



Deposited via The University of Sheffield.

White Rose Research Online URL for this paper:

<https://eprints.whiterose.ac.uk/id/eprint/214372/>

Version: Accepted Version

Article:

Kuzey, C., Gerged, A.M., Uyar, A. et al. (2024) Rethinking board structures in the age of multinational corporations: A global investigation. *Journal of International Management*. ISSN: 1075-4253

<https://doi.org/10.1016/j.intman.2024.101175>

© 2024 The Authors. Except as otherwise noted, this author-accepted version of a journal article published in *Journal of International Management* is made available via the University of Sheffield Research Publications and Copyright Policy under the terms of the Creative Commons Attribution 4.0 International License (CC-BY 4.0), which permits unrestricted use, distribution and reproduction in any medium, provided the original work is properly cited. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>

Reuse

This article is distributed under the terms of the Creative Commons Attribution (CC BY) licence. This licence allows you to distribute, remix, tweak, and build upon the work, even commercially, as long as you credit the authors for the original work. More information and the full terms of the licence here: <https://creativecommons.org/licenses/>

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.

Rethinking board diversity in the age of internationalisation: A global investigation

Declarations of interest: none

1. Co-author:

Cemil Kuzey

Arthur J. Bauernfeind College of Business, Murray State University, Murray, KY 42071

cemilkuzey@gmail.com

2. Co-author and corresponding author:

Ali Meftah Gerged

Sheffield University Management School, The University of Sheffield, Conduit Road, Sheffield, S10 1FL, United Kingdom; and Faculty of Economics, Misurata University, Misurata City, PO Box 2478, Libya

Email: amgerged@hotmail.com

3. Co-author:

Ali Uyar

Excelia Business School, France

aliuyar@hotmail.com

4. Co-author:

Abdullah S. Karaman

College of Engineering and Technology, American University of the Middle East, Kuwait

Abdullah.Karaman@aum.edu.kw

Rethinking board diversity in the age of internationalisation: A global investigation

Abstract

Despite extensive research on international corporations, there is still a lack of understanding about the factors that influence the composition of their board and its impact on their market value. This study aims to investigate how internationalisation influences the diversity of a firm's board, particularly regarding gender and culture. Additionally, the study also explores whether the board's diversity can enhance the impact of internationalisation on a firm's value. We analysed data from 25,436 international companies and found that as companies become more international, they tend to have fewer women on their boards but more board members from other countries. Interestingly, having a more diverse gender composition on the board helps to increase a company's value when it becomes more international, but having a more diverse cultural composition on the board seems to have the opposite effect. This information is helpful for international companies who want to make sure they have the best composition on their boards to achieve their global goals. These findings suggest that there may be a difference between what international corporations want in their board members and what their shareholders expect. Ultimately, this study can help international companies choose the right board members to maximise their success.

Keywords: Internationalisation; corporate governance; board diversity; firm value.

1. Introduction

Globalisation has changed how international corporations operate, bringing new challenges and opportunities (Hearn, 2022). This has made it important for companies to have flexible and responsive governance, especially within their boards of directors. The boards play a crucial role in helping companies navigate international markets (Jenkinson & Mayer, 1992; Li & Harrison, 2008). As companies expand globally, they encounter different types of governance systems, such as Germany's two-tier board system, Japan's insider-dominated boards, and the U.S.'s hybrid boards. These different systems present challenges in areas such as executive pay, defences against takeovers, and how well the company is overseen (Shleifer & Vishny, 1997; Boone et al., 2007; Lehn et al., 2009). Because of these challenges, there is a need for changes in governance to protect shareholders and align companies with global standards (Li & Harrison, 2008; Frye et al., 2022).

However, research has not fully explored how internationalisation affects a company's board structure. Most studies focus on legal, ownership, and cultural factors but miss how global strategies shape corporate governance mechanisms (Cicero et al., 2013; Kuzey et al., 2014; Areneke & Kimani, 2019). Crucially, existing literature lacks empirical and theoretical insights into how internationalisation influences board diversity in corporations. We believe that international activities and board diversity are key to increasing a company's value. Boards with a mix of international experience and diversity in gender, ethnicity, and background can help companies seize global opportunities and manage risks (Kaymak & Bektas, 2017; Ren et al., 2019; Peng et al., 2021; Al-Shaer et al., 2023).

The debate on gender and cultural diversity in international corporations' boards centres on whether it enhances firm value through improved decision-making, innovation, and stakeholder engagement (Miller & Triana, 2009; Boulouta, 2013). Proponents argue that diverse boards

contribute to a positive corporate image and assist firms in navigating global markets by understanding local demands (Bear et al., 2010; Nielsen & Nielsen, 2013). Critics, however, contend that the benefits of heterogeneity in the boardroom may be reversed by conflicts and a lack of direct impact on performance (Tuggle et al., 2010). This academic discourse indicates that the value of diversity centres on the effectiveness with which firms integrate diverse perspectives into strategic decision-making, emphasising the necessity for further research into how diversity's advantages can be maximised for international business success (Adams & Ferreira, 2009; Ahern & Dittmar, 2012). Hence, to deepen our understanding of the role of board diversity in international firms, we are inspired to explore the potential effects of internationalisation on board gender and cultural diversity; and how these forms of diversity contribute to enhanced firm value for international companies. Therefore, we pose the following questions: *How does internationalisation affect gender and cultural diversity? Is there a moderating influence of board gender and cultural diversity on the relationship between internationalisation and firm value?*

Using data from 25,436 firm-level observations, our research shows that more international companies tend to have fewer female members but more board members from other countries or different ethnic minorities. We also found that having more women on the board helps a company benefit more from internationalisation in terms of market value, while cultural diversity might not have the same effect. The results also show that the main findings still hold and are qualitatively the same in Anglo-Saxon versus non-Anglo-Saxon countries, low- versus high-governance quality countries, recent versus earlier periods, and after excluding the financial crisis (2008 and 2009) and the COVID-19 pandemic (2020 and 2021) periods.

The contributions of our study are threefold. First, this study contributes to current scholarship by investigating the influence of internationalisation on the diversity of corporate

boards. There is a gap in existing literature regarding the predictability of internationalisation on board diversity, with prior studies predominantly investigating the predictability of board structure on firm internationalisation. Unlike prior studies focusing on whether the board structure predicts internationalisation (Barroso et al., 2011), this research investigates the causality from internationalisation to board configuration, particularly updating and extending the study of Sanders and Carpenter (1998). While Sanders and Carpenter (1998) explored whether firm internationalisation drives board size and CEO duality in the US context, our investigation is at the global scale, focusing on the impact of internationalisation on board diversity attributes, such as board gender diversity and cultural diversity. Second, by analysing the moderating effect of board diversity attributes on the link between internationalisation and firm value, the current research paper not only addresses a gap in the relevant literature but also assesses shareholders' reactions to board diversity compositions, enabling the inference of whether board diversity configurations and stockholder expectations match or not. These theoretically driven empirical insights provide international corporations with strategies for optimal board configurations, reconciling disparities in attributes and shareholder expectations, and discerning context-specific contingencies. Third, the investigation is deepened by exploring whether the main findings change in Anglo-Saxon versus non-Anglo-Saxon countries, strong- and weak public governance systems, and earlier versus recent periods. In the end, several tests are run to outline the robustness of the findings by using alternative variables, incorporating additional regulatory control variables, and addressing endogeneity concerns.

Following this introduction, Section 2 describes the background of the research context; Section 3 lays out theoretical foundations, and Section 4 delves into the relevant literature and formulates hypotheses. Section 5 elucidates the research methodology. Subsequently, Section 6

reports the empirical results, and finally, Section 7 concludes the paper by suggesting theoretical and practical implications, setting limitations, and suggesting future research opportunities.

2. Background of the study context

This study leverages a comprehensive dataset of 25,436 firm-year observations across 38 countries and nine industries from 2002 to 2021 to explore the impact of internationalisation on board diversity characteristics of international corporations. The dataset's diversity in terms of geography, industry, and time provides a unique opportunity to analyse corporate governance dynamics against the backdrop of global economic development, regulatory frameworks, and industry-specific challenges. Aguilera and Jackson (2003) highlight the importance of examining corporate governance within various institutional contexts to understand national-level influences on corporate strategies. This study addresses the gap noted by Peng et al. (2021) for empirical research that crosses national boundaries to tackle the complexities of global business practices.

The inclusion of both developing and developed countries in the sample allows for a comprehensive analysis of how different economic and regulatory environments affect corporate governance. The study's cross-industry approach, recognising the variability in international market exposure and regulatory pressures among sectors, aligns with Khanna and Palepu's (2000) argument that firm strategies relate to their industry contexts. The chosen period includes significant global events, such as the 2008 financial crisis and the COVID-19 pandemic, providing insights into how governance structures adapt to external shocks and evolving global dynamics (Lins et al., 2017).

Unlike a stream of previous internationalisation studies that employed institutional theory (Scott, 2017) or the resource-based view (Barney, 1991), the current study uses the resource

dependence theory (Piekkari et al., 2015) to examine how internationalisation influences corporate governance, considering the strategic resource acquisition aspects that shape board diversity structures. This rigorous methodological and theoretical approach aims to contribute to the literature by offering generalisable findings that bridge theoretical insights with empirical realities across diverse settings. Thus, this study fulfils the call by Strange et al. (2009) for research that connects theoretical frameworks to the complexities of global corporate governance. This work offers valuable insights for both academics and practitioners navigating the global corporate landscape.

3. Literature Review and Hypotheses Development

3.1. Theoretical underpinning: Resource dependence theory

From the perspective of resource dependence theory, the impact of internationalization on board diversity, particularly gender and cultural diversity, reveals significant strategic implications for corporate governance. This study reinterprets the phenomenon, traditionally viewed through institutional and resource-based theories, by focusing on the strategic resource acquisition aspects highlighted by Pfeffer and Salancik (1978).

Resource dependence theory suggests that board diversity is not merely a response to external pressures for legitimacy but a crucial strategic resource that firms leverage to gain access to diverse knowledge pools, networks, and capabilities essential for navigating the complexities of international markets (Pfeffer & Salancik, 1978). This theoretical framework posits that firms strategically include diverse board members to enhance their understanding of varied market dynamics, consumer preferences, and regulatory environments, thereby reducing uncertainties associated with international operations (Erhardt et al., 2003).

Gender diversity on boards, for instance, is linked to more effective decision-making processes, as diverse groups tend to integrate a wider range of perspectives, leading to more innovative and comprehensive solutions (Carter et al., 2010). In terms of international expansion, the inclusion of women and culturally diverse individuals can provide unique insights that enhance a firm's ability to adapt to new environments.

Empirical evidence supports the notion that international exposure correlates positively with board gender diversity, suggesting that firms operating across borders value and seek to integrate broader perspectives and skills (Nielsen & Huse, 2010). Moreover, boards that are diverse in gender and culture are not just beneficial for enhancing corporate performance; they are also strategic necessities in global operations. Darmadi (2013) finds that companies with more diverse boards are better positioned to manage the risks and opportunities presented by international markets, ultimately leading to improved financial outcomes. Conversely, Grosvold et al. (2007) indicated that the influence of internationalization on board diversity might vary significantly depending on the local cultural and institutional contexts, which can determine how diversity is valued and incorporated within corporate boards. Another study by Hafsi and Turgut (2013) discussed the potential conflicts in diversity objectives within boards, highlighting that efforts to improve one dimension of diversity can adversely impact another, particularly under resource constraints, on the boards of international firms.

