the Hausman test, which specifically suggested that we should run a model with Random Effects (RE) rather than a model with Fixed Effects (FE).

The Panel Data

A key feature of longitudinal data is that each statistical unit is observed over two or more periods (Frees, 2004). In addition, panel data eliminate the effect of omitted variables that are different units but do not vary over time (e.g., firms, individuals, countries, etc.) by controlling for changes in the dependent variable over time (Bell & Jones, 2015).

The use of panel data for analysis has several advantages. First, according to Hsiao (1985), panel data allow the identification of effects that cannot be identified in cross-sectional data. Indeed, as Ben-Porath (1973) argues, panels allow us to study the dynamics of the phenomenon, whereas cross-sectional data allow us to analyse and identify a relationship of a static nature. In addition, they allow estimates to be made with more efficient and precise parameters since they contain more information, more variability, and therefore less collinearity between variables. Finally, as Baltagi and Levin (1992) point out, panel data have the advantage of being able to control for the effect of individual heterogeneity.

However, this type of analysis does not exclude the existence of certain limitations. These are mainly related to the difficulty of data collection, the bias of measurement errors, and the limited size of the time series.

Generalised Least Squares *(GLS)*

Generalised least squares (GLS) estimation is a generalisation of the ordinary least squares (OLS) estimation technique. GLS is particularly well suited to the fitting of linear models to data sets where there is a problem of heteroscedasticity (Menke, 2015; Meuleman et al., 2015). There are two points to a more direct approach to dealing with the presence of heteroscedasticity: 1) the use of OLS to fit the linear model to the set of data. In other words, by using the residual errors of the fitted model as a proxy for the errors of the linear model, a model of the observed heteroscedasticity can be built with the residuals of the fitted model; 2) design an estimator that uses these modelled values of variance and correlation in its estimation technique. This kind of estimator will be robust to heteroskedasticity. What has just been described is exactly the approach taken by the generalised least squares (GLS) estimator (Rossi et al., 2021).

The Fixed and Random Effects

Following Park (2010), panel data models examine cross-section (group) and/or time series (time) effects. These effects may be fixed and/or random. Fixed effects assume that different groups/times have different intercepts in the regression equation. Random effects assume that different groups/times have different disturbances.

Fixed effects (FE) concern the relationship between the regressors and the output variable within a unit (e.g., country, person, firm, etc.). The use of this assumes that there are certain characteristics within an entity that may have an impact on, or bias in, our estimates and therefore must be controlled for (Crisci et al., 2014). Thus, we remove contextual effects and estimate the net effect of the predictors by running fixed effects regressions. The assumption that time-varying characteristics are unique to the individual and should not be correlated with other individual characteristics is another relevant assumption of the FE model. According to Stock & Watson (2003), each unit is different. Therefore, the unit error term and the constant (capturing individual characteristics) should not be correlated.

The fixed effect model is:

$$Y\mathrm{i} = \beta_{\mathrm{i}0} + \beta_1 x_{\mathrm{i}1} + \beta_2 x_{\mathrm{i}2} + \cdots + \beta_{\mathrm{j}} x_{\mathrm{ij}} + \cdots + \beta_k x_{\mathrm{i}k} + \mathrm{s_i} \quad (1)$$

where:

$\beta_{\mathrm{i}0}$ is the unknown intercept for each entity (n entity-specific intercepts).

Y_{i} is the dependent variable.

x_{ij} represents of j-th independent variable.

β_j is the j-th coefficient to be estimated.

si is the error term.

As the study by Anderson & Hsiao (1982) indicates, the B estimator is commonly used to estimate the model parameters. It uses the classical linear model, where both the dependent variable and the regressor matrix are expressed as deviations from the calculated individual means over time. The B-estimator is called the internal estimator because it takes individual effects into account by processing them but removes these from the model by using information from the variation over time (variation in groups) for everyone.

In addition to the internal estimator, it is possible to use the least squares dummy variable estimator (LSVD), where the researcher can consider $\beta_{\mathrm{i}0}$ as equivalent to introducing a separate dummy variable for each group (Carlino & Voith, 1992). We are willing to assume independence of observation precisely because we have controlled for (all) group characteristics. Unfortunately, this means that we are not able to include covariates at the group level in the predictors, as they would be collinear with the dummies. The within estimator and the LSVD estimator give the same numerical value (Torres-Reyna, 2007).

In the random effects model, in contrast to the fixed effects model, the variation between units is assumed to be random and uncorrelated with the independent variables included in the model (Park, 2010). An advantage of the random effects model is that it is possible to include time-invariant variables (e.g., gender), whereas in the fixed effects model, these variables are absorbed by the intercept.

