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# THE RELATIONSHIP BETWEEN BOARDS STRUCTURE AND FIRM PERFORMANCE: EVIDENCE FROM FIRMS QUOTED ON BORSA ISTANBUL[1]

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## Abstract

This study investigates the relations among various characteristics of board members and financial performance of firms listed on Borsa Istanbul, taking into consideration the sizes of the firms. The relationships were examined using panel data analysis. The units of analysis were determined by examining the secondary data of 58 public firms with publicly traded shares and fully accessible data. In the analysis, those 58 firms' annual data between 2012 and 2018 were used. Significant relationships were found between some variables representing the firms' board structures and return on asset ratios. The study found that independent directors serving on multiple boards and academicians negatively affect return on assets for large firms. Similarly, independent directors serving on multiple boards and members who are experts in the sector also negatively affect return on assets for small firms.

***Keywords:*** *Financial Performance, Corporate Governance, Board of Directors, Panel Data Analysis, Borsa Istanbul.*
***JEL Classification:*** *G34, G38, M14*

# YÖNETİM KURULLARININ YAPISI VE FİRMA PERFORMANSI İLİŞKİSİ: BORSA İSTANBUL'A KAYITLI FİRMALAR ÖRNEĞİ

## Öz

Bu çalışma, Borsa İstanbul'da işlem gören firmaların yönetim kurulu üyelerinin çeşitli özellikleri ile finansal performansları arasındaki ilişkileri firma büyüklüklerini dikkate alarak araştırmaktadır. Söz konusu ilişkiler panel veri analizi kullanılarak incelenmiştir. Analiz birimleri, hisseleri borsada işlem gören ve verilerine tam olarak ulaşılabilen 58 halka açık firmanın ikincil verileri incelenerek belirlenmiştir. Analizde bu 58 firmanın 2012-2018 yılları arasındaki yıllık verileri kullanılmıştır. Firmaların yönetim kurulu yapılarını temsil eden bazı değişkenler ile aktif kârlılık oranları arasında anlamlı ilişkiler bulunmuştur. Çalışmada, birden fazla yönetim kurulunda görev alan bağımsız yöneticilerin ve akademisyenlerin büyük firmalarda aktif kârlılığını negatif etkilediği ortaya konulmuştur. Benzer şekilde, birden fazla yönetim kurulunda görev yapan bağımsız yöneticilerin ve sektörel uzmanlığa sahip olan yönetim kurulu üyelerinin küçük firmaların aktif kârlılığını negatif etkilediği sonucuna ulaşılmıştır.

***Anahtar Kelimeler:*** *Finansal Performans**,** Kurumsal Yönetim, Yönetim Kurulları, Panel Veri Analizi, Borsa İstanbul.*
***JEL Sınıflandırması:*** *G34, G38, M14*

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## 1. Introduction

Since the 1990s, legislators, regulators, and various international organizations have made efforts to adopt and improve the corporate governance approach in companies, and interest in this issue has reached the highest level as a result of scandals involving big companies like Enron and Worldcom. Boards have a key function in establishing the corporate governance approach of enterprises and facilitating effective decision-making. Successful organizations with strong governance require board members to possess a broad understanding of operational and technology issues. With this structure, boards of directors can propose projects that add value to the enterprise, provide guidance, and transfer their knowledge and experience to their organizations. In this way, companies can gain a competitive advantage.

Based on the corporate governance principles in force in Turkey, the board holds the highest share in the corporate governance rating. Turkish Commercial Law No. 6102, which was announced in 2011, abolished the requirement for board members to hold a portion of the company's shares, which was previously set forth in the Turkish Commercial Law applicable to joint stock companies, and made it possible for non-shareholders to be elected as board members. As a result, it has been possible to increase the amount of board directors in joint-stock companies that continue their activities with fewer shareholders and to facilitate the formation of specialized and professional boards of directors (Judicial Commission, 2007).

According to the law established on January 13, 2011, board members must be fully competent. In addition, 25% of the board members must have a university degree (Official Gazette, 2011). The preamble to the paragraph regulating the education degree of the members states that in this way, the quantitative level of the board has been increased and the principles of corporate governance have been harmonized by preparing the ground for the election of professional members. However, the said paragraph does not specify the field of university education. In addition, it may be possible to determine and specify the field of graduation of the member to be elected to the board, such as graduate from the Faculty of Law, by a provision to be included in the charter to the company (Altaş, 2011: 113). Independent board membership was introduced for the first time in the Turkish Capital Markets in 2011. According to Corporate Governance Communiqué II-17.1, which became effective upon its publication in the Official Gazette on January 3, 2014, number 28871; the board includes independent members who are required to carry out their duties without being exposed to any form of influence. A minimum of 1/3 of all directors is required to meet the independence criteria. In any case there has to be at least two independent members. The company sets targets for the proportion of female board members, which is at least 25%, and establishes a policy for achieving these targets. The board annually evaluates progress in achieving these goals. One audit committee member is recommended to have not less than five years of audit, accounting and finance experience.

In a United States listed company, an independent director spends an average of 200 hours per year, which is considered insufficient and efforts are being made to increase this to 400 hours. Another area of debate is how many companies an independent director can serve. It is recommended by experts that a significant amount of time should be devoted to this responsibility and therefore no more than 4 or 5 companies should be served as an independent director (Özer, 2012: 2). In accordance with the provisions outlined in the relevant Turkish legislation, regulations and guidelines, many countries worldwide are implementing policies to establish professional, ideal board structures. Furthermore, as will be explained in detail in the following sections of this study, there are numerous studies in the literature on the ideal board structure. These studies demonstrate a relationship between the board size, the age of its members, their remuneration, and the characteristics of the board, such as the tenure in the companies they serve and the performance of the companies (Dalton et al., 1999; Ruparelia & Njuguna, 2016; Mandala et al., 2017; Woschkowiak, 2018; Livnat et al., 2021; Amlashi, 2025). Although the independence of board members has become a frequently examined issue (Wang, 2009; Sanda et al., 2011; Liu et al., 2015;

Fuzi et al., 2016; Al-Saidi, 2021), it has only recently begun to address the effect of independent board members serving more than one firm on firm performance (Clements et al., 2015; Ullaha et al., 2021; Venkatesh et al., 2025). Furthermore, regulatory boards in various countries, including Turkey, limit the number of firms where independent directors can serve, indicating the need for further investigation. In the literature, there are conflicting hypotheses about the effect of academics on the financial performance of firms (Jiang & Murphy, 2007; Francis et al., 2015; Pang et al., 2020; Perlin et al., 2021). Empirical studies in the extant literature also investigate the impact of director's financial experience and whether these directors are also members of organisations that can influence the business world on company performance (Hillman et al., 1999; Ying &He, 2020; Al-Matari, 2022). Moreover, the extant studies posit that, given the absence of a universally applicable ideal board structure, companies of varying sizes should have board members with different areas of expertise (Linck et al., 2008; Coles et al., 2008; Githaiga et al., 2022). In this context, the original value of the study lies in examining the impact of the current legal regulations discussed in the aforementioned limited study on boards of directors and the impact of board size on company performance, as well as testing certain hypotheses formulated with company size in view. The study's findings are expected to provide a valuable source of guidance for researchers, companies and regulatory authorities.