Collectively, the discourse around the impact of internationalization on board diversity, when viewed through the lens of resource dependence theory, shifts from a focus on normative compliance for legitimacy (as suggested by institutional theorists, such as Meyer & Rowan, 1977 and DiMaggio & Powell, 1983) to an emphasis on strategic resource acquisition. This perspective underlines the practical, strategic benefits of diversity, enhancing a firm's operational effectiveness

and competitive stance in the global market. While the traditional view under institutional theory and resource-based view illuminates *why* firms might adopt diversity practices, resource dependence theory provides a compelling argument on *how* such diversity directly contributes to a firm's strategic objectives and operational success in international environments. Thus, we adopt this theoretical perspective to understand *how* the internationalisation of firms influences various board diversity mechanisms, as well as *how* these board diversity mechanisms moderate the relationship between internationalisation and the market value of international firms.

3.2. Empirical literature review and hypotheses development

3.2.1. The relationship between firm internationalisation and board culture diversity:

Cultural diversity on corporate boards is significantly influenced by internationalization. As companies extend their operations to various global markets, a critical need emerges to appoint directors from diverse cultural backgrounds (Piekkari et al., 2015). Such diversity boosts the firm's cultural intelligence, which is essential for navigating new markets and enhancing decision-making by introducing a wider range of perspectives and experiences (Cox & Blake, 1991; Nielsen & Nielsen, 2013). Additionally, board cultural diversity serves as a strategic asset, promoting creativity, innovation, and competitive advantage internationally (Ararat et al., 2015). Previous studies emphasized that cultural diversity not only addresses the complexities of global operations but also drives market insights, innovation, and enhanced decision-making in international arenas (Ingley & Van der Walt, 2001). Ely et al. (2012) show that firms with culturally diverse boards manage cross-border challenges more effectively, resulting in better market penetration and performance in international markets. Likewise, Groysberg and Connolly (2015) indicate that cultural diversity on boards is associated with improved risk management and adaptability in foreign markets, which supports sustainable international growth.

The strategic value of cultural diversity is increasingly acknowledged as crucial for firms expanding into diverse geographic and cultural markets. The complexity of operating internationally necessitates diverse decision-making bodies (Cox & Blake, 1991). This need is driven by the imperative to understand and respond to varied consumer preferences, regulatory frameworks, and cultural norms (Joecks et al., 2013; Nielsen & Nielsen, 2013). Homberg and Bui (2013) argue that such diversity significantly correlates with better risk assessment and management, which is essential for dealing with the unpredictable dynamics of international markets.

Moreover, previous research also indicated that cultural diversity enhances corporate social responsibility, improving reputation and relationships with stakeholders across different regions (Zahra & Stanton, 1988). This aspect is increasingly vital as companies strive to meet the ethical expectations and norms of diverse stakeholder groups globally. Therefore, in the context of increasing globalization and the ensuing diversity in market demographics, it is hypothesized:

H1. There is a positive association between firm internationalization and board cultural diversity, where cultural diversity within the board is strategically employed to navigate and excel in diverse international markets.

3.2.2. The relationship between firm internationalisation and board gender diversity:

The internationalisation of firms has been linked to increased gender diversity on corporate boards (Lu et al., 2022). This relationship is often attributed to the global diffusion of gender equality norms and the strategic imperative to reflect the diversity of global customer bases and stakeholders (Grosvold et al., 2007; Post & Byron, 2015). Moreover, international exposure necessitates adherence to international governance standards and regulations, which increasingly advocate for gender diversity as a marker of good governance (Adams & Ferreira, 2009).

However, considering the constraints on board expansion (Jensen, 1993; Yermack, 1996), the prioritization of cultural diversity over gender diversity in board composition due to operational needs in international markets (Stuart, 2008), and the inherent trade-offs between different diversity dimensions (Hafsi & Turgut, 2013), a negative association is hypothesized between internationalization and board gender diversity. In this context, Nielsen and Huse (2010) investigated the sophisticated balance between different types of diversity on boards and found that increasing one form of diversity often impacts another. This study provides a foundational understanding of how the pursuit of cultural diversity could potentially negatively impact gender diversity on the boards of international firms. Consequently, we argue that firms intensifying their international reach might prioritize cultural diversity over gender diversity to align their board composition more closely with their international markets and operational territories. This adjustment could result in a relative decrease in gender diversity as the representation of various nationalities and cultures becomes paramount. Hence, we formulate the following hypothesis:

H2: There is a negative relationship between internationalisation and board gender diversity, driven by the constraints on board size expansion, which necessitates a trade-off between gender and cultural diversity.

3.2.3. The moderating impact of board culture diversity between internationalisation and firm value:

Resource dependence theory posits that board diversity, specifically cultural diversity, provides essential resources that enhance a firm's capability to effectively navigate and respond to the complexities of international markets (Pfeffer & Salancik, 1978). The cultural diversity within a board equips a firm with a broader range of perspectives and insights, which are crucial for understanding diverse regulations, customer preferences, and competitive landscapes across different cultural contexts (Sanders & Carpenter, 1998). This diverse understanding can lead to

better strategic decisions, improving the firm's performance in international markets (Carpenter & Westphal, 2001).

Moreover, culturally diverse directors bring varied experiences and networks that can unlock unique business opportunities and foster stronger relationships with stakeholders globally, thereby directly influencing firm value (Miller & Triana, 2009; Boulouta, 2013). This strategic asset is particularly valuable in global operations where understanding different cultural nuances is critical (Arnaboldi et al., 2020). Thus, cultural diversity on boards can be viewed as a moderating factor that not only supports but strengthens the benefits of internationalization on firm value. Thus, we formulate the following hypothesis:

***H3:** Board cultural diversity positively moderates the relationship between firm internationalization and firm value, enhancing the strategic utilization of diverse market insights and stakeholder relationships to maximize global success.*

3.2.4. The moderating impact of board gender diversity between internationalisation and firm value:

Resource dependence theory posits that the strategic composition of a board can significantly influence a firm's ability to acquire essential external resources and navigate complex international markets (Pfeffer & Salancik, 1978). Gender diversity on the board enhances this capability by bringing varied perspectives and decision-making styles that enrich the firm's strategic outlook (Carter et al., 2010).

Empirical findings suggest that while female directors may slow down the pace of internationalization due to a more cautious approach to risk (Pergelova et al., 2019; Ren & Zeng, 2022), these characteristics can lead to more sustainable and thoughtful international expansion strategies. Women-led enterprises often opt for lower-risk export strategies, reflecting a prudent, strategic approach influenced by factors such as industry and geographic location, which could be

advantageous in the long term (Pergelova et al., 2019). Moreover, gender-specific challenges like cultural barriers (Orser et al., 2004) necessitate innovative solutions that women directors may be particularly equipped to provide.

Furthermore, traits commonly attributed to female leaders, such as integrity and patience, have been noted to positively influence internationalization processes (Welch et al., 2008). These traits contribute to building strong international partnerships and long-term customer relationships, which are critical for successful international operations and can ultimately enhance firm value (Surroca et al., 2013; Mohr & Batsakis, 2017). Therefore, while gender diversity on the board might initially seem to moderate the speed and extent of internationalization, it ultimately enhances firm value by promoting more sustainable international strategies and operations. The fourth hypothesis to test in our study asserts that the presence of female directors not only contributes to a diversified skill set and innovative strategies but also enables firms to engage more effectively in international markets, leading to improved organizational outcomes. Therefore, it is hypothesized:

***H4:** Board gender diversity positively moderates the relationship between firm internationalization and firm value, enhancing the strategic utilization of diverse market insights and stakeholder relationships to maximize global success.*

4. Research Design

4.1. Sample

The data for the study were fetched from the Thomson Reuters database between 2002 and 2021. After obtaining the raw data, the research sample undergoes several steps of data purification and pre-processing before testing the research hypotheses. The research sample consists of non-financial sectors and includes countries with at least ten firms. We put this constraint since

financial firms have different financial characteristics, and a small number of observations in countries might not yield reliable results. The available observations of the dependent variables, the testing variable of interest, and the control variables of the linear baseline models are also included in the research sample.

Initially, to address issues such as high skewness and extreme observations, we perform a winsorisation procedure. The variables that undergo winsorisation include TQ, TQadj, BSIZE, INT_S, INT_A, ROA, LEVRG, CR, CEXP, and RD¹. Winsorisation involves replacing the extreme values with corresponding winsorised values. In this case, we apply winsorisation at the one per cent level for both tails, following the approach suggested by Cox (2006). By winsorising, we mitigate the effects of extreme values and ensure a more stable and reliable dataset for subsequent analysis. In the subsequent phase of data preprocessing, we conduct an examination to identify and eliminate 17 multivariate outliers from the dataset to ensure the reliability of the data.

The research sample utilised in this study comprises case-wise available observations of the dependent variable, testing variable of interest, and the control variables in the baseline research models. Consequently, we exclude 37,033 case-wise missing observations of the dependent variable, testing variable of interest, and the controls from the research sample. By excluding these missing observations, we ensure that our analysis is based on reliable data, allowing for results that are more accurate. Moreover, considering the significant proportion of missing observations for the variables BCDIV and INT_A, we did not impute these variables. The substantial amount of missing data could potentially introduce biases or distortions in the estimation results.

¹ We define the research variables in the following section.

In our analysis, we examined various sampling distributions. Initially, our sample consisted of 75,059 observations. However, certain exclusions were made to refine the sample. Specifically, we excluded financial sector records (12,023 observations), countries with less than ten firms (550 observations), case-wise missing records of the dependent variables, testing variable of interest, and the controls (37,033 observations), as well as multivariate outliers (17 observations). After applying these exclusions, the final sample obtained for our analysis consisted of 25,436 remaining observations (Table 2, Panel A).

The sector-level distribution analysis reveals that the sample ratios vary across different sectors. The range of the sector samples spans from 1.40% in the Utilities sector to 21.48% in the Industrials sector (Table 2, Panel B). The year-level sampling distribution analysis reveals that observations from the years 2002 to 2021 are included in the dataset. The ratios within this distribution range from 0.15% for the year 2002 to 12.34% for the year 2020 (Table 2, Panel B). The country distribution within the sample is also provided in (Table 2, Panel C).

INSERT TABLE 2 HERE

4.2. Variables

4.2.1. Dependent variables

In the first model (Equation 1), we test the association between internationalisation and board diversity. Hence, we capture board diversity with two proxies, namely gender (BGDIV) and ethnical/cultural (BCDIV) diversities (Al-Shaer et al., 2023; Fernandes et al., 2023). Board diversity is of critical importance for boards' out-of-box thinking ability in decision-making.

In the second model (Equation 2), we test the moderating effect of board diversity attributes between internationalisation and firm value. Thus, in line with prior studies (Al-Shaer et al., 2023;

Uyar et al., 2023), we measured the dependent variables of the second model (i.e., firm value) by the market capitalisation plus total debt scaled by total assets (TQ) and industry-adjusted firm value proxied by the difference between the firm's TQ and the median TQ of the firms in the same industry in the same year (TQadj). We used the former in the baseline analyses and the latter in the robustness tests as an alternative proxy.

4.2.2. Independent variables

Following extant prior literature (Riahi-Belkaoui, 1999; Kuzey et al., 2014; Pisani et al., 2018; Bhandari et al., 2023), we measure the extent of internationalisation of the firms by two proxies, namely international sales scaled by total sales (INT_S) and international assets scaled by total assets (INT_A). While we used the former proxy in the baseline analyses, we used the latter in the robustness tests as an alternative proxy of internationalisation.

4.2.3. Moderating variables

In the second model (Equation 2), as we measured the moderating effect of board diversity between internationalisation and firm value, board gender diversity (BGDIV) and board cultural diversity (BCDIV) proxies are the moderating variables (Al-Shaer et al., 2023; Fernandes et al., 2023).

