

**IBN HALDUN UNIVERSITY  
SCHOOL OF GRADUATE STUDIES  
DEPARTMENT OF MANAGEMENT**

**PH.D. THESIS**

**THE RELATIONSHIP BETWEEN DEMOGRAPHIC  
BOARD DIVERSITY AND DIVIDEND POLICY:  
EMPIRICAL EVIDENCE FROM TURKEY**

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**ISTANBUL, 2021**

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EMPIRICAL EVIDENCE FROM TURKEY**

by

**AJAB KHAN**

**A thesis submitted to the School of Graduate Studies in partial  
fulfillment of the requirements for the degree of Doctor of  
Philosophy in Management**

**THESIS SUPERVISOR**

**PROF. MUSTAFA KEMAL YILMAZ**

**ISTANBUL, 2021**

APPROVAL PAGE

This is to certify that we have read this thesis and that, in our opinion, it is fully adequate, in scope and quality, as a thesis for the degree of Doctor of Philosophy in Management.

Thesis Jury Members

Title - Name Surname

Opinion

Signature


This is to confirm that this thesis complies with all the standards set by the School of Graduate Studies of Ibn Haldun University.

Date of Submission

Seal/Signature

## ACADEMIC HONESTY ATTESTATION

I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

Name Surname: AJAB KHAN

Signature:



ÖZ

YÖNETİM KURULUNUN DEMOGRAFİK YAPISINDAKİ ÇEŞİTLİLİK İLE  
TEMETTÜ POLİTİKASI ARASINDAKİ İLİŞKİNİN ANALİZİ:  
TÜRKİYE ÜZERİNE AMPİRİK BİR ÇALIŞMA

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Eylül 2021, 140 sayfa

Bu çalışmanın amacı, Borsa İstanbul 100 Endeksinde yer alan finansal olmayan şirketlerin yönetim kurullarındaki cinsiyet, milliyet, deneyim, eğitim düzeyi, görev süresi ve yaş gibi demografik çeşitlilik ile temettü politikası arasındaki ilişkiyi 2013-2018 yılları arasında dönem için araştırmaktır. Bu çerçevede bir Demografik Çeşitlilik Endeksi de oluşturularak yönetim kurulundaki tüm demografik çeşitlilikler bir araya getirilmiştir. Ayrıca çalışma, yönetim kurulunun demografik çeşitliliği ile temettü politikası arasındaki ilişkiyi incelerken mülkiyet yapısının etkisini de dikkate almıştır. Çalışma logit, probit ve Tobit regresyon modelleri ve farklı temettü politikası parametreleri (temettü ödeme oranı, temettü getirisi) kullanılarak gerçekleştirilmiştir. Çalışma sonuçları, yönetim kurulu üyelerinin sahip olduğu deneyim, eğitim ve görev süresinin firmaları yüksek temettü ödemeye teşvik etmekte önemli rol oynadığını göstermektedir. Bununla birlikte, yönetim kurulu üyelerinin cinsiyet, milliyet ve yaş gibi özellikleri temettü ödemeye ilişkin firmaları etkilemede belirgin önem taşımamaktadır. Ayrıca, yönetim kurulu üyelerinin özelliklerini bir pota içinde değerlendiren Demografik Çeşitlilik Endeksi temettü politikasını belirlemekte firmaları olumlu etkilemektedir. Bu çalışma, şirketlere, politika yapıcılara ve düzenleyici kurumlara yönetim kurulu üyelerinin çeşitliliğini artırarak nasıl etkili bir temettü politikası uygulayabileceklerine, hissedarlar arasında olası çatışmaları nasıl azaltabileceklerine ve sürdürülebilir performans için kurumsal

yönetişim ilkelerini nasıl etkin olarak uygulayabilmelerine ilişkin öneriler sunmaktadır.

**Anahtar Kelimeler:** Borsa İstanbul, Demografik çeşitlilik, Temettü politikası, Türkiye



## ABSTRACT

### THE RELATIONSHIP BETWEEN DEMOGRAPHIC BOARD DIVERSITY AND DIVIDEND POLICY: EMPIRICAL EVIDENCE FROM TURKEY

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This study examines the impact of demographic board diversity attributes, i.e., gender, nationality, experience, educational level, tenure, and age, on dividend policy of 67 non-financial firms listed on the Borsa Istanbul 100 index from 2013 to 2018. It also assumes the composite of all diversity attributes to create a demographic board diversity index (DBDI) for cognitive diversity. The study uses alternative dividend policy measures to conduct the analysis, i.e., the probability of dividend payment, dividend payout ratio, and dividend yield through logit, probit, and Tobit regression models. The results indicate that diversity in experience, educational background, and tenure among board members serve a critical role in encouraging companies to pay a high dividend. In contrast, diversity in gender, nationality, and age is insignificant in influencing dividend payments. Furthermore, the DBDI positively affects the companies in formulating their dividend policies. These results offer valuable insights for companies and policymakers to develop a governance structure accommodating demographic board diversity attributes among board members to mitigate conflicts between controlling and minority shareholders through effective dividend policies and sustainable corporate performance.

**Keywords:** Borsa Istanbul, Demographic board diversity, Dividend policy, Turkey

## DEDICATION

I would like to dedicate this thesis to my beloved mother, Gul Warien Burki.



## ACKNOWLEDGEMENT

Almighty Allah bestowed me with patience to pursue this stressful long journey with success in the end. I am grateful for the valuable inputs of my respected supervisor Prof. Mustafa Kemal YILMAZ, for his guidance and support throughout my Ph.D. journey. I am thankful for his promptness in responding to my emails and messages concerning reviewing this study. I would also extend my thanks to Professor Mine Aksoy KAVALCI and Umit HACIOGLU for their valuable contributions.

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AJAB KHAN

ISTANBUL, 2021

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## LIST OF ABBREVIATIONS

ASX	Australian Securities Exchange
BIST	Borsa Istanbul
BSE	Bombay Stock Exchange
CAPM	Capital Asset Pricing Model
CEO	Chief Executive Officer
CMB	Capital Market Board of Turkey
CML	Capital Markets Law
DBDI	Demographic Board Diversity Index
DPO	Dividend Payout
DPOD	Dividend Payout (Dummy)
DPOR	Dividend Payout Ratio
DY	Dividend Yield
EM	Emerging Markets
ETF	Exchange Traded Fund
EU	European Union
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
GMM	Generalized Method of Moments
IMF	International Monetary Fund
ISS	Institutional Shareholder Services
KSE	Karachi Stock Exchange
LR	Likelihood-Ratio
NSE	National Stock Exchange of India
NWC	Net Working Capital
OECD	Organization for Economic Cooperation and Development
OLS	Ordinary Least Square
PA	Principal-Agent
PDP	Public Disclosure Platform
PP	Principal-Principal
PPP	Purchasing Power Parity
R&D	Research & Development
RBV	Resource-Based View

RDT	Resource Dependency Theory
ROA	Return on Asset
ROE	Return on Equity
ROIC	Return on Invested Capital
S&P	Standard & Poor
SE	Standard Error
TCMA	Turkish Capital Markets Association
UK	United Kingdom
US	United States
USA	United States of America
USD	United States Dollar
VIF	Variance Inflation Factor
VRIO	Value Rareness Imitability Organization
WOB	Women on Board

# CHAPTER I

## INTRODUCTION

### 1.1 Background of the Study

Globalization in financial markets, changes in technology, and social transformation have increased competitiveness in the business environment. This turbulence also necessitates integrating different views in companies' decision-making processes, particularly at the board level (Maznevski, 1994; Milliken & Martins, 1996; Shrader, Blackburn, & Iles, 1997). Since boards perform a significant role in reflecting the shareholders' expectations, the diversity of board members has become an essential ingredient in corporate governance to enhance corporate performance (Adams, 2017; Carter, Simkins, & Simpson, 2003). The failures of companies in the Asian crisis by the late 1990s, the Enron and WorldCom scandals by the beginning of 2000, and the failure of reputable financial institutions during the 2008-2009 global financial crisis have also accelerated the implementation of corporate governance measures, including board diversity (Ararat, Aksu, & Tansel Cetin, 2015; Ogbechie & Koufopoulos, 2014). Hence, regulatory authorities and companies in different jurisdictions started to enhance diversity in the boardroom to monitor the interests of stakeholders (Adams, 2017; Carter et al., 2003; Dahya, Dimitrov, & McConell, 2008).

Generally speaking, corporate boards mainly reflect two views: agency and resource dependence. The agency view implies that boards actively monitor management (Fama & Jensen, 1983; Hart, 1995; Jensen & Meckling, 1976), while the resource dependence view suggests that boards have an advisory function (Salancik & Pfeffer, 1978). Consequently, they provide a high quality of resources to guide better management (Anderson, Reeb, Upadhyay, & Zhao, 2011; Ben-Amar, Francoeur, Hafsi, & Labelle, 2013). In this frame, board diversity can be divided into two dimensions: structural diversity and demographic diversity. The structural diversity

comprises board independence, the board size, and CEO duality (Bertoni, Meoli & Vismara, 2014; Farag & Mallin, 2017; Pathan & Faff, 2013), while the demographic diversity includes diversity in the board of directors given by demographic characteristics such as gender, nationality, experience, education, tenure, age (Du, 2014; Hafsi & Turgut, 2013).

This study focuses on demographic board diversity and investigates its relationship with dividend policy in the Turkish capital markets, i.e., companies listed on Borsa Istanbul 100 Index. The dividend policy is a highly debated issue in corporate finance since Miller and Modigliani's (1961) assumptions on dividend payments. The discussion is extended further by information asymmetries, tax rates, transaction costs, and agency costs. Many scholars suggested different theories on why a firm pays or does not pay dividends, trying to establish a "one-size-fits-all" strategy without considering the sensitivity of dividend decisions on corporate governance or legal environment (Baker, 2009; Baker, Mukherjee, & Paskelian, 2006; Baker, Dutta, & Saadi, 2008; Lease, John, Kalay, Loewenstein, & Sarig, 1999).

Finally, most of the studies on dividend policy are held on developed economies (Baker, Kilincarslan & Arsal, 2018), whereas the evidence suggests significant variations in dividend policy practices between emerging and developed markets. These variations may stem from weak corporate governance measures, different ownership structures, and poor regulations (Aivazian, Booth & Cleary, 2003a; Aivazian, Booth & Cleary, 2003b; Glen, Karmokolias, Miller & Shah, 1995; La Porta, Lopez-de-Silanes, Shleifer & Vishny, 2000).

## **1.2 Research Gap**

Although there is a vast body of literature focusing on the impact of board diversity on monitoring of companies (Adams & Ferreira, 2009; Carter et al., 2003), measuring firm performance (Campbell & Minguez-Vera, 2008; Martín-Ugedo & Minguez-Vera, 2014), quality of reporting (Cumming, Leung & Rui, 2015; Francis, Hasan, Park & Wu, 2015), and earnings management (Srinidhi, Gul, & Tsui, 2011), there are relatively few studies on investigating the influence of board diversity on dividend policy, particularly in emerging markets (Choi & Park, 2019; Kim & Lim,

2010 in Korea; Al-Dhamari, Ku Ismail, & Al-Gamrh, 2016; Byoun, Chang, & Kim, 2016; Hamzah & Zulkafli, 2014; Jurkus, Park & Woodard, 2011 in Malaysia; Sanan, 2019 in India; Saeed & Sameer, 2017 in India, China, and Russia).

Most of the previous studies have investigated the association between board diversity and dividend policy in developed markets, including the US (Byoun et al., 2016; Chen, Leung, & Goergen, 2017; Van Pelt, 2013), Canada (McIntyre, Murphy, & Mitchell, 2007), Spain (Pucheta-Martinez & Bel-Oms, 2015), Australia (Ali, Ng, & Kulik, 2014; Gray & Nowland, 2017; Wang & Clift, 2009), European countries, i.e., Germany, Switzerland, & the Netherland (Curşeu, Raab, Han, & Loenen, 2012; Nielsen & Nielsen, 2013; Rabl & del Carmen Triana, 2014; Woschkowiak, 2018; Ye, Deng, Liu, Szewczyk, & Chen, 2019). These studies have analyzed different relationships, including gender diversity and dividend payout (Al-Dhamari et al., 2016; Al-Rahahleh, 2017; Atif, Liu, & Huang, 2019; Byoun et al., 2016; Chen et al., 2017; Gyapong, Ahmed, Ntim, & Nadeem, 2019; Pucheta-Martínez & Bel-Oms, 2016; Setiawan & Aslam, 2018; Ye et al., 2019), nationality diversity and dividend payment (Choi & Park, 2019; Hamzah & Zulkafli, 2014; Setiawan & Aslam, 2018), tenure diversity and dividend payout (Setiawan & Aslam, 2018; Sharma, 2011), age diversity and dividend payment (McGuinness, Lam, & Vieito, 2015).

Hence, the literature on board diversity and dividend payout is in its embryonic stage in emerging markets, and it should be enriched with new evidence.

### **1.3 Aim of the Study**

This study examines the effect of demographic board attributes, i.e., gender, nationality, experience, educational background, tenure, and age, on dividend policy applying a panel dataset of companies listed on Borsa Istanbul (BIST) 100 index between 2013 and 2018. Financial, utility, and investment companies are excluded from the sample due to their distinct regulations. We employ multivariate regression models. Logit and probit regression estimation models are used to analyze dividend decisions of the companies, while the Tobit regression model is used to examine the propensity of dividend payments. The study also considers board characteristics and firm-specific factors (i.e., the board size, independent board membership, CEO

duality, firm age, firm size, leverage, profitability) as control variables in the analysis.

#### **1.4 The Motivation of the Study**

Capital markets in Turkey have shown an overwhelming performance since 2003 in terms of market performance and regulatory framework changes to comply with the European Union (EU) directives and corporate governance standards. Turkish regulatory authorities have also made significant amendments in the dividend policy of companies listed on Borsa Istanbul, providing an experimental field to observe the influence of instrumental changes on dividend policy.

Another motivation is that although most of the companies are family-owned and have high ownership concentration in the Turkish capital markets, the involvement of institutional and foreign investors encourages many companies to pursue appropriate dividend policies to access long-term capital. This issue is essential since controlling shareholders usually attempt to influence the board of directors, leading to a reduction in the propensity of high dividend payment (La Porta et al., 2000; Su et al., 2014). This issue is also critical in dealing with conflicts between controlling shareholders and minority shareholders (Su, Fung, Huang, & Shen, 2014; Young et al., 2008) due to the concerns on the protection of investors (Adjaoud & Ben-Amar, 2010; Boubaker & Nguyen, 2014; Clarke, 2015; Mehdi, Sahut, & Teulon, 2017; Mitton, 2004). This study aims to throw further light on the topic by focusing on the influence of demographic board diversity on the dividend policy of non-financial firms listed on the BIST 100 Index.

#### **1.5 Contributions and Importance of the Study**

This study contributes to the extant literature by producing empirical evidence on the association of demographic board diversity and dividend policy of companies in Turkey, one of the leading emerging countries in capital markets. This is the first study investigating the impact of demographic board attributes on dividend policy to the best of our knowledge. The findings provide valuable insights for companies to

structure their boards by accommodating demographic diversity among board members to have a sustainable dividend policy in the long run.

## **1.6 The Structure of the Thesis**

This dissertation is organized into six chapters.

**Chapter I** gives a general outlook by discussing the aim, scope, and motivation of the study.

**Chapter II** provides information on the dividend policies in developed and emerging markets and discusses the theories on dividend policy. It also gives the evolution of the regulatory framework of dividend policy applicable in Turkey.

**Chapter III** presents the theoretical and conceptual background and reviews the literature on board diversity and its influence on dividend policy. Further, it defines the variables and develops the hypotheses.

**Chapter IV** gives the data and methodology and defines the dependent, independent, and control variables, their measurement, and the conceptual framework of the study.

**Chapter V** accumulates the empirical findings and discusses the results by relating the findings to the hypotheses and the previous studies.

**Chapter VI** concludes by discussing the implications of the study on different parties, including companies, regulatory authorities, policymakers. It also acknowledges the limitations of the study and encourages researchers for further studies.

## **CHAPTER II**

### **DIVIDEND POLICIES AND THEORIES**

#### **2.1 Dividend Policy**

Dividend policy has been one of the most challenging problems in corporate finance since the 1950s. It plays a vital role in corporate performance and firm valuation (Allen, Bernardo & Welch, 2000). According to Black (1996), dividend policy is a puzzle and affects managers' decisions on the pattern and extent of payments to shareholders (Frankfurter & McGoun, 2000; Frankfurter, Wood & Wansley, 2003).

Companies follow different dividend policies. Some companies follow a well-planned and stable dividend policy, whereas others pursue a residual policy of making dividend payments whatever is left following investment in projects. Other companies make dividend payments to overcome agency problems, while some others prefer paying no or fewer dividends to reduce the tax load of shareholders. Most of the profitable and mature companies usually sustain high dividend payout, whereas small and highly leveraged ones abstain from distributing profit as dividends. Thus, there is no "one-size-fits-all" approach. In this frame, researchers suggested different theories on dividend policy (Baker, 2009; Lease et al., 1999).

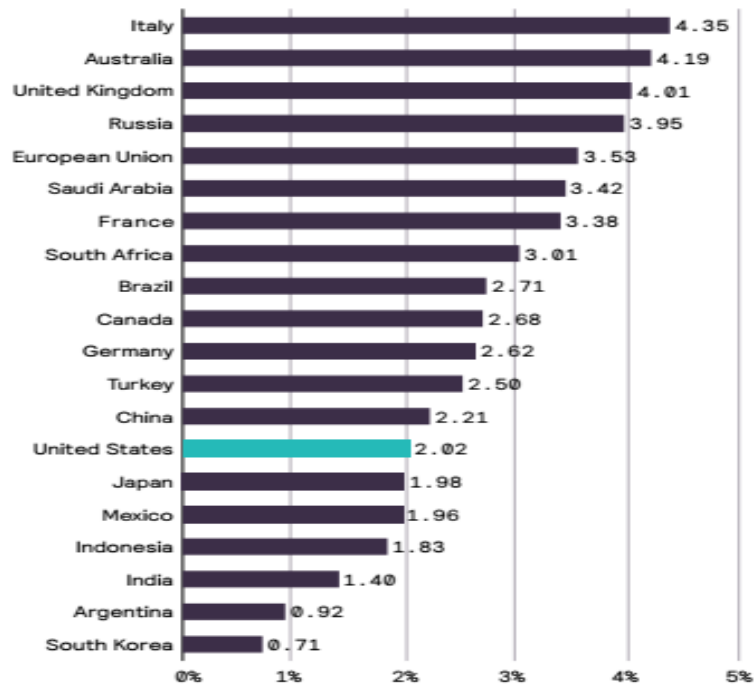
The prior studies on dividend policy have mainly concentrated on developed markets, while few studies are held for emerging markets that show significant variations in dividend policy. These deviations stem from several factors, including economic and political instability, vulnerable regulations, weak corporate governance, and distinctive ownership structures (Aivazian et al., 2003a, 2003b; Faccio, Lang & Young, 2001; Glen et al., 1995; La Porta et al., 2000).

### 2.1.1 Dividend Policies Across the Globe

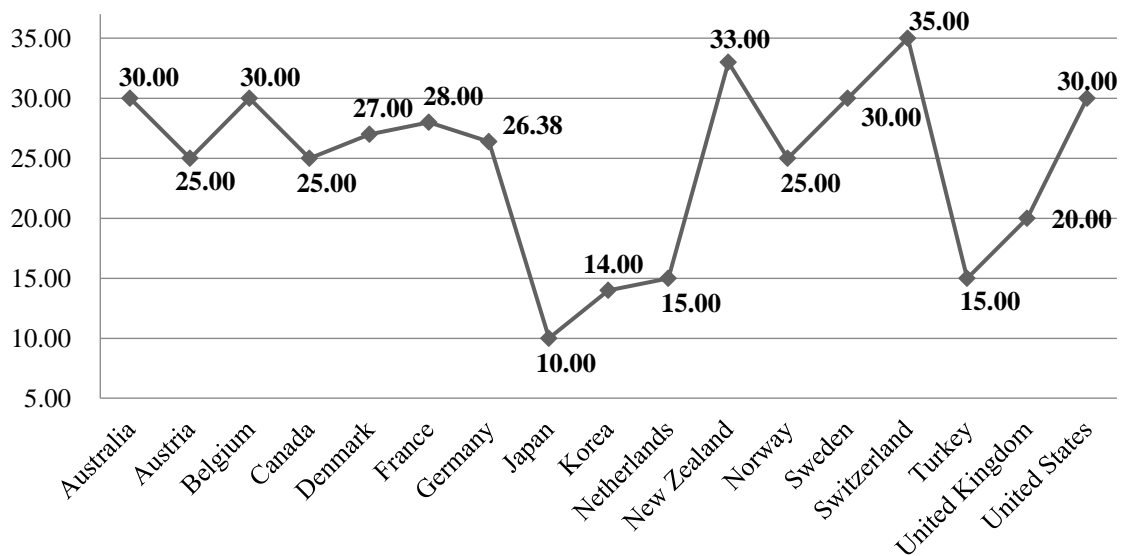
Cash flows by companies are the primary driver of returns in the long run. It was reported that an increase in earnings and dividends per share has a relationship with GDP growth over the long run (Graham, Peltomäki, & Piljak, 2016). Since 1980 nominal GDP growth in developed markets has been at 2.5 percent yearly, whereas the average increase in earnings per share and dividends per share has been 6.4 and 6.0 percent, respectively (World Economic Outlook, 2020). Figure 2.1. shows the pattern of dividend payments, size, and frequency across countries.

Among developed countries, cash dividend payments are high and important in the United Kingdom (UK), US, and Canada, whereas they are relatively less important in Japan, Switzerland, and Israel (Herron & Platt, 2020). In Italy, Finland, and some other European countries, companies usually pay annual dividends, while in the US and Canada, companies prefer paying dividends quarterly, and in the UK and Japan semiannually (Rangvid, Schmeling, & Schrimpf, 2014). Thus, the frequency of dividend payments differs from country to country. The US and Canada have an average annual yield of 4%, which is higher than European countries, i.e., France, Switzerland, Germany, and Italy, where the yield ranges from 2.5 to 3.5 percent.

There are institutional and regulatory differences in dividend payment practices across the globe. In Japan and most European countries, companies suggest a dividend policy, and shareholders should approve it. In other countries like Germany, Switzerland, and Brazil, specific regulations define a minimum dividend payout ratio (Booth & Zhou, 2017). There are also different regulations for dividend taxation among countries. For instance, in the US, double taxation is imposed from the early 20th century, followed by Canada in 1971, and Japan in 1988 (Carroll & Prante, 2012). Different tax rates on dividends in the UK depend on the tax brackets that range from 10% to 35%. Similarly, in Italy, there are different tax rates for saving and registered stocks. Figure 2.2 presents withholding tax on dividend income in developed countries.