The subsequent sections of this study include a literature review and hypothesis development. Following this, the methodology section is presented, which includes a detailed discussion of the data set, the variables, the limitations of the research, and the research model. The findings are presented in the following section. The final section of the study offers interpretations based on the findings and provides recommendations.

## 2. Literature Review and Hypothesis Development

### 2.1. Independent Directors Sitting on Multiple Boards

Pfeffer and Salancik (1978), stated that firms are surrounded by environmental forces and respond strategically to this siege. To respond to the environment, firms may take actions such as appointing external members to their boards of directors or creating joint boards of directors with related firms. This refers to adapting to the environment, responding to environmental conditions, and taking action to do so. Firms aim to provide communication, influence, and information by appointing members to each other's boards of directors. This is considered as one of the strategies to reduce resource constraints (Koç & Sayılar, 2016: 161).

Pfeffer and Salancik (2003), emphasize that joint board membership is important for weak firms to survive, to be effective in their industries, and to have information. It is also a method that creates an advantage for strong firms that have critical resources. Similarly, Aldrich (1979), argues that firms may form such ties in order to obtain information from different sources. Haunschild and Beckman (1998), argue that with the knowledge gained from overlapping board memberships, firms can adopt what has already been tried and succeeded by related firms. Pfeffer and Salancik (2003), argue that firms' appointment of certain external representatives to their boards is related to the objective of managing the environment and facilitates inter-firm interaction. Firms connected in this way will be able to look out for each other in decision making and protect each other from potential losses.

Directors who sit on the various boards have knowledge of potential opportunities, threats, problems, and solutions in their respective industries. In addition, an individual director may have a good reputation, experience, vision and valuable connections. According to Loderer and Peyer (2002), it also increases the value of the firms. Dooley (1969), argued that firm size, financial ties, relationships with competitors, and economic interests can lead to board overlap.

Cooptation can also be seen as a risky strategy for managing dependencies. According to Casciaro and Piskorski (2005), in the case of cooptation, the most powerful firms holds a seat on the board of the other firms, which in turn holds the resource needed by the dependent firm. This

can lead to crises that may result in the termination of the activities of the dependent firm if the firm holding the resource is not interested in the existence of the other firm. Overlapping board memberships can also have many negative effects. It can create a reason for disloyalty for board members in competing firms, and firms can learn each other's business plans. It can also encourage collusion between firms, such as production quotas and price agreements. A conflict of interest may arise if a director sitting on more than one board is involved in similar investment projects and provides services to similar firms. The time that these members devote to each firm may be reduced and the value of the firm may be reduced accordingly (Loderer & Peyer, 2002: 168).

Fama and Jensen (1983), claimed that it is a managerial skill for a manager to serve on more than one board. Another view is that this would have a negative impact on all the firms served (Loderer & Peyer, 2002; Fich & Shivdasani, 2006). Beasley (1996), argues that financial statement manipulation decreases because the number of independent members on multiple boards rises. Also, Ferris et al. (2003), found that financial fraud is not related to the number of independent directors. While these views were being debated in the literature, some companies listed on the Australian Capital Market imposed a limit on the number of companies that directors could serve on.

Clements et al. (2015), tested the experience hypothesis, which argues that directors serving on multiple boards will positively affect the firm in terms of corporate governance efficiency, and the busyness hypothesis, claiming for the directors negatively affect the firm. The busyness hypothesis argues that an individual sitting on multiple boards will reduce firm effectiveness by imposing too many obligations on the individual or by confusing the individual. Multiple board memberships will reduce the attentional capacity of board members, and their ability to provide advice will be compromised by time constraints. Multiple board memberships will be counterproductive in terms of board discussions and strategic decisions. The experience hypothesis, on the other hand, argues that serving on more than one board provides an individual with useful experience, which in turn increases the organizational effectiveness of the firms they serve. Moreover, serving on multiple firms is an evidence of managerial quality.

In their study of publicly traded American companies between 2008 and 2012, Reguera-Alvarado and Bravo (2017), found that independent directors had a positive effect on company performance. Nevertheless, it was determined that this impact was not positive when the directors in question were serving on more than two boards. Chee and Tam (2021), conducted research on publicly listed companies in Singapore between 2015 and 2018. The study revealed that companies with board members who served on too many boards at other firms experienced a negative impact on their earnings. In a study conducted by Ullaha et al. (2021), based on data from companies operating in Pakistan between 2014 and 2019, it was concluded that there is a positive relationship between the number of board members serving on more than two boards and the companies' financial performance. In a study conducted by Venkatesh et al. (2025), on publicly listed companies in India between 2011 and 2019, a non-linear relationship was found between busy independent board members and company performance. It was concluded that busy members have a positive effect on company performance up to a certain point, after which this effect reverses.

Based on these explanations and discussions in the literature, the study's first and second hypotheses are as follows.

$H_1$: The return on assets ratios of large firms are related to the independent directors serving on multiple boards.

$H_2$: The return on assets ratios of small firms are related to the independent directors serving on multiple boards.

### 2.2. Board Members Affiliated with Legal Entities, such as Business Related Associations and Chambers

Firms use various strategies to influence the law and regulation-making processes that affect their activities. One such strategy is to establish successful links with governments and industry-related organizations to access information, influence decisions, and reduce uncertainty. Hiring an individual with such connections within the firm is a way to implement this strategy (Hillman et al., 1999: 67).

Antitrust regulations, including issues such as mergers and acquisitions and the prevention of predatory pricing; economic or sectoral regulations such as licensing, permits, certificates, and price levels; and social regulations such as environmental laws, labor laws, and occupational safety and health regulations play an important role in firms' income and expenditure balances (Walters, 1993: 119-121). There is almost no economic area that is completely free from government or public organization control (King & Clelands, 1987: 4). These effects on the firms encourage them to be informed about the policies of the government and the regulations of the public authority. Firms are participants in public regulation. In non-totalitarian systems, the public policy making process is based on the integration of interests, which gives firms the opportunity to shape public policy just like other interest groups. Firms with high influence and the ability to participate effectively in this process reduce uncertainty for themselves and increase their chances of survival and success (Hillman et al., 1999: 67-68).

Inter-organizational linkage can be achieved through personal service, where a policiymakers in one firm holds a decision-making positions at other firms, institutions, or organizations. This individual acts as the connection between the two organizations. Firms can take advantage of this situation if their managers have a public identity and official position. They may be legislators, ministers, or advisors to these individuals. Using this approach, firms may have the advantage of gain to information and participation in the political process. In theory, these situations can be similar to cooptation and connected boards (Hillman et al., 1999: 71).

According to Selznick's (1965) definition, cooptation refers to the linkage of a firm with an external organization or organizations that control or influence resources. This linkage can also include government and regulatory agencies. Firms can benefit from cooptation by hiring experienced individuals who are already policy makers or who have previously served in government, parliament, or senior government positions, thereby promoting regulations that benefit their firms. Hilmann et al. (1999), shows that the election of company executives or board members to senatorial or parliamentary office increases the value of firms in the U.S. In the study, Frank Lautenberg is the CEO and chairman of Automatic Data Processing and has been with the company for 30 years, and the company and industry he was in after his election to the U.S. senate in 1982 were analyzed. As a result of the research, Automatic Data Processing received $58 million of the $649 million in revenue generated by the information technology sector during Lautenberg's election process, and the company's stock price increased from $28 to $33.5. Lipton and Herzberg (2006), also emphasized in their study that the business connections of board members are an important reputational signal.