The random effect model is:

$$Y_{\mathrm{i}} = \gamma_{\mathrm{i}0} + \gamma_1 x_{\mathrm{i}1} + \gamma_2 x_{\mathrm{i}2} + \cdots + \gamma_{\mathrm{j}} x_{\mathrm{ij}} + \cdots + \gamma_k x_{\mathrm{i}k} + \delta_{\mathrm{i}} + \mathrm{s_i} \quad (2)$$

where δ_i is the vector of the individual effects.

Model (2) can be rewritten as:

$$Y_1 = \gamma_{\mathrm{i}0} + \gamma_1 x_{\mathrm{i}1} + \gamma_2 x_{\mathrm{i}2} + \cdots + \gamma_{\mathrm{j}} x_{\mathrm{ij}} + \cdots + \gamma_k x_{\mathrm{i}k} + \phi_{\mathrm{i}} \quad (3)$$

Let's $\phi\mathrm{i} = \delta\mathrm{i} + \mathrm{si}$ the error of the random effect model, we notice that this error is composed of a component that varies among the individuals-entities, and another one that varies stochastically among individuals-entities and across time. Random effects assume that the entity's error term is not correlated with the predictors. The RE allows generalising the inferences beyond the sample used in the model.

The Hausman test is required to determine the model when fixed and random effects are found. Indeed, according to Park (2010), the generally accepted way of choosing between fixed and random effects is by running its H-test. Statistically, fixed effects are always reasonably applicable to panel data because they always give consistent results. However, they may not be the most efficient estimators. In this case, random effects will give you more efficient estimators. The Hausman H-test checks the more efficient model. The Hausman H-test tests probe the null hypothesis that the coefficients estimated by the efficient random effects estimator are the same as the ones estimated by the consistent fixed effects estimator. If the null hypothesis is accepted (Prob H larger than .05 under the Chi-square distribution with g degree of freedom, where g is the rank of the matrix [$Va(Bfixed) - Va(Brandom)$], that is g=k if all those variances are independent) then it is safe to use random effects. If a significant P-value is found, however, fixed effects should be considered (see Table 1).

Table 1: Hausman H-Test

	Random Effects	*Fixed Effects*
$H0$: $Cov(\mathrm{xit}, \delta\mathrm{i}) = 0$	Consistent and Efficient	Consistent and Inefficient
$H1$: $Cov(\mathrm{xit}, \delta\mathrm{i}) = 0$	Inconsistent	Consistent

Sampling and Data Collection

This study analyses whether the presence of women on Boards of Directors may influence the creation of

economic, social, and environmental value within the European banking system.

Because of the availability of data to carry out the empirical analysis, our final sample consists of 472 European banks, for which we have collected information for the years from 2019 to 2022. In this way, a strongly balanced panel dataset of 1888 bank-year observations was thus constructed.

Variables Measurement

Dependent Variable - Stakeholder Value

To measure the Stakeholder Value created by a bank, we deviate from previous studies by using Refenitiv's ESG Asset4 score, a widely used indicator for the assessment of the social and environmental impact of financial companies, but also of non-financial companies that have adopted CSR practices. ESG scores are increasingly used by investors to evaluate and select companies based on their relationship with stakeholders, as well as the influence of the environment in which they operate and how they manage their corporate governance. Consequently, ESG scores may be considered a good "proxy" of the bank's stakeholders' value (Harjoto & Jo, 2011; Yoon et al., 2018; Miralles-Quiros et al., 2019; Lopez et al., 2020).

The decision to use Refinitiv's ESG score is justified for several reasons. First of all, Refinitiv is an international database that provides a very comprehensive set of ESG information. Furthermore, several empirical studies in the literature have used the same indicator (Menicucci & Paolucci, 2022; Grishunin et al., 2022; Arayakarnkul et al., 2022). Finally, the methodology used to calculate the ESG scores is made available to users on Refinitiv's official website. Specifically, Refinitiv analysts collect 750 data points for each company, which are used as input to calculate 250 key performance indicators. The final score (ESG Asset4) ranges from 0 to 100. A higher score is associated with a higher sustainability orientation of the company. This methodology appears to be clear and transparent.

In summary, the ESG score is an ethical rating that aims to certify the quality of a company's CSR, i.e., its non-financial performance in three areas: environmental, governance, and social.

Dependent Variable - Financial Performance (ROA)

If it is right ESG score can be considered a good "proxy" of stakeholder value, it is the need to highlight they are mainly based on qualitative information and are not specifically focused on the creation of economic value (Tantalo & Priem, 2016), which is essential for obtaining a sustainable competitive advantage. Thus, in this study, we incorporated the concept of Financial Performance.

Following previous studies (e.g., Fijałkowska et al., 2018), to measure the financial performance of European banks, we use Return on Assets (ROA). This measures the profitability of a bank's assets and is the ratio of operational income to total assets. ROA index indicates how an organisation increases profits by using total assets over a specified period. Thus, if it is high, it means that banks can earn high profits from their assets (Kyere & Ausloos, 2021). By showing how efficiently the company has used its assets, ROA provides an accounting view of the company's efficiency and performance (Chih et al., 2010).