**Figure 2.1 Average dividend yield in the G-20 economies as of January 31, 2017**  
Source: Bloomberg



**Figure 2.2 Withholding tax rate on dividend income (2010-2019)**

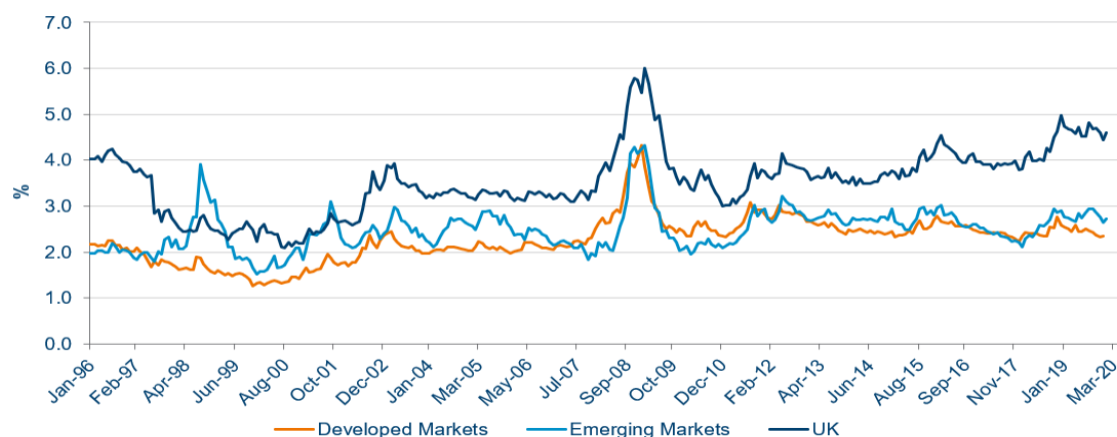
Source: Compiled from OECD.stat data. [https://stats.oecd.org/Index.aspx?DataSetCode=TABLE\\_I14#](https://stats.oecd.org/Index.aspx?DataSetCode=TABLE_I14#)

### 2.1.2 Dividend Policies in Emerging Markets

Emerging markets have become a substation of the world economy since 1990. They have experienced capital account liberalization, and this has affected their dividend

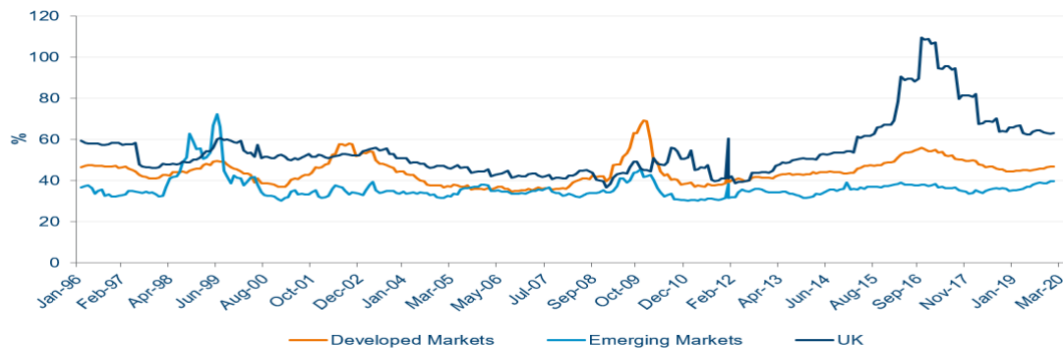
payout policies. According to IMF estimations, emerging markets serve 59% of total global GDP (according to PPP-adjusted in USD), a remarkable growth over the previous decade, when these countries had less than 50% of the worldwide GDP. The percentage of dividend-paying companies in emerging markets has also increased faster than in developed markets, from 60% in 1998 to 70% in 2014 (Li & Soe, 2015).

However, the dividend payment decision does not exclusively depend on the decision of management. Other factors such as financial crises, macroeconomic turmoil, and regulatory changes may influence dividend policies (Kirkulak & Kurt, 2010). Listed companies also have different corporate governance and ownership structures in emerging markets. Figure 2.3 and Figure 2.4 display the dividend yields and dividend payout ratios in developed and emerging markets from 1996 to 2020. Dividend payout ratios are relatively lower in emerging markets. One reason is the high growth requiring more investment, which eventually compels management to pay a low dividend.



**Figure 2.3 Dividend yield in developed and emerging markets (1996-2020)**

Source: Calvert (2020)



**Figure 2.4 Dividend payout ratios in developed versus emerging countries (1996-2020)**

Source: Calvert (2020)

### 2.1.2.1 Legal Restrictions and Mandatory Requirements

Implementation of different dividend payout policies in emerging markets mainly stems from the legal restrictions on the maximum or minimum amount that companies should pay to shareholders as dividends. Regulations in some countries mandate the minimum level of dividend payout, like in Greece, Brazil, Colombia, Chile, and Venezuela (Castillo & Jakob, 2006; La Porta et al., 2000; Mitton, 2004). As stated by Stulz and Williamson (2003), no English-speaking or Protestant countries have such rules. Some civil law countries in East Asian and Central and Eastern European countries that once had payout requirements now abolished this policy. For instance, Turkey ended the minimum payment of at least 50% cash dividends after 1995.

### 2.1.2.2 Ownership Structure and Corporate Governance

Large companies usually pay higher dividends to give a strong signal to the market, particularly in developed markets. However, the signaling may work less in emerging markets since other factors may influence companies' decisions, such as family ownership and ownership concentration. State-controlled companies have distinct payout ratios in emerging markets like in Philippines (Glen et al., 1995), in China (Deng, Gan, & He, 2007; Gul, 1999; Xu & Wang, 1997; Wei, Zhang, & Xiao,

2004), in Malaysia (Sun & Tong, 2002), in Oman (Al-Yahyaee, Pham, & Walter, 2006), and in Jordan (Al-Malkawi, 2007).

Weak corporate governance and low legal investor protection is another concern in emerging markets where the boards do not have control but only operate as advisory committees (Adjaoud & Ben-Amar, 2010; Mehdi, Sahut, & Teulon, 2017; Mitton, 2004). Thus, due to the predominance of ownership concentration, the minority shareholders are expropriated (Shleifer & Vishny, 1997), leading to agency problems between controlling and minority shareholders (Anderson & Reeb, 2003; Daily, Dalton & Cannella, 2003; Villalonga & Amit, 2006). Another issue is that many companies in emerging markets are subsidiaries of multinational corporations operating in the US, UK, France, Germany and generally pay high dividends (Lehmann & Mody, 2004). For example, in Korea, external block owners change their investments from passive to active when the firm's dividend payout ratio is weak, and these switches lead to improvements in payout (Kim, Kim, & Kwon, 2007).

### **2.1.2.3 Changes in Economic Environment**

Fama and French (2001) identified that the US companies with strong growth opportunities prefer making new investments rather than distributing dividends. Thus, investment opportunities affect dividend policies in developed countries (Denis & Osobov, 2008; Gul, 1999; Smith & Watts, 1992). The same goes true in emerging markets where companies prefer financing new investments to enhance growth rather than paying dividends. China (Gul, 1999), Brazil (Anderson, 1999), Malaysia (Pandey, 2002), Hong Kong (Ho, Lam, & Sami, 2004), India (Kumar, 2006; Som, 2006), Poland (Kowalewski, Stetsyuk, & Talavera, 2008), Mexico (Price, Roman, & Rountree, 2007), Jordan (Al-Malkawi, 2007), and Egypt (Omran & Pointon, 2004) are emerging markets providing evidence to confirm this fact.

Another factor that may lead companies in emerging markets to have more fluctuating dividend policies is the economic climate. Macroeconomic changes are more frequent in these markets and affect companies' access to international capital markets during the crises, resulting in lower dividend payments following profits

shortfalls (Kaminsky, Reinhart, & Vegh, 2004; Pallage & Robe, 2003). Previous studies held on emerging markets also confirm this fact, i.e., Turkey (Adaoglu, 2000), Oman (Al-Yahyaee et al., 2006), Tunisia (Ben Naceur, Goaid, & Belanes, 2006), India (Reddy Yarram, 2002; Som, 2006), Jordan (Al-Malkawi, 2007), Argentina (Bebczuk, 2004), Thailand (Bailey, Mao, & Sirodom, 2007; Ronapat & Evans, 2005).

## **2.2 Regulatory Framework on Dividend Policy in the Turkish Capital Markets**

There are differences among countries in regulatory frameworks on dividend policies (Aivazian et al., 2003a; La Porta et al., 2000). These differences are essential, particularly in emerging markets, to protect the rights of minority shareholders (Glen et al., 1995). Publicly listed companies on Borsa Istanbul are bound to the regulations and policies enacted by the Capital Market Board of Turkey (CMB). According to the Capital Markets Law (CML) regulation of 1982, all listed companies were required to pay a minimum of 50 percent as cash dividends from their earnings to shareholders from 1985 to 1994. In 1995, the CMB ended this mandatory requirement.<sup>1</sup> The revised regulation gave high flexibility to the listed companies in making cash dividends payments. Companies are also allowed to make dividend payments in cash, stock, or a combination of them upon the board of directors' decision approved by the general assembly. The main goal of these modifications was to remove the constraints imposed on dividend policy. It also permits investors to value dividend policies of companies reflecting their judgments on shares prices (Adaoglu, 1999; 2008). The elimination of compulsory dividend payments also reduced the constraints imposed upon companies in liquidity management (Aytac, 1998).

However, this picture changed by the beginning of 2001 due to the banking crisis experienced in Turkey. It led to financial distress in the country, resulting in substantial losses to companies and investors, particularly the small ones (Adaoglu, 2008). The government implemented several reforms in 2003 to attract institutional and foreign investors by imposing strong corporate governance measures. In this frame, the CMB restored dividend policy regulation in 2003 to give more comfort for

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<sup>1</sup> A decree of the CMB Serial# IV No: 9, issued in the Official Gazette (27/12/1994) and No: 22154

the protection of minority shareholders (Adaoglu, 2008; Kirkulak & Kurt, 2010). The policy was further amended in 2005 by imposing the distribution of at least 20% of net income as a dividend. However, the regulation was more flexible than the previous one applied from 1985 to 1994. This time the companies were granted the liberty of paying dividends in cash or stock. Additionally, firms were permitted to pay dividends as a combination of both cash and stock. The stock dividends may also be added to the paid-in capital.<sup>2</sup>

In line with the market dynamics, CMB increased the mandatory level of dividend payout ratio from 20% to 30% for the fiscal years of 2004 and 2005. This ratio was then decreased to 20% for 2006, which remained the same for 2007 and 2008. In 2009, CMB decided to eliminate the mandatory dividend payment requirement for all listed companies in BIST. This decision has given the freedom to listed companies to determine their dividend policy but obliging them to disclose it publicly.<sup>3</sup> Table 2.1 and Figure 2.5 represent the evolution of dividend policy in the Turkish capital markets from 1985 to 2018. The influence of taxation on cash dividends in Turkey is also crucial in understanding the behavior of investors. In the current Turkish tax system, foreign investors (i.e., both individual and institutional) and domestic individual investors are exempted from tax on capital gains, whereas they have to pay a 15% withholding tax on cash dividends. Domestic corporations are exempted from taxes on cash dividends on resident corporations' equities (TCMA, 2014).<sup>4</sup>

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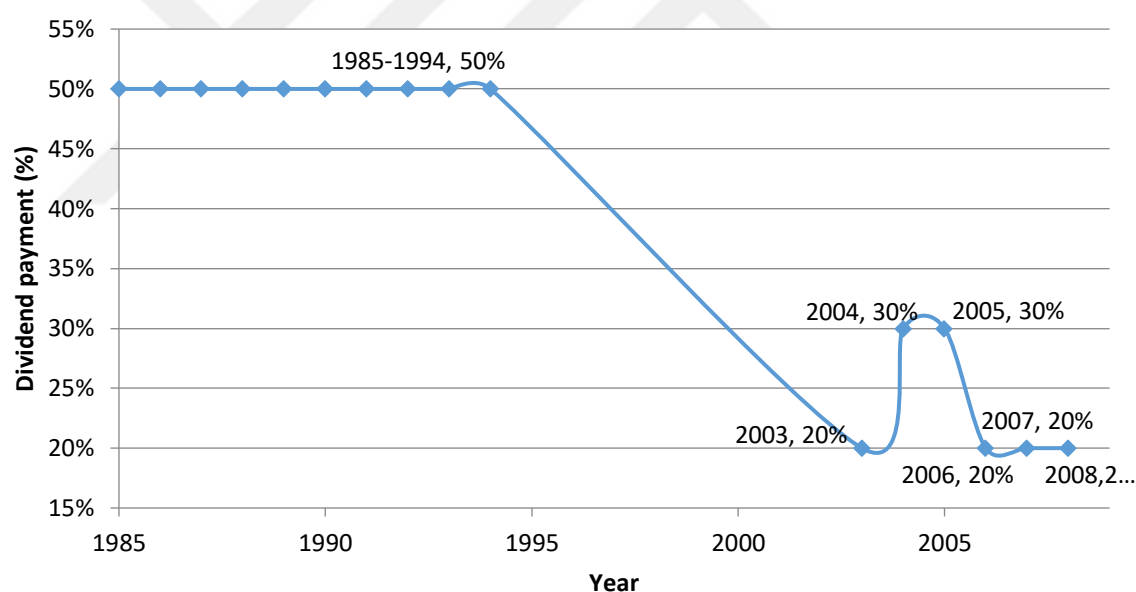
<sup>2</sup> The decision of CMB#: 16535, dated: 30th December 2003, published in the CMB Weekly Bulletin #: 2003/63

<sup>3</sup> The decision of CMB #: 02/51, dated: 27th January 2010, published in the CMB Weekly Bulletin #: 2010/4

<sup>4</sup> TCMA: Turkish Capital Markets Association

**Table 2.1 Chronological order of regulatory evolution in the Turkish capital markets**

Year	Regulation
1982	CML in 1982 enforced the regulation for companies to pay a minimum of 50 percent as cash dividends out of residual earnings between 1985 and 1994.
1995	CMB ended the mandatory cash dividend payment requirement for listed companies and allowed them to make dividend payments in cash or stock. Additionally, it allowed the firms can pay as a combination of both cash and stock.
2003	CMB restored the compulsory dividend payment condition (giving at least 20% net income as a dividend) in 2003 to protect minority shareholders. Firms were also allowed to make dividend payments in cash dividends, stock dividends, or a combination.
2004-2005	CMB increased the mandatory level of dividend payment requirement from 20% to 30% for the fiscal years 2004 and 2005.
2006-2008	The 30% level of obligatory dividend payment requirement was decreased to 20% for 2006 and continued at the same level in 2007 and 2008.
2009 – onwards	CMB decided to eliminate the mandatory dividend payment requirement for all listed companies



**Figure 2.5 The evolution of dividend policy in Turkish capital markets (1985-2018)**

A 15% withholding tax was mandatory before 2006 on all categories of investments such as equities, deposits, mutual funds, and bonds, irrespective of investor type. Since 2006, the Turkish tax system has changed (TCMA, 2007). Table 2.2 provides the summary of the tax regime of Turkish companies on cash dividends and capital gains.

**Table 2.2 The Turkish tax regime on cash dividends and capital gains since 2006**

Investment	Individuals		Corporations	
	Residents	Non-residents	Residents	Non-residents
Capital Gains on Equities	0% withholding tax on capital gains†	0% withholding tax on capital gains ††	0% withholding tax on capital gains ††	0% withholding tax on capital gains
Dividends on Equities	A withholding tax of 15% is applied to dividends †††	A withholding tax of 15% is applied to dividends	0% withholding tax on dividends. Dividends from resident firms are excluded from corporate tax	A withholding tax of 15% is employed for dividends

† ETFs and investment trusts are bound to a 10% withholding tax, given holding these securities for less than one year.

†† Corporate tax on earnings is 20%, but withholding tax is subtracted.

††† Income tax is exempted on 50% of the dividends. If the residual value surpasses 26,000 Turkish Lira, then all income needs to be disclosed and subject to income tax. In such a case, the total amount of withholding tax is subtracted from the income tax.

Source: TCMA (2014)

Table 2.3 shows the dividend payout (DPO) and dividend yield (DY) ratios of non-financial firms in the BIST 100 index and dividend yield figures in emerging markets over the period of 2013-2019. Figure 2.6 shows the dividend yield in a sampled BIST 100 indexed firms (i.e., excluding financial and utility companies) in comparison to emerging markets between 2013 and 2019.

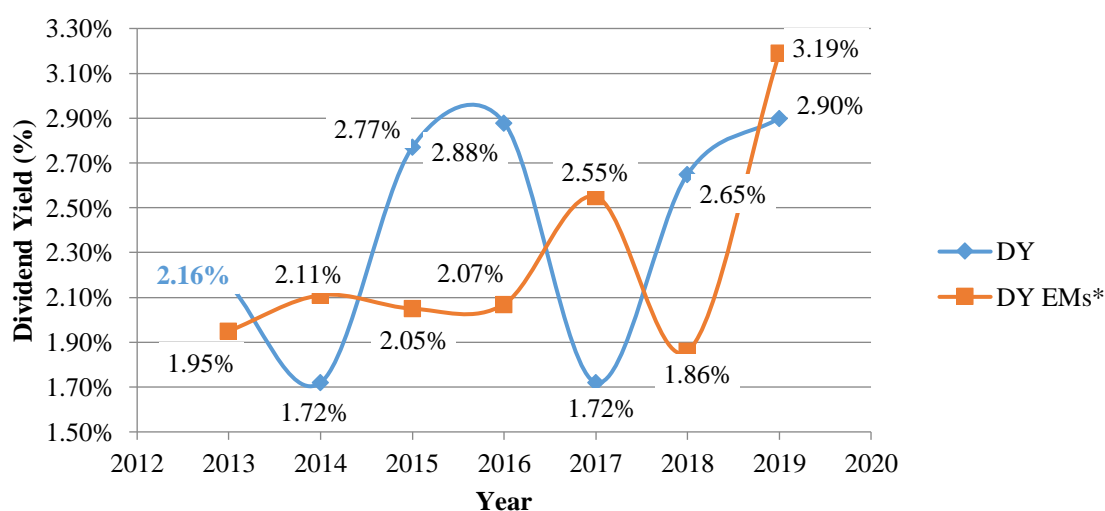
### 2.3. Theories on Dividend Policy

The dividend policy literature is enormous and covers many theories intending to resolve the dividend puzzle. Despite numerous empirical research and extended debates, no agreement exists on the motive of dividend payments. This section briefly discusses these theories.

**Table 2.3 Dividend payout and dividend yield of non-financial firms in BIST-100 Index and Emerging Markets (2013-2019)**

Year	DPOR	DY	DY EMs*
2013	23.76%	2.16%	1.95%
2014	26.52%	1.72%	2.11%
2015	27.25%	2.77%	2.05%
2016	23.72%	2.88%	2.07%
2017	27.15%	1.72%	2.55%
2018	22.81%	2.65%	1.86%
2019	16.45%	2.90%	3.19%

Source: DY EMs: “Emerging Markets Portfolio: Dividend Yield,” 2019, retrieved from <http://www.lazyportfolioetf.com/allocation/emerging-markets-dividend-yield/>



**Figure 2.6: Dividend yield in the BIST 100 companies vs. Emerging Markets (2013-2019)**

Source: Author compilation from the data in Table 2.3

### 2.3.1. Dividend Irrelevance Theory

Miller and Modigliani (1961) proposed that a dividend policy is irrelevant in perfect capital markets where there are rational investors. Their arguments are based on the following premises: (1) There are no tax variations between capital gains and dividends; (2) There are no transaction costs; (3) There is no information asymmetry (i.e., investors and managers have the same information); (4) No agency costs as managers do not expropriate the resources of companies; (5) Stock market prices reflect available information. Thus, the valuation solely depends on the productivity of a company rather than its dividend payments. In this theorem, dividend policy

influences only the amount of funding for investment with expected positive net present value in future projects. In this regard, the disbursement of the cash dividend is recorded as a capital loss.

Miller and Modigliani (1961) also introduced the concept of "homemade dividends," where shareholders build their dividend policy and get profit by selling shares equivalent to the amount of cash they would have taken in the form of dividends. Investors could reinvest cash dividends if they do not require cash. In this frame, shareholders will not be affected by the dividend policy of companies. Black and Scholes (1974), Miller and Scholes (1978, 1982) also advocated this approach.

Contrary to this argument, Walter (1963) asserted that dividend policy affects the value of companies. His model is based on four assumptions: (1) All investments are financed through retained earnings rather than by issuing bonds and equity; (2) The rate of return and cost of capital is constant; (3) Earnings are either totally retained or distributed as cash dividends; and (4) The firm has an infinite timespan. Accordingly, the market price indicates the sum of the future cash dividends and returns against retained earnings, and the dividend policy influences stock prices.

### **2.3.2. Signaling Theory**

Many studies have concentrated on the market imperfections in response to irrelevance theory, and they have presented contrasting theories on why firms pay or do not pay dividends. For example, Lintner (1956) proposed that companies follow long-run target dividend payout ratios. This approach suggests that dividends serve as a signaling mechanism of the company's past performance and prospects. According to this theory, information asymmetry does prevail in the real world, and imperfection of the market leads to the signaling theory. This implies that managers apply a dividend policy to disseminate information to shareholders on the company's growth and profitability. Thus, an increase in dividend payments implies an increase in prospects and earnings, while a decrease in dividends indicates the reverse effect.

The "information content of dividends" hypothesis was first introduced by Miller and Modigliani (1961). They reported that investors translate any change in dividend payouts to modify the approach of management to profitability. Charest (1978) claimed that dividend payouts communicate signals on the performance of companies. Nevertheless, informational content incorporated by dividend announcements yet prevails a debatable issue. Consistent with the previous models (such as those of Bhattacharya, 1979, 1980; John & Williams, 1985; Miller & Rock, 1985), managers tend to hold superior knowledge about the present and projected performance of the company and use dividend payments as a source of disseminating information to the investors. Fairchild (2010) stated that dividends signal the firm's present performance and simultaneously influence the company's capability to invest in new projects. Ghosh and Woolridge (1991) asserted that companies do not want to reduce dividends.

### **2.3.3. Transaction Cost Theory**

Investors are affected by the transaction costs in collecting and reinvesting dividend payments. Investors prefer to get steady and high dividends due to their reliance on it for consumption rather than selling a part of their shares that could entail substantial transaction costs, while wealthy investors do not need dividend payments for consumption, and they prefer it to reinvest in buying new shares (Bishop, Harvey Robert & Garry, 2000). Therefore, companies should develop a dividend policy that may satisfy both groups (Scholz, 1992). The influence of transaction costs on dividend payouts is linked to the company's investment decisions.

According to Bhattacharya (1979) and Rozeff (1982), transaction costs are like the cost of dividends. Miller and Rock (1985) described the dividends' cost as disregarding investment projects' positive net present value. Hence, investment projects imply that external financing costs may increase because of dividend payments from internal resources. In this frame, Rozeff (1982) suggests that companies with high leverage should pay fewer dividends.