A study undertaken by Dinh et al. (2022), using data from Vietnamese companies between 2009 and 2018 found that an increase in the number of members with political connections on the boards of directors was associated with improved financial performance of these companies. However, a investigation undertaken by La Rocca et al. (2022), utilising data from 2016 European-based companies, determined a negative relationship between the political connections of senior management and board members and the financial performance of these companies. In their study, Tiwasing and Sawang (2022), utilised 2015 data on rural SMEs in the UK, concluding that membership of local chambers of commerce was not associated with the profitability of these companies. However, the study indicated that membership was more likely to increase sales.

On the basis of these explanations and the discussions in the literature, the hypothesis three and four of the study are stated below.

$H_3$: A positive relationship exists between the board members belonging to legal entities such as associations and chambers related to business life and the return on assets ratios of large firms.

$H_4$: A positive relationship exists between the board members belonging to legal entities such as associations and chambers related to business life and the return on assets ratios of small firms.

### 2.3. Board Members with Expertise in the Sector and General Business Management

The characteristics of boards of directors vary according to the level of complexity of the firms. Moreover, firms with internal complexity, such as capital structure and R&D expenditure, and external complexity, such as operations and regional segments, are associated with board members possessing different capabilities (Markarian & Parbonetti, 2007). According to the literature, some studies argue that board members of large and small firms should have different characteristics. Linck et al. (2008), and Coles et al. (2008), emphasized that large firms have complex operating structures and their activities are spread over large regions, while small firms focus on expanding, developing, and diversifying their product or service offerings, and suggested that the boards of large firms should have members who are experts in general business management with high skills in strategy development, monitoring, and advising, while the boards of small firms should have members with sector expertise. The study's fifth and sixth hypotheses aim to test the views presented in the literature and are as follows.

$H_5$: A positive relationship exists between the directors with general business expertise and the return on assets ratios of large firms.

$H_6$: A positive relationship exists between the directors with sector expertise in the field of activity of the firm and the return on assets ratios of small firms.

### 2.4. Board Members with Financial Experience

Fama and Jensen (1983), define the board as the top level for policy making within a firm. It is desirable to have members with financial expertise as well as those knowledgeable and experienced in the firm's industry and in business management in general. Financial expertise has been emphasized in both theory and practice. The Sarbanes-Oxley Act of 2002 emerged as a reaction to accounting crises in the United States. It requires listing firms to have financial professionals on the audit committee to provide oversight of the financial reporting system. According to Defond et al. (2005), the presence of board members with financial background could enhance the board's ability in protecting shareholders and increasing shareholder value. Research has shown that such expert knowledge is related to shareholder benefits, including reducing earnings manipulation (Xie et al., 2003; Bedard et al., 2004) and providing high quality audit performance (Carcello et al., 2002). In a study conducted by Ying and He (2020), the authors examined companies involved in mergers and acquisitions between 2008 and 2016. Using data from the CSMAR and Wind databases, the study concluded that the accounting and finance education background of CEOs, who are a key part of senior management, improved the book and market performance related to mergers and acquisitions. Lee et al. (2024), conducted a study using data from companies based in Taiwan between 2000 and 2021, revealing that board members with financial experience significantly increased profit volatility. On the basis of these explanations and the discussions in the literature, the seventh and eighth hypotheses of the study are stated below.

$H_7$: A positive relationship exists between the directors with financial expertise and the return on assets ratios of large firms.

$H_8$: A positive relationship exists between the directors with financial expertise and the return on assets ratios of small firms.

### 2.5. Academic Board Members

Compared to other directors, academic board members have unique characteristics. They have a reputation for making decisions and judgments independently. This makes them less susceptible to influence from other managers. In addition, faculty members specialize in fields such as law, technology, and business (Jiang & Murphy, 2007). Academic members approach problems differently than non-academic members, providing the board with diverse views and perspectives. Forbes and Milliken (1999) claim that the involvement of academics in the board can improve knowledge and skills of the board.

However, academics may not always be able to contribute to improving board and firm performance due to various reasons. They may not always be able to match their theoretical knowledge with the practical realities of the business world. Furthermore, academics who hold administrative positions in universities may have limited decision-making abilities in the business world. This is due to their potential lack of interest in the activities of the firms whose boards members sit, as their academic pursuits may take precedence over their academic activities (Francis et al., 2015: 548).

In a study conducted by Pang et al. (2020), using data from Chinese companies between 2013 and 2015, it was concluded that the resignation of independent board members who are academics reduced the market performance of the companies in which they were involved. Furthermore, the study demonstrated that, in general, academic members positively affected shareholder wealth due to the effectiveness of their oversight and monitoring roles. Perlin et al. (2021), conducted a study using data from Brazilian companies between 2010 and 2018. The study found that board members with academic titles were not generally associated with company performance; only academic members who obtained their doctorate abroad had a positive impact on performance.

The study's ninth and tenth hypotheses, which were developed based on the literature review, are stated below.

$H_9$: The return on assets ratios of large firms are related to the academic members.

$H_{10}$: The return on assets ratios of small firms are related to the academic members.

## 3. Methods

This study uses panel data analysis to examine the impact of the board on firm performance. Panel data analysis is a method that uses cross sectional data with longitudinal time dimension to estimate relationships. It allows for controlling the effects of heterogeneity between groups, reducing the correlation between independent variables, and increasing the efficiency of econometric estimators (Greene, 1993: 469). In general, the panel data model with k variables, which has three basic approaches pooled, fixed effects and random effects (Baltagi, 2001: 11):

$$y_{it} = ß_{it} + ß2_{it}\, X2_{it} + \ldots\ldots\ldots ßK_{it}\, Xk_{it} + \varepsilon_{it} \quad (1)$$

where i=1,.....N indicates cross-sectional units and t=1,.....T indicates time, and ε indicates the error term. Accordingly;

yit; the value of the dependent variable of the i-th cross section unit at time t

Xkit; indicates the estimated coefficient of the kth explanatory variable at time t of the i-th cross-section unit.

In panel data analysis, stationarity tests are applied to variables when the time section (T) is larger than the number of units (N) and consists of sufficiently long periods. According to Baltagi

(2013), panels with at least 10 to 20 periods of data are called macro panels, and the stationarity requirement becomes mandatory for panels with such a long time dimension. On the other hand, panels with short time dimension are considered as micro panels and the stationarity requirement does not need to be considered in these series. In this study, the stationarity assumption is not considered because the time dimension is 7 years.

In the event that each cross section unit contains an equal number of time series observations, the panel data type is designated as balanced panel (Dougherty, 2006: 409). In the context of this study, the data of the companies selected as the unit of analysis for the entire analysis period were obtained. Firms with missing data were excluded from the analysis, and the study was conducted on balanced panel data.