4.2.4. Control variables

In the first and the second models, we controlled a wide range of corporate and institutional characteristics that are likely to influence the shaping of firm boards. Assuming that the CEO and board chair's aggregation in one person creates power over director recruitment, we controlled CEO duality (CEOD) (Guest, 2008; Al-Shaer et al., 2023). Financial characteristics such as firm size (FSIZE), firm accounting performance (return on assets (ROA)), leverage (LEVRG), liquidity

(current ratio (CR)), capital expenditures (CEXP), and research and development intensity (RD) are relevant factors in configuring boards (Guest, 2008; Linck et al., 2008; Al-Shaer et al., 2023). For example, large firm size, capital expenditures, and research and development create complexity, which necessitates stronger boards with better monitoring and advising abilities. Furthermore, firm ownership structure (dispersed/condensed) proxied by the free float (FLOAT) is also likely to play a role in director attributes as investors are primary stakeholders (Al-Shaer et al., 2023). Among institutional characteristics, we controlled public governance quality by the World Governance Indicators (WGI), economic development (GDP), law system (LAW), the strength of financial auditing and reporting standards in the country (AUDREP), and strength of stock market regulations in the country (REGSEC)² (Al-Shaer et al., 2023). The data for WGI, GDP, LAW, and REGSEC were fetched from the World Bank (2022a), World Bank (2022b), La Porta et al. (1999), and WEF (2018), respectively.

We define the variables in detail in Table 1.

INSERT TABLE 1 HERE

4.3. Research Models

To mitigate the potential risk of time-invariant endogeneity, we adopt the country, industry, and year fixed-effects (FE) regression methodology, as recommended by Schons and Steinmeier (2016). In our research models, we introduce country, industry, and year dummy variables, as outlined in Equation (1), to account for the FE. This approach aligns with the Least Squares

² WGI is based on its underlying six dimensions. GDP refers to GDP per capita. LAW refers to a common or code law system. AUDREP and REGSEC are controlled only in the robustness tests. We did not integrate them in the main analyses since their data are available for a shorter period. We did not want to downsize the overall sample by integrating them into the baseline analyses. They are all defined in Table 1 extensively.

Dummy Variable regression model approach described by Gujarati (2014). By incorporating these FE, we aim to control any possible factors that are specific to particular countries, industries, and years. This allows us to address potential endogeneity issues and enhance the robustness of our regression analysis.

We formulate the linear research models using Equation (1) presented below. In our research models, we include a one-year lag of the independent variables to reinforce the causality from internationalisation to board diversity. By incorporating the lag values of variables of interest, we aim to capture any time-dependent associations and account for the effects of previous periods on the current relationship between the independent and dependent variables.

$$(Y)_{i,t,c} = \beta_0 + \beta_1(X)_{i,t-1,c} + \beta_2(\text{Controls})_{i,t-1,c} + \beta_3\sum(\text{Country})_c + \beta_4\sum(\text{Industry})_i + \beta_5\sum(\text{Year})_t + \varepsilon_{i,t,c} \quad (1).$$

In Equation (1), the dependent variables (Y) used in our research models include board diversity attributes, namely BGDIV and BCDIV. The variable of interest (X) that we are specifically testing is INT_S. Additionally, we incorporate several control variables in the equation, namely CEOD, FSIZE, ROA, LEVRG, CR, CEXP, RD, FFLOAT, WGI, GDP, and LAW. The detailed explanations and descriptions of each variable are provided in Table 1. The subscripts *i*, *t* and *c* indicate firm, year and country, respectively.

Furthermore, the research models explore the moderating effects of BGDIV and BCDIV on the relationship between INT_S and TQ. To meet this objective, we formulate the next group of research models using Equation (2) as follows:

$$(Y)_{i,t,c} = \beta_0 + \beta_1(X)_{i,t-1,c} + \beta_2(M)_{i,t-1,c} + \beta_3(X*M)_{i,t-1,c} + \beta_4(\text{Controls})_{i,t-1,c} + \beta_5\sum(\text{Country})_c + \beta_6\sum(\text{Industry})_i + \beta_7\sum(\text{Year})_t + \varepsilon_{i,t,c} \quad (2).$$

Similar to the linear models, in our research models, we include a one-year lag of the testing variable, moderating variables, and control variables. The dependent variable (Y) in these models is TQ. The testing variable of interest (X) is INT_S. The moderating variables (M) include BGDIV and BCDIV. The control variables remain the same as specified in Equation (1). The product term "X*M" represents the interaction between the testing variable of interest, INT_S, and the moderating variables (BGDIV & BCDIV). The subscripts *i*, *t* and *c* indicate firm, year and country, respectively.

To address the issue of heteroscedasticity, we report robust standard errors clustered by firms in our analysis. Clustering the standard errors by firms allows us to account for potential heterogeneity (Wooldridge, 2009) within firms and control for any heteroscedasticity (Wooldridge, 2009) present in the data. Furthermore, clustering standard errors by firms can offer several advantages, including accounting for correlated errors (Cameron & Trivedi, 2005), acquiring consistent standard error estimates (Thompson, 2011), and ensuring robustness to heterogeneity (Cameron & Trivedi, 2005) when addressing endogeneity concerns.

5. Empirical results and discussion

5.1. Descriptive Statistics

In Table 3, we present the summary statistics of the research variables to provide a descriptive overview of the research variables, allowing for a better understanding of their average values and distributions within the dataset. The results indicate that the average values of the firm value proxies, TQ and TQadj, are 2.15 and 0.55, respectively. Regarding the board diversity dimensions, the mean values are as follows: BGDIV has a mean of 17.95, and BCDIV has a mean of 26.03. This finding indicates that the presence of directors from ethnic minorities on the boards

of international corporations is more significant than that of female directors. Furthermore, the mean values of the internationalisation proxies indicate that the average value for INT_S is 49.82 and for INT_A is 26.20. This result suggests that international sales accounted for approximately 50% (49.82%) of the total sales and 26.2% of the total assets among the companies sampled. This underscores the pivotal role of the internationalisation process in their overall growth.

INSERT TABLE 3 HERE

5.2. Correlation Analysis

In Table 4, we present the linear pairwise correlation coefficients of the research variables. The results indicate that INT_S exhibits a positive and statistically significant correlation with BGDIV and BCDIV ($p < 0.05$). Furthermore, we address the issue of multicollinearity by calculating the variance inflation factors (VIFs). The VIF values range from 1.03 to 2.23, which are considerably lower than the commonly suggested threshold value of ten (Kennedy, 2008). These lower VIF values suggest that multicollinearity is not a significant concern among the independent variables in the models.

INSERT TABLE 4 HERE

5.3. Baseline Results

In line with Equation (1) described earlier, we conducted a country, industry, and year FE regression analysis to examine the relationship between the one-year lag internationalisation proxy (INT_S) and board diversity attributes (BGDIV & BCDIV). We report the analysis results in Table 5 (Columns #1 & 2). The results of the regression analysis indicate that INT_S exhibits a significantly negative relationship with BGDIV, whereas it has a significantly positive relationship with BCDIV. These findings support H1's prediction of a positive association between firm

internationalization and board cultural diversity, and empirically validate H2, which suggests a negative link between internationalization and board gender diversity.

Drawing on the theoretical framework of resource dependence theory and aligned with prior research (Hafsi & Turgut, 2013; Nielsen & Huse, 2010), our analysis suggests that international firms might prioritize cultural diversity over gender diversity within their board compositions. This strategic choice is intended to mirror the cultural and operational diversities of their global markets. Such prioritization could inadvertently lead to a decline in gender diversity, as the focus shifts towards incorporating a broader range of nationalities and cultural insights, which are seen as immediately valuable for international operations. This phenomenon is further compounded by structural constraints on board size that limit the ability to expand the board to include a broader diversity of members (Jensen, 1993; Yermack, 1996).

Our findings reveal a contradictory pattern between board gender diversity and board cultural diversity, supporting a negative correlation between internationalization and board gender diversity. This is consistent with Ren and Zeng (2022), who observed that while women directors enhance environmental and social governance within international firms, they tend to slow down the pace of internationalization. This suggests that the integration of gender diversity, while beneficial in certain respects, does not align as closely with the aggressive expansion strategies of firms seeking rapid international growth (Peng et al., 2021).

Conversely, we observed a positive correlation between internationalization and board cultural diversity. This relationship could be attributed to the specific international competencies that foreign directors contribute, which significantly enhance their advisory capabilities within multinational corporations. Directors with experience living and working abroad bring valuable insights into international markets and help establish extensive foreign networks (Masulis et al.,

2012; Areneke & Kimani, 2019). Such directors are adept at navigating the consumer preferences and regulatory landscapes of different countries, thereby reducing the uncertainties associated with global operations (Erhardt et al., 2003).

In line with Equation (2), we also examined the role of board diversity dimensions (BGDIV & BCDIV) in moderating the relationship between internationalisation (INT_S) and firm value (TQ). The results of this analysis are presented in Table 5 (Columns #3 & 4). According to the findings, the interaction term $INT_S(t-1)*BGDIV(t-1)$ demonstrates a significantly positive association with TQ, whereas the interaction term $INT_S(t-1)*BCDIV(t-1)$ shows a significantly negative association with TQ. Hence, this finding lends support to H4, which posits a positive moderating impact of board gender diversity on the link between firm internationalization and firm value. Conversely, it rejects—contrary to our predictions—H3, which posited a positive moderating role of board cultural diversity in the internationalization-firm value nexus.

Resource dependence theory explains that organizations need external resources to survive, which are often controlled by external entities or stakeholders, leading to interdependencies (Pfeffer & Salancik, 1978). Boards are, therefore, designed partly to manage these dependencies and to align with the expectations of key stakeholders such as shareholders to secure essential resources like capital and legitimacy. According to our empirical evidence, reducing the number of female directors on boards, despite shareholder recognition of their value, indicates a misalignment in the resource acquisition strategies of international firms. This suggests a potential underestimation of gender diversity's importance, which is shown to enhance corporate performance by improving decision-making and increasing legitimacy among diversity-conscious stakeholders (Erhardt et al., 2003). On the other hand, the inclination towards culturally diverse boards despite shareholder indifference might suggest that firms are seeking benefits beyond

shareholder approval, such as global market insights and cross-cultural skills necessary for managing complex international operations (Oxelheim & Randøy, 2003).

To better align with shareholder expectations, international firms could benefit from revising their board recruitment and emphasizing the importance of female directors, thus leveraging the resources associated with gender diversity (Hillman et al., 2000). Resource dependence theory also highlights the importance of managing information flow to stakeholders to maintain resource access. Hence, firms are advised to adopt transparent communication strategies that link board diversity with firm strategy and shareholder value (Pfeffer & Salancik, 1978). Moreover, by better communicating the strategic reasons for appointing culturally diverse directors, firms might align shareholder perceptions with their strategic objectives for global effectiveness (Daily et al., 2000).

INSERT TABLE 5 HERE

5.4. Robustness Tests

To check the robustness of the findings, we conducted several tests³. First, we used an alternative testing variable by replacing INT_S with INT_A (Table 6, Columns #1 & 2). Second, we used an alternative firm value proxy and replaced TQ with TQadj (Table 6, Columns #3 & 4). We find that after using these alternative internationalisation and firm value proxies, the results still hold.

INSERT TABLE 6 HERE

³ Alternative test and dependent variables and additional controls are defined in the Variables section and Table 1.

Third, we integrated additional country-level control variables, namely AUDREP and REGSEC, to take into account the strength of auditing and financial regulations and market regulations (Table 7), which might play a role in shaping the boards. We find that after adding these additional country-level control variables, the results still hold.