### **2.3.4. Tax-Related Theories**

The oscillating behavior in taxation on capital gains and dividends may have implications for companies and investors. As suggested by Brennan (1970), Elton and Gruber (1970), and Litzemberger and Ramaswamy (1979), the tax preference theory implies that shareholders prefer receiving no or fewer dividends when they find a tax rate on capital gains lower than on dividends. The rationale is that paying high dividends increases the tax burden of shareholders. However, according to the tax clientele hypothesis (developed by Black & Scholes, 1974; Miller & Modigliani, 1961; and Miller & Scholes, 1978), each investor chooses dividend policy based on their selection of either low or high cash dividends based on their tax level. Individuals with low tax slabs or tax-exempted institutional investors may prefer getting high cash dividends. Hence, investors prefer investing in companies that fit their requirements on the tax position.

The extant literature investigating the effect of tax rates on dividends is broad and can be divided into two parts. First, considering the uneven tax assumptions for capital gains and dividends relying on the paradigm of the Capital Asset Pricing Model (CAPM) developed by Brennan (1970) for stock valuation implies that investors need higher risk-adjusted pre-tax proceeds on shares with a higher dividend yield to offset the tax damages of those returns.

Another aspect of the tax preference hypothesis is the price decline in the ex-dividend date. The imposition of higher taxation on dividends than capital gains influences the ex-day prices (Elton & Gruber, 1970). Investors favor those companies that pay no or minimal dividends when they have favorable capital gains tax slabs that drive the reduction in price less than the dividend per share (Bell & Jenkinson, 2002; Kalay, 1982; Kaplanis, 1986; Koski & Scruggs, 1998; Lasfer, 1995; Michaely, 1991). An ex-dividend stock price reduction that is less than the dividend per share may give possibilities of making a profit to traders. These traders are not bound to uneven tax rates of capital gains and dividends, such as tax exemption for institutional investors, thereby obtaining dividends and removing any extra gains by trading on the ex-dividend dates.

### **2.3.5. Bird-in-the-Hand Hypothesis**

Bird-in-the-hand theory proposes that investors usually favor receiving cash dividends today instead of waiting for expected earnings from future projects. This hypothesis suggests that dividend enhances company's value due to its limited riskiness compared to capital gains. Therefore, it is safer to invest in a dividend-paying company. Hence, companies should provide a higher dividend to maximize stock prices (Gordon, 1959, 1963; Gordon & Shapiro, 1956; Walter, 1963).

However, Miller and Modigliani (1961) indicated that operating cash flows determine a company's risk. The company's value remains unchanged whether it uses its retained earnings for reinvestment in projects or distributes it in dividends. Hence, improving the dividend policy will not improve the worth of the company. This view is also supported by Bhattacharya (1979), claiming that the riskiness of cash flows of a company affects the level of dividends, but any improvement in paying dividends will not decrease the risk. In real life, risky companies suffering from future cash flow uncertainties are highly expected to pay lower dividends. Prior studies also confirm a negative correlation between dividends and firm riskiness (Lloyd et al., 1985; Moh'd, Perry, & Rimbey, 1995; Rozeff, 1982; Schooley & Barney, 1994).

### **2.3.6. Pecking Order Theory**

This theory was introduced by Myers and Majluf (1984) and Myers (1984). They claim that companies finance new investments by using capital according to the following order: internal capitals, debt issuance, and equity financing. The priority of companies is to use retained earnings. Then, it should go for debt financing. In extreme cases, companies can do equity financing. This theory proposes that decreasing dividend payout could lessen the burden of leverage by better managing investment resources.

Furthermore, companies with substantial growth possibilities have high leverage, and they tend to pay lower dividends. The relationship is not unusual, as the transaction cost theory shows similar aspects. However, the pecking order theory contradicts

agency cost theory claims that paying high dividends decreases internally generated free cash flows in the hands of managers who may misuse it for their benefits.

### **2.3.7. Residual Dividend Theory**

This theory implies that a company should distribute dividends only when the net income is not entirely used for new projects revealing positive net present value (Saxena, 1999). The reason is that earnings have intrinsic variability since the returns from positive net present value projects are not certain (Lease et al., 1999). Hence, this policy may predict anticipated dividend payments difficult, and it can be suitable if the stockholder does not regard the fluctuations of dividends as a concern (Baker & Smith, 2006; Lease et al., 1999). In this frame, the residual dividend theory has connections with agency cost theory.

### **2.3.8. Catering Theory and Maturity Hypothesis of Dividends**

Baker and Wurgler (2004a; 2004b) suggested a fairly new hypothesis called “catering theory” in response to irrelevance theory by easing perfect capital markets assumptions. According to this theory, the priorities of investors for dividends may vary over time, and companies pay dividends according to these preferences. Managers distribute dividends when investors set a premium on those stocks. Thus, the theory argues that dividends are highly relevant for stock valuation at different times but in different directions. Managers thereby accommodate investor changes in dividend preferences (Ferris, Sen & Yui, 2006).

On the other hand, the maturity hypothesis (Grullon, Michaely & Swaminathan, 2002) proposes a relationship between firm age and dividend policy. It suggests an alternate theory to Jensen's free cash flow hypothesis (1986), indicating that a higher dividend is a signal of progress in a firm's life cycle. According to this theory, a company has multiple projects in the growth stage and is likely to earn significant economic benefits with high capital expenditure. These companies are likely to end up with limited free cash flows. When companies begin to expand, rivals enter into the market, cannibalize market share, and reduce the company's profitability. During this period, companies' investment opportunities diminish, capital spending

decreases, and companies tend to produce higher amounts of free cash flows. Mature companies also have stable profits to retain a decent amount of resources to pay higher dividends.



## CHAPTER III

### LITERATURE REVIEW

#### 3.1. Board Diversity

The business environment has become more competitive in meeting the expectations of different groups (Maznevski, 1994; Milliken & Martins, 1996; Shrader et al., 1997). This challenging surrounding necessitates the integration of diverse views in organizational settings through board diversity. The latter can be defined as the variations of features among board members in terms of gender, age, tenure, nationality, educational background, and experience, and it helps manage the concerns of stakeholders (Adams, 2017; Carter et al., 2003; Van Knippenberg & Schippers, 2007). Some of these distinctions may be directly job-related, like educational background, functional contribution, and tenure, while some others are not directly job-related, i.e., gender, age, cultural background, and nationality (Jackson & Joshi, 2011). Previous studies have mainly concentrated on measurable attributes, i.e., age, gender, tenure, culture, nationality, educational, and functional background (Van Knippenberg, De Dreu & Homan, 2004). Table 3.1 provides different definitions of board diversity.

Board diversity plays a powerful role in improving corporate governance quality and reputation. Over the last decades, internal and external forces have forced companies in many countries to consider the significant implications of board diversity. However, board diversity has attracted less attention in emerging markets until recently due to a low level of investor protection and weak corporate governance measures (Adjaoud & Ben-Amar, 2010; Clarke, 2015; Mehdi et al., 2017; Mitton, 2004). Moreover, most of the companies in emerging countries are either family-owned or have high ownership concentration. One of the parameters that are highly influenced by corporate governance and board diversity is dividend policy. Thus, the relationship between demographic board diversity and dividend policy is essential in

emerging markets since it helps overcome agency problems and attract potential investors.

**Table 3.1. Definitions of board diversity**

<b>Board diversity</b>	<b>Definition</b>	<b>Author(s)/year</b>
Surface- and deep-level diversity	Board diversity can be classified into surface-level and instantly visible features (such as gender and age) and not instantly noticeable attributes (such as personality and values).	Harrison, Price, & Bell (1998)
Board diversity on the basis of race/color	Board diversity indicates the percentage of females on board categorized as American, African, Asian, and Hispanic.	Carter, Simkins, & Simpson (2003)
Job-related & non-job-related traits	Diversity indicates the variations between individuals on any characteristic that another person is distinct from oneself. Such variations may stem from job-related characteristics such as educational level, functional background, and tenure, and not job-related attributes such as gender, nationality, or cultural background, and age.	Van Knippenberg & Schippers (2007)
Difference among members	Diversity is the differences among members of a unit on common characteristics such as age, tenure, or ethnicity.	Harrison & Klein (2007)
Observable & limited observable criteria	Observable criteria for defining board diversity consist of gender, nationality, and age, while limited observable comprises occupational, functional, educational background.	Kang, Cheng, & Gray (2007)
Visible & non-observable criteria	The directors' traits that are readily visible and measurable are termed observable diversity. Such diversity comprises demographic characteristics such as gender, race, ethnicity, age, and nationality. The less visible attributes of diversity are experience, educational background, and expertise.	Mishra & Jhunjhunwala (2013)
Fundamental/structural diversity	Structural/fundamental diversity of the board is related to the attributes such as leadership composition (i.e., CEO duality), the directors, the existence of foreign directors on boards.	Srivastava, Masli & Sherwood (2015)
Demographic diversity	Demographic diversity comprises age, gender, nationality, functional, educational, and occupational backgrounds.	Ararat, Aksu, & Cetin (2015)
Task-related and non-task-related diversity	Task-related diversity is based on functional or educational background. Non-task-related diversity consists of gender, nationality, race, and age.	Adams, Haan, Terjesen, & Ees (2015)

### **3.1.1. Importance of Board Diversity**

The board of directors acts as the most critical decision-making body in a company. It monitors and enhances corporate performance and governance (Carroll & Buchholtz, 2014; Heyden, Oehmichen, Nichting & Volberda 2015; Hillman, Nicholson & Shropshire, 2008; Hillman, 2015). The demographics of the board also influence CEO remuneration (Zhu, 2014) and dividend policy (Byoun, Chang, & Kim, 2016), among many others.

There are different arguments on the influence of board diversity. Some studies report a positive impact of board diversity on corporate performance due to their innovative and creative approaches to decision-making, while other studies claim the opposite. Some authors argue that political or moral factors drive the board diversity to mitigate discrimination and enhance fairness and equality in the eyes of shareholders (Erhardt, Verbel & Shrader, 2003; Randoy, Thomsen & Oxelheim, 2006; Rivas, 2012). Garner, Kim & Kim (2017) claimed that diverse boards bring richness and experiences. This is in line with the theoretical model offered by Malenko (2014). He indicated that the enhanced quality of governance with board diversity helps communicate contradicting perspectives.

On the contrary, Putnam (2007) observed that heterogeneity among board members reduces cooperation, thwarts communication, and directs social loafing. In another study, Anderson et al. (2011) examined diversity by employing six dimensions linked to occupational heterogeneity (education, profession, and experience) and social heterogeneity (gender, age, and ethnicity). They found that investors allocate premiums on heterogeneous boards in sophisticated companies but decrease heterogeneity in more modest ones. Their results showed that more heterogeneity does not significantly increase board efficacy. These findings are consistent with Coles, Daniel & Naveen (2008).

### 3.1.2 Benefits and Shortfalls of Board Diversity

Companies decide on the construction of the board of directors to maximize corporate value. In this frame, they should consider the pros and cons of board diversity. The following three features are the advantages of board diversity.

- *Creativity and effective decision making*

Board diversity addresses the complexities of a dynamic environment and helps companies make effective decisions (Carter, Simkins, & Simpson, 2003; Croci, 2018). People that have different backgrounds and experiences deal with similar problems in several ways. This enhances creativity and provides a broader range of solutions to complex problems (Croci, 2018; Granovetter 1973; Mishra & Jhunjhunwala, 2013; Watson, Kumar, & Michaelsen 1993; Wiersema & Bantel 1992). For instance, financial experts can help companies access investors (Bell, Villado, Lukasik, Belau, & Briggs, 2011; Croci, 2018; Miller & del Carmen Triana, 2009). Similarly, directors with political relations may aid companies in dealing with regulators or the government (Mishra & Jhunjhunwala, 2013). Female directors bring heterogeneity in corporate decision-making, thereby increasing corporate performance (Adams & Ferreira, 2009; Gul, Srinidhi & Ng, 2011; Liu, Wei & Xie, 2014).

- *Career motivations by signaling and mentoring*

Board diversity may give a signal to minority employees for their rights of progression or at least that their minority rank is not a barrier to their jobs. Since mentoring is crucial for career progression, board diversity may also be helpful for the posts of minority top managers (Croci, 2018; Purdie-Vaughns, Steele, Davies, Dittmann, & Crosby, 2008).

- *Public relations, investor relations, and legitimacy*

A heterogeneous board has a better understanding of the marketplace (Carter, Simkins, & Simpson, 2003). Companies may customize products and services to the

needs of communities and penetrate new markets, appeal to social expectations of stakeholders, in particular with gender and ethnicity diversity (Crocì, 2018). This is also a way of getting legitimacy in media perception and promotes global relationships (Carter et al., 2003; Zhang & Smith, 2018).

Board diversity also has some shortfalls, such as conflict of interest, lack of collaboration, inadequate communication, and agenda-pushing. The following part reviews these points:

- *Conflict, lack of collaboration, and inadequate communication*

Social psychology presents proof of an association between demographic homogeneity and corporate performance (Zander, 1979). Lau and Murnighan (1998) claimed that demographic divergence might restrict communication among subgroups, produce conflict, and diminish interpersonal attraction and group cohesion (Crocì, 2018). The critical issue related to board diversity is the probability of communication failures between top management and outside directors. Adams and Ferreira (2009) stated that external directors depend on executives to get detailed information on companies. The hesitation of executives to give information to the outside directors may compromise the board's effectiveness.

- *Conflicts of interests and agenda-pushing*

Some directors may be more excited about launching their agenda, even at the cost of corporate performance. These directors may even serve the interests of outsiders. This uncertainty may affect stockholders' interests (Scase & Goffee, 2017).

### **3.2. Theoretical Background**

Scholars usually build taxonomies to represent diverse aspects of boards. Some authors support agency theory claiming the viewpoint of a monitoring function, while other scholars suggest a resource dependency perspective, arguing that board members are essential resources by having connections to critical sources, i.e., regulators, financial companies, suppliers (Salancik & Pfeffer, 1978). Some others

consider the potential relationships between corporate performance and board composition reckoning for both agency and resource dependence aspects (Hillman & Dalziel, 2003).

Though there is a vast literature that examines the effect of demographic board diversity on dividend policy in developed markets (Byoun, Chang, & Kim, 2016; Chen, Leung, & Goergen, 2017; Van Pelt, 2013), there are relatively few studies on emerging markets: China (McGuinness et al., 2015), Spain (Pucheta-Martinez & Bel-Oms, 2015), Malaysia (Al-Dhamari, Ku Ismail, & Al-Gamrh, 2016; Byoun, Chang, & Kim, 2016; Hamzah & Zulkafli, 2014; Jurkus, Park & Woodard, 2011), Jordan (Al-Rahahleh, 2017), India, China, and Russia (Saeed & Sameer, 2017). In the Turkish market, researchers have also concentrated on investigating the connection between demographic board diversity and dividend policy (Abdioglu, 2016; Al-Najjar & Kilincarslan, 2018; Takmaz, 2017). Studies also focus on the relationship between ownership structure and dividend payout (Al-Najjar & Kilincarslan, 2016; Baker & Kilincarslan, 2019). Kılıç and Kuzey (2016) and Ararat and Yurtoglu (2020) reported a positive correlation between gender diversity and firm performance. Ararat, Aksu, and Tansel Cetin (2010, 2015) identified that board diversity is positively linked to firm performance and board monitoring, while Kilic (2015) found a negative relationship between these variables for Turkish companies. Karayel and Doğan (2016) concluded that board composition comprising gender diversity, independence, and foreign directors positively affects the financial performance of BIST 100 companies. Hence, the results are mixed for the Turkish market, and they should be enriched by more conclusive evidence.

### **3.2.1 Agency Theory**

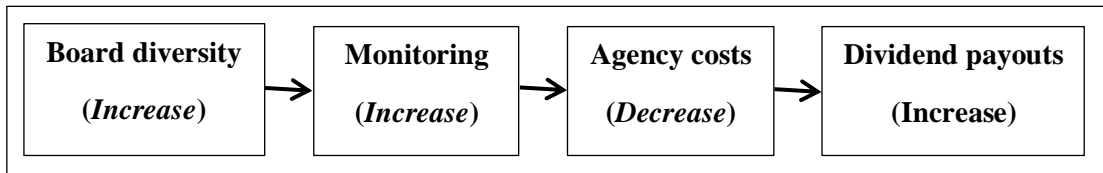
Agency theory implies a mechanism for shareholders (principals) of how to employ the services of agents (managers) in a company (Fama & Jensen, 1983; Jensen, 1986). If there are no agency conflicts, shareholders will be confident about cash flows due to the alignment of parties (Saeed & Sameer, 2017). However, in case of misalignment, two agency problems occur (1) principal-agent (PA) conflicts and (2) principal-principal (PP) agency conflict (Li & Qian, 2013; Su, Xu & Phan, 2008).

PA conflicts are usually observed in Anglo-Saxon markets where investor security is relatively strong due to a diversified ownership structure (La Porta et al., 2000). As a result, shareholders are homogenous in getting the maximum return on their investments (Su et al., 2008). On the other hand, the ownership's separation leads to asymmetric information between stockholders and managers (Saeed & Sameer, 2017). This leads to managerial exploitation, and shareholders could not ensure that managers behave in their best interests (Fama & Jensen, 1983; La Porta et al., 2000). The legal system protects shareholders, where PA conflicts prevail (La Porta, Lopez-de-Silanes & Shleifer, 1999). Agency theory implies that directors are accountable for monitoring a company (Bathala & Rao, 1995). Hence, one way of mitigating PA conflicts is to urge the board to disgorge corporate resources as paying more dividends (Jiraporn, Kim & Kim, 2011; La porta et al., 1999).

PP agency disputes occur between dominating and minority shareholders due to the incongruence of their interests (Ward & Filatotchev, 2010). They are prevalent in markets where the legal protection is weak (Li & Qian, 2013), there is ownership concentration (La Porta, 2004), and the market is inactive for corporate control (Young et al., 2008). In this environment, controlling shareholders can expropriate minority shareholders for the sake of their benefits (Ward & Filatotchev, 2010). This is prevalent particularly during the crisis (Johnson, La Porta, Lopez-de-Silanes & Shleifer, 2000; Young et al., 2008). To address PP conflicts, Li and Qian (2013) and Young et al. (2008) proposed strengthening minority shareholders' protection. La Porta et al. (1999) claimed that legal protection of shareholders encourages higher dividend payout. Abdelsalam, El-Masry, and Elsegini (2008) reported an insignificant association between diversity on the board and dividend payments in Egypt, where investor protection is low. Kowalewski et al. (2008) found a similar relationship in Poland. Jacob and Jijo Lukose (2018) reported that institutional investors in India prefer dividend-paying large companies. Table 3.2 displays a review of the studies on the association between diversity on the board and dividend policy.

Dividend policies also play a significant role in mitigating agency issues (Easterbrook, 1984; Lang & Litzenberger, 1989; Rozeff, 1982). Rozeff (1982) implied that companies decide on dividend policy according to agency intensity.

Dividend policy becomes more important when companies have free cash flows that may lead to agency problems (Chae, Kim, & Lee, 2009; Jensen, 1986). In such cases, companies with diverse boards tend to pay a high dividend (Byoun, Chang, & Kim, 2016).



**Figure 3.1 Board diversity and dividend payout relationship in agency theory**



**Table 3.2 A review of the studies on the association between board diversity and dividend payout**

<b>Author(s)/Year</b>	<b>Methodology</b>	<b>Variables</b>	<b>Ownership Concentration</b>	<b>Investor Protection</b>	<b>Empirical Findings</b>
Brav, Graham, Harvey, & Michaely (2005)	<p><b>Data Sample:</b> -384 in-depth interviews with financial executives -256 listed firms in the US</p> <p><b>Model:</b> - Lintner’s partial adjustment model</p>	<p><b>Dependent Variable(s):</b> -Dividend payouts -Dividend yield</p> <p><b>Independent Variable(s):</b> -Earning per share</p> <p><b>Control Variables:</b> -Sales, debt to assets, credit rating, and book to market.</p>	Low	High	The findings imply that there is a weak link between earnings and dividends. The executives opined that dividend payouts have little effect on investors.
Byoun, Chang & Kim (2016)	<p><b>Data Sample:</b> -1997-2008 - 2234 US firms excluding financial and utility firms</p> <p><b>Model:</b> -Univariate Analysis to compare board attributes between dividend payers and non-payers -OLS Multivariate Analysis</p>	<p><b>Dependent Variable(s):</b> - Dividend payout</p> <p><b>Independent Variables:</b> - % of female and minority directors on board, % of female directors on board, % of minority directors on board</p> <p><b>Control Variables:</b> -Minority director(s) -Year, Industry</p>	Low	High	The result implies that board diversity is vital for firms with free cash flows, suggesting thorough monitoring for mitigating agency issues and paying high dividends.

**Table 3.2 A review of the studies on the association between board diversity and dividend payout (continues)**

<b>Author(s)/Year</b>	<b>Methodology</b>	<b>Variables</b>	<b>Ownership Concentration</b>	<b>Investor Protection</b>	<b>Empirical Findings</b>
Chen, Leung, & Goergen (2017)	<p><b>Data Sample:</b>                      -S&amp;P 1500 companies                      -Financial firms are excluded.                      -Period: 1997–2011.                      -Sample:1691 firms</p> <p><b>Model:</b>                      -OLS regressions                      -Propensity score matching estimates</p>	<p><b>Dependent Variable(s):</b>                      - Dividend payout ratio:                      Dividends to total assets,                      Dividends per share,                      Dividends over sales,                      Dividend yield</p> <p><b>Independent Variables:</b>                      - Ratio of female directors on board, <b>the</b> ratio of female independent directors, the ratio of female insider directors, the ratio of male independent directors</p> <p><b>Control Variables:</b>                      - Firm size, leverage, Tobin's q, cash reserves, ROA, return volatility, asset tangibility, R&amp;D to sales, <b>the</b> board size, ratio of independent directors, CEO tenure, CEO ownership</p>	Low	High	The study reports a positive connection between gender diversity and dividend payments. Moreover, this relationship works incredibly well for firms with weak governance.
Crane, Michenaud, & Weston (2016)	<p><b>Data Sample:</b>                      -Russell 1000 and Russell 2000 index                      - 8,307 firms                      -Period: 1991-2006.</p> <p><b>Model:</b>                      -OLS regression</p>	<p><b>Dependent Variable(s):</b>                      -Dividend payouts</p> <p><b>Independent Variable(s):</b>                      -Institutional ownership</p> <p><b>Control Variables:</b>                      -Size, leverage</p>	Low	High	The finding implies a positive association between institutional ownership and dividend payouts. This association is more effective for firms with agency problems.