### 3.1. Data Set

The study accessed data on 58 firms between 2012-2018 by searching board member background and financial indicators of all firms whose shares are traded on Borsa Istanbul, firm annual reports, Public Disclosure Platform, Central Registry Agency, firm websites and Linkedin sites. It should also be noted that banks, insurance companies, leasing and factoring companies, investment companies, real estate investment companies, holding companies and sports companies have been excluded from the scope of the study. The firms were classified based on their asset size in 2018. A number of studies have been conducted which categorise companies according to their asset size using median values (Upneja et al., 2000; Karadeniz & Beyazgül, 2021). The median is not sensitive to extreme values in the series. In this context, the large firms category includes 29 firms above the median, while the small firms category comprises 29 firms below the median. The number of firms that comprise the analysis units, along with the sectors in which they operate, are displayed in Table 1.

Table 1: **Sectors and Number of Firms Included in the Analysis**

| Sector | Number of Firms |
|---|---|
| Chemicals Petroleum Rubber and Plastic Products | 9 |
| Fabrİcated Metal Products Machinery Electrical Equipment and Transportation Vehicles | 9 |
| Information Technology | 7 |
| Non-Metallic Mineral Products | 6 |
| Food Beverage and Tobacco | 3 |
| Electricity Gas and Steam | 3 |
| Basic Metals | 3 |
| Textile Wearing Apparel And Leather | 3 |
| Retail Trade | 3 |
| Restaurants and Hotels | 3 |
| Transportation and Storage | 2 |
| Defence | 1 |
| Wholesale Trade | 1 |
| Construction and Infrastructure | 1 |
| Office Management, Office Support and Other Company | 1 |
| Support Activities | 1 |
| Printing and Publishing | 1 |
| Public Health and Social Services | 1 |
| Agriculture and Livestock Farming, Hunting and Related Service Activities | 1 |

### 3.2. Limitations of the Study

The Capital Markets Board introduced the obligation for listed companies in Turkey to include independent members on their boards on 30.12.2011 with the communiqué numbered 28158. This study therefore used data from 2012.

### 3.3. Variables

In this study, the financial performance indicator used is return on assets ratios of firms. Return on asset ratio is a metric of financial performance that is utilised in numerous academic studies (Bathula, 2008; Topak, 2011; Kılıç, 2014; Lee et al., 2024; Amlashi, 2025). Consistent with the corporate finance literature on non-financial firms, profitability is measured by return on assets is widely used to reflect operating outcomes influenced by managerial and governance mechanisms (Bushman & Smith, 2001; Demsetz & Villalonga, 2001). General business management expertise is taken as a criterion for board members to have a postgraduate degree in economics and administrative sciences, and sectoral expertise is taken as a criterion for board members to have a postgraduate degree related to the firm's sector.

Additionally, a control variable is also used to increase the explanatory power and reliability level of the models. Previous studies have shown that a firm's debt level significantly affects its return on assets (Albayrak & Akbulut, 2008; Kılıç & Güler, 2019; Prempeh et al., 2017; Dashi, 2018; Zeitun & Tian, 2007). Table 2 gives the explanations and abbreviations of the variables.

Table 2: **Explanations and Abbreviations of Variables in the Analysis**

| Variables | Abbreviations |
|---|---|
| Return on assets ratio (dependent) | ROA |
| Ratio of independent board members with board directorships in multiple firms | MLTD |
| Ratio of board members affiliated with legal entities, such as associations and chambers related to business | LGLD |
| Ratio of board members with expertise in general business management | GBEXD |
| Ratio of board members with expertise in the sector | SCTEXD |
| Ratio of board members with financial experience | FINEXD |
| Ratio of academic board members | ACDMD |
| Total debt ratio | TDEBT |

### 3.4. Research Model

In this study, two models are developed. The hypotheses section outlines the aim of testing the hypotheses that large firms benefit from board members with general business expertise and small firms benefit from board members with sectoral expertise. The first model is developed as follows.

$$\mathrm{ROA}_{it} = \beta_0 + \beta_1 \mathrm{MLTD}_{it} + \beta_2\, \mathrm{LGLD}_{it} + \beta_3\, \mathrm{GBEXD}_{it} + \beta_4\, \mathrm{FINEXD}_{it} + \beta_5\, \mathrm{ACDMD}_{it} + \beta_6\, \mathrm{TDEBT}_{it} + \varepsilon_{it} \quad (2)$$

The second research model is developed as follows.

$$\mathrm{ROA}_{it} = \beta_0 + \beta_1 \mathrm{MLTD}_{it} + \beta_2\, \mathrm{LGLD}_{it} + \beta_3\, \mathrm{SCTEXD}_{it} + \beta_4\, \mathrm{FINEXD}_{it} + \beta_5\, \mathrm{ACDMD}_{it} + \beta_6\, \mathrm{TDEBT}_{it} + \varepsilon_{it} \quad (3)$$

## 4. Findings

### 4.1. Descriptive Statistics for Large Firms

Table 3 shows that some firms' boards of directors do not include independent members who sit on the multiple boards, members who are members of legal entities such as associations and chambers related to business life, members who are experts in general business management, members with financial experience, and academics. Additionally, the average return on assets ratio is 6%. On average, large firms have 11% independent board members serving multiple firms, 15% board members who are members of legal entities such as business associations and chambers, 29% board members who are experts in general business management, 18% board members with financial experience, 9% board members who are academics, and a total debt ratio of 58%.

Table 3: **Descriptive Statistics of Large Firms**

| Variables | Minimum | Maximum | Mean | Standard Deviation |
|---|---|---|---|---|
| **ROA** | -0.11 | 0.40 | 0.06 | 0.07 |
| **MLTD** | 0.00 | 0.40 | 0.11 | 0.11 |
| **LGLD** | 0.00 | 0.57 | 0.15 | 0.13 |
| **GBEXD** | 0.00 | 0.70 | 0.29 | 0.10 |
| **FINEXD** | 0.00 | 0.66 | 0.18 | 0.16 |
| **ACDMD** | 0.00 | 0.56 | 0.09 | 0.11 |
| **TDEBT** | 0.18 | 0.97 | 0.58 | 0. 18 |

### 4.2. Descriptive Statistics for Small Firms

Table 4 shows that some small firms' boards of directors do not include independent members who who sit on the multiple boards, members who are members of legal entities such as associations and chambers related to business life, members with expertise in the sector in which the firm operates, members with financial experience, and academic members. In addition, the average return on assets is 4%. In small firms, independent board members serving multiple firms account for 11% on average. Additionally, 10% of board members are members of legal entities such as business associations and chambers, while 4% have expertise in the sector in which the firm operates. Board members with financial experience represent 13%, and 5% are academic board members. The total debt ratio is 50%.