Independent Variables

The independent variables included in our econometric models are the share of women on the board of directors (GENDER), the board size (BOARD SIZE), the share of independent directors on the board of directors (BOARD INDEPENDENCE), the number of board meetings per year (MEET) and the establishment of a CSR sustainability committee (CSR COMMITTEE). To avoid model misspecification, we add bank-specific control variables such as the natural logarithm of total assets (Euro) at the end of the year (BANK SIZE), the financial leverage (LEVERAGE) and the Return on Equity (ROE). We also add board-specific control variables such as the board average age (BOARD EXPERIENCE) and the board skills (BOARD SKILLS). Finally, we also control for the country-specific variable that measures the level of economic development, as our banks are in different countries. This variable is the GDP per capita expressed in purchasing power parity (PPP).

Table 2 shows the summary of variables used in the Panel regression and their quantification.

Table 2: Summary of Variables

Name of Variable	*Measurement*
Women on the board of directors (GENDER)	The total number of women on the board of directors is divided by the total number of board members.
Board Independence (BOARD_INDEP)	Percentage of independent board members divided by the total number of board members.
Board size (BOARD SIZE)	Total number of directors on the board.
Board diligence (MEET)	The number of board meetings held during the financial year.
CSR sustainability committee (CSR_COMM)	A dummy variable that is equal to 1 if the firm has a CSR sustainability committee, 0 otherwise.
Board experience (EXP)	Board average age.
Board Skills (BOARD SKILLS)	Dummy variables are set as 1 if the bank describes the background and skills of every board member; and 0 therwise.
Bank size (BANK SIZE)	The natural logarithm of total assets (Euro) at the end of the year.
Financial Leverage (LEVERAGE)	Tier 1 Capital as a percentage of total assets (a proxy for the Basel 3 leverage ratio).
Return on Equity (ROE)	The bank's Net income is divided by the value of its total shareholders' equity.
Δ GDP	It measures the annual growth rate of the Gross Domestic Product (GDP). $\frac{GDP_t}{GDP_{t-1}} - 1$

Source: Authors' elaboration.

We gathered ESG performance and corporate governance data from Refinitiv: female board members, independent directors, board size, number of board sessions, CSR commissions, and public announcements. BankFocus was used to collect bank-specific financial data (total assets, financial performance, and leverage). Finally, the country variable (GDP per capita) was collected from World Bank data.

The Regression Models

To investigate the relationship between the presence of women on the Board of Directors of European banks and Stakeholder Value, we start with a basic model.

The basic model (1a) is specified as follows:

$$Stakeh\ older\quad Value = \quad \alpha + \beta 1 GENDER + \beta 2 BOARD\quad INDEPENDENCE + \beta 3 BOARD\ SIZE + \beta 4 MEET + \beta 5 CSR\ Committee \tag{1a}$$

Based on the basic model (1), we add the additional main and control variables step by step and measure the incremental Stakeholder Value by comparing the R2 Following the existing literature approach (Setó-Pamies, 2015; Helfaya & Moussa, 2017; Jizi, 2017), we identify the following bank- specific control variables: bank size, Return on Equity (ROE), and bank leverage. So, we obtain the following model (1b):

$$Stakeholder\ Value = \alpha + \beta_1 GENDER + \beta_2 BOARD\ INDEPENDENCE + \beta_3 BOARD\ SIZE + \beta_4 MEET + \beta_5 CSR\ Committee + \beta_6 BANKSIZE + \beta_7 ROE + \beta_8 LEVERAGE \tag{1b}$$

We also introduce board members' experience and skills to control for virtuous behaviour, which promotes diversity, communication, collaboration, and critical debate in decision-making (BCBS, 2015). So, we obtain the following model (1c):

$$Stakeholder\ Value = \alpha + \beta_1 GENDER + \beta_2\ BOARD\ INDEPENDENCE + \beta_3 BOARD\ SIZE + \beta_4 MEET + \beta_5 CSR\ Committee + \beta_6 BANKSIZE + \beta_7 ROE + \beta_8 LEVERAGE + \beta_9 BOARD\ SKILLS + \beta_{10} BOARDEXP \quad (1c)$$

As our banks are located in different countries, we also control for the country-specific variable, which measures the level of development of the economy: GDP per capita based on purchasing power parity (PPP) (Fernandez-Feijoo et al., 2014; Hu & Scholtens, 2014).