**Table 3.2 A review of the studies on the association between board diversity and dividend payout (continues)**

<b>Author(s)/Year</b>	<b>Methodology</b>	<b>Variables</b>	<b>Ownership Concentration</b>	<b>Investor Protection</b>	<b>Empirical Findings</b>
Grinstein & Michaely (2005)	<p><b>Data Sample:</b> -79,010 firms in the USA -Period: 1980-1996</p> <p><b>Model:</b> -OLS regression</p>	<p><b>Dependent Variable(s):</b> -Annual dividend payment</p> <p><b>Independent Variable(s):</b> -Log(sale), institutional holding, annual adjusted return, beta, lag(dividend)</p> <p><b>Control Variables:</b> -Market-to-book ratio, size, leverage, ROA</p>	Low	High	The finding implies that institutional investors favor companies that pay low dividends.
Jiraporn, Kim, & Kim (2011)	<p><b>Data Sample:</b> - 7400 ISS US firms -Period: 2001-2004.</p> <p><b>Model:</b> - Logistic regression</p>	<p><b>Dependent Variable(s):</b> -Dividend</p> <p><b>Independent Variable(s):</b> -Ln (Total Assets), leverage, profitability (net income/ total sales), capital expenditure, R&amp;D ratio, tax ratio, retained earnings, cash holdings, repurchase dummy</p>	Low	High	The findings report a strong positive relationship between effective governance and propensity to pay high dividends.
Schellenger, Wood, & Tashakori (1989)	<p><b>Data Sample:</b> -750 firms in the US in 1986</p> <p><b>Model:</b> -Correlation/OLS regression</p>	<p><b>Dependent Variable(s):</b> -Dividend payouts</p> <p><b>Independent Variable(s):</b> -Independent directors on boards</p>	Low	High	The finding implies that board composition, including the independent board member, influences financial performance and dividend decision-making.

**Table 3.2 A review of the studies on the association between board diversity and dividend payout (continues)**

<b>Author(s)/Year</b>	<b>Methodology</b>	<b>Variables</b>	<b>Ownership Concentration</b>	<b>Investor Protection</b>	<b>Empirical Findings</b>
Short, Zhang, & Keasey (2002)	<p><b>Data Sample:</b> -211 companies registered on the London Stock Exchange -Period: 1988-1992</p> <p><b>Model:</b> -Full and Partial Adjustment Model (Lintner, 1956) -The Earnings Trend Model (Fama &amp; Babiak, 1968).</p>	<p><b>Dependent Variable(s):</b> -Dividends</p> <p><b>Independent Variable(s):</b> -Earnings -Institutional shareholdings -Managerial shareholdings</p>	Low	High	The finding implies a positive link between institutional ownership and dividend payments, while there is a negative correlation between managerial ownership and dividend payouts.
Sharma (2011)	<p><b>Data Sample:</b> - 944 companies in the US -Period 2006</p> <p><b>Model:</b> - Binary logistic regression analysis</p>	<p><b>Dependent Variable(s):</b> -Dividend likelihood to pay, Dividend payouts, Repurchase, total payouts</p> <p><b>Independent Variable(s):</b> -Independent directors -Tenure of independent director -Market-to-book value</p> <p><b>Control Variable(s):</b> -Leverage, ROA, CEO duality, CEO ownership</p>	Low	High	The findings imply a positive correlation between the propensity of dividend payments and (a) independent board member, (b) tenure of director, while it identifies a negative link to (a) busy directors and (b) remuneration of the directors.

**Table 3.2 A review of the studies on the association between board diversity and dividend payout (continues)**

<b>Author(s)/Year</b>	<b>Methodology</b>	<b>Variables</b>	<b>Ownership Concentration</b>	<b>Investor Protection</b>	<b>Empirical Findings</b>
Van Pelt (2013)	<p><b>Data Sample:</b> - S&amp;P 500 firms</p> <p><b>Model:</b> -Ordinary Least Square -Fixed effects model</p>	<p><b>Dependent Variable(s):</b> -Dividend payout</p> <p><b>Independent Variable(s):</b> -Institutional majority (dummy) -Debt, number of directors -% of inside Directors - % of women on board -% of directors with more than ten years tenure.</p> <p><b>Control Variables:</b> - Book-market-ratio, cash, ROA</p>	Low	High	The finding implies a significant positive association between board size and dividend payments.
Abdelsalam, ElMasry, & Elsegini (2008)	<p><b>Data Sample:</b> - Top 50 listed Egyptian companies -Period: 2003-2005</p> <p><b>Model:</b> -OLS regression</p>	<p><b>Dependent Variable(s):</b> -Dividend -Dividend yield</p> <p><b>Independent Variable(s):</b> -Board size, CEO duality, board independence, institutional ownership, block ownership, outside ownership</p> <p><b>Control Variable(s):</b> -ROE, Earning per share</p>	High	Low	The findings imply a positive association between institutional ownership and dividend payouts, while there is an insignificant link between board composition and dividend payouts.

**Table 3.2 A review of the studies on the association between board diversity and dividend payout (continues)**

<b>Author(s)/Year</b>	<b>Methodology</b>	<b>Variables</b>	<b>Ownership Concentration</b>	<b>Investor Protection</b>	<b>Empirical Findings</b>
Al-Najjar & Kilincarslan (2016)	<p><b>Data Sample:</b> -264 non-financial firms enlisted on Borsa Istanbul -Period: 2003-2012</p> <p><b>Model:</b> -Panel regression model</p>	<p><b>Dependent Variable(s):</b> -Dividend (dummy) -Dividend payouts -Dividend yield</p> <p><b>Independent Variable(s):</b> -Family ownership, family board member, the board size, foreign ownership, domestic institutional ownership, state ownership</p> <p><b>Control Variable(s):</b> -ROA, firm age, debt policy, market-to-book ratio, and size</p>	High	Low	The findings indicate that state and foreign ownership prefer firms with fewer propensities to pay dividends, while family ownership and financial institutes are insignificant in influencing the firms for paying dividends.
Ahmed & Javid (2009)	<p><b>Data Sample:</b> -320 non-financial companies listed on Karachi Stock Exchange -Period: 2001-2006</p> <p><b>Model:</b> -GMM, pooled data with fixed effect model and random effect model, pooled time-series cross-section data with common effect</p>	<p><b>Dependent Variables:</b> -Target payout ratio -Dividend yield</p> <p><b>Independent Variables:</b> -Earning per share after-tax -Controlling shareholders -Net earning, leverage, sales growth, firm size</p> <p><b>Control Variables:</b> -Market liquidity, market cap.</p>	High	Low	The finding implies that profitable firms, ownership concentrated, and liquid markets tend to pay high dividends, while the size and market capitalization negatively influence the dividend payments.

**Table 3.2 A review of the studies on the association between board diversity and dividend payout (continues)**

<b>Author(s)/Year</b>	<b>Methodology</b>	<b>Variables</b>	<b>Ownership Concentration</b>	<b>Investor Protection</b>	<b>Empirical Findings</b>
Firth, Gao, Shen, & Zhang (2016)	<p><b>Data Sample:</b> -Listed firms on the Shanghai Stock Exchange and Shenzhen Stock Exchange -Period: 2003-2011. <b>Model:</b> -Panel regression model</p>	<p><b>Dependent Variable(s):</b> -Dividend payouts, dividend <b>Independent Variable(s):</b> -Foreign institutional owner -% ownership mutual funds -Domestic institutional owner <b>Control Variables:</b> -Free cash flow, market-to-book ratio, sales growth, ROA, Leverage, state ownership</p>	High	Low	The findings report a positive influence of mutual funds on dividend payments while other institutional investors, such as insurance, banks, and securities firms, do not move the firms to pay high dividends.
Jacob & Jijo Lukose (2018)	<p><b>Data Sample:</b> - NSE firms in India -Period: 2001-2016. <b>Model:</b> - Logistic regression</p>	<p><b>Dependent Variable(s):</b> -Dividend-to-total assets <b>Independent Variable(s):</b> -Domestic institutional ownership -Foreign institutional ownership <b>Control Variable(s):</b> - ROA, sales growth, market-to-book ratio, Logarithm of sales, leverage, and the logarithm of age</p>	High	Low	The findings imply that institutional investors prefer investing in dividend-paying large companies, while they opt to invest in non-dividend paying firms in small companies.
Kowalewski, Stetsyuk, & Talavera (2008)	<p><b>Data Sample:</b> - 110 non-financial companies listed on Warsaw Stock Exchange -Period: 1998-2004 <b>Model:</b> -OLS regression</p>	<p><b>Dependent Variable(s):</b> -Dividend payout <b>Independent Variable(s):</b> -Corporate governance index <b>Control Variable(s):</b> -Performance variables -Board composition variables</p>	High	Low	The findings imply a positive link between Transparency Disclosure Index and cash dividend payment in Poland. The firms pay more dividends with high corporate governance measures as compared to weak governance.

**Table 3.2 A review of the studies on the association between board diversity and dividend payout (continues)**

<b>Author(s)/Year</b>	<b>Methodology</b>	<b>Variables</b>	<b>Ownership Concentration</b>	<b>Investor Protection</b>	<b>Empirical Findings</b>
McGuinness, Lam, & Vieito (2015)	<p><b>Data sample:</b> -Chinese firms (&gt;9000 firm-year observations) -Period: 2000-2008</p> <p><b>Model:</b> - unbalanced panel regression</p>	<p><b>Dependent Variable(s):</b> -Dividend payout -Stock distribution ratio -Dummy variable</p> <p><b>Independent Variable(s):</b> -CEO Age, CEO tenure, Independent director</p> <p><b>Control Variable(s):</b> -Firm size</p>	High	Low	The findings report a positive relationship between CEO tenure and age with a cash dividend. There is no variation in risk aversion approaches between male and female CEO.
Mehdi, Sahut, & Teulon (2017)	<p><b>Data Sample:</b> - 362 listed GCC firms -Period: 2003-2011</p> <p><b>Model:</b> - Panel regression model</p>	<p><b>Dependent Variable(s):</b> -Dividend yield -Dividend decision (dummy)</p> <p><b>Independent Variable(s):</b> - Institutional ownership -Managerial ownership -Ownership concentration. -Sum of the largest five shareholders. - CEO duality, Board independence, the board size, intensity</p> <p><b>Control Variable(s):</b> - ROE, Firm age, firm size, effective tax rate, beta, debt, and invested capital</p>	High	Low	The findings implied a positive correlation between institutional ownership and dividend policy—board independence and concentrated ownership influence the companies with CEO duality role.

**Table 3.2 A review of the studies on the association between board diversity and dividend payout (continues)**

<b>Author(s)/Year</b>	<b>Methodology</b>	<b>Variables</b>	<b>Ownership Concentration</b>	<b>Investor Protection</b>	<b>Empirical Findings</b>
Pucheta-Martínez & Bel-Oms (2016)	<p><b>Data Sample:</b>                      -Non-financial firms listed on the Spanish Stock Exchange                      -Period: 2004–2012.                      - 894 firm-year observations</p> <p><b>Model:</b>                      OLS regressions</p>	<p><b>Dependent Variable(s):</b>                      - Dividends                      -Dividend payouts                      -Dividend Yield</p> <p><b>Independent Variables:</b>                      -Ratio of female directors                      -Independent women directors                      - Female Executive directors                      - Institutional female directors                      - Shares held by female directors</p> <p><b>Control Variables:</b>                      -Ownership concentration, Investment opportunities, Ownership of managers, Leverage, ROA, ROE, firm size, the board size, independent directors, institutional director</p>	High	Low	Independent female directors on board positively affect dividend payout decisions, while the female institutional directors negatively influence the board in paying fewer dividends.
Reyna (2017)	<p><b>Data Sample:</b>                      -88 companies listed in the Mexican Stock Exchange                      -Period: 2005-2013</p> <p><b>Model:</b>                      -Panel regression model</p>	<p><b>Dependent Variable(s):</b>                      -Dividend payouts</p> <p><b>Independent Variable(s):</b>                      -Ownership controlling family</p> <p><b>Control Variables:</b>                      -Volatility in earnings, free cash flows, leverage, firm size, Tobin Q</p>	High	Low	The findings show that family ownership is negatively correlated with dividend payments, whereas institutional ownership is positively linked to dividend payments.

**Table 3.2 A review of the studies on the association between board diversity and dividend payout (continues)**

<b>Author(s)/Year</b>	<b>Methodology</b>	<b>Variables</b>	<b>Ownership Concentration</b>	<b>Investor Protection</b>	<b>Empirical Findings</b>
Rajput & Jhunjhunwala (2019)	<p><b>Data Sample:</b> -1,546 Indian firms -Period: 2006-2017</p> <p><b>Model:</b> -Probit regression -Tobit regression</p>	<p><b>Dependent Variables:</b> - Dividend payout - Dividend yield</p> <p><b>Independent Variables:</b> - Board size, independent directors, family ownership, ownership % of shares held by domestic institutional investors</p> <p><b>Control Variables:</b> - Leverage ratio, firm size, ROA growth, capital expenditure, liquidity ratio</p>	High	Low	The findings indicate a positive association between corporate governance standards and dividend payment, while there is a negative association between family ownership and dividend policy. The interaction of board independence and family positively affects the dividend payments.
Saeed & Sameer (2017)	<p><b>Data Sample:</b> -Listed companies in India, China, and Russia -Period: 2007–2014</p> <p><b>Model:</b> - Tobit regression</p>	<p><b>Dependent Variable(s):</b> -DPO, dividend per share to the price per share, dividend yield, dividend per share to net income</p> <p><b>Independent Variable(s):</b> - Gender diversity</p> <p><b>Control Variable(s):</b> -Firm size, risk, growth opportunities, state-ownership, family control, the board size, return on assets, debt, board independence.</p>	High	Low	The findings imply a negative association between gender diversity and cash dividends in China, Russia, and India, while state ownership moderates this relationship positively.

**Table 3.2 A review of the studies on the association between board diversity and dividend payout (continues)**

<b>Author(s)/Year</b>	<b>Methodology</b>	<b>Variables</b>	<b>Ownership Concentration</b>	<b>Investor Protection</b>	<b>Empirical Findings</b>
Shahid (2016)	<p><b>Data Sample:</b> - 176 firms listed on KSE and 280 firms listed on BSE -Period: 2010-2015.</p> <p><b>Model:</b> -OLS regression -Fixed effect method</p>	<p><b>Dependent Variable(s):</b> -Dividend payout</p> <p><b>Independent Variable(s):</b> -Managerial ownership -Board independence</p> <p><b>Control Variables:</b> - Board size, CEO duality, ROA, firm size</p>	High	Low	The findings imply a positive connection between board size, board independence, managerial ownership, and dividend payments. However, the link between ownership concentration and dividend payment is negative.
Adjaoud & Ben-Amar (2010)	<p><b>Data Sample:</b> -714 firm-years enlisted on the Toronto Stock Exchange - Period: 2002-2005</p> <p><b>Model:</b> -OLS regressions</p>	<p><b>Dependent Variable(s):</b> -Dividend payouts</p> <p><b>Independent Variable(s):</b> -Corporate Governance Score -Shareholder rights, Board Composition, Disclosure policy -Shareholding &amp; Compensation</p> <p><b>Control Variable(s):</b> -Firm size, Leverage, Market-to-Book, ROE, Price volatility</p>	High	High	The findings report a positive link between strong corporate governance and dividend payments. Shareholders' rights and board composition positively influence the dividend payouts, while the firm risk is negatively correlated to cash dividend payouts.

**Table 3.2 A review of the studies on the association between board diversity and dividend payout (continues)**

<b>Author(s)/Year</b>	<b>Methodology</b>	<b>Variables</b>	<b>Ownership Concentration</b>	<b>Investor Protection</b>	<b>Empirical Findings</b>
Isakov & Weisskopf (2015)	<p><b>Data Sample:</b> -Firms listed on the Swiss Exchange -Period: 2003-2010</p> <p><b>Model:</b> -Univariate test -OLS regression</p>	<p><b>Dependent Variable(s):</b> -Dividend payout ratio/Yield</p> <p><b>Independent Variable(s):</b> - Blockholders, Family ownership, -Family member as CEO -Number of family members as a shareholder, CEO</p> <p><b>Control Variables:</b> - Ratio of voting rights over firm size, firm age, ownership rights, 5-year sales growth, leverage, beta, ROIC, Tobin's q</p>	High	High	The findings report that founding families positively influence the dividend payouts compared to other ownership structures due to active involvement, stake, and generation.
Subramaniam (2018)	<p><b>Data Sample:</b> -712 firms in Malaysia -Period: 2010-2014.</p> <p><b>Model:</b> -Ordinary least square (OLS)</p>	<p><b>Dependent Variable(s):</b> -Dividend yield</p> <p><b>Independent Variable(s):</b> - Family ownership</p> <p><b>Control Variables:</b> - ROA, debt, sales growth, market-to-book ratio, firm size</p>	High	High	The findings imply that family ownership is positively related to high cash dividends in Malaysia.
Setia &Atmaja (2010)	<p><b>Data Sample:</b> -Family listed firms in Australia -Period: 2000-2005</p> <p><b>Model:</b> -OLS regression</p>	<p><b>Dependent Variable(s):</b> -Dividend payouts ratio</p> <p><b>Independent Variable(s):</b> -Independent board, family control</p> <p><b>Control Variable(s):</b> -Leverage, size, ROA, ROE, market-to-book ratio, operating cash flow</p>	High	High	The findings report that family companies with high debt financing tend to pay high dividends than non-family firms. This high propensity of paying dividends is due to a high ratio of independent board members.

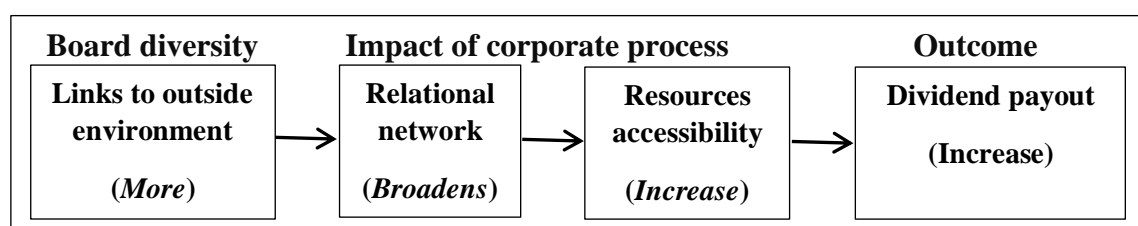
**Table 3.2 A review of the studies on the association between board diversity and dividend payout (continues)**

<b>Author(s)/Year</b>	<b>Methodology</b>	<b>Variables</b>	<b>Ownership Concentration</b>	<b>Investor Protection</b>	<b>Empirical Findings</b>
Setia-Atmaja, Haman, & Tanewski (2011)	<p><b>Data Sample:</b>                      -Companies enlisted on the Australian Securities Exchange (ASX)                      -Period: 2000–2005</p> <p><b>Model:</b>                      -Fixed effects regressions</p>	<p><b>Dependent Variable(s):</b>                      -Dividend payouts</p> <p><b>Independent Variable(s):</b>                      -Independent board                      -Family control</p> <p><b>Control Variable(s):</b>                      -Leverage, size, ROA, ROE, market to book ratio, operating cash flow</p>	High	High	The results imply that a high ratio of independent board members positively affects the dividend policy due to reducing the agency problems by effective earning management.

### 3.2.2. Resource Dependence Theory (RDT)

An organization needs resources for survival (Salancik & Pfeffer, 1978). Resource dependency theory (RDT) suggests that a company relies on other companies for resources to sustain its independence. Diverse board results in more human and social capital such as expertise, reputation, experience (Hillman & Dalziel, 2003). In this frame, the board of directors may play a significant role in obtaining the necessary resources from outside sources such as suppliers, customers, and other communities.

Board members provide resources and expertise comprising of; (1) strategic expertise and guidance, (2) channels of communication to outside organizations, (3) assistance from significant sources, and (4) legitimacy (Salancik & Pfeffer, 1978). Thus, RDT implies that a board's stipulation of resources is associated with corporate performance (Hillman & Dalziel, 2003). This includes firm reputation, setting connections with the environment, and providing guidance and direction to managers (Zahra & Pearce, 1989). Hillman (2005) claimed that companies in heavily regulated industries are more inclined to have directors who were former politicians than companies in less-regulated industries. Thus, board diversity enhances board networks.



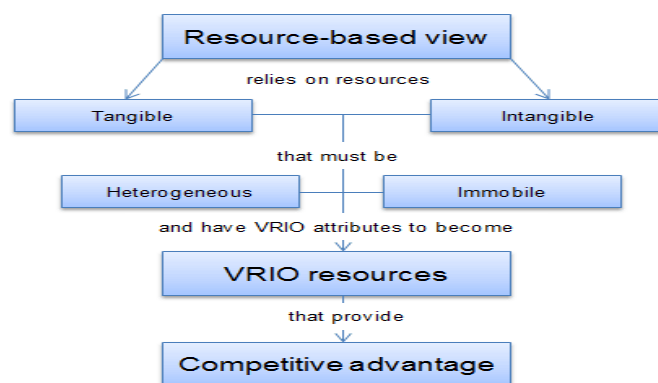
**Figure 3.2 Board diversity and dividend payout relationship in Resource Dependence Theory**

### 3.2.3. Resource-Based View Theory

The resource-based view (RBV) regards resources as a critical factor to achieve high corporate performance. If a resource presents Value, Rareness, Imitability, Organization (VRIO) characteristics (Barney, 1991), it facilitates the maintenance of

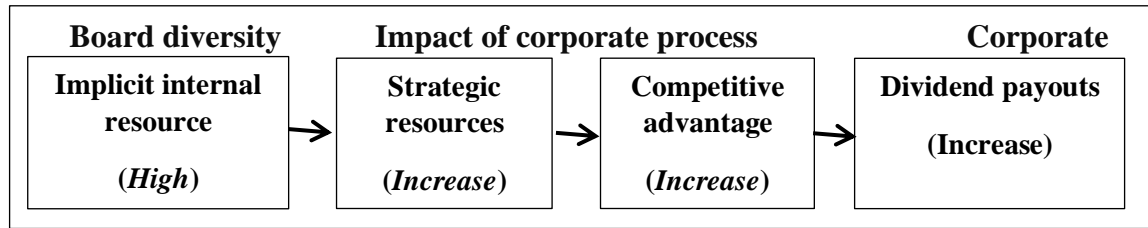
competitive advantage (Rothaermel, 2012). RBV views a company as a bunch of tangible and intangible resources (Penrose, 1959; Wernerfelt, 1984). These resources may provide a competitive position if they are unique, valuable, not substitutable, and imperfectly imitable (Barney, 1991). They could also be used by a combination of resources inside the board, i.e., education and experience of board members as well as outside board members.