Table 4: **Descriptive Statistics of Small Firms**

| Variables | Minimum | Maximum | Mean | Standard Deviation |
|---|---|---|---|---|
| **ROA** | -0.39 | 0.41 | 0.04 | 0.10 |
| **MLTD** | 0.00 | 0.40 | 0.11 | 0.11 |
| **LGLD** | 0.00 | 0.66 | 0.10 | 0.14 |
| **SCTEXD** | 0.00 | 0.50 | 0.04 | 0.09 |
| **FINEXD** | 0.00 | 0.66 | 0.13 | 0.15 |
| **ACDMD** | 0.00 | 0.40 | 0.05 | 0.08 |
| **TDEBT** | 0.05 | 1.71 | 0.50 | 0.25 |

### 4.3. Results for Large Firms

To determine which panel data model to use, F test and Hausman test were conducted. The F test results were used to decide whether to estimate the model with the pooled model or the fixed effects model. Upon analyzing the F test results in Table 5, it is evident that the fixed effect model is the appropriate choice over the pooled model because the p-value is lower than 0.05. Hausman test was used for comparing fixed and random models and the test result shows that the random effects model is the correct model, since p-value is greater than 0.05. The Levene, Brown, Forsythe, Brown and Forsythe tests were used to detect heteroscedasticity of the model. The probability values of W0, W50 and W10 were less than 0.05, indicating a problem of heteroskedasticity in the model. To detect autocorrelation, we applied Bhargava, Franzini, and Narendranathan's Durbin-Watson test and the local best invariant Baltagi-Wu test. Since the relevant test values are below 2, it can be concluded that the model has an autocorrelation problem. We used Arellano, Froot, and Rogers robust estimators in the models with varying variance and autocorrelation problems. These estimators eliminated the problem.

Based on the estimation results for large firms in Table 5, the $R^2$ value is 23.24%. Accordingly, the independent variables explain 23.24% of the return of assets ratios. The model's estimation results indicate a statistically significant negative relationship between the return on assets ratios of large firms and the ratio of independent board members who are board members in more than one firm, the ratio of academicians, and the total debt ratio. A one-unit increase in the ratio of independent board members with board membership in more than one firm results in a 0.08 unit decrease in the return on assets ratio. Similarly, a one-unit increase in the ratio of academics leads

to a 0.08 unit decrease in the return on assets ratio. Finally, a one-unit increase in the total debt ratio results in a 0.16 unit decrease in the return on assets ratio.

Table 5: **Return on Assets Model for Large Firms**

| Dependent Variable: ROA | | | | |
|---|---|---|---|---|
| **Independent Variables** | **Coefficients** | **Standard Errors** | **Test Statistics** | **p Values** |
| C | 1.17801*** | 0.0371741 | 31.69 | 0.000 |
| MLTD | -0.08431** | 0.0406184 | -2.08 | 0.038 |
| LGLD | 0.03027 | 0.0346416 | 0.87 | 0.382 |
| GBEXD | -0.00034 | 0.0332066 | -0.01 | 0.992 |
| FINEXD | -0.03042 | 0.0556607 | -0.55 | 0.585 |
| ACDMD | -0.08538** | 0.0425019 | -2.01 | 0.045 |
| TDEBT | -0.16759*** | 0.0371741 | 31.69 | 0.000 |
| **$R^2$ :** 0.2324 | | | | |
| **Number of Observations:** 203 | | | | |
| **F Test:** $F_{\text{Test Statistic}}$ = 3.95 | | | | |
| p = 0.0000 | | | | |
| **Hausman Test**: | | | | |
| $\chi^2$= 3.475028 | | | | |
| p = 0.7473 | | | | |
| **Levene, Brown, Forsythe Test:** | | | | |
| W0 = 5.812945 $p$ = 0.00000000 | | | | |
| W50 = 1.620004 $p$ = 0.03312364 | | | | |
| W10 = 5.812945 $p$ = 0.00000000 | | | | |
| **Bhargava, Franzini, Narendranathan Durbin Watson and Locally Best Invariant Baltagi-Wu Test:** | | | | |
| Durbin-Watson = 1.3493933 | | | | |
| Baltagi-Wu = 1.6773965 | | | | |

**Note:** ***, **, and * are the statistically significant levels of 1%, 5%, and 10%

### 4.4. Results for Small Firms

To determine which panel data model to use, F test and Hausman test were conducted. Upon analyzing the F test results in Table 6, it is evident that the fixed effect model is the model to be preferred over the pooled model, since the p-value is lower than 0.05. Hausman test was used for comparing fixed and random models and the test result shows that the random effects model is the correct model since p-value is greater than 0.05. The Levene, Brown, Forsythe, Brown and Forsythe tests were used to detect heteroscedasticity of the model, it is concluded there is a problem with heteroskedasticity in the model, since the probability values of W0, W50 and W10 are less than 0.05. The Durbin-Watson test statistic was below 2, indicating an autocorrelation problem in the model. To solve the problems of variance and autocorrelation in the models, the robust estimators of Arellano, Froot and Rogers are used. The obtained robust estimators eliminated the problem.

Based on the estimation results for large firms in Table 6, the $R^2$ value is 21.28%. This indicates that the independent variables explain 21.28% of the return of assets ratios. The model's estimation results indicate a statistically significant negative relationship between small firms' return on assets ratios and the ratio of independent board members with board membership in more than one firm, the ratio of members with expertise in the sector in which the firm operates, and the total debt ratio. A one-unit increase in the ratio of board members who are independent and serve on more than one firm's board is associated with a 0.07 unit decrease in the return on assets ratio. Similarly, a one-unit increase in the ratio of members who expert in the firm's industry is associated with a 0.17 unit decrease in the return on assets ratio. Finally, a one-unit increase in the total debt ratio is associated with a 0.14 unit decrease in the return on assets ratio.

Table 6: **Return on Assets Model for Small Firms**

| Dependent Variable: ROA | | | | |
|---|---|---|---|---|
| **Independent Variables** | **Coefficients** | **Standard Errors** | **Test Statistics** | **p Values** |
| C | 1.11227*** | 0.0288192 | 38.59 | 0.000 |
| MLTD | -0.072004** | 0.0355747 | -2.02 | 0.043 |
| LGLD | 0.1472779 | 0.0924815 | 1.59 | 0.111 |
| SCTEXD | -0.17587*** | 0.044341 | -3.97 | 0.000 |
| FINEXD | 0.0223189 | 0.0679107 | 0.33 | 0.742 |
| ACDMD | 0.0089976 | 0.1207028 | 0.07 | 0.941 |
| TDEBT | -0.1425833*** | 0.0430102 | -3.32 | 0.001 |

**$R^2$ :** 0.2128
**Number of Observations:** 203
**F Test:**
$F_{\text{Test Statistic}}$ = 4.69
p = 0.0000
**Hausman Test:**
$\chi^2$= 3.637105
p = 0.7256
**Levene, Brown, Forsythe Test:**
W0 = 3.0392418 $p$ = 0.00000470
W50 = 2.410522 $p$ = 0.00029207
W10 = 3.039241 $p$ = 0.00000470
**Bhargava, Franzini, Narendranathan Durbin Watson and Locally Best Invariant Baltagi-Wu Test:**
Durbin-Watson = 1.5555663
Baltagi-Wu = 2.1150111

**Note:** ***, **, and * are the statistically significant levels of 1%, 5%, and 10%

## 5. Conclusion

This research analyzes the relation between the board structure and the financial performance of 58 firms listed on Borsa Istanbul. The firms were classified into 29 large and 29 small firms using annual data from 2012 to 2018. In the framework of the study, ten hypotheses were developed in total, five of them for large firms and five of them for small firms. Two separate panel regression models were established to test these hypotheses for both large and small firms. The analysis resulted in the acceptance of three hypotheses.