In this way, we obtain the final model (1d):

$$Stakeholder\ Value = \alpha + \beta_1 GENDER + \beta_2\ BOARD\ INDEPENDENCE + \beta_3 BOARD\ SIZE + \beta_4 MEET + \beta_5 CSR\ Committee + \beta_6 BANKSIZE + \beta_7 ROE + \beta_8 LEVERAGE + \beta_9 BOARD\ SKILLS + \beta_{10} BOARDEXP + \beta_{11} \Delta GDP \quad (1d)$$

The econometric model (1d) aims to test the existence of a relationship between the presence of women on the BoD of European banks and their ability to generate Stakeholder Value.

Similarly, to examine the relationship between the presence of women on the board and the economic value of European banks in terms of ROA, we start from the base model (2a):

$$ROA = \alpha + \beta_1 GENDER + \beta_2 BOARD\ INDEPENDENCE + \beta_3 BOARD\ SIZE + \beta_4 MEET + \beta_5 CSR\ Committee \quad (2a)$$

Successively, we add a bank-specific control variable (Mohammad, S. J., et al., 2018). So, we obtain the model (2b):

$$ROA = \alpha + \beta_1 GENDER + \beta_2 BOARD\ INDEPENDENCE + \beta_3 BOARD\ SIZE + \beta_4 MEET + \beta_5 CSR\ Committee + \beta_6 BANKSIZE + \beta_7 LEVERAGE \quad (2b)$$

Based on the same considerations made when specifying the econometric model with the dependent variable Stakeholder Value, we add control variables related to board characteristics (Nguyen et al., 2015) and GDP (Adusei et al., 2017). Thus, we obtain model (2c) and model (2d) respectively.

$$ROA = \alpha + \beta_1 GENDER + \beta_2\ BOARD\ INDEPENDENCE + \beta_3 BOARD\ SIZE + \beta_4 MEET + \beta_5 CSR\ Committee + \beta_6 BANKSIZE + \beta_7 LEVERAGE + \beta_8 BOARD\ SKILLS + \beta_9 BOARDEXP \quad (2c)$$

The model (2d) is the full econometric model that we propose to identify the relationship between the presence of women on the board of directors of European banks and their economic value, expressed in terms of ROA.

$$ROA = \alpha + \beta_1 GENDER + \beta_2\ BOARD\ INDEPENDENCE + \beta_3 BOARD\ SIZE + \beta_4 MEET + \beta_5 CSR\ Committee + \beta_6 BANKSIZE + \beta_7 LEVERAGE + \beta_8 BOARD\ SKILLS + \beta_9 BOARDEXP + \beta_{10} \Delta GDP \quad 2d)$$

Results and Discussion

Descriptive statistics for both the dependent (Stakeholder Value and ROA) and independent variables are presented in Table 3. The table shows the mean, standard deviation, as well as the minimum and maximum values for each variable. On average, the European banks in the sample can generate stakeholder value, measured by ESG score, of 48.77%, with a maximum of 100%. This shows that the banks satisfy stakeholders in creating value between 2019 and 2022. Regarding the financial performance of European banks, measured by ROA, we can see that the banks in the sample are on average quite profitable. The average value is 76% and the maximum value is close to 100%. Moreover, these banks have low average leverage (66%) compared to a maximum of 200%.

Looking at board independence, it averages 47% with a maximum of 100%, indicating that there are banks whose board members are all independent. We can also see that the average age of board members is under 50 and the maximum age is 67. Finally, considering that some bank boards have have no female directors (the minimum value is zero), the average representation of women on the board still seems low.

Table 3: Descriptive Statistics

Variable	*Mean*	*Standard Deviation*	*Minimum*	*Maximum*
ESG	48.77	29.55	0	100
ROA	0.76	0.32	0	0.99
Banksize	0.50	0.29	0	100
Leverage	0.66	0.51	0	2
ROE	0.32	0.57	-0.10	0.50
Board Skills	0.30	0.46	0	1
GDP	0.53	0.29	0.004	0.99
Gender	0.89	0.74	0	3.79
Board Experience	47	10.52	30	65
Board Size	18.77	6.56	8	30
Board Independence	0.47	0.28	0	1
CSR Committee	0.28	0.45	0	1
Meet	20.73	11.36	2	40

Source: Stata 17BE.

Before presenting the GLS regression results, we report the Hausman test (Hausman, 1978) results in Table 4. The results suggest that we should use a random effects regression model since the null hypothesis "Random effect model is appropriate" is not rejected.

Table 4: Hausman Test

Prob > chi2	0.4836

Source: Stata 17BE.

The Breusch-Pagan test is then used to determine whether heteroscedasticity exists. This test uses the following null and alternative hypotheses:

- *Null hypothesis (H0):* Homoscedasticity is present.
- *Alternative hypothesis (H1):* Heteroscedasticity is present.

The test results indicate we reject the null hypothesis. Therefore, we conclude that there is a problem of heteroscedasticity in our data. For this reason, we run a GLS model.

The following Table 5 shows the GLS statistical results concerning the econometric model in which the dependent variable is the value of stakeholders.