Active engagement needs skills and in-depth knowledge of board members having a different background (Ruigrok, Peck & Keller, 2006; Stiles, 2001). Outside directors have a broader scope of knowledge and experience than insiders (Hart, 1995; Wagner, Stimpert & Fubara, 1998). Thus, the presence of profound knowledge on the board produces a worthwhile resource for the company to execute its decision-making responsibilities and deal with challenging problems (Charan, 1998; Forbes & Milliken, 1999; Hillman & Dalziel, 2003). Board also plays a pivotal role in developing strategies, shaping mission, vision, and values, and benefiting from opportunities (Andrews, 1981; Baysinger & Hoskisson, 1990; Hendry & Kiel, 2004; Huse, 2007; McNulty & Pettigrew 1999). An adequate capacity view has resulted from the RBV theory (Adner & Helfat, 2003; Amit & Shoemaker, 1993; Augier & Teece, 2009; Barney, 2001; Helfat & Winter, 2011; Hodgkinson & Healey, 2011; Teece, 2007; Teece, Pisano & Shuen, 1997). Dynamic abilities help companies reconfigure inside and outside capabilities to address challenging conditions (Teece et al., 1997). Figure 3.3 presents how boards influence corporate performance by the RBV theory.



**Figure 3.3 Resource-based view analysis**

Source: Firm Resources and Sustained Competitive Advantage (Barney, 1991)



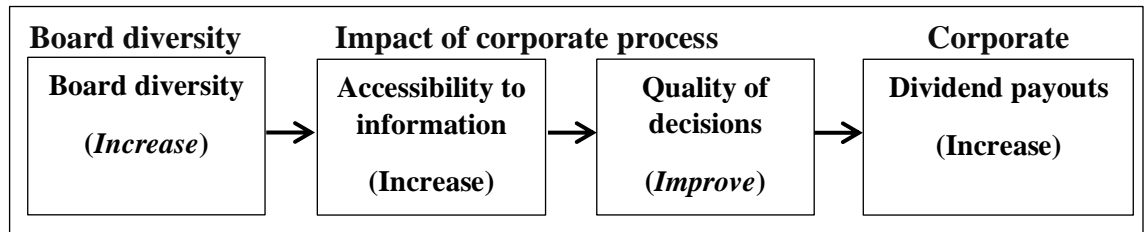
**Figure 3.4 Resource-Based View Theory framework**

### 3.2.4. Stewardship Theory

Stewardship theory claims that people are inherently motivated to comply with the assigned responsibilities. Thus, they work to attain organizational goals rather than their interests. Stewardship theory presents a framework identifying the motivations of managerial attitude (Menyah, 2013). Hence, stewards usually do not hold on ownership of what they have their accountability to take care of, but, instead, their roles necessitate serving the interest of owners. In this frame, the theory is based on the insights from sociology and psychology and offers an idea of the roles of directors on boards, managers, and owners of companies (Donaldson & Davis, 1991; Muth & Donaldson, 1998). The function of the board is to assist and support top management in achieving company objectives.

Stewardship theory concentrates on the coordination and collaboration of directors and management, while agency theory focuses on independence and oversight. Stewardship theory focuses on a "Theory Y" of motivation (McGregor, 1960), and therefore, implies that over-emphasis on monitoring is useless for the board to influence corporate performance. It recognizes the presence of a connection developed upon trust between stockholders and management that aids in minimizing the costs of monitoring and managing the behavior of executives (Abdullah & Valentine, 2009). It also conceives that managers are typically reliable people and great stewards of the resources (Donaldson, 1990; Donaldson & Davis, 1994). It also upholds CEO duality as it justifies that companies should not break the dual function of CEO and chairman to reduce agency costs. CEO duality constitutes a consistency between the board, managers, and stockholders, which is valuable to attain company goals (McGrath, 2009). Thus, the theory maintains management empowerment in companies. It believes that senior managers on board, as inside directors, can give

better decisions since they know businesses better than external ones (Donaldson & Davis, 1991, 1994; Donaldson & Preston, 1995; Gaur, Soam, Sharma, Gupta, Bansal Kumar & Tuli, 2016). Figure 3.5 displays the processes by which board diversity influences the dynamics of companies in terms of dividend payout.



**Figure 3.5 Stewardship Theory**

### **3.3. Hypotheses Development**

This study examines the impact of demographic board diversity on dividend policies of non-financial companies listed on the Borsa Istanbul 100 index by reviewing different attributes of board diversity, including gender, nationality, experience, education, tenure, and age. The following sub-sections develop hypotheses on the relationship of each board attribute and dividend policy.

#### **3.3.1. Independent Variables**

##### **3.3.1.1. Gender Diversity**

The presence of women on board improves monitoring due to their socio-psychological and cognitive attributes (Adams & Ferreira, 2009; Huse & Solberg, 2006). For instance, women are more risk-averse in making strategic decisions (Man & Wong, 2013; Pucheta-Martinez, Bel-Oms & Olcina-Sempere, 2016). They usually ask hard questions that develop deliberations on board (Baranchuk & Dybyig, 2009; Bugeja, Matolcsy & Spiropoulos, 2016). In Turkey, roughly 61% of the listed companies on BIST have at least one female director on boards in 2018 (WOB, 2019).

The studies' results on the relationship between women's presence on board and dividend payouts are mixed. Byoun, Chang, and Kim (2016), Al-Dhamari, Ku Ismail, Izah, and Al-Gamrh (2016), Pucheta-Martinez and Bel-Oms (2016), Chen, Leung, and Goergen (2017), Al-Rahahleh (2017), Ye, Deng, Liu, Szewczyk, and Chen (2019), Gyapong, Ahmed, Ntim, and Nadeem (2019), and Atif, Liu, and Huang (2019) identified a positive relationship between these variables. On the other hand, Saeed and Sameer (2017) stated a negative association between these constructs in India, Russia, and China. McGuinness et al. (2015) found an insignificant association between female board members and dividend policy in China. Table 3.3 gives a summary of the studies held on the connection between gender diversity and dividend policy. Thus the following hypothesis is developed after the above arguments:

*H1: There is a positive association between the women's presence on the board and dividend payout.*

**Table 3.3 Summary of the studies on the relationship between gender diversity and dividend policy**

<b>Author(s)/Year</b>	<b>Methodology</b>	<b>Variables</b>	<b>Empirical Findings</b>
<b>The positive association between gender diversity and dividend policy</b>			
Byoun, Chang, & Kim (2016)	<p><b>Data Sample:</b> -1997-2008 (12 Years) - 2234 firms excluding financial and utility firms</p> <p><b>Model:</b> -Univariate Analysis to compare board attributes between dividend payers and non-payers -OLS Multivariate Analysis</p>	<p><b>Dependent Variable(s):</b> - Dividend payout (dummy variable)</p> <p><b>Independent Variables:</b> - % of female &amp; minority directors on board - % of female directors on the board - Female director (dummy variable) -% of minority directors on the board</p> <p><b>Control Variables:</b> -Year, Industry</p>	Gender diversity on the boards encourages paying high dividends than non-diverse boards. Board diversity improvement decreases the free cash flow problem between shareholders and managers.
Al-Dhamari, Ku Ismail, Izah, & Al-Gamrh (2016)	<p><b>Data Sample:</b> -831 companies listed in Bursa Malaysia in 2010 (excluding financial companies)</p> <p><b>Model:</b> - OLS regressions</p>	<p><b>Dependent Variable(s):</b> - Dividend payout</p> <p><b>Independent Variables:</b> - Female on boards - Ethnic board diversity</p> <p><b>Control Variables:</b> - Leverage, Firm size, profitability, growth, risk, size, board independence, meetings</p> <p><b>Interaction Variable:</b> -Free Cash Flow</p>	The women's presence on the corporate board has a positive effect on dividend payouts (dividend yield) on the availability of free cash flows. Women on board play a pivotal role in disgorging more dividends when the largest shareholders hold substantial ownership in firms.

**Table 3.3 Summary of the studies on the relationship between gender diversity and dividend policy (continues)**

<b>Author(s)/Year</b>	<b>Methodology</b>	<b>Variables</b>	<b>Empirical Findings</b>
<b>The positive association between gender diversity and dividend policy</b>			
Pucheta-Martínez & Bel-Oms (2016)	<p><b>Data Sample:</b> -Spanish non-financial firms listed on the Spanish Stock Exchange during 2004–2012. - 894 firm-year observations</p> <p><b>Model:</b> OLS regressions</p>	<p><b>Dependent Variable(s):</b> - Pays dividends (dummy variable) -Dividend payouts -Dividend Yield</p> <p><b>Independent Variables:</b> -Ratio of female directors -Independent women directors - Institutional female directors - Female Executive directors - Shares held by female directors</p> <p><b>Control Variables:</b> -Ownership concentration. -Investment opportunities -Ownership of managers -Leverage, ROA, ROE, firm size, the board size, independent directors, institutional directors</p>	<p>The impact of women on board is positively related to the dividend, while their presence as institutional directors hurts dividend payments. The ratio of independent and women directors has no impact on dividend payouts. When excluding loss-making companies from the given sample, the results imply that women directors on board and the ratio of independent female directors positively affect dividend policy.</p>
Chen, Leung, & Goergen (2017)	<p><b>Data Sample:</b> -S&amp;P 1500 companies (Financial firms excluded) -Period: 1997–2011. -Sample:1691 firms</p> <p><b>Model:</b> -OLS regressions -Propensity score matching estimates</p>	<p><b>Dependent Variable(s):</b> - Dividends per share, Dividend yield, Dividends to total assets, Dividends to sales,</p> <p><b>Independent Variables:</b> - Ratio of female directors, Ratio of female insider directors, Ratio of Male independent directors, Ratio of female independent directors</p> <p><b>Control Variables:</b> - Tobin's q, Leverage, Firm size, Cash reserves, ROA, Return volatility, Asset tangibility, R&amp;D to sales, Board size</p>	<p>The presence of a higher ratio of women on corporate boards leads to higher dividend payouts. Such relation is very significant for companies with weak corporate governance structures.</p>

**Table 3.3 Summary of the studies on the relationship between gender diversity and dividend policy (continues)**

<b>Author(s)/Year</b>	<b>Methodology</b>	<b>Variables</b>	<b>Empirical Findings</b>
<b>The positive association between gender diversity and dividend policy</b>			
Al-Rahahleh (2017)	<p><b>Data Sample:</b> -Non-financial listed companies on Amman Stock Exchange -Period 2009-2015.</p> <p><b>Model:</b> -Logistic regression -OLS regression</p>	<p><b>Dependent Variable(s):</b> -Dividend dummy, Dividend-to-asset ratio, Dividend-to-earning ratio</p> <p><b>Independent Variables:</b> - Corporate Governance Quality -Board Gender Diversity</p> <p><b>Control Variables:</b> - Leverage, ROA, Firm Size</p>	Gender diversity and corporate governance quality have a positive impact on dividend policy.
Ye, Deng, Liu, Szewczyk, & Chen (2019)	<p><b>Data Sample:</b> - Employing 8876 companies in 22 countries - over the period 2000-2013</p> <p><b>Model:</b> - Multiple regression analyses</p>	<p><b>Dependent Variable(s):</b> -Dividend dummy - DPO, cash dividends/net income - DPO, cash dividends/total assets - DPO after share repurchase to net income, DPO after share repurchase to total assets</p> <p><b>Independent Variables:</b> - Female directors - Independent non-executive Female directors, % of female directors, CEO Dummy; one if the CEO is female</p> <p><b>Control Variables:</b> -Size, Leverage, Tobin's Q, ROA, Cash holding, Market-to-book ratio, Board size</p>	Gender diversity aids corporate governance, and resultantly, it encourages dividend payouts. The findings show that a proper institutional setup may undermine the influence of gender diversity on dividend payouts.

**Table 3.3 Summary of the studies on the relationship between gender diversity and dividend policy (continues)**

<b>Author(s)/Year</b>	<b>Methodology</b>	<b>Variables</b>	<b>Empirical Findings</b>
<b>The positive association between gender diversity and dividend policy</b>			
Gyapong, Ahmed, Ntim, & Nadeem (2019)	<p><b>Data Sample:</b> -Top 500 listed companies (non-financial and utility firms) on the Australian Stock Exchange -Period: 2009-2014</p> <p><b>Model:</b> - Univariate analysis of dividend-paying and non-dividend paying companies - Fixed effects model</p>	<p><b>Dependent Variable(s):</b> -DPO: log (total amount of dividends) -DPO: dividend to net income</p> <p><b>Independent Variable(s):</b> -% of women directors -% of women executive directors -% of Independent women directors</p> <p><b>Control Variable(s):</b> - Board size, Firm performance, Price-to-book ratio, Free cash flow to total asset ratio, Board independence, Firm size, Leverage, Earnings, Ownership concentration, Year effects, Industry effects</p>	Gender diversity positively affects dividend payout after managing corporate governance and firm-specific factors, like free cash flows, firm size, price to book ratio, and retained earnings to total assets. This relationship is robust when there are at least three women on boards.
Atif, Liu, & Huang (2019)	<p><b>Data Sample:</b> -S&amp;P 1500 companies -Period: 2006–2015. - 1,395 firms.</p> <p><b>Model:</b> - OLS regression -Fixed effects model</p>	<p><b>Dependent Variable(s):</b> - Cash holdings, cash &amp; marketable securities over net assets</p> <p><b>Independent Variable(s):</b> - % of women directors - Number of female directors - % of women independent directors - % of women executive directors</p> <p><b>Control Variable(s):</b> - Board size, CEO duality, Board independence, Leverage, Firm size, NWC, Capital expenditure, Growth, Dividend payout, ROA, R&amp;D</p>	The association between gender diversity and cash holding is significantly negative, implying that gender diversity in US firms helps to pay more dividends. Women as independent board members have a significant negative influence on monitoring function.

**Table 3.3 Summary of the studies on the relationship between gender diversity and dividend policy (continues)**

<b>Author(s)/Year</b>	<b>Methodology</b>	<b>Variables</b>	<b>Empirical Findings</b>
<b>The negative association between gender diversity and dividend policy</b>			
Hamzah & Zulkafli (2014)	<p><b>Data Sample:</b> -listed companies in Malaysia</p> <p><b>Model:</b> - OLS regression</p>	<p><b>Dependent Variable(s):</b> - DPO, dividend to sales</p> <p><b>Independent Variable(s):</b> - Women on board, foreign board, tenure</p> <p><b>Control Variable(s):</b> - Firm size</p>	There is an insignificant result for gender diversity. Foreign directors are negatively associated with corporate expropriation, while tenure has an inverse relationship.
Saeed & Sameer (2017)	<p><b>Data Sample:</b> -Companies listed on India, China, Russia exchanges -Period: 2007–2014</p> <p><b>Model:</b> - Tobit regression</p>	<p><b>Dependent Variable(s):</b> -DPO, Dividend yield, Dividend to stock price, Dividend per share to net income,</p> <p><b>Independent Variable(s):</b> - Gender diversity</p> <p><b>Control Variable(s):</b> - ROA, growth, risk, debt, board size, family control, board independence, Firm size, state-ownership</p>	Gender diversity is negatively associated with a cash dividend. State ownership works an essential role in moderating the connection between gender diversity and dividend payout in China & Russia.

### **3.3.1.2. National Diversity**

National diversity on board is important since directors from different countries have diverging experiences and values that affect the strategies and activities of companies (Daniel, Agarwal & Stewart, 2013; Greve, Nielsen & Ruigrok, 2009; Morikawa, 2014; Ramaswamy & Li, 2001; Van Veen & Marsman, 2008). Foreign directors on boards could (i) give social, business, and political connections (Masulis, Wang & Xie, 2012), (ii) show corporations plans for globalization (Ramaswamy & Li, 2001), (iii) promote trustworthiness of companies (Oxelheim & Randoy, 2003) and (iv) indicate more efficient monitoring (Ararat et al., 2010; Setiawan & Aslam, 2018).

However, there could be implied charges linked to the presence of foreign directors on boards, such as disputes and communication problems (Erhardt et al., 2003). Moreover, if directors live overseas, there may be weaknesses in active monitoring due to (i) time constraints, (ii) limited access to the information of companies, (iii) limited capability of directors to tackle problems such as business applications, regulations, (iv) additional time and energy needed for international travels (Masulis et al., 2012), and (v) barriers in communication (Piekkari, Welch, Welch, Peltonen & Vesa, 2013). Masulis et al. (2012) propose that the presence of foreign directors has adverse impacts on corporate performance. Notwithstanding, Daniel et al. (2013) showed that foreign directors positively impact firm value. These outcomes are compatible with other studies (Ntim, 2013; Oxelheim & Randoy, 2003). Hence, based on the above arguments, the following hypothesis is developed:

*H2: There is a positive relationship between national diversity on the board and dividend payout.*

### **3.3.1.3. Experience Diversity**

Board members from different business and socio-economic environments bring extensive knowledge to companies and help produce favorable outcomes (Jehn &

Bezrukova, 2004; Klein, 1998). Kandel and Lazear (1992) argued that greater diversity on board improves monitoring and leads to less free-riding behavior. This reduces agency costs and increases corporate performance (Post & Byron, 2015). Jensen (1993) asserted that heterogeneous boards produce valuable prospects that can provide advantages to shareholders by improving resource utilization, problem-solving, and policy formulation. Williams and O'Reilly (1998) indicated that higher diversity yields more significant resources to problem-solving and improves competitiveness. Anderson et al. (2011) investigated social (gender, age, ethnicity) and functional/professional heterogeneity (education, expertise, experience) of boards and showed that board heterogeneity is associated with higher corporate performance.

However, there may be cases where directors with diverse backgrounds and expertise can generate conflicts in the board and stall down decision-making (Baranchuk & Dybvig, 2009). Putnam (2007) demonstrated that higher diversity reduces collaboration, thwarts communication, and directs social loafing. Other studies also pointed out that diversity enhances communication costs (Arrow, 1998; Lang, 1986). Despite these findings, human capital theory dictates that directors with expertise in various fields aid the board to function better, which may also influence dividend policy decisions (Singh, 2007). Hence, based on the above arguments, the following hypothesis is developed:

*H3: There is a positive association between experience diversity on the board and dividend payout*

#### **3.3.1.4. Educational Diversity**

Educational diversity implies the composition of people on board in terms of educational characteristics (Hart, 1995; Rose, 2007). It contributes to strategic transformation (Dahlin, Weingart & Hinds, 2005; Wiersema & Bantel, 1992). Very few studies have examined the impact of educational diversity on dividend payout (Singh, Vinnicombe & Johnson, 2001; Pucheta-Martínez & Bel-Oms, 2016; Mirza &

Malik, 2019). As Gibson and Vermeulen (2003) noted, subgroups may cultivate group learning because of the impact on shared beliefs, attitudes, and knowledge. Hence, board members with comparable educational levels form social networks.

Cognitive resource diversity theory also proposes that diversity improves group achievement by combining different cognitive resources (Horwitz, 2005). Thus, distinct groups can be more productive and produce reliable quality answers because they could analyze a more excellent range of prospects and promote greater cognitive complications connected to a knowledge field (Curşeu & Schrujjer, 2010). This variation comes from the range of views board members may bring from social networks (Mentzas, Apostolou, Kafentzis & Georgolios, 2006; Reagans & Zuckerman, 2001). Board members with great educational diversity may manage boundary-spanning exercises (i.e., approaching other social groups to get information) than groups with low educational diversity. However, different viewpoints and ideas denoted by board members with diverse educational backgrounds may hinder inside communication and may lead to a conflict (Dahlin et al., 2005). Thus, based on the above arguments, the following hypothesis is developed:

*H4: There is a positive association between educational diversity on the board and dividend payouts*

### **3.3.1.5. Tenure Diversity**

Tenure diversity has gained significant importance over the last decades. On the one side, market participants show interest in the long tenure of directors on board, asserting that boards with long-serving members are unresponsive to shareholders' interests (Institutional Shareholder Services (ISS), 2020). Elongated board settings may produce a culture of unnecessary homage to management. Also, after sitting on corporate boards for many years, directors may fail their ultimate objectivity (Francis & Lublin 2016). On the other side, young directors might be inefficient in their performances. A short-tenured director on board may experience fewer challenges than a long-tenured director on the board. Additionally, a short-tenured director may

have a limited knowledge of the business and history, which may decrease their effectiveness in monitoring and advice (Pozen & Hamacher, 2015). Hence, the optimal tenure for the board of directors continues an unconcluded problem among practitioners.

Notwithstanding its functional significance, the extant literature presents limited insights into how the tenure of the board of directors influences the capabilities of boards. Director cognitions may vary throughout tenure by self-selection and socialization (Hambrick, Geletkanycz & Fredrickson, 1993). The social capital theory discusses the capacity of an individual to obtain resources and information through connections (Burt, 1992). From cognitive and social capital viewpoints, the worth of directors is reflected by their expertise in decision-making. Table 3.4 shows the mapping of social capital aspects and executive cognition of board members monitoring and advising functions.

A long-tenured director with broad experience can improve monitoring in companies (Liu & Sun, 2005). Public companies usually justify that long-serving external directors are appraised due to their expertise and institutional memory (Dulewicz & Herbert, 2004). In recent years, some market shareholders have questioned this view. For instance, 74 percent of investors claimed that extended director tenure is problematic (ISS, 2020). The Council of Institutional Investors declared a new policy in 2013, inviting boards to appraise directors' tenure when evaluating director independence. In 2014, ISS incorporated director tenure in governance ratings.

Outside the United States, an increasing number of countries have embraced tenure-related guidelines or limitations on external directors. The "Comply and explain" model suggests a maximum tenure of 9 to 12 years for a corporate member with some exemptions. For instance, the UK code of corporate governance declares that a board should declare why directors that have worked for longer than nine years fit independently. European Commission encourages that external directors work a maximum of three times or 12 years. In Hong Kong, an external director is restricted

to nine years tenure, except voted by shareholders. In France, a director loses his or her independence after 12 years. Board tenure captivates the trade-off between board independence and knowledge collection. A board obtains more firm-specific experience with the extension of board tenure, which raises firm value.