INSERT TABLE 7 HERE

Fourth, in line with recent governance literature, we addressed the endogeneity concerns by the Two-Stage Least Squares (2SLS) regression (Gerged et al., 2021; Uyar et al., 2024), Generalised Method of Moments (GMM)-based dynamic panel regression analysis (Gerged et al., 2023a,b,c), and Entropy Balancing (Gerged et al., 2023d; Gerged et al., 2024). Initially, we employed 2SLS regression analysis to address the endogeneity, which may arise when the independent variables are correlated with the error term, leading to inconsistent estimations (Wooldridge, 2020). To address the endogeneity, simultaneous causality, controlling the measurement errors, and mitigating the potential omitted variable bias, we run the 2SLS with the lag of INT_S and the industry average of INT_S, excluding focal firms as the instruments⁴. We report the first stage, the second stage, the Wu-Hausman test of endogeneity, the Overidentifying restriction test, and the Weak instrument test in Table 8.

INSERT TABLE 8 HERE

Furthermore, we employed a GMM-based linear dynamic panel regression analysis following the approach proposed by Arellano and Bond (1991). This analysis allowed us to capture the time dynamics in our research models, address concerns related to endogeneity and omitted

⁴ Due to the difficulty in finding appropriate instruments, the lag and industry average are widely used in the literature as instruments (Wang and Li, 2008; Murcia et al., 2021; Al-Shaer et al., 2023).

variable bias, and control for unobserved heterogeneity. The GMM approach is particularly valuable in mitigating biases arising from reverse causality or omitted variable bias, thereby providing estimates that are more reliable. To re-evaluate the baseline research models, we conducted a GMM-based dynamic linear regression analysis (Table 9; Columns #1 & 2).

Lastly, we applied the Entropy Balancing method, as proposed by Hainmueller (2012), to address concerns of endogeneity due to self-selection bias (Chahine et al., 2020). This method facilitated the achievement of a covariate balance between the treatment and control groups, effectively reducing the impact of confounding variables. By ensuring the groups were comparable in terms of observable characteristics, the Entropy Balancing approach helped to mitigate potential biases from omitted variables and confounding effects. We reassessed the baseline research models utilising the Entropy Balancing method, with the findings presented in Table 9 (Columns # 3 & 4).

INSERT TABLE 9 HERE

The findings obtained from the 2SLS, GMM-based dynamic panel regression analysis, and the Entropy Balancing approach are consistent with the initial analysis results. This provides reassurance regarding the robustness of our findings, as they remain consistent across different analytical approaches.

Finally, we conducted several further tests to check the robustness of the findings across different institutional environments and different periods. They show that the main findings still hold and are qualitatively the same in Anglo-Saxon versus non-Anglo-Saxon countries⁵ (Table

⁵ Anglo-Saxon countries are Australia, Canada, New Zealand, the United Kingdom, and the United States, whereas non-Anglo-Saxon countries are all countries in the sample except Anglo-Saxon countries.

10), low-WGI versus high-WGI countries (Table 11), recent versus earlier periods (Table 12), and after excluding the financial crisis (2008 and 2009) and COVID-19 pandemic (2020 and 2021) periods (Table 13). The results confirm that INT_S has a negative association with BGDIV but a positive association with BCDIV across different sub-samples.

INSERT TABLE 10 HERE

INSERT TABLE 11 HERE

INSERT TABLE 12 HERE

INSERT TABLE 13 HERE

6. Conclusions and implications

Although international firms have been extensively researched, the composition of their boards has not been fully addressed in the literature. Sanders and Carpenter (1998) argue that a firm's governance structure is critically important for managing the complexity arising from internationalization. Thus, this study aims to highlight how internationalization influences firms' board diversity, with an exclusive focus on gender and cultural diversities. Furthermore, we investigate whether board diversity attributes help firms leverage internationalization to enhance their firm value. We believe that the findings of this study will guide international firms in better configuring their boards as well as establishing a better fit between their board diversity structures and shareholders' expectations.

We make three important contributions to the existing literature. First, unlike prior studies investigating how board structure drives internationalization (Barroso et al., 2011), this research investigates the causality from internationalization to board configuration, especially extending Sanders and Carpenter's (1998) study. While Sanders and Carpenter (1998) tested whether firm

internationalization drives board size and CEO duality in the U.S. context, our investigation is on an international scale, focusing on the impact of internationalization on board diversity attributes, including gender and cultural diversities. Second, by analyzing the moderating effects of board diversity mechanisms between internationalization and firm value, we address a gap in the literature by assessing shareholders' reactions to board diversity, enabling the inference of whether board configurations and stockholder expectations match. Third, we utilize an appropriate theoretical framework, focusing on the perspective of resource dependence theory, to gain a comprehensive understanding of *how* internationalization influences the structures of board diversity of international firms, as well as the moderating role of board diversity in the internationalization-firm value nexus.

Using data from 25,436 firm-level observations, this study reveals that higher internationalization correlates with fewer female directors but more directors from different cultural backgrounds on boards. It suggests that international firms adjust their board diversity to align with institutional norms and enhance strategic decision-making in foreign markets, as per the resource dependence theory. While international firms benefit from the diverse experiences and insights culturally diverse directors bring, notably in understanding international markets and establishing foreign networks, this approach contrasts with the reduced speed of internationalization associated with female directors. Our empirical evidence also indicates a discrepancy between the actual board diversity composition of international firms—favoring cultural diversity over gender diversity—and shareholder expectations, which value the presence of female directors.

Theoretically, resource dependence theory posits that organizations rely on external resources, controlled by stakeholders, creating interdependencies (Pfeffer & Salancik, 1978).

Boards are shaped to manage these dependencies and meet shareholder expectations, which is crucial for securing resources like capital and legitimacy. However, the reduction of female directors on boards, despite their recognized value, suggests a misalignment in resource acquisition strategies of international firms, potentially underestimating the importance of gender diversity, which enhances corporate performance (Erhardt et al., 2003). Conversely, the preference for cultural diversity on boards, despite shareholder indifference, indicates that firms value benefits like global market insights and cross-cultural skills for international operations (Oxelheim & Randøy, 2003). To better align with shareholder expectations, firms should emphasize the importance of female directors and improve transparency in communication, linking board diversity to firm strategy and shareholder value (Pfeffer & Salancik, 1978; Hillman et al., 2000). Additionally, articulating the strategic reasons for culturally diverse appointments could align shareholder perceptions with global strategic objectives (Daily et al., 2000).

As a limitation, our study exclusively focuses on the market performance in the context of the moderating effect, while neglecting accounting performance. This limitation, however, opens avenues for future research, particularly on how attributes of board diversity act as moderators between internationalization and firm accounting performance. Another limitation stems from our sample being primarily constrained by the availability of internationalization data. Furthermore, we acknowledge that our sample is unbalanced across countries. Our investigation also calls for additional research, for instance, exploring whether sectoral and ownership characteristics, such as institutional ownership influence the board diversity of multinationals. Moreover, our quantitative analysis does not address the 'why' and 'how' questions, suggesting the need for qualitative research to understand the preferences of multinational firms for certain directors through interviews. Specifically, the discrepancy between the board structures of international

firms and shareholder expectations warrants further qualitative exploration to identify the underlying causes of this divergence. Lastly, our research was limited to examining only two attributes of board diversity: gender and cultural diversity. Future studies could investigate the role of internationalization in other dimensions of board structure, including board tenure, director expertise, and director affiliations. A more thorough examination of the relationship between internationalization and board structure could assist firms in designing corporate boards that align with their internationalization strategies.

References

- Adams, R. B., & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of Financial Economics*, 94(2), 291-309.
- Aguilera, R. V., & Jackson, G. (2003). The cross-national diversity of corporate governance: Dimensions and determinants. *Academy of Management Review*, 28(3), 447-465.
- Ahern, K. R., & Dittmar, A. K. (2012). The changing of the boards: The impact on firm valuation of mandated female board representation. *The Quarterly Journal of Economics*, 127(1), 137-197.
- Al-Shaer, H., Kuzey, C., Uyar, A., & Karaman, A. S. (2023). Corporate strategy, board composition, and firm value. *International Journal of Finance & Economics*, in press, 1-26. <https://doi.org/10.1002/ijfe.2827>.
- Ararat, M., Aksu, M., & Tansel Cetin, A. (2015). How board diversity affects firm performance in emerging markets: Evidence on channels in controlled firms. *Corporate Governance: An International Review*, 23(2), 83-103.
- Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *The Review of Economic Studies*, 58(2), 277-297.
- Areneke, G., & Kimani, D. (2019). Value relevance of multinational directorship and cross-listing on MNEs national governance disclosure practices in Sub-Saharan Africa: Evidence from Nigeria. *Journal of World Business*, 54(4), 285-306.
- Arnaboldi, F., Casu, B., Kalotychou, E., & Sarkisyan, A. (2020). The performance effects of board heterogeneity: What works for EU banks? *The European Journal of Finance*, 26(10), 897-924.
- Barney, J. (1991). Competitive advantage. *Journal of Management*, 17(1), 99-120.
- Barroso, C., Villegas, M. M., & Pérez-Calero, L. (2011). Board influence on a firm's internationalisation. *Corporate Governance: An International Review*, 19(4), 351-367.
- Bear, S., Rahman, N., & Post, C. (2010). The impact of board diversity and gender composition on corporate social responsibility and firm reputation. *Journal of Business Ethics*, 97, 207-221.
- Bhandari, K. R., Záborský, P., Ranta, M., & Salo, J. (2023). Digitalisation, internationalisation, and firm performance: A resource-orchestration perspective on new OLI advantages. *International Business Review*, 102135.
- Boone, A. L., Field, L. C., Karpoff, J. M., & Raheja, C. G. (2007). The determinants of corporate board size and composition: An empirical analysis. *Journal of Financial Economics*, 85(1), 66-101.
- Boulouta, I. (2013). Hidden connections: The link between board gender diversity and corporate social performance. *Journal of Business Ethics*, 113(2), 185-197.
- Cameron, A. C., & Trivedi, P. K. (2005). *Microeconometrics: Methods and applications*. Cambridge University Press, Cambridge, UK.
- Carpenter, M. A., & Westphal, J. D. (2001). The strategic context of external network ties: Examining the impact of director appointments on board involvement in strategic decision making. *Academy of Management Journal*, 44(4), 639-660.
- Carter, D. A., D'Souza, F., Simkins, B. J., & Simpson, W. G. (2010). The gender and ethnic diversity of US boards and board committees and firm financial performance. *Corporate Governance: An International Review*, 18(5), 396-414.