Table 5: GLS Results: Stakeholder Value (Dependent Variable)

	(1a)	*(1b)*	*(1c)*	*(1d)*
	Coef./t-stats.	*Coef./t-stats.*	*Coef./t-stats.*	*Coef./t-stats.*
Bank Size		19.797 (1.40)	21.482 (1.58)	21.310 (1.57)
Leverage		-1.6090** (-2.06)	-1.2438* (-1.65)	-12.408 (-1.64)
ROE		7.0385*** (4.02)	3.5702** (2.09)	3.5046** (2.05)
Board Skills			36.1236*** (40.04)	36.1721*** (40.02)
ΔGDP				-18.976 (-1.41)
Gender	1.1992** (2.16)	1.1724** (2.09)	1.3175** (2.44)	1.3266** (2.45)
Board Experience			-0.0076 (-0.20)	-0.0062 (-0.17)
Board Size	0.0402 (0.64)	-0.0650 (-0.98)	0.0080 (0.13)	0.0106 (0.17)
Board Independence	13.7818*** (10.07)	13.3451*** (9.73)	13.5944*** (10.21)	13.8014*** (10.31)
CSR Committee	45.8613*** (54.82)	43.7948*** (42.71)	9.5854*** (13.46)	9.5725*** (13.38)
MEET	0.0766** (2.12)	0.0379 (1.04)	0.0580* (1.67)	0.0588* (1.70)
Constant	26.0349*** (16.28)	24.3596*** (12.65)	23.7604*** (8.97)	24.5768*** (9.07)
R-Squared	0.635	0.640	0.666	0.667
R-Squared Adjusted	0.634	0.638	0.665	0.665
F Statistic	1.431.412	920.555	801.379	728.610

Source: Stata 17BE

Notes: *** p-value < 1%; ** p-value < 5%; * p-value < 10%.

The following Table 6 shows the GLS statistical results concerning the econometric model in which the dependent variable is ROA.

Table 6: GLS Results: ROA (Dependent Variable)

	(2a)	*(2b)*	*(2c)*	*(2d)*
	Coef./t-stats.	*Coef./t-stats.*	*Coef./t-stats.*	*Coef./t-stats.*
Bank Size		-0.0042 (-0.20)	-0.0023 (-0.11)	-0.0025 (-0.12)
Leverage		0.0139 (1.18)	0.0167 (1.43)	0.0167 (1.43)
Board Skills			0.3565*** (19.77)	0.3569*** (19.84)

	(2a)	*(2b)*	*(2c)*	*(2d)*
	Coef./t-stats.	*Coef./t-stats.*	*Coef./t-stats.*	*Coef./t-stats.*
GDP				-0.0265 (-1.31)
Gender	0.0136* (1.68)	0.0129 (1.60)	0.0141* (1.76)	0.0142* (1.78)
Board Experience			0.0005 (0.83)	0.0005 (0.86)
Board Size	0.0145*** (17.48)	0.0145*** (17.50)	0.0147*** (17.91)	0.0148*** (17.92)
Board Independence	0.0148 (0.68)	0.0174 (0.80)	0.0187 (0.87)	0.0215 (1.00)
CSR Committee	0.3032*** (22.93)	0.3024*** (22.87)	-0.0449** (-2.34)	-0.0451** (-2.35)
MEET	0.0057*** (11.25)	0.0057*** (11.22)	0.0057*** (11.37)	0.0057*** (11.39)
Constant	0.2650*** (11.32)	0.2569*** (9.43)	0.2166*** (5.68)	0.2278*** (5.84)
R-Squared	0.334	0.334	0.357	0.358
R-Squared Adjusted	0.332	0.332	0.354	0.354
F Statistic	276.225	197.335	165.277	148.979

Source: Stata 17BE.

Notes: *** p-value < 1%; ** p-value < 5%; * p-value < 10%.

Consistent with the literature on gender diversity mentioned above, our analysis confirms that the presence of women on boards enables European banks to create economic value for shareholders and 'social and environmental' value for stakeholders. The results of the basic regression model (1a) are shown in the first column of Table 5. These indicate a positive and statistically significant relationship between the GENDER and stakeholders' value creation (p-values < 5%). The results of the basic regression model (2a) are shown in the first column of Table 6, indicating a positive relationship between ROA and GENDER (p-values < 10%).

The results do not change when the other variables are added to the basic model (see columns 2, 3, and 4 of Table 5 and columns 6, 7, and 8 of Table 6) (p-values < 5% in all models for Stakeholders value; p-values <10% in all models for ROA). This suggests that the presence of women on bank boards is relevant to both shareholder and stakeholder value creation, even when controlling for bank, board, and country characteristics. Therefore, we accept the hypotheses H1a and H1b proposed in Section 2.