Nonetheless, enhanced intimacy between the board and management may weaken board independence (Fracassi & Tate, 2012; Hwang & Kim, 2009), which may decrease firm value. Although anecdotal proof implies that the long-tenured board is negatively related to firm value and dividend payout, the empirical evidence remains scarce. Hence, based on the preceding arguments, the following hypothesis is developed:

*H5: There is a significant association between board tenure diversity and dividend payout*

**Table 3.4 The value of tenure on board**

	Cognitive perspectives of directors: Executive cognition theory (Hambrick et al., 1993)	Relational perspectives of directors: Social capital theory (Kor & Sundaramurthy, 2009)
<b>Advising</b>	<p><b>Early tenure (positive):</b></p> <ul style="list-style-type: none"> <li>• Improving knowledge of firm requirements</li> <li>• Improvement of more firm-centric expertise</li> </ul> <p><b>Later tenure (negative):</b></p> <ul style="list-style-type: none"> <li>• Development of cognitive inflexibility and "Stale in the saddle."</li> <li>• Absence of creativity and new concepts</li> </ul>	<p><b>Early tenure (positive):</b></p> <ul style="list-style-type: none"> <li>• Improving resources to the organization</li> <li>• Improvement of trust with a board of directors to exchange information</li> </ul> <p><b>Later tenure (negative):</b></p> <ul style="list-style-type: none"> <li>• Shortage of new connections</li> <li>• Limited information flow</li> <li>• Limited communication</li> </ul>
<b>Monitoring</b>	<p><b>Early tenure (positive):</b></p> <ul style="list-style-type: none"> <li>• Improving knowledge of relevant metrics</li> <li>• Developing knowledge of firm-specific procedures and methods</li> </ul> <p><b>Later tenure (negative):</b></p> <ul style="list-style-type: none"> <li>• Variation in the firm achievement</li> <li>• Developing dedication to the status quo</li> </ul>	<p><b>Early tenure (positive):</b></p> <ul style="list-style-type: none"> <li>• Improving knowledge of best applications</li> <li>• Improving influence on board and over other boards</li> <li>• Development of trust with a board of directors that permits for an exciting dialogue</li> </ul> <p><b>Later tenure (negative):</b></p> <ul style="list-style-type: none"> <li>• Lack of objectivity after being close to management</li> <li>• Reluctant to risk relations by asking management</li> </ul>

Source: <http://www.theglobeandmail.com/report-on-business/careers/management/board-games-2013/countries-set-outrules-on-directors-tenure/article15574442/>

### 3.3.1.6 Age Diversity

Age diversity shows a mix of board members of different ages (Harrison & Klein, 2007). Age has two distinct aspects: productivity and experience. Young directors are productive, while old directors have rich experience. If directors on board have different ages, productivity and experience may produce synergy (Kosnik, 1990; Westphal & Milton, 2000). It also helps obtain significant resources (Pfeffer, 1972; Salancik & Pfeffer, 1978). Young directors are flexible, have enormous gratitude for new ideas and technologies, and are more risk-takers, while old members usually have robust networks, and companies may capitalize on these resources (Mishra & Jhunjhunwala, 2013).

Boards usually comprise retired-age members. However, the accelerated changes in technology and societal tendencies lead companies to give seats to young directors since they are more agile, vigorous, and supportive (Reed & Carstensen, 2012). Senior directors take expertise and experience to the board. A fundamental duty of boards is to get resources and improve connections with outside agencies. With their private networks, older members can perform this function (Abdullah & Ku Ismail, 2017). Age diversity also provides a smoother change when people retire from the board. It assures that there are enough expert board members at any period. Another advantage of age diversity is that board members have close links with stakeholders from different age groups (Mishra & Jhunjhunwala, 2013).

There are mixed results on the influence of age diversity on firm value. Tarus and Aime (2014) reported that tenure and race diversity are positively related to emotional conflict, while age diversity is negatively linked to such conflict. Woschkowiak (2018) reported an insignificant relationship between age diversity and financial performance for European companies. On the other side, some studies revealed a positive relationship between age diversity and corporate performance (e.g., Darmadi, 2011; Hassan & Marimuthu, 2016; Kagzi & Guha, 2018; Kim & Lim, 2010; Mirza & Malik, 2019). The positive results may be related to the resource-based prospect,

which claims that age diversity generates access to more resources, which improves decision-making (Mahadeo, Soobroyen & Hanuman, 2012; Williams & O'Reilly, 1998).

On the other hand, the negative results may be related to the fact that age diversity may lead to conflicts in communication and dispute resolutions among different generations (Rivas, 2012). For example, the risk-seeking attitude of young members may counteract the expertise of old members. These findings are consistent with the resource-based and human capital theories, which claim that the variations in behavior, education, and skills of older and younger board members support one another and improve board capital, producing positive results. Hence, based on the preceding arguments, the following hypothesis is developed:

*H6: There is a positive relationship between age diversity on the board and dividend payout.*

### **3.3.2 Control Variables**

#### **3.3.2.1. Board Size**

Board size plays a pivotal role in decision-making to lessen agency problems between shareholders and management (Huang & Wang, 2015; Hsu & Utami, 2016). Large boards imply less coordination (Hackman, 1990) among board members, leading to low-quality decision-making (Jensen, 1993; Yermack, 1996) and less effectiveness in monitoring. Contrarily, a small board size effectively monitors board functions that lead to effective corporate governance and fewer agency issues (Jensen, 1993). Large boards usually pay high dividends to cover their inefficacy in monitoring and governance (Bradford, Chen & Zhu, 2013; Sundar & Al-Harhi, 2015; Yarram & Dollery, 2015). Dividend payments by large boards work as an alternative governance measure based on the substitution hypothesis (La Porta et al., 2000). Consistent with the previous studies (Abor & Fiador, 2013; Bokpin, 2011; Jiraporn &

Ning, 2006; Nuhu, Musah & Senyo, 2014; Yarram & Dollery, 2015), this study expects a positive association between board size and dividend payouts in the Turkish capital market.

### **3.3.2.2 Independent Board Membership**

Independent board members are independent of executive management and less likely to collude with management (Fama & Jensen, 1983). They show sustaining managerial competence and market reputation (Fama & Jensen, 1983; Linck, Netter & Yang, 2009). Independent board members play an effective role in monitoring executive management in performing its duties for shareholders' interest, leading to reducing agency issues and eventually making high dividend payments (DeAngelo, DeAngelo & Skinner, 2004; Jensen, 1986; Jensen & Meckling, 1976).

### **3.3.2.3. CEO Duality**

The dual role of the CEO as the executive management and chairman of the board creates agency problems because of excessive power that allows the CEO to manipulate board decisions (Jensen, 1993; Wijethilake & Ekanayake, 2019). CEO may expropriate the rights of shareholders by deciding to pay them no or low dividends (Dalton, 2014). Previous studies indicated a negative correlation between CEO duality and dividend payout (Abor & Fiador, 2013; Ghosh & Sirmans, 2006; Litai, Chuan & Kim, 2011; Zhang, 2008). Thus, we expect a negative relationship between CEO duality and dividend payouts.

### **3.3.2.4. Firm Age**

The maturity hypothesis (developed by Grullon et al., 2002) implies that companies tend to pay high dividends with maturity. This indicates the transition of companies from the growth phase to a stable and mature phase. As companies get older, investment opportunities diminish, reducing capital requirements for funding projects.

Besides, mature companies have reliable incomes with high accessibility to external capital markets that can sustain substantial free cash flows for paying dividends to shareholders (Tamimi & Takhtaei, 2014). Thus, we expect a positive association between firm age and dividend payout in the Turkish capital market.

### **3.3.2.5. Firm Size**

Firm size is one of the critical determinants in accessing capital markets, especially for financing. Large firms have easy access to capital markets for raising capital at a low cost. Therefore, they tend to pay a high dividend to shareholders. Contrarily, small or growing firms do not tend to have easy access to capital markets for financing. Hence, they rely on the residual income and pay fewer dividends (Fama & French, 2001). Since this study covers the companies listed on BIST 100 index, it anticipates a positive correlation between firm size and dividend payouts, in line with the previous studies (Al-Najjar, 2009; Farinha, 2003; Imran, 2011; Kisman, 2013).

### **3.3.2.6. Leverage**

The association between leverage and dividend payout is inversely related to the literature. Leverage increases reliance on external financing that eventually raises the riskiness of companies. Thus, companies maintain a high level of earnings to decrease financing costs by lowering dividend payout (Aivazian et al., 2003b; Manos, 2002). Previous studies also confirm this negative relationship between leverage and dividend payout (Al-Najjar, 2009; Kisman, 2013). Therefore, this study expects a negative connection between leverage and dividend payout in the Turkish capital markets.

### **3.3.2.7. Profitability**

We use return on assets (ROA) as a proxy to estimate firm profitability. It indicates how well a firm uses its resources. It is computed by the ratio of net income to total

assets (Farinha, 2003; Mehta, 2013). From the stakeholder theory perspective, the profitability of companies is expected to be positively associated with dividend payout and dividend yield. When firm profitability is high, it gets less pressure from financial stakeholders and becomes able to make high dividend payments (Al-Najjar & Kilincarslan, 2016; Yarram & Dollery, 2015). Thus, we expect a positive association between profitability and dividend payments.

#### **3.3.2.8. Institutional Ownership**

The influence of institutional ownership on dividend policy has been investigated in emerging markets with opposing arguments. Some studies identified a positive association between institutional ownership and dividend payouts (Abdelsalam et al., 2008; Farinha, 2003; Manos, 2002). Institutional investors prefer investing in dividend-induced companies because they do not effectively monitor management due to weak legal protection. On the other hand, some other studies imply a negative relationship between institutional ownership and dividend policy (Kouki & Guizani, 2009), implying that institutional investors effectively monitor executive management to overcome agency problem that resultantly reduces the likelihood of paying dividends.

#### **3.3.2.9. Family Ownership**

Family-owned companies take control through business groups that hold companies (Yurtoglu, 2003). They may tend to expropriate net income from minority investors and prefer paying a lower dividend that eventually intensifies principal-principal conflict. This translates into a negative association between family ownership and dividend payout, particularly in emerging markets.

### **3.3.2.10. Ownership Concentration**

There are two contrasting views regarding the impact of ownership concentration on dividend payout: (1) the monitoring hypothesis and (2) the rent extraction hypothesis. The monitoring hypothesis implies that ownership concentration is associated with high dividend payout due to effective monitoring, usually in widely held companies. However, in emerging markets with a clash of interest between majority and minority shareholders, the rent extraction hypothesis is generally employed. This hypothesis establishes a negative association between ownership concentration and dividend payout, claiming that controlling shareholders tend to expropriate minority shareholders by paying low dividends (Barclay, Holderness & Sheehan, 2009; Khan, 2006; Shleifer & Vishny, 1997). Thus, based on these arguments, a negative correlation between ownership concentration and dividend policy.

## CHAPTER IV

### DATA AND METHODOLOGY

The section provides the data sample and methodology, followed by the definitions and measurement of variables and a description of the models employed in this study.

#### 4.1 Data Sample

This study comprises 67 non-financial listed firms on the BIST 100 Index throughout 2013-2018. This study excludes financial institutions, investment companies, and utility companies because they are subject to different regulations. The sample comprises 67 companies with a total of 402 firm-year observations from eleven industries. Among these industries, general industrials, industrial metals, and engineering, and automobiles and parts account for 20.90%, 14.93%, and 10.45%, respectively. Table 4.1 displays the distribution of companies across industries based on the classification of Thomson Reuters Eikon DataStream, while Table 4.2 shows the number of firms that paid no dividends during the sample period (2013-2018) and the consecutive dividend payments over the number of years for the sample.

We obtain the data from different sources. We get data for board demographic attributes, i.e., gender, nationality, experience, educational level, tenure, age, and control variables (ownership structure, board size, independent board membership, firm age, firm size, CEO duality) from the companies' annual reports, their official websites, and Public Disclosure Platform (PDP) (<http://kap.gov.tr>), Reuters, MarketScreener, Bloomberg, and LinkedIn. We collect financial data for the companies from the Thomson Reuters Eikon DataStream database.

Since a study that considers only the companies paying dividends may be biased, this study incorporates both dividend-paying and non-dividend-paying companies to overcome sampling bias and represent the whole market behavior.

**Table 4.1 Sample distribution across industries**

<b>Name of Industry</b>	<b>No. of firms</b>	<b>Sample (%)</b>
01. General Industrials	14	20.90
02. Automobiles and Parts	07	10.45
03. Construction and Materials	05	07.46
04. Foods & Beverages	05	07.46
05. Electronic and Hardware Equipment	05	07.46
06. General Retailers	03	04.48
07. Travel and Leisure	03	04.48
08. Telecommunications & Media	03	04.48
09. Industrial Metals and Engineering	10	14.93
10. Chemicals & Pharmaceuticals	06	08.96
11. Miscellaneous	06	08.96
<b>Total firms</b>	<b>67</b>	<b>100.00</b>

**Table 4.2 Consecutive dividend payments of Turkish companies**

	Zero dividend payments	Consecutive dividend payments (in years)						Total firms
		1	2	3	4	5	6	
No. of firms	19	5	4	6	4	3	26	67
No. of firms (%)	28.36	7.46	5.97	8.95	5.97	4.48	38.81	100

## 4.2 Definitions and Measurements of Variables

### 4.2.1 Dependent Variables

This study uses three specific measures as a proxy for dividend policy. The first one is the likelihood of dividend payment dummy variable (DPOD). It denotes whether a company pays cash dividends or not. When a company pays a dividend, it is indicated as "1" and "0" otherwise. Next, we employ two measures to measure the intensity of

cash dividend payment: dividend payout ratio (DPOR) and dividend yield (DY). DPOR is estimated by taking the ratio of dividend per share divided by net income (Attig et al., 2016; Lam, Sami & Zhou, 2012; Sawicki, 2009). DY is computed by taking the ratio of dividend per share divided by the price per share (Al-Dhamari, Ku Ismail, & Al-Gamrh, 2016; Bradford *et al.*, 2013; Byoun, Chang, & Kim, 2016).

## 4.2.2 Independent Variables

### 4.2.2.1 Board Demographic Diversity

The board of directors is the highest strategic decision-making body in a company and plays a vital role in monitoring and improving corporate performance to enhance firm value (Carroll & Buchholtz, 2014). Hence, the diversity of board members characterized by their demographic attributes could influence firm strategies, corporate performance, and dividend policies (Byoun, Chang, & Kim, 2016; Heyden et al., 2015; Hillman, 2015; Post & Byron, 2015). This study concentrates on the influence of the board of directors' demographic characteristics on the dividend policies of companies in the Turkish capital market. The following part defines the demographic attributes.

- *Gender diversity*

Gender diversity/female board membership (FemBrd) is estimated as the ratio of female directors to total board members. This definition is consistent with the earlier studies (Ahern & Dittmar, 2012; Bøhren & Strøm, 2010; Dezsö & Ross, 2012; Haslam, Reicher & Platow, 2010; Rose, 2007; Smith, Smith & Verner, 2006; Wellalage & Locke, 2013).

- *National diversity*

National diversity (foreign director membership) is defined by the ratio of the foreign board of directors to the total board members. We expect that foreign board

membership helps the firm be more independent, encouraging it to pay more dividends (Ararat et al., 2010; Choi et al., 2007).

- *Experience diversity*

We calculate experience diversity (DivExp) by using the Blau index (Blau, 1977). This index assumes that director expertise consists of five categories: (1) financial, (2) consulting, (3) legal, (4) management, and (5) other expertise, i.e., research, technological, and medical (Rose, 2007). The higher the index, the higher the diversification.

- *Education diversity*

Education diversity (DivEdu) is estimated by referring to each director's educational level on board. In this study, directors' education is categorized into four levels: Intermediate, Bachelor, Master, and Doctorate (Daily & Dalton, 1994; Dalziel, Gentry, & Bowerman, 2011; Wincent, Anokhin, & Ortqvist, 2010). We calculate the educational diversity by using the Blau index, taking directors' qualifications into account (Dalziel et al., 2011). The higher the index, the higher the diversification.

- *Tenure diversity*

We calculate tenure diversity by using the Blau index by referring to the number of years a director serves on board. We classify the tenure of directors into six levels: less than 1 year; 1-5 years; 6-10 years; 11-15 years; 16-20 years; more than 20 years (Bilimoria & Piderit, 1994; Hillman, Shropshire, Certon, Dalton & Dalton, 2011). The higher the index, the higher the diversification.

- *Age diversity*

Age diversity (DivAge) is calculated using the Blau index and referring to the different age brackets of directors on board (Bilimoria & Piderit, 1994; Golden & Zajac, 2001; Post, Rahman, & Rubow, 2011). The ages of directors are categorized into six brackets: less than 40 years; 40-49 years; 50-59 years; 60-69 years; 70-79 years; more than 80 years. The higher the index, the higher the diversification.

- *Demographic board diversity index*

Demographic board diversity index (DBDI) is the accumulation of Blau diversity values of board members' demographic attributes (Ararat et al., 2015). It is calculated by summing the diversity factors derived by the Blau index. DBDI is appropriate because it accounts for each category of attributes in a more standardized way. The Blau index considers that each category is pro-rata in a standardized manner for this variable to come up with a composite diversity. DBDI is consistent with the previous studies (Aggarwal, Jindal, & Seth, 2019; Ararat et al., 2010, 2015).

#### **4.2.2.2 Control Variables**

##### **4.2.2.2.1 Board Diversity and Firm-Specific Factors**

We assess board diversity by structural characteristics of the board, i.e., the board size, board independence, CEO-duality. Besides board diversity, firm-specific factors also affect the performance of companies. They hold leverage, firm size, firm age, among others. These factors contribute to corporate performance with implications on management (Borlea, Achim & Mare, 2017; Korent, Dundek & Klacmer Calopa, 2014; Terjesen, Couto & Francisco, 2016).

- *Board size (BrdSize)*

Board size shows the total number of members on board. Although there is no ideal board size, large boards are usually expected to positively influence decision-making, including dividend policy (Bradford et al., 2013; Sundar & Al-Harhi, 2015). It also helps reducing agency conflict (Hsu & Utami, 2016; Huang & Wang, 2015; Yermack, 1996).

- *Board independence (IndDir)*

The Independent board member is calculated by taking independent board members over total board members (Schellenger et al., 1989). It is expected that there is a positive relationship between board independence and dividend policy (Jiraporn et al., 2011; Saeed & Sameer, 2017).

- *CEO Duality*

When CEO is appointed as the chairperson of the board, it is called CEO duality. It implies agency conflict due to excessive concentration of power in a single person (Jensen, 1993). CEO duality may negatively affect firm value and mitigate board independence (Isik, 2017). It is a binary variable taking the value of "1" if there is CEO duality and "0" otherwise.

- *Firm age (FirmAge)*

Firm age shows the number of years the company has been operating since its establishment (Schmid, Ampenberger, Kaserer & Achleitner, 2010; Setia-Atmaja, Tanewski & Skully, 2009; Wei, Wu, Li & Chen, 2011).

- *Firm size (FSize)*

Firm size is calculated by taking the natural logarithm of market capitalization. Large companies are expected to pay higher dividends to mitigate agency costs (Al-Najjar & Kilincarslan, 2016; Eddy & Seifert, 1988; Ghosh & Woolridge, 1988; Lam et al., 2012; Redding, 1997).

- *Leverage (Lev)*

Leverage is computed by the ratio of total debt to total assets. It indicates whether companies use much debt to finance their operations since it may negatively influence dividend payout (Byoun, Chang, & Kim, 2016; Endang, 2020; Nurcaqiqi & Suryarini, 2018; Pradipta & Handayani, 2020; Saeed & Sameer, 2017; Soewarno, Arifin, & Tjahjadi, 2017; Tahu & Susilo, 2017).

- *Profitability (ROA)*

Return on Assets (ROA) serves as a proxy for firm profitability. It indicates how well a firm uses its assets. Most of the studies indicate that ROA positively influences the dividend payout (Al-Najjar & Kilincarslan, 2018; Chang, Chang & Dutta, 2020; Ferris et al., 2006; Hamzah & Zulkafli, 2014; Mehta, 2013).

#### **4.2.2.2.2 Ownership Structure**

- *Institutional ownership (InstOwn)*

Institutional ownership is calculated by the share of institutional investors in total shares. Institutional investors usually encourage companies to pay high dividends (Demsetz & Lehn, 1985; Shleifer & Vishny, 1986). Zeckhauser & Pound (1990) indicated that paying high dividends is attractive since these companies may easily access international capital markets.

- *Family ownership (FamilyOwn)*

Family ownership incorporates the value of “1” if family, spouse, and children own at least 10% of total shares and “0” otherwise. Turkish companies are predominantly owned and controlled by families. Families may expropriate available funds in their favor, leading to a clash between controlling and minority shareholders unless there is effective monitoring (Chen, Cheung, Stouraitis & Wong, 2005; La Porta et al., 2000; Shleifer & Vishny, 1997).

- *Closely-held ownership (CloselyHeld)*

Ownership concentration or closely-held shares refers to the fact that a single individual or group substantially owns a company. It is calculated by the percentage of shares held by closely held owners. This study considers closely held ownership of 15% of outstanding shares by an individual, family, or institution, following La Porta et al. (1999) and Claessens, Djankov & Lang (2000).

Table 4.3 shows the definition and measurement of the variables, and Figure 4.1 provides the conceptual framework of the study aligned with the hypotheses.