- Chahine, S., Colak, G., Hasan, I., & Mazboudi, M. (2020). Investor relations and IPO performance. *Review of Accounting Studies*, 25(2), 474–512.
- Cicero, D., Wintoki, M. B., & Yang, T. (2013). How do public companies adjust their board structures? *Journal of Corporate Finance*, 23, 108-127.
- Cox, N. (2006). *WINSOR: Stata module to Winsorise a variable*. Statistical Software Components S361402, Boston College Department of Economics, Massachusetts, US.
- Cox, T. H., & Blake, S. (1991). Managing cultural diversity: Implications for organisational competitiveness. *Academy of Management Perspectives*, 5(3), 45-56.
- Daily, C. M., Certo, S. T., & Dalton, D. R. (2000). International experience in the executive suite: The path to prosperity? *Strategic Management Journal*, 21(4), 515-523.
- Darmadi, S. (2013). Do women in top management affect firm performance? Evidence from Indonesia. *Corporate Governance: The international journal of business in society*, 13(3), 288-304.
- DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organisational fields. *American Sociological Review*, 48(2), 147-160.
- Ely, R. J., Padavic, I., & Thomas, D. A. (2012). Racial diversity, racial asymmetries, and team learning environment: Effects on performance. *Organization Studies*, 33(3), 341-362.
- Erhardt, N. L., Werbel, J. D., & Shrader, C. B. (2003). Board of director diversity and firm financial performance. *Corporate Governance: An International Review*, 11(2), 102-111.
- Fernandes, V., Kuzey, C., Uyar, A., & Karaman, A. S. (2023). Board structure policy, board diversity and social sustainability in the logistics and transportation sector. *International Journal of Physical Distribution & Logistics Management*, 53(1), 62-92.
- Frye, M. B., Pham, D. T., & Zhang, R. (2022). Board monitoring and advising trade-offs amidst economic policy uncertainty. *Financial Review*, 57(1), 5-26.
- Gerged A. M., Kuzey C., Uyar A., Karaman A. (2024). Aggressive CSR Strategy and CSR Awarding: Managerial Opportunism versus Social Activism. *Journal of Accounting Literature*, In Press, 1-43. DOI: 10.1108/JAL-10-2023-0177.
- Gerged, A. M., Beddewela, E., & Cowton, C. J. (2021). Is corporate environmental disclosure associated with firm value? A multicountry study of Gulf Cooperation Council firms. *Business Strategy and the Environment*, 30(1), 185-203.
- Gerged, A. M., Chijoke-Mgbame, A. M., Konadu, R., & Cowton, C. J. (2023b). Does the presence of an environmental committee strengthen the impact of board gender diversity on corporate environmental disclosure? Evidence from sub-Saharan Africa. *Business Strategy and the Environment*, 32(4), 2434-2450.
- Gerged, A. M., Kuzey, C., Uyar, A., & Karaman, A. S. (2023d). Does investment stimulate or inhibit CSR transparency? The moderating role of CSR committee, board monitoring and CEO duality. *Journal of Business Research*, 159, 113762.
- Gerged, A. M., Salem, R., & Beddewela, E. (2023a). How does transparency into global sustainability initiatives influence firm value? Insights from Anglo-American countries. *Business Strategy and the Environment*, 32(7), 4519-4547.
- Gerged, A. M., Tran, M., & Beddewela, E. S. (2023c). Engendering pro-sustainable performance through a multi-layered gender diversity criterion: Evidence from the hospitality and tourism sector. *Journal of Travel Research*, 62(5), 1047-1076.
- Grosvold, J., Brammer, S., & Rayton, B. (2007). Board diversity in the United Kingdom and Norway: an exploratory analysis. *Business ethics: A European Review*, 16(4), 344-357.

- Groysberg, B., & Connolly, K. (2015). BlackRock: Diversity as a driver for success. *Harvard Business Review*, 415-047.
- Guest, P. M. (2008). The determinants of board size and composition: Evidence from the UK. *Journal of Corporate Finance*, 14(1), 51-72.
- Gujarati, D. (2014). *Econometrics by example*. Bloomsbury Publishing.
- Hafsi, T., & Turgut, G. (2013). Boardroom diversity and its effect on social performance: Conceptualization and empirical evidence. *Journal of Business Ethics*, 112, 463-479.
- Hainmueller, J. (2012). Entropy Balancing for Causal Effects: A Multivariate Reweighting Method to Produce Balanced Samples in Observational Studies. *Political Analysis*, 20(1), 25-46.
- Hearn, B. (2022). The Determinants of Foreign Multinational Enterprise Firms' Board Governance in Caribbean Offshore Island Economies. *Journal of International Management*, 28(4), 100936.
- Hillman, A. J., Cannella, A. A., & Paetzold, R. L. (2000). The resource dependence role of corporate directors: Strategic adaptation of board composition in response to environmental change. *Journal of Management Studies*, 37(2), 235-256.
- Homberg, F., & Bui, H. T. (2013). Top management team diversity: A systematic review. *Group & Organization Management*, 38(4), 455-479.
- Ingle, C., & Van der Walt, N. (2001). The strategic board: The changing role of directors in developing and maintaining corporate capability. *Corporate Governance*, 9(3), 15-23.
- Jenkinson, T., & Mayer, C. (1992). The assessment: corporate governance and corporate control. *Oxford Review of Economic Policy*, 8(3), 1-10.
- Jensen, M. C. (1993). The modern industrial revolution, exit, and the failure of internal control systems. *The Journal of Finance*, 48(3), 831-880.
- Joecks, J., Pull, K., & Vetter, K. (2013). Gender diversity in the boardroom and firm performance: What exactly constitutes a “critical mass?” *Journal of Business Ethics*, 118, 61-72.
- Kaymak, T., & Bektas, E. (2017). Corporate social responsibility and governance: Information disclosure in multinational corporations. *Corporate Social Responsibility and Environmental Management*, 24(6), 555-569.
- Kennedy, P. (2008). *A guide to econometrics*. 6th edition. Malden, MA: Blackwell Publishing.
- Khanna, T., & Palepu, K. (2000). Is group affiliation profitable in emerging markets? An analysis of diversified Indian business groups. *The Journal of Finance*, 55(2), 867-891.
- Kuzey, C., Uyar, A., & Delen, D. (2014). The impact of multinationality on firm value: A comparative analysis of machine learning techniques. *Decision Support Systems*, 59, 127-142.
- La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (1999). Corporate ownership around the world. *The Journal of Finance*, 54(2), 471-517.
- Lehn, K. M., Patro, S., & Zhao, M. (2009). Determinants of the size and composition of US corporate boards: 1935-2000. *Financial Management*, 38(4), 747-780.
- Li, J., & Harrison, J. R. (2008). National culture and the composition and leadership structure of boards of directors. *Corporate Governance: An International Review*, 16(5), 375-385.
- Linck, J. S., Netter, J. M., & Yang, T. (2008). The determinants of board structure. *Journal of Financial Economics*, 87(2), 308-328.
- Lins, K. V., Servaes, H., & Tamayo, A. (2017). Social capital, trust, and firm performance: The value of corporate social responsibility during the financial crisis. *The Journal of Finance*, 72(4), 1785-1824.

- Lu, Y., Ntim, C. G., Zhang, Q., & Li, P. (2022). Board of directors' attributes and corporate outcomes: A systematic literature review and future research agenda. *International Review of Financial Analysis*, 84, 102424.
- Masulis, R. W., Wang, C., & Xie, F. (2012). Globalising the boardroom—The effects of foreign directors on corporate governance and firm performance. *Journal of Accounting and Economics*, 53(3), 527-554.
- Meyer, J. W., & Rowan, B. (1977). Institutionalised organisations: Formal structure as myth and ceremony. *American Journal of Sociology*, 83(2), 340-363.
- Miller, T., & del Carmen Triana, M. (2009). Demographic diversity in the boardroom: Mediators of the board diversity–firm performance relationship. *Journal of Management Studies*, 46(5), 755-786.
- Mohr, A., & Batsakis, G. (2017). Internationalisation speed and firm performance: A study of the market-seeking expansion of retail MNEs. *Management International Review*, 57, 153-177.
- Murcia, M. J., Panwar, R., & Tarzijan, J. (2021). Socially responsible firms outsource less. *Business & Society*, 60(6), 1507-1545.
- Nielsen, B. B., & Nielsen, S. (2013). Top management team nationality diversity and firm performance: A multilevel study. *Strategic Management Journal*, 34(3), 373-382.
- Nielsen, S., & Huse, M. (2010). The contribution of women on boards of directors: Going beyond the surface. *Corporate Governance: An International Review*, 18(2), 136-148.
- Orser, B., Riding, A., & Townsend, J. (2004). Exporting as a means of growth for women-owned Canadian SMEs. *Journal of Small Business & Entrepreneurship*, 17(3), 153-174.
- Oxelheim, L., & Randøy, T. (2003). The impact of foreign board membership on firm value. *Journal of Banking & Finance*, 27(12), 2369-2392.
- Peng, X., Yang, Z., Shao, J., & Li, X. (2021). Board diversity and corporate social responsibility disclosure of multinational corporations. *Applied Economics*, 53(42), 4884-4898.
- Pergelova, A., Manolova, T., Simeonova-Ganeva, R., & Yordanova, D. (2019). Democratising entrepreneurship? Digital technologies and the internationalisation of female-led SMEs. *Journal of Small Business Management*, 57(1), 14-39.
- Pfeffer, J., & Salancik, G. (1978). *The external control of organisations: A resource dependence perspective*. New York: Harper & Row.
- Piekkari, R., Oxelheim, L., & Randøy, T. (2015). The silent board: How language diversity may influence the work processes of corporate boards. *Corporate Governance: An International Review*, 23(1), 25-41.
- Pisani, N., Muller, A., & Bogăţan, P. (2018). Top management team internationalisation and firm-level internationalisation: The moderating effects of home-region institutional diversity and firm global focus. *Journal of International Management*, 24(3), 239-256.
- Post, C., & Byron, K. (2015). Women on boards and firm financial performance: A meta-analysis. *Academy of Management Journal*, 58(5), 1546-1571.
- Ren, G., & Zeng, P. (2022). Board gender diversity and firms' internationalisation speed: the role of female directors' characteristics. *Baltic Journal of Management*, 17(1), 72-88.
- Ren, M., Manning, S., & Vavilov, S. (2019). Does state ownership really matter? The dynamic alignment of China's resource environment and firm internationalisation strategies. *Journal of International Management*, 25(3), 100667.
- Riahi-Belkaoui, A. (1999). The degree of internationalisation and the value of the firm: theory and evidence. *Journal of International Accounting, Auditing and Taxation*, 8(1), 189-196.

- Sanders, W. G., & Carpenter, M. A. (1998). Internationalisation and firm governance: The roles of CEO compensation, top team composition, and board structure. *Academy of Management Journal*, 41(2), 158-178.
- Schons, L., & Steinmeier, M. (2016). Walk the talk? How symbolic and substantive CSR actions affect firm performance depending on stakeholder proximity. *Corporate Social Responsibility and Environmental Management*, 23(6), 358-372.
- Scott, W. R. (2017). *Institutional theory: Onward and upward*. The Sage Handbook of Organizational Institutionalism, 853-869.
- Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *The Journal of Finance*, 52(2), 737-783.
- Strange, R., Filatotchev, I., Buck, T., & Wright, M. (2009). Corporate governance and international business. *Management International Review*, 49, 395-407.
- Stuart, S. (2008). The US board index. *New York: Spencer Stuart*.
- Surroca, J., Tribó, J. A., & Zahra, S. A. (2013). Stakeholder pressure on MNEs and the transfer of socially irresponsible practices to subsidiaries. *Academy of Management Journal*, 56(2), 549-572.
- Thompson, S. B. (2011). Clustered standard errors in Stata and EViews. *The Stata Journal*, 11(1), 1-10.
- Tuggle, C. S., Schnatterly, K., & Johnson, R. A. (2010). Attention patterns in the boardroom: How board composition and processes affect discussion of entrepreneurial issues. *Academy of Management Journal*, 53(3), 550-571.
- Uyar, A., Gerged, A. M., Kuzey, C., & Karaman, A. S. (2024). Renewable energy use, slack financial resources, and board attributes: Does energy efficiency policy matter?. *Business Strategy and the Environment*, 1-23.
- Uyar, A., Kuzey, C., Gerged, A. M., & Karaman, A. S. (2023). Research and development intensity, environmental performance, and firm value: Unraveling the nexus in the energy sector worldwide. *Business Strategy and the Environment*, 32(4), 1582-1602.
- Wang, H., & Li, J. (2008). Untangling the effects of overexploitation and overexploitation on organisational performance: The moderating role of environmental dynamism. *Journal of Management*, 34(5), 925-951.
- WEF (World Economic Forum) (2018). The Global Competitiveness Report 2018, available at: <http://reports.weforum.org/global-competitiveness-report-2018/> (accessed 5th January 2019).
- Welch, C. L., Welch, D. E., & Hewerdine, L. (2008). Gender and export behaviour: Evidence from women-owned enterprises. *Journal of Business Ethics*, 83, 113-126.
- Wooldridge, J. M. (2009). *Introductory econometrics: A modern approach* (4th ed.). South-Western Cengage Learning, Ohio, US.
- Wooldridge, J. M. (2020). *Introductory Econometrics: A Modern Approach*. 7th edition. Cengage. Boston, US.
- World Bank (2022a). Worldwide Governance Indicators, retrieved from <https://databank.worldbank.org/source/worldwide-governance-indicators> (accessed 10 October 2022).
- World Bank (2022b). World Development Indicators, retrieved from <https://databank.worldbank.org/source/world-development-indicators> (accessed 10 October 2022).