These results are consistent with Elmagrhi et al.'s (2019) findings. Indeed, they suggest that women on boards encourage companies to be more socially responsible and environmentally friendly. As a result, rather than focusing exclusively on shareholder value, women on boards are more likely to develop corporate policies aimed at maximising stakeholder value. Furthermore, consistent with (Serino et al., 2019; Orazalin & Baydauletov, 2020), our analysis shows that having women on bank board's positively affects financial performance and thus creates economic value for shareholders.

Moreover, findings reveal the existence of a positive and statistically significant relationship between the Stakeholders' value creation and the number of independent board members and board skills (all models with p-value < 1%). However, we cannot observe a positive and significant relationship between ROA and board independence (for all models). In addition, results show that the size of the Board of Directors is not relevant for the creation of stakeholder value (see Model (1d)). By contrast, the results of model (2d) show a positive and

statistically significant relationship between ROA and board size for European banks (p-value < 1%). Therefore, hypothesis 2a and 2b proposed in section 2 cannot be fully accepted. These findings are consistent with Al Amosh and Khatib (2021), which suggests that independent boards seek to enhance their reputations through sustainability activities and help to educate owners about the importance of creating value beyond financial gain, to gain stakeholders' trust and strengthen their legitimacy.

Finally, to test the hypotheses H3a and H3b proposed in Section 2, the findings of the Model (1d) also suggest that board diligence, as measured by the average number of meetings held, also has a positive and statistically significant impact on shareholder and stakeholder value creation (p-value < 10% for Stakeholders value creation; p-value < 1% for ROA). Therefore, our measurement model suggests that board diligence has an important effect on shareholder value creation as well as economic value creation for shareholders. These results are in line with Uyar et al. (2020)'s assertion that the attendance rate of directors at board meetings is a reflection of the efficiency of the company's board meetings. They state that a company's focus on environmental, social, and governance issues increases with the level of attendance at board meetings.

Model (1d) also considers the role of the CSR Committee and its impact on Stakeholders' value creation. Findings show that there is a positive and statistically significant relationship between Stakeholders' value creation and the presence of the CSR Committee (p-value < 1%), suggesting that having a CSR Committee makes it easier for stakeholders to see that the company's commitment to environmental and social issues goes beyond mere economic profit. By contrast, Model (2d) considers the impact of the CSR Committee on the economic value creation for shareholders. Results show that there is a negative and statistically significant relationship between ROA and CSR Committee (p-value < 5%). This suggests that banks with a CSR Committee are less profitable. Therefore, we accept hypothesis H4a, but we cannot accept hypothesis H4b. These results contradict the findings of the study by Baraibar-Diez & D. Odriozola (2019). They believe that the existence of CSR committees is positively associated with creating economic value by ensuring the social concerns of all stakeholders and showing a greater inclination to respect social principles and adopt global standards.

Robustness

As mentioned in the previous sections, we followed the suggestion of Harrison and Wicks (2013) to measure stakeholder value creation. We therefore chose to use the ESG score calculated by Refinitiv to represent the value created by the bank for its stakeholders. This measure is an objective and comprehensive assessment of a bank's attention to environmental, social, and governance issues as a key driver of stakeholder value creation. To make our analysis more robust, we replace the Type 1 models proposed in Section 3 with new models in which the dependent variable is an ESG pillar. Specifically, we have three types of models, each associated with one pillar of the ESG score:

$$Enviromental = \alpha + \beta_1 GENDER + \beta_2 BOARD\ INDEPENDENCE + \beta_3 BOARD\ SIZE + \beta_4 MEET + \beta_5 CSR\ Committee \quad (3a)$$

$$Enviromental = \alpha + \beta_1 GENDER + \beta_2 BOARD\ INDEPENDENCE + \beta_3 BOARD\ SIZE + \beta_4 MEET + \beta_5 CSR\ Committee + \beta_6 BANKSIZE + \beta_7 ROE + \beta_8 LEVERAGE \quad (3b)$$

$$Enviromental = \alpha + \beta_1 GENDER + \beta_2\ BOARD\ INDEPENDENCE + \beta_3 BOARD\ SIZE + \beta_4 MEET + \beta_5 CSR\ Committee + \beta_6 BANKSIZE + \beta_7 ROE + \beta_8 LEVERAGE + \beta_9 BOARD\ SKILLS + \beta_{10} BOARDEXP + \beta_{11} \Delta GDP \quad (3c)$$

$$Social = \alpha + \beta_1 GENDER + \beta_2 BOARD\ INDEPENDENCE + \beta_3 BOARD\ SIZE + \beta_4 MEET + \beta_5 CSR\ Committee \quad (4a)$$

$$Social = \alpha + \beta_1 GENDER + \beta_2 BOARD\ INDEPENDENCE + \beta_3 BOARD\ SIZE + \beta_4 MEET + \beta_5 CSR\ Committee + \beta_6 BANKSIZE + \beta_7 ROE + \beta_8 LEVERAGE \quad (4b)$$