The study has revealed a negative relationship between independent board members serving on the boards of multiple firms and the financial performance of both large and small companies. This result is consistent with the findings of studies by Loderer and Peyer (2002) and Celements et al. (2015). This finding suggests that when an individual occupies the role of independent board member for multiple firms, their commercial interests may take precedence over their responsibilities to the companies they serve. An individual who evaluates their service solely from a commercial perspective may not exercise the care expected of them by the regulations. Moreover, the analysis corroborates the busyness hypothesis for independent board members holding multiple board positions in Turkey. Consequently, the analysis of all firms revealed that the presence of an independent board member serving on multiple boards was associated with a reduction in board monitoring effectiveness. In light of the aforementioned factors, it is considered judicious for capital market authorities to impose a limit on the number of companies in which an independent member is permitted to serve on a company's board of directors. However, as demonstrated in the studies by Ullaha et al. (2021) and Venkatesh et al. (2025), which investigate the existence of a non-linear relationship and threshold values between the number of boards on which directors serve and firm performance, this could provide regulatory authorities and firms themselves with more precise and sensitive recommendations on setting limits in this regard.

Another finding of the study is that there is no relationship between the financial performance of large and small firms and board members who are affiliated with legal entities, such as business

associations and chambers of commerce. This finding is analogous to that of Tiwasing and Sawang (2022), who found that the profitability of rural businesses was not affected by their affiliation with local chambers of commerce. While acknowledging the heterogeneity of business associations, chambers and foundations, it is evident that these legal entities wield considerable influence across diverse sectors in Turkey, encompassing economic policies and political domains. The findings of the research indicate that board members affiliated with these legal entities are unable to utilise their position to enhance the financial performance of their firms. However, in future research, legal entities related to business life can be classified according to whether they are local, regional or national, and the impact of the membership of senior managers, as well as board members, in these legal entities on firm performance can be analysed. Moreover, in light of the findings from the studies conducted by Dinh et al. (2022) and La Rocca et al. (2022), future research endeavours that explore the nexus between political identity and political connections in senior management, with a focus on firm performance, have the potential to generate outcomes that could positively influence the composition of firm boards of directors.

For all firms, there is no significant relationship between board members with financial experience and financial performance. Alternatively, firms may want these individuals on their boards of directors for cooptation purposes. However, the analysis suggests that financial experience does not necessarily serve as a reputational signal, nor does it guarantee high-quality financial reporting. Additionally, it does not necessarily lead to increased profitability for firms, even if financial reporting is of high quality. However, the absence of a relationship between the financial experience of board members and firm profitability may also imply that these managers do not pursue aggressive profitability policies due to their short-term perspective, as noted in the studies by Lee et al. (2024). In this regard, future studies could investigate the delayed effects of board members with financial expertise on firm performance and their impact on market-based financial indicators.

In contrast to the conclusions drawn by Linck et al. (2008) and Coles et al. (2008), this study found no relationship between the presence of board members with expertise in general business management and the financial performance of large firms. However, a negative relationship was identified between board members with sector-specific expertise and financial performance for small firms. Consequently, it is incumbent upon small firms to consider the possibility that their board members may not possess the requisite technical expertise in their respective sectors to make informed decisions regarding product development or diversification, the timing of investments, new geographical areas of operation, and financing. It has been demonstrated that board members in possession of postgraduate education and expertise in the relevant sector may not always be effective in making these decisions. The findings of this study indicate that the regulation stipulated within the Turkish Commercial Law Code concerning the educational attainment of managerial personnel does not, in and of itself, exert a favourable influence on the performance of the company. Furthermore, the results of this study are consistent with Markarian and Parbonetti (2007)'s finding that the general business expertise of board members is unrelated to firms' levels of internal and external complexity. In this case, it may be necessary to focus on the concepts of firm size, internal complexity, or external complexity. The criteria used in the assumption that operational complexity increases as companies grow can be diversified. In future studies, taking the size criterion of companies according to whether they are national, international, or multinational, or according to the number of sectors and sub-sectors they serve, may yield different and more varied results in explaining these relationships. This will provide more detailed scientific grounds for regulatory authorities in their regulations and for companies when adding a clause or clauses to their bylaws regarding the fields of higher education of board member candidates.

The study found a negative relationship between academic members and the financial performance of large firms. However, no significant relationship was found between academic board members and the financial performance of small firms. The findings concerning small firms

are consistent with the results reported by Perlin et al. (2021). The finding that academics on the boards of large firms negatively affect the financial performance of those firms is consistent with the conclusion of Francis et al. (2015) that such members do not positively affect firm performance due to reasons such as their density or the different topics they focus on. Academics on the boards of larger companies may play a more participatory role in decision-making, oversight, and control mechanisms. However, the results of this study support the view that academic board members prioritise scientific issues over commercial realities when making decisions about firm activities. It is imperative to acknowledge that, as demonstrated by the descriptive statistics, these members constitute a minority on the board. It would be worthwhile for future studies to investigate the question of whether academic board members also hold administrative positions at universities. This could assist in answering the question of whether academics' busy schedules are the reason they fail to have a positive impact on companies' financial performance.

**References**

Albayrak, A. S., & Ramazan A. (2008). Kârlılığı Etkileyen Faktörler: İMKB Sanayi ve Hizmet Sektörlerinde İşlem Gören İşletmeler Üzerine Bir İnceleme. *ZKÜ Sosyal Bilimler Dergisi,* 4(7), 55-83.

Aldrich, H. E. (1979). *Environments and Organizations*. NJ: Prentice-Hall.

Altaş, S. (2011). Yeni Türk Ticaret Kanuna Göre Anonim Şirket Yönetim Kurulunun Yapısı ve Üyelerinin Nitelikleri. *Mali Çözüm (Mart-Nisan Sayısı)*, 109-120.

Al-Matari, Y. A. (2022). Do the Characteristics of the Board Chairman have an Effect on Corporate Performance?. *Empirical Evidence from Saudi Arabia*, *Heliyon*, 8(4). https://doi.org/10.1016/j.heliyon.2022.e09286

Al-Saidi, M. (2021). Board Independence and Firm Performance: Evidence from Kuwait. *International Journal of Law and Management*, 63(2), 251-262. https://doi.org/10.1108/IJLMA-06-2019-0145

Amlashi, M. E. (2025). The Impact of Board Independence and Chief Executive Officer Duality on Financial Performance: Evidence from Firms Listed on the Tehran Stock Exchange. *Creative Economy and New Business Management Approaches*, 5(1), 47-64.

Baltagi, B. H. (2001). *Econometric Analysis of Panel Data (3rd ed.)*. England: John Wiley & Sons Ltd.

Bathula, H. (2008). Board Characteristics and Firm Performance: Evidence from New Zealand. (PhD Thesis). Faculty of Business AUT University: New Zealand.

Baltagi, B. H. (2013). *Econometric Analysis of Panel Data (5th ed.)*. England: John Wiley & Sons Ltd.

Beasley M. S. (1996). An Empirical Analysis of the Relation Between the Board of Director Composition and Financial Statement Fraud. *The Accounting Review*, 71(4), 443-465.