- Yermack, D. (1996). Higher market valuation of companies with a small board of directors. *Journal of Financial Economics*, 40(2), 185-211.
- Zahra, S. A., & Stanton, W. W. (1988). The implications of board of directors composition for corporate strategy and performance. *International Journal of Management*, 5(2), 229-236.

Table 1: Variables

Dependent variables:

INT_S	International sales/Total sales
INT_A	International assets/Total assets
TQ	Market capitalisation plus total debt scaled by total assets.
TQadj	The difference between the firm's TQ and the median TQ of the firms in the same industry in the same year.

Independent variables:

BGDIV	The proportion of female directors on board.
BCDIV	The proportion of directors from different ethnical backgrounds on board. (In the second model (Equation 2), as we measure the moderating effect of board diversity between internationalisation and firm value, BGDIV and BCDIV proxies become the moderating variables).

Control variables:

CEOD	Indicator variable taking 1 If the CEO chairs the board or the chairperson of the board is the CEO of the company simultaneously, otherwise 0.
FSIZE	Natural logarithm of total assets.
ROA	Income before tax/Total assets
LEVVRG	Total debt/Total assets
CR	Current assets/current liabilities
CEXP	Capital expenditures/Total assets
RD	Research and development expenditures/Total assets
FFLOAT	Free float percentage of shares.
WGI	World Governance Indicators' mean, including political stability and absence of violence/terrorism, government effectiveness, control of corruption, voice and accountability, rule of law, and regulatory quality (All metrics' values range from -2.5 to 2.5).
GDP	Natural logarithm of Gross Domestic Product per capita.
LAW	The indicator variable takes 1 if the law system of the country is common law and 0 if it is code law.
AUDREP	Strength of financial auditing and reporting standards in the country [1 = extremely weak; 7 = extremely strong].
REGSEC	Strength of stock market regulations in the country [1 = extremely weak; 7 = extremely strong].

This table defines the variables.

Table 2: Sampling distributions*Panel A*

Initial sample	75,059
(-) Financials	12,023
(-) Countries with less than ten firms	550
(-) Case-wise missing records of dependent variables, the testing variable of interest (MIN_S), and the controls in the baseline models*.	37,033
(-) Multivariate outliers	17
<i>Final sampl</i>	<i>25,436</i>

*We excluded BCDIV in sample formation since it had many missing values. We did not want to reduce the sample size further.

Panel B

Variable	Category	Freq.	Percent	
Sector	Basic Materials	3,440	13.52	
	Consumer Cyclicals	4,488	17.64	
	Consumer Non-Cyclicals	2,517	9.90	
	Energy	1,612	6.34	
	Healthcare	2,404	9.45	
	Industrials	5,464	21.48	
	Real Estate	860	3.38	
	Technology	4,296	16.89	
	Utilities	355	1.40	
	<i>Total</i>	<i>25,436</i>	<i>100.00</i>	
Year	2002	37	0.15	
	2003	108	0.42	
	2004	187	0.74	
	2005	261	1.03	
	2006	42	0.17	
	2007	498	1.96	
	2008	724	2.85	
	2009	915	3.60	
	2010	1,290	5.07	
	2011	1,296	5.10	
	2012	1,370	5.39	
	2013	1,430	5.62	
	2014	1,455	5.72	
	2015	1,693	6.66	
	2016	1,940	7.63	
	2017	2,194	8.63	
	2018	2,529	9.94	
	2019	2,785	10.95	
	2020	3,139	12.34	
	2021	1,543	6.07	
		<i>Total</i>	<i>25,436</i>	<i>100.00</i>

Panel C

	Country	Unique firms	Percent	Data points	Percent
1	Argentina	50	0.70	32	0.13
2	Australia	343	4.77	1,286	5.06
3	Austria	31	0.43	161	0.63
4	Belgium	44	0.61	199	0.78
5	Brazil	104	1.45	33	0.13
6	Canada	410	5.70	1,354	5.32
7	Chile	37	0.51	148	0.58
8	Colombia	15	0.21	51	0.20
9	Denmark	58	0.81	287	1.13

10	Finland	76	1.06	350	1.38
11	France	174	2.42	942	3.70
12	Germany	254	3.53	914	3.59
13	Greece	24	0.33	47	0.18
14	Hong Kong	138	1.92	649	2.55
15	India	138	1.92	580	2.28
16	Indonesia	45	0.63	141	0.55
17	Ireland; Republic of	48	0.67	317	1.25
18	Israel	33	0.46	108	0.42
19	Italy	109	1.52	245	0.96
20	Japan	421	5.85	1,254	4.93
21	Korea; Republic (S. Korea)	139	1.93	652	2.56
22	Malaysia	62	0.86	378	1.49
23	Mexico	45	0.63	177	0.70
24	Netherlands	66	0.92	427	1.68
25	New Zealand	54	0.75	146	0.57
26	Norway	70	0.97	232	0.91
27	Peru	26	0.36	66	0.26
28	Philippines	27	0.38	67	0.26
29	Portugal	13	0.18	49	0.19
30	Singapore	87	1.21	359	1.41
31	South Africa	100	1.39	654	2.57
32	Spain	66	0.92	352	1.38
33	Sweden	306	4.25	763	3.00
34	Switzerland	170	2.36	720	2.83
35	Thailand	137	1.90	140	0.55
36	Turkey	61	0.85	47	0.18
37	United Kingdom	515	7.16	2,256	8.87
38	United States of America	2,698	37.50	8,853	34.81
<i>Total</i>		<i>7,194</i>	<i>100.00</i>	<i>25,436</i>	<i>100.00</i>

This table describes the sample formation and distribution.

Table 3: Descriptive statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
TQ	25,436	2.15	1.74	0.62	11.16
TQadj	25,436	0.55	1.64	-2.34	10.11
BGDIV	25,436	17.95	13.54	0.00	100.00
BCDIV	8,335	26.03	21.17	0.00	100.00
INT_S	25,436	49.82	30.58	0.48	98.01
INT_A	16,535	26.20	23.58	0.02	92.26
CEOD	25,436	0.40	0.49	0.00	1.00
FSIZE	25,436	22.03	1.67	13.79	27.41
ROA	25,436	0.06	0.12	-0.67	0.36
LEVRG	25,436	0.24	0.17	0.00	0.84
CR	25,436	2.07	1.81	0.23	17.66
CEXP	25,436	0.05	0.04	0.00	0.25
RD	25,436	0.02	0.05	0.00	0.37
FFLOAT	25,436	78.95	24.14	0.15	100.00
WGI	25,436	1.20	0.47	-0.53	1.95
GDP	25,436	10.61	0.74	6.90	11.54
LAW	25,436	0.67	0.47	0.00	1.00

This table indicates the descriptive statistics.

Table 4: Correlation analysis

Variables	1	2	3	4	5	6	7	8	9
1 TQ	1								
2 TQadj	0.971*	1							
3 BGDIV	0.076*	0.054*	1						
4 BCDIV	0.026*	0.015	-0.013	1					
5 INT_S	-0.007	-0.011	0.038*	0.188*	1				
6 INT_A	-0.127*	-0.098*	0.024*	0.184*	0.481*	1			
7 CEOD	0.039*	0.029*	-0.043*	-0.115*	-0.087*	-0.162*	1		
8 FSIZE	-0.303*	-0.274*	0.050*	-0.007	0.102*	0.064*	0.124*	1	
9 ROA	0.233*	0.265*	0.004	-0.032*	0.012	-0.037*	0.043*	0.136*	1
10 LEVRG	-0.172*	-0.157*	0.078*	-0.028*	-0.075*	0.067*	-0.006	0.231*	-0.184*
11 CR	0.204*	0.168*	-0.108*	0.022*	0.016*	-0.139*	0.035*	-0.299*	-0.040*
12 CEXP	0.008	0.039*	-0.081*	-0.059*	0.01	0.098*	-0.033*	0.005	0.073*
13 RD	0.338*	0.254*	-0.008	0.049*	0.074*	-0.161*	0.069*	-0.219*	-0.259*
14 FFLOAT	0.035*	0.021*	0.096*	-0.013	-0.056*	-0.072*	0.118*	0.086*	-0.011
15 WGI	-0.027*	-0.023*	0.088*	0.193*	0.138*	0.152*	-0.048*	-0.041*	-0.046*
16 GDP	0.006	-0.013*	0.127*	0.109*	-0.004	0.002	0.102*	-0.046*	-0.107*
17 LAW	0.112*	0.115*	-0.030*	-0.246*	-0.187*	-0.151*	0.099*	-0.131*	0.000
Variables	10	11	12	13	14	15	16	17	
10 LEVRG	1								
11 CR	-0.313*	1							
12 CEXP	0.012	-0.065*	1						
13 RD	-0.164*	0.227*	-0.071*	1					
14 FFLOAT	-0.007	0.034*	-0.061*	0.143*	1				
15 WGI	-0.068*	0.036*	-0.025*	0.070*	0.285*	1			
16 GDP	-0.029*	0.095*	-0.096*	0.173*	0.372*	0.831*	1		
17 LAW	0.005	0.106*	-0.022*	0.071*	0.288*	-0.058*	0.038*	1	

This table indicates the correlation analysis. *p<0.05

Table 5: Internationalisation, board diversity, and firm value

	(1)	(2)	(3)	(4)
	BGDIV	BCDIV	TQ	TQ
INT_S(t-1)	-0.024*** (-4.35)	0.060*** (3.06)	-0.0021** (-2.29)	0.0018** (2.37)
BGDIV(t-1)			0.0036 (1.33)	
INT_S(t-1)*BGDIV(t-1)			0.000084** (1.99)	
BCDIV(t-1)				0.0063*** (3.89)
INT_S(t-1)*BCDIV(t-1)				-0.000068*** (-3.08)
CEO(t-1)	-0.040 (-0.13)	-1.47 (-1.33)	0.026 (0.62)	0.090*** (2.86)
FSIZE(t-1)	1.50*** (14.35)	1.04*** (2.59)	-0.24*** (-13.19)	-0.18*** (-19.08)
ROA(t-1)	7.22*** (5.92)	-5.46 (-1.23)	5.36*** (16.73)	6.02*** (43.46)
LEVRG(t-1)	-1.62* (-1.70)	0.33 (0.11)	0.26* (1.81)	0.39*** (4.39)
CR(t-1)	-0.43*** (-5.04)	0.68** (2.10)	0.057*** (3.50)	0.083*** (7.92)
CEXP(t-1)	-1.44 (-0.42)	-39.3*** (-3.76)	1.00** (2.05)	-0.36 (-1.08)
RD(t-1)	9.58** (2.56)	-4.19 (-0.28)	11.0*** (13.67)	10.4*** (25.11)
FFLOAT(t-1)	0.051*** (5.91)	-0.0014 (-0.05)	-0.00065 (-0.63)	-0.00043 (-0.66)
WGI(t-1)	-8.51*** (-5.71)	0.34 (0.08)	-0.014 (-0.07)	-0.31 (-1.35)
GDP(t-1)	-10.7*** (-8.83)	-1.44 (-0.48)	0.095 (0.71)	0.21 (1.39)
LAW(t-1)	41.1*** (11.29)	-3.07 (-0.24)	0.89** (2.36)	0.19 (0.23)
Constant	55.8*** (4.91)	2.26 (0.07)	4.82*** (3.84)	2.79* (1.79)
Country, industry, & year FE	Yes	Yes	Yes	Yes
N	22126	7658	22081	7364
Adj. R ²	0.445	0.286	0.364	0.429
F-stat.	95.53***	42.97***	27.46***	74.78***

This table presents the association between internationalisation and board diversity and the moderating effect of board diversity between internationalisation and firm value. INT_S is proxied by international sales/total sales. BGDIV: Proportion of female directors on board. BCDIV: Proportion of directors from different ethnic backgrounds on board. TQ refers to the market capitalisation plus total debt scaled by total assets. All variables are defined in Table 1. t statistics in parentheses. Standard errors are clustered by firms. * p < 0.10, ** p < 0.05, *** p < 0.01.