$$Social = \alpha + \beta_1 GENDER + \beta_2\ BOARD\ INDEPENDENCE + \beta_3 BOARD\ SIZE + \beta_4 MEET + \beta_5 CSR\ Committee + \beta_6 BANKSIZE + \beta_7 ROE + \beta_8 LEVERAGE + \beta_9 BOARD\ SKILLS + \beta_{10} BOARDEXP + \beta_{11} \Delta GDP \quad (4c)$$

$$Governance = \alpha + \beta_1 GENDER + \beta_2 BOARD\ INDEPENDENCE + \beta_3 BOARD\ SIZE + \beta_4 MEET + \beta_5 CSR\ Committee \quad (5a)$$

$$Governance = \alpha + \beta_1 GENDER + \beta_2 BOARD\ INDEPENDENCE + \beta_3 BOARD\ SIZE + \beta_4 MEET + \beta_5 CSR\ Committee + \beta_6 BANKSIZE + \beta_7 ROE + \beta_8 LEVERAGE \quad (5b)$$

$$Governance = \alpha + \beta_1 GENDER + \beta_2\ BOARD\ INDEPENDENCE + \beta_3 BOARD\ SIZE + \beta_4 MEET + \beta_5 CSR\ Committee + \beta_6 BANKSIZE + \beta_7 ROE + \beta_8 LEVERAGE + \beta_9 BOARD\ SKILLS + \beta_{10} BOARDEXP + \beta_{11} \Delta GDP \quad (5c)$$

The results of the analysis where the dependent variable is the environmental, social, and governance pillar are presented in Tables 7, 8 and 9 respectively. These confirm the main results of the previous analysis.

Table 7: Robustenss Check: Environmental Pillar (Dependent Variable)

	(3a)	*(3b)*	*(3c)*
	Coef./t-stats.	*Coef./t-stats.*	*Coef/t-stats.*
Gender	0.3198*** (10.25)	0.2895*** (9.65)	0.2874*** (9.57)
Board Independence	2.4679 (-1.39)	3.0111* (9.65)	3.0442* (-1.72)
Board Size	1.0199*** (4.32)	0.6266*** (3.70)	0.6319*** (3.72)
CSR Committee	25.7303*** (25.89)	23.5950*** (24.92)	23.5103*** (24.78)
Meet	0.7618*** (17.57)	0.7058*** (17.10)	0.7152*** (17.20)
Bank Size		0.0010*** (10.33)	0.0010*** (10.32)
ROE		-0.0341 (-0.45)	-0.0356 (-0.47)
Leverage		-0.0001 (-0.27)	-0.0001 (-0.25)
Board Skills			-0.7284 (-0.27)
Board Experience			0.0324* (1.65)
ΔGDP			-0.0195 (-1.31)

	(3a)	(3b)	(3c)
	Coef./t-stats.	Coef./t-stats.	Coef/t-stats.
Constant	-66.0053*** (-12.78)	-56.6797*** (-12.11)	-58.1557*** (-10.39)
R-Squared	0.419	0.460	0.461
R-Squared Adjusted	0.419	0.459	0.459
F Statistic	594.349	413.576	331.301

Source: Stata 17BE.Notes: *** p-value < 1%; ** p-value < 5%; * p-value < 10%.

Table 8: Robustenss Check: Social Pillar (Dependent Variable)

	(4a)	(4b)	(4c)
	Coef./t-stats.	Coef./t-stats.	Coef./t-stats.
Gender	0.2553***	0.2382***	0.2346***
	(11.28)	(10.68)	(10.53)
Board Independence	5.3322*** (4.12)	5.0280*** (3.90)	4.9670*** (3.78)
Board Size	0.5342*** (3.99)	0.3731*** (3.37)	0.3821*** (3.44)
CSR Committee	21.6262*** (30.87)	20.6433*** (29.82)	20.4930*** (29.54)
MEET	0.2906*** (9.76)	0.2724*** (9.36)	0.2885*** (9.89)
Bank Size		0.0010*** (7.32)	0.0010*** (7.27)
ROE		0.2147*** (3.13)	0.2121*** (3.13)
Leverage		-0.0007 (-1.56)	-0.0007 (-1.51)
Board Skills			-1.6227 (-0.80)
Board Experience			0.0556*** (3.68)
ΔGDP			-0.0266 (-1.34)
Constant	-4.8575 (-1.44)	-1.6481 (-0.51)	-3.8137 (-1.00)
R-Squared	0.378	0.394	0.397
R-Squared Adjusted	0.377	0.393	0.395
F Statistic	504.681	339.173	274.078

Source: Stata 17BE.Notes: *** p-value < 1%; ** p-value < 5%; * p-value < 10%.