Bedard, J., Chtourou, S. M., & Courteau, L. (2004). The Effect of Audit Committee Expertise, Independence, and Activity on Aggressive Earnings Management. *Auditing: A Journal of Practice and Theory*, 23(2), 13-35. http://doi.org/10.2308/aud.2004.23.2.13

Bushman, R. M., & Smith, A. J. (2001). Financial Accounting Information and Corporate Governance. *Journal of Accounting and Economics*, 32(1-3), 237-333. https://doi.org/10.1016/S0165-4101(01)00027-1

Carcello, J. V., Hermanson, D. R., Neal, T. L., & Riley Jr, R. A. (2002). Board Characteristics and Audit Fees. *Contemporary Accounting Research*, 19(3), 365-384. https://doi.org/10.1506/CHWK-GMQ0-MLKE-K03V

Casciaro, T., & Piskorski, J. M. (2005). Power Imbalance, Mutual Dependence, and Constraint Absorption: A Closer Look at Resource Dependence Theory. *Administrative Science Quarterly,* 50(2), 167-199. https://doi.org/10.2189/asqu.2005.50.2.167

Chee, K. D., & Tham, Y. H. (2021). The Role of Directors with Multiple Board Seats and Earnings Quality: A Singapore Context. *Journal of Corporate Accounting & Finance*, 32(1), 31-47. https://doi.org/10.1002/jcaf.22474

Clements, C. E., Neill, J. D., & Wertheim, P. (2015). The Impact of Company Size and Multiple Directorships on Corporate Governance Effectiveness. *International Journal of Disclosure and Governance*, 12(4), 354-371. https://doi.org/10.1057/jdg.2015.1

Coles, J. L., Daniel, N.D., & Naveen, L. (2008). Boards: Does One Size Fit All*. Journal of Financial Economics*, 87(2), 329-356. https://doi.org/10.1016/j.jfineco.2006.08.008

Dalton, D. R., Daily, C. M., Johnson, J. L., & Ellstrand, A. E. (1999). Number of Directors and Financial Performance: A Meta-analysis*. Academy of Management Journal*, 42(6), 674-686. https://doi.org/10.2307/256988

Dashi, K. (2018). Financial Profitability of Firms and its Determining Factors (Case of the Trade Sector, Vlore Region. Albania). *Acta Universitatis Danubius Œconomica*, 14(4), 619-630. https://journals.univ-danubius.ro/index.php/oeconomica/article/view/4714/4531

Defond, M. L., Hann, R. N., & Hu, X. (2005). Does the Market Value Financial Expertise on Audit Committees of Boards of Directors?. *Journal of Accounting Research*, 43, 153–193. https://doi.org/10.1111/j.1475-679x.2005.00166.x

Demsetz, H., & Villalonga, B. (2001). Ownership Structure and Corporate Performance. *Journal of Corporate Finance*, 7(3), 209-233. https://doi.org/10.1016/S0929-1199(01)00020-7

Dinh, T. Q., Calabro, A., Campopiano, G., & Basco, R. (2022). The ımpact of Politically Connected CEOs and Boards of Directors on Firm Performance: A Study of Vietnamese Family and Nonfamily Firms. *Entrepreneurship Theory and Practice*, 46(5), 1284-1316. https://doi.org/10.1177/1042258720985477

Dooley, C. P. (1969). The Interlocking Directorate. *The American Economic Review*, 59(3), 314-323.

Dougherty, C. (2006). *Introduction to Econometrics*. New York: Oxford Universty Press.

Fama, E. F., & Jensen M. C. (1983). Separation of Ownership and Control. *The Journal of Law and Economics*, 26(2), 301-325.

Ferris, S. P., Jagannathan, M., & Pritchard, A. C. (2003). Too Busy to Mind the Business? Monitoring by Directors with Multiple Board Appointments. *The Journal of Finance*, 58(3), 1087-1111. https://doi.org/10.1111/1540-6261.00559

Fich, E., & Shivdasani, A. (2006). Are Busy Boards Effective Monitors. *Journal of Finance*, 61(2), 689-724. https://doi.org/10.1111/j.1540-6261.2006.00852.x

Forbes, D. P., & Milliken, F. J. (1999). Cognition and Corporate Governance: Understanding Boards of Directors as Strategic Decision-Making Groups. *Academy of Management Review*, 24(3), 489-505. https://doi.org/10.2307/259138

Francis, B., Hasan, I., & Wu, Q. (2015). Professors in the Boardroom and their Impact on Corporate Governance and Firm Performance. *Financial Management*, 44(3), 547-581. https://doi.org/10.1111/fima.12069

Fuzi, S. F. S., Halim, S. A. A., & Julizaerma, M. K. (2016). Board Independence and Firm Performance. *Procedia Economics and Finance*, 37(16), 460-465. https://doi.org/10.1016/S2212-5671(16)30152-6

Githaiga, P. N., Muturi Kabete, P., & Caroline Bonareri, T. (2022). Board Characteristics and Earnings Management. Does Firm Size Matter?. *Cogent Business & Management*, 9(1), 2088573. https://doi.org/10.1080/23311975.2022.2088573

Greene, W. H. (1993). *Econometric Analysis*. New York: Macmillan Publishing Company.

Haunschild, P. R., & Beckman, C. M. (1998). When do Interlocks Matter? Alternate Sources of Information and Interlock Influence. *Administrative Science Quarterly*, 43, 815-844. https://doi.org/10.2307/2393617

Hillman, A. J., Zardkoohi, A., & Bierman, L. (1999). Corporate Political Strategies And Firm Performance: Indications of Firm-Specific Benefits from Personal Service in the U.S. Government. *Strategic Management Journal*, 20, 67-81. https://doi.org/10.1002/(SICI)1097-0266(199901)20:1<67::AID-SMJ22>3.0.CO;2-T

Jiang, B., & Murphy, P. J. (2007). Do Business School Professors Make Good Executive Managers. *Academy of Management Perspectives*, 21(3), 29-51. https://doi.org/10.5465/amp.2007.26421237

Judicial Commission. (2007). Draft Turkish Commercial Code and Report of the Judicial Commission. Grand National Assembly of Turkey Judicial Commission. Retrieved from: http://www.msmmmo.org.tr/turmob/ttk/haber186.pdf

Karadeniz, E., & Beyazgül, M. (2021). Büyük ve Küçük Şirketlerin Finansal Performanslarındaki Farklılıklar: Borsa İstanbul'da İşlem Gören Konaklama Şirketlerinde Bir Araştırma. *Seyahat ve Otel İşletmeciliği Dergisi*, 18(1), 85-104. https://doi.org/10.24010/soid.811170

Kılıç, M. (2014). Yönetim Kurulu Yapısının İşletme Performansına Etkisi: Türkiye'de Bir Uygulama. *Muhasebe Bilim Dünyası Dergisi*, 16(3), 33-56.

Kılıç, M. & Güler, B. (2019). Borsa İstanbul'a (BİST) Kayıtlı Lojistik Firmalarının Kârlılık Belirleyicileri. *Kahramanmaraş Sütçü İmam Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 9(1), 69-82.

King, W. R., & Clelands, D.I. (Ed.). (1987). *Strategic Planning and Management Handbook*. New York: Reinhold Company.

Koç, O. & Sayılar, Y. (2016). Örgüt Araştırmalarında Kaynak Bağımlılığı Perspektifi: Kuramsal Bir Değerlendirme. *İ.Ü İşletme Fakültesi İşletme İktisadı Enstitüsü Yönetim Dergisi*, 27(80), 136-177.