Robustness tests

Table 6: Alternative testing variable (INT_A) and alternative dependent variable (TQadj)

	(1) BGDIV	(2) BCDIV	(5) TQadj	(6) TQadj
INT_A(t-1)	-0.024*** (-2.93)	0.095*** (3.85)		
BGDIV(t-1)			0.0041 (1.53)	
BCDIV(t-1)				0.0066** (2.33)
INT_S(t-1)			-0.0018** (-1.97)	0.0019 (1.49)
INT_S(t-1)*BGDIV(t-1)			0.000072* (1.71)	
INT_S(t-1)*BCDIV(t-1)				-0.000074* (-1.96)
CEOD(t-1)	0.21 (0.58)	-1.32 (-1.05)	0.028 (0.66)	0.088 (1.30)
FSIZE(t-1)	1.48*** (11.93)	1.23*** (2.61)	-0.23*** (-12.91)	-0.17*** (-7.20)
ROA(t-1)	8.87*** (5.89)	-6.82 (-1.37)	5.39*** (16.88)	6.04*** (11.21)
LEVRG(t-1)	0.31 (0.27)	-1.11 (-0.29)	0.27* (1.92)	0.40* (1.96)
CR(t-1)	-0.48*** (-4.64)	0.99*** (2.63)	0.056*** (3.48)	0.080*** (3.04)
CEXP(t-1)	-2.22 (-0.55)	-50.7*** (-4.08)	0.80* (1.65)	-0.47 (-0.75)
RD(t-1)	1.59 (0.32)	-7.66 (-0.41)	10.9*** (13.61)	10.3*** (7.66)
FFLOAT(t-1)	0.047*** (4.49)	0.0050 (0.17)	-0.00066 (-0.66)	-0.00057 (-0.49)
WGI(t-1)	-5.72*** (-3.24)	1.70 (0.33)	0.12 (0.58)	-0.25 (-0.84)
GDP(t-1)	-10.2*** (-7.25)	0.61 (0.17)	-0.0023 (-0.02)	0.18 (0.93)
LAW(t-1)	34.3*** (9.37)	5.79 (0.59)	0.82** (2.17)	0.046 (0.10)
Constant	53.5*** (4.12)	-31.3 (-0.91)	4.21*** (3.41)	1.66 (0.89)
Country, industry, & year FE	Yes	Yes	Yes	Yes
N	14989	5450	22081	7364
Adj. R ²	0.443	0.305	0.291	0.369
F-stat.	16.02***	34.28***	16.17***	14.99***

This table presents the association between internationalisation and board diversity and the moderating effect of board diversity between internationalisation and firm value based on alternative proxies. INT_S is proxied by international sales/total sales. INT_A is proxied by international assets/total assets. BGDIV: Proportion of female directors on board. BCDIV: Proportion of directors from different ethnic backgrounds on board. TQadj refers to the difference between the firm's TQ and the median TQ of the firms in the same industry in the same year. All variables are defined in Table 1. t statistics in parentheses. Standard errors are clustered by firms. * p < 0.10, ** p < 0.05, *** p < 0.01.

Columns#1-4 incorporate alternative testing variable (INT_A)

Columns#5-6 incorporate alternative dependent variable (TQadj)

Table 7: Additional controls (AUDREP and REGSEC)

	(1)	(2)	(3)	(4)
	BGDIV	BCDIV	TQ	TQ
INT_S(t-1)	-0.024*** (-3.99)	0.051** (2.36)	-0.0021** (-2.31)	0.0011 (0.90)
BGDIV(t-1)			0.0048* (1.73)	
INT_S(t-1)*BGDIV(t-1)			0.000070* (1.65)	
BCDIV(t-1)				0.0051* (1.78)
INT_S(t-1)*BCDIV(t-1)				-0.000064* (-1.66)
CEOD(t-1)	0.032 (0.09)	-1.96 (-1.62)	0.051 (1.19)	0.099 (1.40)
FSIZE(t-1)	1.41*** (12.16)	0.94** (2.11)	-0.23*** (-11.93)	-0.17*** (-6.60)
ROA(t-1)	7.76*** (5.81)	-5.15 (-1.03)	5.53*** (15.86)	6.24*** (10.38)
LEVRG(t-1)	-1.60 (-1.53)	1.69 (0.48)	0.21 (1.43)	0.39* (1.91)
CR(t-1)	-0.51*** (-5.58)	0.69** (2.10)	0.041** (2.40)	0.053** (2.05)
CEXP(t-1)	-1.77 (-0.50)	-39.0*** (-3.47)	0.49 (1.02)	-1.10* (-1.72)
RD(t-1)	8.12** (1.99)	-0.52 (-0.03)	10.1*** (12.05)	9.34*** (7.89)
FFLOAT(t-1)	0.043*** (4.59)	-0.017 (-0.60)	-0.0011 (-1.12)	-0.00068 (-0.59)
WGI(t-1)	-6.93*** (-3.26)	-3.24 (-0.59)	0.38* (1.67)	-0.26 (-0.86)
GDP(t-1)	-10.4*** (-8.14)	-3.24 (-0.98)	0.012 (0.09)	0.00074 (0.00)
LAW(t-1)	39.9*** (9.69)	1.10 (0.08)	0.61 (1.62)	0.46 (1.09)
AUDREP(t-1)	-1.13* (-1.69)	-0.55 (-0.31)	-0.092 (-1.32)	0.080 (0.78)
REGSEC(t-1)	-1.24** (-2.23)	-0.85 (-0.61)	0.061 (1.16)	-0.024 (-0.33)
Constant	71.4*** (5.68)	38.4 (1.12)	5.21*** (4.01)	4.25** (2.24)
Country, industry, & year FE	Yes	Yes	Yes	Yes
N	16530	6124	16504	5875
Adj. R ²	0.430	0.292	0.388	0.456
F-stat.	86.95***	47.12***	23.81***	22.11***

This table presents the association between internationalisation and board structure and the moderating effect of board diversity attributes between internationalisation and firm value by including two additional control variables (AUDREP and REGSEC). AUDREP refers to the strength of financial auditing and reporting standards in the country [1 = extremely weak; 7 = extremely strong]. REGSEC refers to the strength of stock market regulations in the country [1 = extremely weak; 7 = extremely strong]. INT_S is proxied by international sales/total sales. TQ is proxied by the market capitalisation plus total debt scaled by total assets. BGDIV: Proportion of female directors on board. BCDIV: Proportion of directors from different ethnic backgrounds on board. All variables are defined in Table 1. *t* statistics in parentheses. Standard errors are clustered by firms. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 8: Two-Stages Least Square (2SLS) regression analysis

	(1)	(2)	(3)	(4)
	INT S(t-1)	BGDIV	INT S(t-1)	BCDIV
	1 st stage	2 nd stage	1 st stage	2 nd stage
INT_S(t-2)	0.92*** (331.51)		0.92*** (331.51)	
INT_S_IndAve(t-1)	-0.036* (-1.89)		-0.036* (-1.89)	
INT_S(t-1)		-0.026*** (-4.12)		0.070*** (3.13)
CEOD(t-1)	0.23 (1.35)	-0.020 (-0.06)	0.23 (1.35)	-1.57 (-1.38)
FSIZE(t-1)	0.25*** (4.52)	1.38*** (12.24)	0.25*** (4.52)	1.00** (2.35)
ROA(t-1)	-0.47 (-0.63)	7.95*** (5.96)	-0.47 (-0.63)	-5.28 (-1.12)
LEVRG(t-1)	-0.10 (-0.21)	-1.46 (-1.45)	-0.10 (-0.21)	0.26 (0.08)
CR(t-1)	0.14*** (2.70)	-0.47*** (-4.76)	0.14*** (2.70)	0.63* (1.84)
CEXP(t-1)	-2.65 (-1.38)	-0.10 (-0.03)	-2.65 (-1.38)	-39.5*** (-3.57)
RD(t-1)	4.41** (2.11)	6.95* (1.69)	4.41** (2.11)	-10.9 (-0.64)
FFLOAT(t-1)	0.0055 (1.36)	0.052*** (5.53)	0.0055 (1.36)	-0.0016 (-0.06)
WGI(t-1)	0.49 (0.39)	-8.32*** (-5.24)	0.49 (0.39)	-0.40 (-0.09)
GDP(t-1)	-3.93*** (-4.68)	-11.9*** (-9.07)	-3.93*** (-4.68)	-1.05 (-0.33)
LAW(t-1)	4.93 (1.55)	46.6*** (12.69)	4.93 (1.55)	-8.28 (-0.58)
Constant	36.1*** (4.32)	90.8*** (7.12)	36.1*** (4.32)	4.79 (0.14)
Country, industry, & year FE	Yes	Yes	Yes	Yes
WUH		4.88**		2.87*
OVE		1.84		0.67
WEI		55046.3		55046.3
N	19,318	19318	19,318	7034
Adj. R ²	0.890	0.456	0.890	0.295
F-stat.	2116.89***		2116.89***	
χ^2 -stat.		1632.47***		304.28***

This table presents the association between internationalisation and board structure based on 2SLS regression. INT_S is proxied by international sales/total sales. BGDIV: Proportion of female directors on board. BCDIV: Proportion of directors from different ethnic backgrounds on board. All variables are defined in Table 1. *t* statistics in parentheses. Standard errors are clustered by firms.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Instrumental variables: Two-year lag of INT_S and Industry average of INT_S excluding focal firms. WHU: Wu-Hausman test of endogeneity. OVE: Overidentifying restriction test (Sargan). WEI: Weak instrument test (F-value).