**Table 4.3: Definitions and measurements of the variables**

<b>Variable</b>	<b>Code</b>	<b>Measurement</b>	<b>Source</b>
<b><i>Dependent Variables</i></b>			
Dividend Payout (dummy)	DPOD	"1" if the company pays dividends and "0" otherwise	
Dividend Payout Ratio	DPOR	Cash dividend to net income	DataStream
Dividend Yield	DY	Cash dividend to stock price	DataStream
<b><i>Independent Variables</i></b>			
<b><i>Board Diversity</i></b>			
Gender	FemBrd	Female directors to total directors	Annual Report
Nationality	Foreign	Foreign directors to total directors	Annual Report
Expertise	DivExp	Blau Index for director expertise with 5 categories: financial, consulting, legal, management, other expertise	Annual Report, Bloomberg, MarketScreener, Reuters, LinkedIn
Education_Level	DivEdu	Blau Index for the educational level of directors in four categories: Intermediate, Bachelor, Master, Doctorate Degree	Annual Report, Bloomberg, MarketScreener, Reuters, LinkedIn
Tenure	DivTen	Blau Index for the tenure of directors in six categories: less than 1 year, 1-5 years, 6-10 years, 11-15 years, 16-20 years, more than 20 years.	Annual Report, Bloomberg, MarketScreener, Reuters, LinkedIn
Age	DivAge	Blau Index for the age of directors in six categories: less than 40 years, 40-49 years, 50-59 years, 60-69 years, 70-79 years, more than 80 years.	Annual Report, Bloomberg, MarketScreener, Reuters, LinkedIn
Demographic board diversity index	DBDI	DBDI= FemBrd + Foreign + Blau DivExp + Blau DivEdu + Blau DivTen + Blau DivAge	
<b><i>Control variables</i></b>			
<b><i>Board characteristics</i></b>			
Board Size	BrdSize	Number of board members	Annual Report
Board Independence	IndDir	Independent board members to total board members	Annual Report
CEO Duality	Duality	"1" if a CEO is on the board, "0" otherwise	Annual Report
<b><i>Firm-Specific Factors</i></b>			
Firm Age	FirmAge	Firm age	Annual Report
Firm Size	FSize	Lagged total assets	DataStream
Leverage	Lev	Total debt to total assets	DataStream
Firm Profitability	ROA	Net income to total assets	DataStream
<b><i>Ownership Variables</i></b>			
Institutional Ownership	InstOwn	% of institutional owner	Annual Report
Family Ownership	FamilyOwn	"1" if family & children own at least 10% of the shares	Annual Report
CloselyHeld Ownership	CloselyHeld	% of closely-held owner	Annual Report

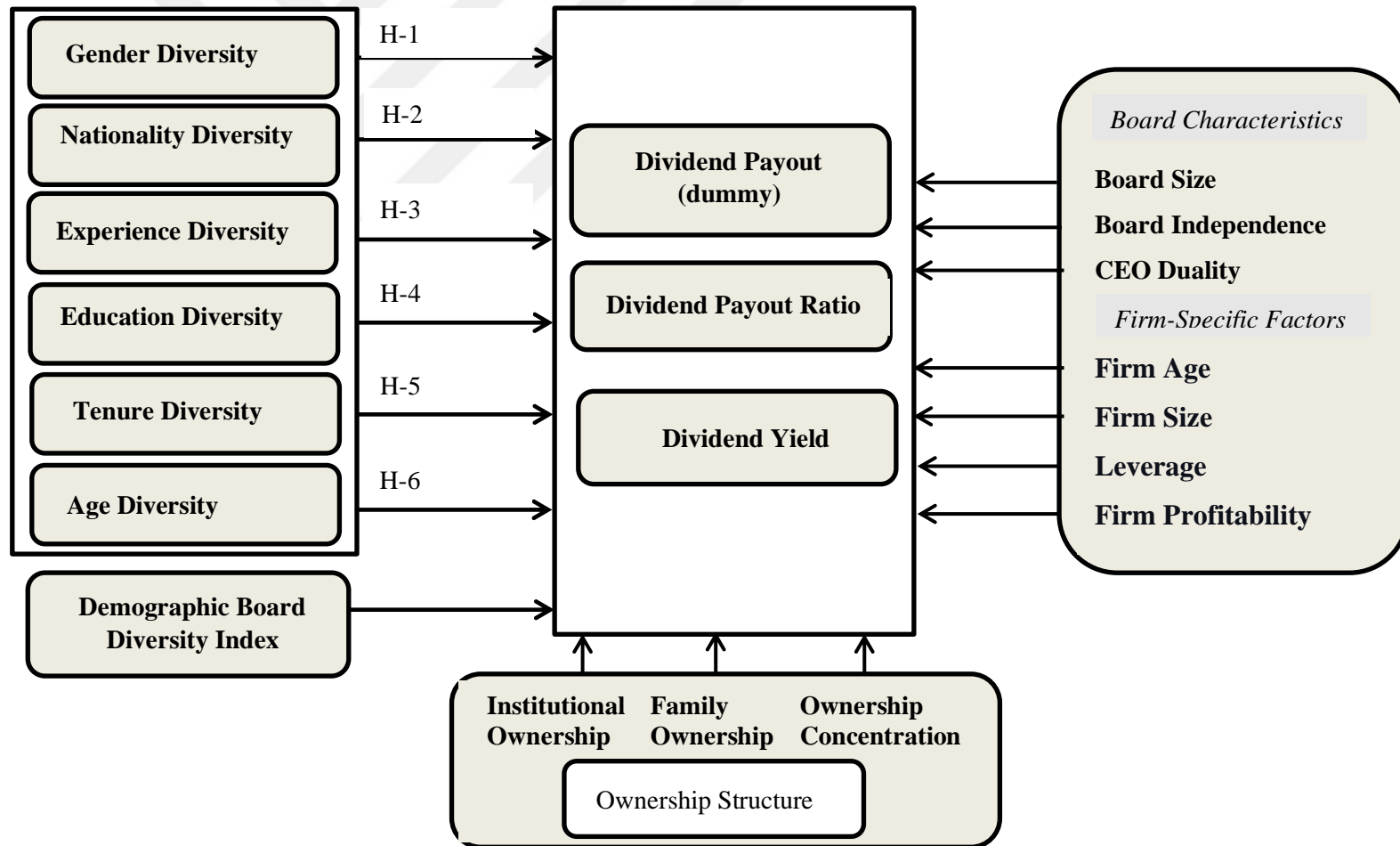


Figure 4.1 Conceptual framework

### **4.3. Methodology**

This study employs a balanced panel data analysis because our sample includes both time-series and cross-sectional observations. We use Logit, Probit, and Tobit models in line with similar studies (Adams & Ferreira, 2009; Choi et al., 2007; Rose, 2007; Smith et al., 2006). Logit and probit models capture the effect of paying or not-paying dividends, while the Tobit model examines the intensity of dividend payment (Al-Malkawi, 2005; Baltagi, 2008; Manos, 2002).

#### **4.3.1 Panel Data Analysis**

Panel data can be defined as a pooled data, i.e., pooling of cross-sectional and time-series data (Gujarati, 2003; Hsiao, 1986). Thus, it gives a stable setting for developing evaluation methods (Greene, 2003). Baltagi (2008), Gujarati (2003), and Woolbridge (2002) affirm the following benefits of panel data analysis over individual time-series or cross-sectional analysis:

1. The panel data consider heterogeneity unequivocally by choosing individual-specific constructs into consideration.
2. Panel data gives more variability, information, and less likelihood of collinearity among variables due to the combination of cross-sectional and time-series observations.
3. By examining the iterated cross-sectional data, panel data fit to explore the dynamics of alteration and facilitate the execution of more complex models.
4. Panel data sets are adequately capable of finding and measuring impacts that cannot easily be identified as pure time-series or cross-sectional data.
5. Panel data reduces the bias that may happen if firms are aggregated.

##### **4.3.1.1 Logit Model Estimations**

If the dependent variable is binary, the logit estimate is applied. This model employs the logistic distribution that implies the response possibility as shown in equation 1:

$$P_i = E(Y=1/X_i) = \frac{\text{Exp}(X_i^T \beta)}{1 + \text{Exp}(X_i^T \beta)} = \frac{1}{1 + \text{Exp}(-X_i^T \beta)} \quad (1)$$

where  $X_i^T \beta$  is an unknown matrix of parameters.  $X_i^T \beta$  ranges from  $-\infty$  to  $+\infty$ , and  $P_i$  considers the values of 0 or 1.  $P_i$  is nonlinearly linked to  $X_i^T \beta$ . If  $P_i$  is the likelihood of a company paying the dividends, then  $(1 - P_i)$  is the firm's possibility of not paying the dividends, as displayed in Equation 2.

$$P_i = \frac{1}{1 + \text{Exp}(X_i^T \beta)}. \text{ Thus, } \frac{P_i}{1 - P_i} = \frac{1 + \text{Exp}(X_i^T \beta)}{1 + \text{Exp}(-X_i^T \beta)} = \text{Exp}(X_i^T \beta) \quad (2)$$

Additionally,  $P_i / (1 - P_i)$ , the odds ratio, supports paying dividends. In other words, it shows the ratio of a company's probability of paying dividends to the possibility of that company not paying dividends. By using the natural log of the ratio,  $L_i = \ln(P_i / (1 - P_i)) = X_i^T \beta$ , this estimating regression model is known as the logit model. To calculate  $L_i$ , we run Equation 3:

$$L_i = \ln\left(\frac{P_i}{1 - P_i}\right) = X_i^T \beta + \varepsilon_i \quad (3)$$

whereas the regressand variable is a binary (dummy) variable,  $X_i^T$  is a vector of a regressors' matrix, and  $\varepsilon_i$  is the error term (Gujarati, 2003).

In line with the previous studies (e.g., Aksoy, Yilmaz, Tatoglu & Basar, 2020; Al-Najjar & Kilincarslan, 2016; Artiach, Lee, Nelson & Walker, 2010; Gamerschlag, Möller & Verbeeten, 2011; Lourenço & Branco, 2013; Rajput & Jhunjhunwala, 2019; Baker & Kilincarslan, 2019), we use logit and probit estimation models to test our hypotheses by running the following equations:

$$\text{Logit (DPOD)}_{i,t} = \alpha + \beta_1 \text{BrdSize}_{i,t-1} + \beta_2 \text{IndDir}_{i,t-1} + \beta_3 \text{Duality}_{i,t-1} + \beta_4 \text{FirmAge} + \beta_5 \text{FSize} + \beta_6 \text{Lev} + \beta_7 \text{ROA}_{i,t-1} + \varepsilon_{i,t} \quad (4)$$

$$\text{Logit (DPOD)}_{i,t} = \alpha + \beta_1 \text{BrdSize}_{i,t-1} + \beta_2 \text{IndDir}_{i,t-1} + \beta_3 \text{Duality}_{i,t-1} + \beta_4 \text{FirmAge} + \beta_5 \text{FSize} + \beta_6 \text{Lev} + \beta_7 \text{ROA}_{i,t-1} + \beta_8 \text{InstOwn} + \beta_9 \text{FamilyOwn} + \beta_{10} \text{CloselyHeld} + e_{i,t} \quad (5)$$

$$\begin{aligned} \text{Logit (DPOD)}_{i,t} = & \alpha + \beta_1 \text{FemBrd}_{i,t-1} + \beta_2 \text{Foreign}_{i,t-1} + \beta_3 \text{DivExp}_{i,t-1} + \beta_4 \text{DivEdu}_{i,t-1} \\ & + \beta_5 \text{DivTen}_{i,t-1} + \beta_6 \text{DivAge}_{i,t-1} + \beta_7 \text{BrdSize}_{i,t-1} + \beta_8 \text{IndDir}_{i,t-1} + \beta_9 \text{Duality}_{i,t-1} \\ & + \beta_{10} \text{FirmAge} + \beta_{11} \text{FSize} + \beta_{12} \text{Lev} + \beta_{13} \text{ROA}_{i,t-1} + \beta_{14} \text{InstOwn} + \beta_{15} \text{FamilyOwn} + \beta_{16} \\ & \text{CloselyHeld} + e_{i,t} \end{aligned} \quad (6)$$

$$\begin{aligned} \text{Logit (DPOD)}_{i,t} = & \alpha + \beta_1 \text{DBDI}_{i,t-1} + \beta_2 \text{BrdSize}_{i,t-1} + \beta_3 \text{IndDir}_{i,t-1} + \beta_4 \text{Duality}_{i,t-1} \\ & + \beta_5 \text{FirmAge} + \beta_6 \text{FSize} + \beta_7 \text{Lev} + \beta_8 \text{ROA}_{i,t-1} + \beta_9 \text{InstOwn} + \beta_{10} \text{FamilyOwn} + \beta_{11} \\ & \text{CloselyHeld} + e_{i,t} \end{aligned} \quad (7)$$

$$\text{Probit (DPOD)}_{i,t} = \alpha + \beta_1 \text{BrdSize}_{i,t-1} + \beta_2 \text{IndDir}_{i,t-1} + \beta_3 \text{Duality}_{i,t-1} + \beta_4 \text{FirmAge} + \beta_5 \text{FSize} + \beta_6 \text{Lev} + \beta_7 \text{ROA}_{i,t-1} + e_{i,t} \quad (8)$$

$$\begin{aligned} \text{Probit (DPOD)}_{i,t} = & \alpha + \beta_1 \text{BrdSize}_{i,t-1} + \beta_2 \text{IndDir}_{i,t-1} + \beta_3 \text{Duality}_{i,t-1} + \beta_4 \text{FirmAge} + \\ & \beta_5 \text{FSize} + \beta_6 \text{Lev} + \beta_7 \text{ROA}_{i,t-1} + \beta_8 \text{InstOwn} + \beta_9 \text{FamilyOwn} + \beta_{10} \text{CloselyHeld} + e_{i,t} \\ & . \end{aligned} \quad (9)$$

$$\begin{aligned} \text{Probit (DPOD)}_{i,t} = & \alpha + \beta_1 \text{FemBrd}_{i,t-1} + \beta_2 \text{Foreign}_{i,t-1} + \beta_3 \text{DivExp}_{i,t-1} + \beta_4 \text{DivEdu}_{i,t-1} \\ & + \beta_5 \text{DivTen}_{i,t-1} + \beta_6 \text{DivAge}_{i,t-1} + \beta_7 \text{BrdSize}_{i,t-1} + \beta_8 \text{IndDir}_{i,t-1} + \beta_9 \text{Duality}_{i,t-1} \\ & + \beta_{10} \text{FirmAge} + \beta_{11} \text{FSize} + \beta_{12} \text{Lev} + \beta_{13} \text{ROA}_{i,t-1} + \beta_{14} \text{InstOwn} + \beta_{15} \text{FamilyOwn} + \beta_{16} \\ & \text{CloselyHeld} + e_{i,t} \end{aligned} \quad (10)$$

$$\begin{aligned} \text{Probit (DPOD)}_{i,t} = & \alpha + \beta_1 \text{DBDI}_{i,t-1} + \beta_2 \text{BrdSize}_{i,t-1} + \beta_3 \text{IndDir}_{i,t-1} + \beta_4 \text{Duality}_{i,t-1} \\ & + \beta_5 \text{FirmAge} + \beta_6 \text{FSize} + \beta_7 \text{Lev} + \beta_8 \text{ROA}_{i,t-1} + \beta_9 \text{InstOwn} + \beta_{10} \text{FamilyOwn} + \beta_{11} \\ & \text{CloselyHeld} + e_{i,t} \end{aligned} \quad (11)$$

where DPOD is a binary variable, “1” indicates if the firm pays dividends and “0” otherwise. The principal difference between the logit and probit estimation models is

the assumption of error terms' distribution. The logit model's likelihood of errors follows the standard logistic distribution, whereas it follows a normal distribution in the probit model. Since a binary variable measures the DPOD, the logit and probit models are more suitable (Greene, 2003).

Moreover, one-year time lag values of all explanatory variables except for firm age, firm size, leverage, institutional ownership, family ownership, and concentrated ownership are used to manage the endogeneity problem, following the previous studies (see, for example, Al-Najjar & Kilincarslan, 2016; Baker & Kilincarslan, 2019; Rajput & Jhunjhunwala, 2019; among others). The endogeneity problem occurs due to two reasons. First, reverse causality may happen when the dependent variable influences one or more explanatory variables rather than explanatory variables influencing the dependent variable. Second is the correlation of explanatory variables with the error term (Wooldridge, 2010). Therefore, applying the time lags of the given explanatory variables serves to counter this problem (Ozdemir, 2014).

This study confirms each specification's significance in the logit and probit models. The z-test on each parameter tests the null hypothesis, indicating that each indicator is equal to zero. Henceforth, the chi-squared test is carried to review the joint hypothesis if all the coefficients are zero. Finally, the LR statistic and McFadden R square values are determined to measure the model's explanatory power.

We employ the Blau index (1977) to compute each board diversity attribute, as in Equation 12:

$$1 - \sum_{i=1}^n p_i^2 \quad (12)$$

where  $p_i^2$  is the proportion of a board in group  $i$ . A higher index implies a more diversified board.

### 4.3.1.2 Tobit Model Estimation

The Tobit model is suitable where dependent variables need to be censored within specific limits (Greene, 2003; Wooldridge, 2010). The dependent variable is restricted to zero. There is no integrated continuum of the dependent variable under “0” if there is no dividend payment. Contrarily, it is using a positive value, which is continuous and non-zero. We use the Tobit model as in Equation 13:

$$y_i \begin{cases} 0 & \text{if } y_i^* \leq 0 \\ \beta x_i + u_i, u_i \sim N(0, \sigma^2) & \text{if } y_i^* > 0 \end{cases} \quad (13)$$

Since the Tobit model left-censored the data at zero, and the probability function of the restricted normal distribution of dividend is:

$$L = \prod_i^N \left[ \frac{1}{\sigma} \phi \left( \frac{y_i - \mu}{\sigma} \right) \right]^{d_i} \left[ 1 - \Phi \left( \frac{\mu - \tau}{\sigma} \right) \right]^{1-d_i} \quad (14)$$

Applying  $T=0$  and parameterizing  $\mu$  as  $X_i\beta$  gives the possibility function of the Tobit model.

$$L = \prod_i^N \left[ \frac{1}{\sigma} \phi \left( \frac{y_i - X_i\beta}{\sigma} \right) \right]^{d_i} \left[ 1 - \Phi \left( \frac{X_i\beta}{\sigma} \right) \right]^{1-d_i} \quad (15)$$

This model holds the log-likelihood that is a combination of two sections. The first section determines the traditional regression of the non-censored data, while the second section considers the relative likelihood of the censored observations (Greene, 2003; Wooldridge, 2010) as presented in Equation 16:

$$\ln L = \sum_{i=1}^N \left\{ d_i \left( -\ln \sigma + \ln \phi \left( \frac{y_i - X_i\beta}{\sigma} \right) \right) + (1 - d_i) \ln \left( 1 - \Phi \left( \frac{X_i\beta}{\sigma} \right) \right) \right\} \quad (16)$$

When the dividend payout ratio (the dependent variable) is left-censored at zero, it takes either “0” if the companies do not pay a dividend or non-zero (positive value) when it pays dividends. In this sense, the Tobit model estimation is highly suitable than the ordinary least squares (Kim & Maddala, 1992). This is consistent with the prior studies (Al-Najjar & Kilincarslan, 2018; Correia da Silva, Goergen, & Renneboog, 2004; Pahi & Yadav, 2018; Singhania & Gupta, 2012). We also use two continuous dependent variables, namely dividend payout ratio and dividend yield, to produce more robust findings. The Tobit model is suitable when a dependent variable indicates the intensity of dividend payments left-censored at zero. The sample distribution is a mix of discrete and continuous variables (Greene, 2003). Consequently, we run the following equations for the Tobit models:

$$\text{Tobit (DPOR)}_{i,t} = \alpha + \beta_1 \text{BrdSize}_{i,t-1} + \beta_2 \text{IndDir}_{i,t-1} + \beta_3 \text{Duality}_{i,t-1} + \beta_4 \text{FirmAge} + \beta_5 \text{Fsize} + \beta_6 \text{Lev} + \beta_7 \text{ROA}_{i,t-1} + e_{i,t} \quad (17)$$

$$\text{Tobit (DPOR)}_{i,t} = \alpha + \beta_1 \text{BrdSize}_{i,t-1} + \beta_2 \text{IndDir}_{i,t-1} + \beta_3 \text{Duality}_{i,t-1} + \beta_4 \text{FirmAge} + \beta_5 \text{Fsize} + \beta_6 \text{Lev} + \beta_7 \text{ROA}_{i,t-1} + \beta_8 \text{InstOwn} + \beta_9 \text{FamilyOwn} + \beta_{10} \text{CloselyHeld} + e_{i,t} \quad (18)$$

$$\text{Tobit (DPOR)}_{i,t} = \alpha + \beta_1 \text{FemBrd}_{i,t-1} + \beta_2 \text{Foreign}_{i,t-1} + \beta_3 \text{DivExp}_{i,t-1} + \beta_4 \text{DivEdu}_{i,t-1} + \beta_5 \text{DivTen}_{i,t-1} + \beta_6 \text{DivAge}_{i,t-1} + \beta_7 \text{BrdSize}_{i,t-1} + \beta_8 \text{IndDir}_{i,t-1} + \beta_9 \text{Duality}_{i,t-1} + \beta_{10} \text{FirmAge} + \beta_{11} \text{Fsize} + \beta_{12} \text{Lev} + \beta_{13} \text{ROA}_{i,t-1} + \beta_{14} \text{InstOwn} + \beta_{15} \text{FamilyOwn} + \beta_{16} \text{CloselyHeld} + e_{i,t} \quad (19)$$

$$\text{Tobit (DPOR)}_{i,t} = \alpha + \beta_1 \text{DBDI}_{i,t-1} + \beta_2 \text{BrdSize}_{i,t-1} + \beta_3 \text{IndDir}_{i,t-1} + \beta_4 \text{Duality}_{i,t-1} + \beta_5 \text{FirmAge} + \beta_6 \text{Fsize} + \beta_7 \text{Lev} + \beta_8 \text{ROA}_{i,t-1} + \beta_9 \text{InstOwn} + \beta_{10} \text{FamilyOwn} + \beta_{11} \text{CloselyHeld} + e_{i,t} \quad (20)$$

$$\text{Tobit (DY)}_{i,t} = \alpha + \beta_1 \text{BrdSize}_{i,t-1} + \beta_2 \text{IndDir}_{i,t-1} + \beta_3 \text{Duality}_{i,t-1} + \beta_4 \text{FirmAge} + \beta_5 \text{Fsize} + \beta_6 \text{Lev} + \beta_7 \text{ROA}_{i,t-1} + e_{i,t} \quad (21)$$

$$\text{Tobit (DY)}_{i,t} = \alpha + \beta_1 \text{BrdSize}_{i,t-1} + \beta_2 \text{IndDir}_{i,t-1} + \beta_3 \text{Duality}_{i,t-1} + \beta_4 \text{FirmAge} + \beta_5 \text{Fsize} + \beta_6 \text{Lev} + \beta_7 \text{ROA}_{i,t-1} + \beta_8 \text{InstOwn} + \beta_9 \text{FamilyOwn} + \beta_{10} \text{CloselyHeld} + e_{i,t} \quad (22)$$

$$\begin{aligned} \text{Tobit (DY)}_{i,t} = & \alpha + \beta_1 \text{FemBrd}_{i,t-1} + \beta_2 \text{Foreign}_{i,t-1} + \beta_3 \text{DivExp}_{i,t-1} + \beta_4 \text{DivEdu}_{i,t-1} + \beta_5 \\ & \text{DivTen}_{i,t-1} + \beta_6 \text{DivAge}_{i,t-1} + \beta_7 \text{BrdSize}_{i,t-1} + \beta_8 \text{IndDir}_{i,t-1} + \beta_9 \text{Duality}_{i,t-1} + \beta_{10} \text{FirmAge} \\ & + \beta_{11} \text{Fsize} + \beta_{12} \text{Lev} + \beta_{13} \text{ROA}_{i,t-1} + \beta_{14} \text{InstOwn} + \beta_{15} \text{FamilyOwn} + \beta_{16} \text{CloselyHeld} + \\ & e_{i,t} \end{aligned} \quad (23)$$

$$\begin{aligned} \text{Tobit (DY)}_{i,t} = & \alpha + \beta_1 \text{DBDI}_{i,t-1} + \beta_2 \text{BrdSize}_{i,t-1} + \beta_3 \text{IndDir}_{i,t-1} + \beta_4 \text{Duality}_{i,t-1} \\ & + \beta_5 \text{FirmAge} + \beta_6 \text{Fsize} + \beta_7 \text{Lev} + \beta_8 \text{ROA}_{i,t-1} + \beta_9 \text{InstOwn} + \beta_{10} \text{FamilyOwn} + \beta_{11} \\ & \text{CloselyHeld} + e_{i,t} \end{aligned} \quad (24)$$

## CHAPTER V

### EMPIRICAL FINDINGS

#### 5.1 Descriptive Statistics

Table 5.1 displays the summary of descriptive statistics. The mean dividend payout dummy (DPOD) indicates that 57% of the companies have paid dividends from 2013 through 2018. This result is in line with the outcomes of the study (Pucheta-Martínez & Bel-Oms, 2016). They reported that 56% of the Spanish companies had paid a dividend from 2004 to 2012. The mean values of the dividend payout ratio (DPOR) and dividend yield (DY) are 25.2% and 2.3%, respectively. These findings align with Al-Najjar and Kilincarslan's (2016) results, who reported a DPOR of 24.3% and DY of 2% for 264 BIST listed companies between 2003 and 2012. The result for DPOR is also similar to the dividend payout ratios of other emerging countries like China (24.9%), Russia (23.6%), and India (27%) over the period of 2007-2014, while the result for DY is relatively lower than in China (3.0%), Russia (2.8%), and India (3.3%) (Saeed & Sameer, 2017).