Table 9: Robustenss Check: Governance Pillar (Dependent Variable)

	(5a)	*(5b)*	*(5c)*
	Coef./t-stats.	*Coef./t-stats.*	*Coef./t-stats.*
Gender	0.2658***	0.2529***	0.2497***
	(10.50)	(10.08)	(9.97)
Board Independence	5.6156***	5.4615***	5.4576***
	(3.31)	(3.23)	(3.24)
Board Size	-0.0772	-0.2979**	-0.2915**
	(-0.86)	(-2.43)	(-2.39)
CSR Committee	9.7182***	8.6289***	8.5790***
	(13.28)	(11.72)	(11.61)
MEET	0.0693**	0.0394	0.0490
	(2.29)	(1.31)	(1.60)
Bank Size		0.0010***	0.0010***
		(9.48)	(9.64)
ROE		-0.1458**	-0.1476**
		(-2.00)	(-2.04)
Leverage		-0.0010*	-0.0010*
		(-1.83)	(-1.81)
Board Skills			1.9690
			(0.90)
Board Experience			0.0330**
			(2.08)
ΔGDP			-0.0263
			(-1.32)
Constant	32.3687***	37.5964***	33.4115***
	(9.49)	(10.47)	(7.78)
R-Squared	0.106	0.131	0.132
R-Squared Adjusted	0.105	0.129	0.130
F Statistic	100.583	81.498	67.493

Source: Stata 17BE.

Notes: *** p-value < 1%; ** p-value < 5%; * p-value < 10%.

Conclusions

Based on previous literature showing that boards of directors play a key monitoring role in financial institutions, our study analyses the influence of board characteristics of European bank boards in terms of diversity, independence, board size, due diligence, and board experience on value creation from a multi-stakeholder (stakeholders and shareholders) perspective. More specifically, we examine the relationship between board diversity and stakeholder value as measured by environmental, social, and governance metrics. We also examine the relationship between board gender diversity and economic shareholder value, measured by ROA. We find that economic shareholder value and stakeholder value are higher for banks with more female directors. Indeed, the variable gender, which represents gender diversity, has a positive impact on the creation of stakeholder value. The intellectual and interpersonal characteristics of female board members are closely related to the relationship between board gender diversity and value creation from a multistakeholder perspective. Women are more sensitive to ethical issues and attentive

to others' needs (Carlson, 1972; Ibrahim et al., 2009; Nadeem et al., 2019). As a result, these characteristics lead female directors to follow a code of ethics more than their male counterparts (Ibrahim et al., 2009). Moreover, female directors are more oriented toward understanding, appreciating, tolerating, and protecting the well-being of society and nature (Adams et al., 2011; Adams & Funk, 2012).

Our study offers important contributions to academics, stakeholders, and regulators. We go beyond simple economic returns and define the stakeholder value of companies using environmental, social, and governance indicators. Our study is the first to empirically link gender diversity on the board to the multi-dimensional creation of value for stakeholders and shareholders in the banking sector. As far as we are aware, most studies on this subject have focused on the corporate sector. Therefore, by providing a multidimensional measure of value creation from a multi-stakeholder perspective, it contributes to the literature on corporate governance practices in the banking sector. The interests of broader stakeholders such as customers, suppliers, employees, communities, and shareholders are considered in this multidimensional measure of stakeholder value. The existence of a positive and statistically significant relationship between the presence of women on the boards of European banks and value creation has significant implications for stakeholders, who will be more willing to engage with banks with a high representation of women on their boards, as these banks will be more attentive to stakeholder interests. Finally, as regards banking supervisors, there is an urgent need to encourage banks to take all necessary measures to balance their boards and increase the presence of women on bank boards. The aim must be to convey an image of the banking system that goes beyond mere profit and is more oriented towards meeting the needs of all its stakeholders, in addition to meeting the standards set by the European Parliament.

Limitations and Future Research

Despite the important contributions made by this study, it is not without its limitations. According to Hsiao (1985), the advantages of panel data depend on the extent and reliability of the information it contains and the validity of the restrictions on which the statistical methods are built. There are no general non-parametric test procedures, although tests for certain hypotheses can be carried out in a restricted way (Hausman, 1978; Chamberlain, 1984; Ruud, 1984). Furthermore, our sample is based on the banks available in the BankFocus dataset relating to Europe. Thus, given the limited coverage of the data set, there is a risk that the analysis sample is not effectively representative of all banks. Consequently, future research could expand the analysis sample and supplement it with information from additional bank databases. Finally, as the study focuses on a sample of European banks, it pays attention to the corporate governance systems that are established in the developed markets. Generalising the findings to less developed contexts may therefore be difficult. Consequently, future research could consider representative banks from less developed contexts as a sample to investigate the relationship between the presence of women on the board and the creation of value for stakeholders.

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