La Rocca, M., Fasano, F., Cappa, F., & Neha, N. (2022). The Relationship between Political Connections and Firm Performance: An Empirical Analysis in Europe. *Finance Research Letters*, 49, 103157. https://doi.org/10.1016/j.frl.2022.103157

Lee, C. Y., Wen, C. R., & Thi-Thanh-Nguyen, B. (2024). Board Expertise Background and Firm Performance. *International Journal of Financial Studies*, 12(1), 17. https://doi.org/10.3390/ijfs12010017

Linck, J. S., Netter, J.M., & Tina, Y.Z. (2008). The Determinants of Board Structure. *Journal of Financial Economics*, 87(2), 308-328. https://doi.org/10.1016/j.jfineco.2007.03.004

Lipton, P., & Herzberg, A. (2006). *Understanding Company Law*. Australia: Thomson Lawbook.

Liu, Y., Miletkov, M. K., Wei, Z., & Yang, T. (2015). Board Independence and Firm Performance in China. *Journal of Corporate Finance*, 30, 223-244. http://dx.doi.org/10.1016/j.jcorpfin.2014.12.004

Livnat, J., Smith, G., Suslava, K., & Tarlie, M. (2021). Board Tenure and Firm Performance. *Global Finance Journal*, 47, 100535. https://doi.org/10.1016/j.gfj.2020.100535

Loderer, C., & Peyer, U. (2002). Board Overlap, Seat Accumulation and Share Prices. *European Financial Management*, 8(2), 165-192. https://doi.org/10.1111/1468-036X.00183

Mandala, N., Kaijage, E., Aduda, J., & Iraya, C. (2017). Board Structure, CEO Tenure, Firms' Charactersitics and Performance of Financial Institutions in Kenya. *European Scientific Journal*, 13(31), 31-39. http://dx.doi.org/10.19044/esj.2017.v13n31p39

Markarian, G., & Parbonetti, A. (2007). Firm Complexity and Board of Director Composition. *Corporate Governance: An International Review*, 15(6), 1224-1243. https://doi.org/10.1111/j.1467-8683.2007.00643.x

Official Gazette. (2011). Turkish Commercial Code. Grand National Assembly of Turkey. Retrieved from: https://www.resmigazete.gov.tr/eskiler/2011/02/20110214-1-1.htm

Official Gazette. (2014). Corporate Governance Communiqué II-17.1. Capital Markets Board of Turkey. Retrieved from: https://www.mevzuat.gov.tr/File/GeneratePdf?mevzuatNo=19225&mevzuatTur=Teblig&mevzuatTertip=5

Özer, Y. (2012). Yeni Moda Bağımsız Üye. TÜYİD Makaleler. Retrieved from: http://www.tuyid.org/files/makaleler/yaprakozer_15_(2).pdf

Pang, J., Zhang, X., & Zhou, X. (2020). From Classroom to Boardroom: The Value of Academic Independent Directors in China. *Pacific-Basin Finance Journal*, 62, 101319. http://dx.doi.org/10.2139/ssrn.3232670

Perlin, M., Kirch, G., Vancin, D., & Mastella, M. (2021). The Impact of Academic Titles of Board Member and Directors over the Performance of Companies Traded at B3. *BBR Brazilian Business Review*, 18(5), 561-584. https://doi.org/10.15728/bbr.2021.18.5.5

Pfeffer, J., & Salancik, G. R. (1978). *The External Control of Organizations: A Resource Dependence Perspective*. New York: Harper & Row.

Pfeffer, J., & Salancik, G. R. (2003). *The External Control of Organizations: A Resource Dependence Perspective*. Stanford: Stanford University Press.

Prempeh, K. B., Sekyere, A. M., & Addy, Z. K. A. (2017). A Multivariate Analysis of Determinants of Profitability: Evidence from Selected Manufacturing Companies Listed on the Ghana Stock Exchange*. Perspectives of Innovations, Economics & Business*, 17(3), 132-143. https://doi.org/10.2139/ssrn.3096972

Reguera-Alvarado, N., & Bravo, F. (2017). The Effect of Independent Directors' Characteristics on Firm Performance: Tenure and Multiple Directorships. *Research in International Business and Finance*, 41, 590-599. http://dx.doi.org/10.1016/j.ribaf.2017.04.045

Ruparelia, R. V., & Njuguna, A. G. (2016). Relationship between Board Remuneration and Financial Performance in the Kenyan Financial Services İndustry. *International Journal of Financial Research*, 7(2), 247-255. https://doi.org/10.5430/IJFR.V7N2P247

Sanda, A., Garba, T., & Mikailu, A. S. (2011). Board Independence and Firm Financial Performance: Evidence from Nigeria. *AERC Research Paper 213 African Economic Research Consortium*, Nairobi.

Selznick, P. (1965). *TVA and the Grass Roots*. New York: Harper & Row.

Topak, M. S. (2011). The Effect of Board Size on Firm Performance: Evidence from Turkey. *Middle Eastern Finance and Economics*, 14(1), 119-127.

Tiwasing, P., & Sawang, S. (2022). Does Membership of Local Chambers of Commerce Networks Enhance Rural SME Performance?: An Empirical Analysis. *International Journal of*

*Entrepreneurial Behavior & Research*, 28(2), 368-385. https://doi.org/10.1108/IJEBR-07-2021-0614

Ullaha, M. R., Chandb, A., Akramc, S., & Inam, A. (2021). Too Busy, Too Bad? Grey, Outside, Busy and Overlap Directors and Financial Performance in Pakistan. *International Journal of Innovation, Creativity and Change*, 15(5), 179-196.

Upneja, A., Kim, H., & Singh, A. (2000). Differences in Financial Characteristics between Small and Large Firms: An Empirical Examination of the Casino Industry. *The Journal of Hospitality Financial Management*, 8(1), 23-35. https://doi.org/10.1080/10913211.2000.10653733

Venkatesh, G., Kshatriya, S., & Bansal, S. (2025). Board Busyness and Firm Performance: An Emerging Market Perspective. *Corporate Governance: An International Review*, 33(2), 231-245. https://doi.org/10.1111/corg.12600

Walters, S. (1993). *Enterprise, Government and the Public*. New York: McGraw-Hill.

Wang, Yi. (2009). Board Independence and Firm Performance: Evidence from ASX-Listed Companies. (PhD Thesis). Faculty of Business and Enterprise Swinburne University of Technology, Melbourne.

Woschkowiak, A. (2018). Board Diversity and Firm Financial Performance: Gender-, Nationality-and Age Diversity in European Boardrooms. (Master Thesis). Radboud University Nijmegen School of Management, Nijmegen.

Xie, B., Davidson, W. N., & DaDalt, P. J. (2003). Earnings Management and Corporate Governance: The Role of the Board and the Audit Committee. *Journal of Corporate Finance*, 9(3), 295-316. https://doi.org/10.1016/S0929-1199(02)00006-8

Ying, Q., & He, S. (2020). Is the CEOs' Financial and Accounting Education Experience Valuable? Evidence from the Perspective of M&A Performance. *China Journal of Accounting Studies*, 8(1), 35-65. https://doi.org/10.1080/21697213.2020.1822023

Zeitun, R., & Tian, G. G. (2007). Capital Structure and Corporate Performance: Evidence from Jordan. *Australasian Accounting Business & Finance Journal*, 1(4), 40-61. https://doi.org/10.14453/aabfj.v1i4.3