Table 9: GMM-based dynamic panel regression and Entropy Balancing approaches

	(1) BGDIV	(2) BCDIV	(3) BGDIV	(4) BCDIV
	GMM-based dynamic panel	GMM-based dynamic panel	Entropy balancing	Entropy balancing
BGDIV(t-1)	0.99*** (43.32)			
BCDIV(t-1)		0.13*** (9.27)		
INT_S(t-1)	-0.0081* (-1.68)	0.020*** (3.16)	-0.023*** (-4.00)	0.033* (1.72)
CEOD(t-1)	0.25 (1.03)	-0.48 (-1.20)	-0.48 (-1.15)	-1.33 (-0.84)
FSIZE(t-1)	0.91*** (3.23)	-0.65* (-1.69)	1.46*** (10.88)	1.67*** (3.03)
ROA(t-1)	1.27 (1.35)	2.05** (2.15)	8.30*** (5.03)	-7.09 (-1.13)
LEVRG(t-1)	-1.19 (-1.20)	-2.61** (-2.05)	-0.36 (-0.28)	-1.71 (-0.40)
CR(t-1)	0.011 (0.17)	-0.21 (-1.52)	-0.30*** (-2.61)	1.21*** (3.47)
CEXP(t-1)	1.96 (0.78)	2.01 (0.69)	-2.50 (-0.59)	-59.0*** (-4.36)
RD(t-1)	-11.5* (-1.76)	-7.84 (-1.09)	3.51 (0.77)	2.51 (0.13)
FFLOAT(t-1)	0.0034 (0.32)	-0.0072 (-0.68)	0.052*** (4.78)	0.00012 (0.00)
WGI(t-1)	-1.30 (-1.35)	-1.26 (-0.92)	-7.27*** (-3.69)	-0.25 (-0.05)
GDP(t-1)	0.19 (0.26)	0.81 (0.81)	-12.2*** (-8.27)	-0.90 (-0.20)
LAW(t-1)	0 (.)	0 (.)	41.8*** (9.32)	-3.91 (-0.33)
Constant	-19.4** (-2.34)	28.1** (2.43)	63.5*** (4.52)	-18.0 (-0.43)
Country, industry, & year FE			Yes	Yes
N	19148	5686	22126	7658
Adj. R^2			0.506	0.288
F-stat.			80.23***	35.82***
χ^2 -stat.	2682.26***	65.86***		

This table presents the association between internationalisation and board structure based on GMM-based dynamic panel regression and Entropy Balancing. INT_S is proxied by international sales/total sales. BGDIV: Proportion of female directors on board. BCDIV: Proportion of directors from different ethnic backgrounds on board. All variables are defined in Table 1. t statistics in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

LAW(t-1) values are dropped because of collinearity during GMM-based dynamic panel analysis (Columns#1&2)

Table 10: Alternative sample: Anglo-Saxon versus Non-Anglo-Saxon countries

	(1)	(2)	(3)	(4)
	BGDIV	BCDIV	BGDIV	BCDIV
	Anglo-Saxon countries	Anglo-Saxon countries	Non-Anglo-Saxon countries	Non-Anglo-Saxon countries
INT_S(t-1)	-0.025*** (-7.09)	0.091*** (8.12)	-0.021*** (-5.71)	0.043*** (3.63)
CEOD(t-1)	-0.088 (-0.42)	0.72 (1.06)	-0.085 (-0.36)	-3.31*** (-4.22)
FSIZE(t-1)	1.86*** (27.61)	0.96*** (4.80)	0.88*** (11.15)	0.96*** (4.14)
ROA(t-1)	5.93*** (7.41)	1.05 (0.37)	6.67*** (5.32)	-11.1*** (-2.97)
LEVRG(t-1)	-2.07*** (-3.59)	3.68* (1.91)	-1.74** (-2.32)	0.73 (0.32)
CR(t-1)	-0.38*** (-7.20)	0.28 (1.39)	-0.34*** (-4.26)	1.19*** (4.20)
CEXP(t-1)	-0.68 (-0.30)	-36.7*** (-5.10)	2.72 (0.98)	-45.9*** (-5.25)
RD(t-1)	14.2*** (6.35)	-7.29 (-0.79)	5.26 (1.46)	3.41 (0.33)
FFLOAT(t-1)	0.083*** (14.63)	-0.050*** (-2.91)	0.024*** (5.13)	0.025* (1.75)
WGI(t-1)	2.18 (0.77)	1.58 (0.20)	-11.4*** (-7.65)	0.70 (0.14)
GDP(t-1)	-12.7*** (-9.98)	4.67 (1.22)	-7.41*** (-6.79)	-2.51 (-0.71)
LAW(t-1)	0 (.)	0 (.)	-0.44 (-0.19)	-8.93 (-0.70)
Constant	94.4*** (6.08)	-53.7 (-1.15)	32.2*** (3.18)	11.4 (0.34)
Country, industry, & year FE	Yes	Yes	Yes	Yes
N	12195	3150	9931	4508
Adj. R ²	0.307	0.216	0.575	0.287
F-stat.	132.53***	22.15***	195.41***	27.74***

This table presents the association between internationalisation and board structure for Anglo-Saxon versus non- Anglo-Saxon samples. Anglo-Saxon countries are Australia, Canada, New Zealand, the United Kingdom, and the United States, whereas non-Anglo-Saxon countries are all countries in the sample except Anglo-Saxon countries. INT_S is proxied by international sales/total sales. BGDIV: Proportion of female directors on board. BCDIV: Proportion of directors from different ethnic backgrounds on board. All variables are defined in Table 1. t statistics in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01.

Table 11: Alternative sample: High- and Low-WGI countries

	(1)	(2)	(3)	(4)
	BGDIV	BCDIV	BGDIV	BCDIV
	High WGI (\geq WGI- median)	High WGI (\geq WGI- median)	Low WGI ($<$ WGI- median)	Low WGI ($<$ WGI- median)
INT_S(t-1)	-0.025*** (-7.18)	0.067*** (5.96)	-0.021*** (-5.60)	0.047*** (3.96)
CEOD(t-1)	-0.51** (-2.08)	-1.34* (-1.76)	-0.052 (-0.26)	-1.01 (-1.43)
FSIZE(t-1)	1.74*** (24.62)	1.48*** (7.30)	1.29*** (17.75)	0.084 (0.34)
ROA(t-1)	9.30*** (9.49)	-5.48* (-1.71)	6.37*** (7.04)	-7.50** (-2.22)
LEVRG(t-1)	0.58 (0.81)	-1.22 (-0.58)	-3.02*** (-5.16)	0.90 (0.46)
CR(t-1)	-0.20*** (-3.28)	0.74*** (3.29)	-0.62*** (-10.10)	0.50* (1.92)
CEXP(t-1)	-6.49*** (-2.69)	-49.6*** (-6.61)	3.79 (1.51)	-16.5* (-1.93)
RD(t-1)	5.05* (1.65)	1.61 (0.17)	12.3*** (5.26)	-21.4** (-2.04)
FFLOAT(t-1)	0.064*** (12.60)	-0.0084 (-0.58)	0.035*** (6.62)	0.013 (0.80)
WGI(t-1)	-8.34*** (-3.21)	-3.13 (-0.42)	-5.36*** (-3.58)	3.11 (0.67)
GDP(t-1)	-5.09*** (-4.16)	1.90 (0.51)	-13.7*** (-9.90)	-3.06 (-0.77)
LAW(t-1)	1.54* (1.95)	-30.0*** (-12.15)	42.9*** (13.09)	-2.89 (-0.25)
Constant	31.7** (2.38)	-4.26 (-0.11)	75.6*** (5.78)	41.2 (1.08)
Country, industry, & year FE	Yes	Yes	Yes	Yes
N	11064	4860	11062	2798
Adj. R^2	0.460	0.266	0.462	0.200
F-stat.	172.02***	32.94***	159.19***	12.84***

This table presents the association between internationalisation and board structure for High- and low-WGI countries. High-WGI countries are those whose WGI scores are greater than or equal to the sample median of the WGI score, whereas Low-WGI countries are those whose WGI scores are smaller than the sample median of the WGI score. INT_S is proxied by international sales/total sales. BGDIV: Proportion of female directors on board. BCDIV: Proportion of directors from different ethnic backgrounds on board. All variables are defined in Table 1. t statistics in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 12: Alternative sample: Earlier versus Recent periods

	(1)	(2)	(3)	(4)
	BGDIV	BCDIV	BGDIV	BCDIV
	Years between 2002 and 2015	Years between 2002 and 2015	Years between 2016 and 2021	Years between 2016 and 2021
INT_S(t-1)	-0.020*** (-5.70)	0.047*** (3.93)	-0.025*** (-7.05)	0.072*** (6.23)
CEOD(t-1)	0.25 (1.13)	-1.85** (-2.42)	-0.72*** (-3.31)	-1.37* (-1.86)
FSIZE(t-1)	1.35*** (18.24)	0.51** (2.16)	1.60*** (23.23)	1.38*** (6.59)
ROA(t-1)	5.60*** (5.52)	-5.62 (-1.55)	8.18*** (9.16)	-6.04* (-1.90)
LEVRG(t-1)	-1.28* (-1.91)	1.78 (0.77)	-1.77*** (-2.91)	0.47 (0.23)
CR(t-1)	-0.45*** (-6.81)	0.25 (0.89)	-0.40*** (-6.90)	0.80*** (3.60)
CEXP(t-1)	-4.36* (-1.90)	-25.2*** (-3.20)	-0.92 (-0.35)	-59.5*** (-6.99)
RD(t-1)	-0.25 (-0.08)	-7.42 (-0.61)	15.4*** (6.52)	-0.92 (-0.11)
FFLOAT(t-1)	0.036*** (6.98)	-0.030* (-1.94)	0.060*** (11.89)	0.027* (1.76)
WGI(t-1)	-3.08 (-1.28)	10.4 (1.36)	-9.32*** (-5.22)	-3.78 (-0.62)
GDP(t-1)	-5.06*** (-3.94)	-0.87 (-0.18)	1.90 (0.67)	12.3 (1.55)
LAW(t-1)	16.5*** (3.36)	-9.63 (-0.62)	19.8*** (3.38)	-20.2 (-1.12)
Constant	18.6 (1.55)	7.68 (0.18)	-49.8* (-1.90)	-133.9* (-1.79)
Country, industry, & year FE	Yes	Yes	Yes	Yes
N	9904	3717	12222	3941
Adj. R ²	0.353	0.274	0.430	0.316
F-stat.	81.52***	22.90***	151.83***	31.84***

This table presents the association between internationalisation and board structure for earlier and recent periods. INT_S is proxied by international sales/total sales. BGDIV: Proportion of female directors on board. BCDIV: Proportion of directors from different ethnic backgrounds on board. All variables are defined in Table 1. t statistics in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01.

Table 13: Alternative sample: Excluding financial crisis and COVID-19 pandemic periods

	(1)	(2)	(3)	(4)
	BGDIV	BCDIV	BGDIV	BCDIV
	Excluding 2008-2009	Excluding 2008-2009	Excluding 2020-2021	Excluding 2020-2021
INT_S(t-1)	-0.023*** (-8.79)	0.061*** (7.14)	-0.024*** (-8.64)	0.055*** (6.04)
CEOD(t-1)	-0.14 (-0.85)	-1.51*** (-2.75)	0.25 (1.49)	-1.95*** (-3.38)
FSIZE(t-1)	1.51*** (28.77)	1.13*** (7.10)	1.42*** (25.24)	0.87*** (5.01)
ROA(t-1)	7.48*** (10.74)	-5.50** (-2.25)	7.52*** (10.08)	-4.91* (-1.86)
LEVRG(t-1)	-1.61*** (-3.41)	0.72 (0.47)	-1.77*** (-3.53)	1.00 (0.60)
CR(t-1)	-0.44*** (-9.70)	0.74*** (4.21)	-0.50*** (-10.31)	0.60*** (3.16)
CEXP(t-1)	-1.69 (-0.92)	-41.4*** (-6.90)	-1.40 (-0.75)	-36.1*** (-5.87)
RD(t-1)	10.4*** (5.39)	-3.67 (-0.51)	7.38*** (3.57)	-2.80 (-0.35)
FFLOAT(t-1)	0.051*** (13.27)	-0.0025 (-0.22)	0.041*** (10.22)	-0.014 (-1.20)
WGI(t-1)	-8.82*** (-7.34)	-0.49 (-0.12)	-9.45*** (-5.95)	-3.35 (-0.69)
GDP(t-1)	-8.11*** (-9.54)	-0.13 (-0.05)	-11.6*** (-13.10)	-2.12 (-0.72)
LAW(t-1)	37.0*** (12.93)	-4.23 (-0.35)	40.7*** (12.22)	-2.77 (-0.20)
Constant	32.5*** (4.09)	-11.3 (-0.42)	69.1*** (8.14)	18.3 (0.62)
Country, industry, & year FE	Yes	Yes	Yes	Yes
N	20736	7268	18047	6442
Adj. R ²	0.448	0.288	0.418	0.290
F-stat.	235.12***	42.48***	181.09***	38.09***

This table presents the association between internationalisation and board structure for the alternative sample by excluding the financial crisis (2008-2009) and COVID-19 pandemic (2020-2021) periods. INT_S is proxied by international sales/total sales. BGDIV: Proportion of female directors on board. BCDIV: Proportion of directors from different ethnic backgrounds on board. All variables are defined in Table 1. t statistics in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01.