One of the key explanatory variables is gender diversity (FemBrd). It has a mean value of 11.4%. This is higher than the previous studies held for Turkish companies. For instance, Ararat et al. (2015) reported 9.6% female on board of the largest 100 BIST companies in 2006. In contrast, Ararat and Yurtoglu (2020) recorded 9.08% gender diversity of the firms listed on BIST from 2011 to 2018. Another critical variable is nationality diversity. On average, the share of foreign directors on board is 8.1% in the sample.

When we refer to the experience diversity on board, it accounts for 0.621, indicating that the board is highly composed of members with multi-faceted expertise. This

finding is compatible with the results of other studies (Custodio & Metzger, 2014; Gray & Nowland, 2017). The mean for educational diversity is 0.422, while it is 0.449 for tenure diversity. Less heterogeneity in the tenure of board members may likely create colludes with management that expropriates the residual income (Hamzah & Zulkafli, 2014; Setiawan & Aslam, 2018). Finally, the mean value 83ort he diversity is 0.634, indicating fair heterogeneity on board in age brackets. This is consistent with the result of Rabl and del Carmen Triana (2014).

On average, when we refer to the board diversity, the board size is 8.09, which is relatively lower than other emerging markets like China, Russia, and India (Saeed & Sameer, 2017). Similarly, the share of independent board members on average (30.3%) is lower than other emerging markets (41%) (Saeed & Sameer, 2017). CEO duality is 82% on average, indicating the predominance of CEOs acting in dual roles and being highly influential in deciding on dividend payments. This corroborates the findings of Baker and Kilincarslan (2019). In other emerging markets, i.e., China, Russia, and India, this ratio is relatively low (41%).

The 83ort he83 is 40.76 years on average, while the average value for financial leverage is 29.5%. The average ROA is 7.6%. Institutional ownership accounts for 24.3%, while family ownership accounts for 68.9%, which is higher than that of other emerging countries (45% in India, 22% in Russia) (Saeed & Sameer, 2017). Finally, ownership concentration is 44.1% on average.

Table 5.2 shows the Pearson correlation matrix 83ort he sample. None of the correlations between the pairs of explanatory variables exceeds 0.70, showing no multicollinearity (Gujarati, 2003).

**Table 5.1 Summary of descriptive statistics**

	<b>Mean</b>	<b>Median</b>	<b>S.D.</b>	<b>Min</b>	<b>Max</b>	<b>Skewness</b>	<b>Kurtosis</b>
DPOD	0.572	1.000	0.495	0.000	1.000	-0.292	1.085
DPOR	0.252	0.121	0.304	0.000	0.961	0.914	2.500
DY	0.023	0.009	0.035	0.000	0.247	2.433	11.238
FemBrd	0.114	0.091	0.126	0.000	0.556	1.137	4.121
Foreign	0.081	0.000	0.165	0.000	0.727	2.128	6.487
DivExp	0.621	0.625	0.116	0.198	0.793	-1.036	4.431
DivEdu	0.422	0.462	0.169	0.000	0.667	-1.010	3.356
DivTen	0.449	0.486	0.186	0.000	0.741	-0.866	3.248
DivAge	0.634	0.658	0.126	0.000	0.815	-1.508	5.720
BrdSize	8.090	8.070	0.264	3.000	18.00	0.176	2.677
IndDir	0.303	0.333	0.139	0.000	1.000	1.165	11.625
Duality	0.820	1.000	0.384	0.000	1.000	-1.670	3.789
FirmAge	40.766	43.000	18.396	3.000	85.000	0.080	2.643
Fsize	6.497	6.510	0.705	4.699	8.569	0.185	2.761
Lev	0.295	0.297	0.183	0.000	0.846	0.317	2.612
ROA	0.076	0.068	0.091	-0.263	0.945	3.095	26.582
InstOwn	0.243	0.159	0.272	0.000	0.911	0.765	2.211
FamilyOwn	0.689	1.000	0.463	0.000	1.000	-0.817	1.667
CloselyHeld	0.441	0.462	0.283	0.000	0.994	-0.173	1.856

**Table 5.2 Correlation matrix**

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1. DPOR	1.00																		
2. DY	0.45***	1.00																	
3. FemBrd	-0.05	-0.01	1.00																
4. Foreign	0.18***	0.19***	-0.27	1.00															
5. DivExp	0.12**	0.12**	0.00	-0.11	1.00														
6. DivEdu	0.05	0.11**	0.02	0.21***	-0.07	1.00													
7. DivTen	0.09	0.03	0.14***	0.01	0.05	-0.05	1.00												
8. Divage	0.00	0.04	0.26***	0.14***	-0.08	0.17***	0.12**	1.00											
9. BrdSize	0.18***	0.13***	-0.09	0.31***	-0.02	0.28***	0.09	0.38***	1.00										
10. IndDir	-0.08	-0.06	-0.05	-0.04	0.08	0.11**	-0.02	0.05	-0.05	1.00									
11. Duality	-0.13	-0.15***	0.01	-0.18	0.00	0.00	-0.03	-0.03	-0.03	0.04	1.00								
12. FirmAge	0.18***	0.15	0.13***	0.04	0.07	-0.06	0.11**	-0.14	-0.02	-0.17	0.00	1.00							
13. Fsize	0.13***	0.08	0.05	0.17***	0.05	0.05	0.23***	0.19***	0.36***	0.06	-0.08	0.05	1.00						
14. Lev	-0.15	-0.07	0.08	0.11**	0.00	0.00	0.04	0.16***	0.10**	-0.04	-0.05	-0.07	0.16***	1.00					
15. ROA	0.23***	0.14***	-0.08	0.10	0.06	0.10**	-0.06	-0.02	0.02	-0.04	0.09	0.05	-0.12	-0.23	1.00				
16. InstInves	0.03	0.05	0.05	0.08	-0.20	0.20***	-0.06	0.11**	0.20***	0.12**	0.03	-0.16	0.09	0.13***	-0.05	1.00			
17. Family	0.09	0.07	0.11**	0.02	0.05	-0.01	0.06	0.09	0.01	0.02	0.11**	0.06	0.09	-0.09	0.09	-0.44	1.00		
18.OwnConcent	0.04	0.00	-0.07	-0.01	0.07	-0.05	0.06	0.00	-0.14	-0.11	0.01	0.22***	0.04	-0.08	0.04	-0.60	0.44***	1	

\*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.10

Table 5.3 shows the variance inflation factor (VIF) and tolerance values of the explanatory variables for measuring multicollinearity. The tolerance value is estimated as  $1/VIF$ . If the VIF value is at least 10, it implies a multicollinearity issue. The results indicate that none of the variables has a VIF surpassing 1.97 or a tolerance value smaller than 0.10, implying that multicollinearity is not an issue (Gujarati, 2003).

**Table 5.3 Variance Inflation Factor**

<b>Variables</b>	<b>VIF</b>	<b>Tolerance</b>
FemBrd	1.42	0.7042
Foreign	1.37	0.7299
DivExp	1.13	0.8849
DivEdu	1.20	0.8333
DivTen	1.10	0.9091
DivAge	1.46	0.6849
BrdSize	1.62	0.6173
IndDir	1.13	0.8849
Duality	1.11	0.9009
FirmAge	1.22	0.8197
FSize	1.32	0.7576
Lev	1.15	0.8696
ROA	1.14	0.8772
InstOwn	1.97	0.5076
FamilyOwn	1.50	0.6667
CloselyHeld	1.84	0.5435

## 5.2 Industry Dummies

We incorporate industry dummies (Industry) for 11 industries to check for the industry effect in regression estimates. The significance of industrial classification in Chapter 4 implies that various industries may work under a distinct set of rules and regulations with varying degrees of risk and growth potential that ultimately affect dividend policy (Baker, Smith & Landrigan, 1985; Moh'd et al., 1995). Therefore, industry dummies (INDUSTRY) are used to identify industry influence on Turkish companies. For the sake of brevity, the coefficients of industry dummies are not produced in the tables. It is

indicated as "YES" in displaying the multivariate regression results, meaning that the coefficients of given variables are accounted for industry effect.

### **5.3. Logit and Probit Regression Results**

Table 5.4 and Table 5.5 report the findings of logit and probit regression estimations on dividend payout, respectively. The dependent variable (DPOD) is a binary variable taking "1" for the companies paying dividends and "0" otherwise. Model 1 comprises the coefficients and standard errors of the board and firm characteristics, while Model 2 shows the combination of Model 1 and ownership structure variables. Model 3 tests the whole set of variables, including demographic board diversity attributes and control variables. Model 4 reports the DBDI without the time-lagged effects and control variables to capture the cognitive feature of board diversity, while Model 5 shows the DBDI with the time-lagged effects and control variables.

The findings in Table 5.4 and 5.5 indicate that the FemBrd is positive but insignificant in Model 3, not supporting the first hypothesis (H1). One likely reason may be that the positive influence of female directors on board becomes weak in family-dominated firms where families usually control the boards by holding key management positions. Besides, most of the women directors belong to controlling families where they collude and serve the interests of their families (Ararat, Claessens, & Yurtoğlu, 2018). Another reason could be attributable to the lag of Turkish companies in attaining the critical mass threshold. Turkish companies generally do not comply with a 30 percent critical mass of appointing independent female board members. The results are in line with the previous studies (Ararat & Yurtoglu, 2020; Djan, Zehou & Bawuah, 2017; Eluyela et al., 2019; Green & Homroy, 2018; Nguyen, Locke & Reddy, 2015).

Nationality diversity (Foreign) is positive but insignificantly related to dividend payment, not supporting the second hypothesis (H2). One likely reason may be that foreign directors account for around 8 percent (see Table 5.1) and do not force companies to pay high dividends. Another reason may be attributable to their low-level

attendance records due to geographical differences that make them weak in actively monitoring and advising the boards. This result is compatible with the findings of previous studies (Arioglu, 2014; Darmadi, 2011; Setiawan & Aslam, 2018).

**Table 5.4 Logit estimations on the probability of dividend payments**

Variables	Logit Regression				
	Model-1	Model-2	Model-3	Model-4	Model-5
FemBrd			0.356 (1.587)		
Foreign			1.960 (1.298)		
DivExp			5.411*** (1.707)		
DivEdu			4.632*** (1.241)		
DivTen			2.124** (0.970)		
DivAge			0.958 (1.608)		
DBDI				1.507*** (0.478)	2.276*** (0.520)
BrdSize	0.750 (0.606)	0.921 (0.640)	0.155 (0.754)	0.649 (0.673)	0.598 (.688)
IndDir	-0.803 (1.096)	-1.283 (1.186)	-2.090* (1.393)	-1.086* (1.216)	-1.085 (1.221)
Duality	-0.360 (0.429)	-0.604 (0.453)	-0.882* (0.524)	-0.489 (0.462)	-0.478 (0.47)
FirmAge	0.035*** (0.009)	0.026*** (0.009)	0.030*** (0.011)	0.024*** (0.009)	0.025** (0.010)
Fsize	1.087*** (0.283)	1.058*** (0.293)	1.073*** (0.310)	1.027*** (0.302)	0.988*** (0.312)
Lev	-5.207*** (0.976)	-4.778*** (1.028)	-6.952*** (1.264)	-5.850*** (1.140)	-6.687*** (1.222)
ROA	6.981*** (2.254)	6.292*** (2.396)	3.151** (2.340)	5.149** (2.360)	4.326* (2.266)
InstInves		0.572 (0.785)	0.231 (0.881)	0.133 (0.846)	-0.533 (0.869)
Family		0.518 (0.381)	0.532* (0.435)	0.375* (0.404)	0.393 (0.420)
OwnConcent		1.864** (0.770)	1.822** (0.855)	1.855** (0.804)	1.869** (0.826)
Cons	-7.017*** (1.952)	-8.289*** (2.037)	-12.039*** (2.516)	-10.241*** (2.274)	-11.121*** (2.338)
Observations	402	402	402	402	402
McFadden R <sup>2</sup>	0.257	0.283	0.359	0.307	0.333
LR statistic	115.14	133.42	142.27	137.55	145.64
INDUSTRY	Yes	Yes	Yes	Yes	Yes

\*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.10; Z-statistics are reported in the parentheses. All the explanatory variables are lagged by one year except FirmAge, FSize, Lev, InstOwn, FamilyOwn, and CloselyHeld.

**Table 5.5 Probit estimations on the probability of dividend payments**

Variables	Probit regression				
	Model-1	Model-2	Model-3	Model-4	Model-5
FemBrd			0.106 (0.926)		
Foreign			0.998 (0.703)		
DivExp			3.214*** (0.987)		
DivEdu			2.626*** (0.667)		
DivTen			1.266** (0.536)		
DivAge			0.664 (0.931)		
DBDI				0.894*** (0.273)	1.332*** (0.288)
BrdSize	0.425 (0.354)	0.525 (0.371)	0.002 (0.436)	0.307 (0.385)	0.263 (0.395)
IndDir	-0.469 (0.644)	-0.702 (.677)	-1.250* (0.807)	-0.598* (0.695)	-0.617 (0.708)
Duality	-0.204 (0.252)	-0.310 (0.257)	-0.456 (0.301)	-0.227 (0.263)	-0.223 (0.267)
FirmAge	0.021*** (0.005)	0.016*** (0.005)	0.017*** (0.006)	0.014** (0.006)	0.014** (0.006)
Fsize	0.660*** (0.163)	0.651*** (0.168)	0.649*** (0.175)	0.636*** (0.172)	0.615*** (0.178)
Lev	-3.124*** (0.557)	-2.893*** (0.588)	-4.095*** (0.696)	-3.499*** (0.637)	-3.944*** (0.671)
ROA	2.444*** (0.883)	2.310** (0.919)	1.417** (0.988)	2.092** (0.931)	1.951** (0.941)
InstInves		0.234 (0.454)	0.182 (0.516)	0.158 (0.489)	-0.360 (0.502)
Family		0.338 (0.222)	0.339* (0.247)	0.242* (0.231)	0.260 (0.237)
OwnConcent		1.036** (0.438)	0.969** (0.486)	1.000** (0.457)	0.991** (0.470)
Cons	-4.118*** (1.116)	-4.945*** (1.171)	-6.972*** (1.416)	-6.023*** (1.280)	-6.527*** (1.324)
Observations	402	402	402	402	402
McFadden R <sup>2</sup>	0.250	0.278	0.356	0.304	0.331
LR statistic	122.80	144.32	142.78	148.68	144.81
INDUSTRY	Yes	Yes	Yes	Yes	Yes

\*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.10; Z-statistics are reported in the parentheses. All the explanatory variables are lagged by one year except FirmAge, FSize, Lev, InstOwn, FamilyOwn, and CloselyHeld.

The experience diversity (DivExp) is positive and significantly (p<0.01) associated with the dividend payout, supporting the third hypothesis (H3). Experience diversity among board members is more demanding in the business environment to solve

complex problems that ultimately reduce agency costs and increase dividend payments (Adams & Ferreira, 2009; Williams & O'Reilly, 1998). Board members from heterogenous expertise bring extensive knowledge and valuable experiences in improving monitoring, resource utilization, policy formulation, and problem-solving. Consequently, it mitigates the free-riding behavior of management and encourages firms to pay high dividends. This finding corroborates prior studies (Anderson et al., 2011; Saeed & Sameer, 2017; Singh, 2007).

Educational diversity (DivEdu) is positive and significantly ( $p < 0.01$ ) related to the dividend payments, supporting the fourth hypothesis (H4). The positive association may be due to different ideas offered by board members with diverse educational backgrounds that may help companies deal with managing resources optimally (Mahadeo et al., 2012). Diversity in educational backgrounds may also help firms analyze a more excellent range of prospects and promote greater cognitive complexity. This variety of views improves overcoming challenging issues, including dividend payments. This result is compatible with the prior studies (Curşeu, Stop & Schalk, 2007; Curşeu & Schrujjer, 2010; Horwitz, 2005; Mirza & Malik, 2019; Pucheta-Martínez & Bel-Oms, 2016).

Tenure diversity is positive and significantly ( $p < 0.05$ ) associated with dividend payment, supporting the fifth hypothesis (H5). One reason is that heterogenous tenured board members create synergy in improving monitoring and advising quality due to their expertise. Consequently, it reduces agency problems and encourages firms to pay high dividends. This finding corroborates with the prior studies (Dulewicz & Herbert, 2004; Liu & Sun, 2005).

However, the age diversity (DivAge) is positive but statistically insignificant in influencing the dividend payments, not supporting the sixth hypothesis (H6). This finding may be attributable to the firms' shortcomings in optimally organizing the board members by their ages to create synergy through their distinctive productivity and

experience levels. This result is compatible with the prior studies (Darmadi, 2011; Hassan & Marimuthu, 2016; Woschkowiak, 2018).

Finally, this study uses the composite measure of board diversity by combining all the diversity attributes by an index to account for the critical mass of diverse viewpoints. This index better shows the corporate boards' cognitive diversity rather than emphasizing each diversity attribute (Ararat et al., 2010, 2015). The result indicates a positive and significant ( $p < 0.05$ ) association between DBDI and dividend policy, implying that composite board diversity positively influences the dividend payout. One reason is that DBDI promotes creativity, increases efficiency in problem-solving, and enhances decision-making, including dividend payments (Anderson et al., 2011; Arfken, Bellar & Helms, 2004; Burgess & Tharenous, 2002; Carter et al., 2003; Dobbin & Jung, 2011; Peterson & Philpot, 2007). This finding aligns with the previous studies (Aggarwal, Jindal, & Seth, 2019; Ararat et al., 2010, 2015).

There is a positive but insignificant association between board size (BrdSize) and dividend policy. A probable explanation is that the relationship between the board size and dividend payments remains weak in family-dominated firms. Another possible reason might be attributable to the board members collude with management controlled by families, which reduces high dividend payments. This result aligns with the previous studies (Abdelsalam et al., 2008; Sener & Selcuk, 2019; Subramaniam & Devi, 2011).

The association between the independent board member (IndDir) and dividend payment is negative and significant ( $p < 0.10$ ). This negative relationship supports their passive role on corporate boards or their plausibility of colluding with the controlling families rather than protecting the rights of minority shareholders. This result is compatible with earlier studies (Ajanthan, 2013; Sharma, 2011; Tahir, Rahman & Masri, 2020).

The association between firm age (FirmAge) and the dividend payment is positive and statistically significant ( $p < 0.01$ ), indicating that mature companies influence high dividend payments. This result affirms the maturity hypothesis suggested by Grullon et

al. (2002), implying that when companies get older, investment possibilities diminish, leading to slower growth that mitigates the fund requirement for capital expenditure. Thus, mature companies with steady incomes, high accessibility to outside capital markets, and an adequate level of funds tend to pay high dividends. This finding is compatible with the previous studies (Al-Najjar & Kilincarslan, 2016, 2017, 2018; Kilincarslan, 2015).

Firm size (FSize) is positive and significant ( $p < 0.01$ ), while leverage (Lev) is negative and significant ( $p < 0.01$ ) in logit and probit models. Large firms distribute more dividends than smaller ones because, in emerging markets like Turkey, the controlling shareholders have greater control and minority shareholders have a limited influence and monitoring abilities (Jensen & Meckling, 1976). Consequently, the agency problem intensifies due to information asymmetry. Large companies usually pay high dividends to convey positive signals (Lloyd et al., 1985; Sawicki, 2005). This good faith of controlling shareholders of paying high dividends helps companies develop a good reputation, enhancing the likelihood of access to external financing at a reasonable cost (Bhattacharya, 1979; Dempsey & Laber, 1992; Mitton, 2004; Moh'd et al., 1995). According to Lee, Oh, and Kim (2013), since large companies perform better than small ones, they usually pay higher dividends. Besides, larger companies maintain additional resources that make them able to pay high dividends even during abnormal circumstances such as economic turmoil, political uncertainty (Chay & Suh, 2009). This result is compatible with the previous studies (Ahmad & Wardani, 2014; Farinha, 2003). The negative association between leverage and dividend payouts could be attributed to a higher dependency of Turkish companies on external financing for growth opportunities, leading to a decrease in dividend payments. This result is compatible with the prior studies (Saeed & Sameer, 2017; Sener & Selcuk, 2019; Ye et al., 2019).

The firm profitability (ROA) is positive and significantly ( $p < 0.01$ ) connected with the dividend payout. Thus, profitable firms tend to distribute high dividends. This result

aligns with the previous studies (Byoun et al., 2016; Chang et al., 2020; Gonzalez, Molina, Pable & Ross, 2017; Hamzah & Zulkafli, 2014; Mehta, 2013).

Institutional ownership is positive but insignificantly related to the dividend payments. One possible explanation may be that institutional investors like to dampen expropriating the minority shareholders by paying high dividends, but they have limited power in enforcing such decisions due to the predominant control of families. Another reason could be attributed to the institutional investors' inclination for capital gains through further investment opportunities. This finding corroborates with the previous studies (Al-Najjar, 2010; Al-Najjar & Kilincarslan, 2016; Grinstein & Michaely, 2005; Jory, Ngo & Sakaki, 2017; Nguyen & Li, 2020; Noronha, Shome & Morgan, 1996).

On the other hand, family ownership is positive and significantly ( $p < 0.05$ ) related to the dividend payments. This relationship implies that family-controlled companies distribute profits to all shareholders, including minority ones, to reduce the likelihood of principal-principal conflicts. One likely reason is that in family-controlled companies, the families are more concerned for their reputation, goodwill, and long-term financial success that make them behave as stewards rather than entrenching the minority shareholders' wealth for private benefits. This result corroborates with the prior studies (Benjamin, Wasiuzzaman, Mokhtarinia & Nejad, 2016; Chen et al., 2005; Huang, Chen & Kao, 2012; Setia-Atmaja, 2010; Subramaniam, 2018; Yoshikawa & Rasheed, 2010).

Last but not least, the ownership concentration is positive and significantly ( $p < 0.01$ ) related to the dividend payment. Since ownership concentration holds sufficient voting power to drive management, it can influence dividend payment decisions (Berle & Means, 1932; La Porta et al., 1999). This result implies that high dividend payments mitigate agency problems since dividends substitute the shareholders' monitoring function. This result is compatible with the previous studies (Abdullah, Ahmad & Roslan, 2012; Chang, Kang & Li, 2016; Faccio et al., 2001; La Porta et al., 2000;

Murtaza, Noor-Ud-Din, Aguir, & Batool, 2020; Shleifer & Vishny, 1986; Thanatawee, 2013).

#### **5.4. Tobit Regression Results**

Tobit regression model employs DPOR and DY, showing the intensity of dividend payments. The intensity of dividend payments is left-censored because some companies do not pay dividends in some years. Hence, the Tobit estimation regression result is reliable than ordinary least squares and logit-probit models (Greene, 2003; Wooldridge, 2010).

Tobit regression estimates use robust tests to ascertain the validity and consistency of logit and probit regression. Tables 5.6 and 5.7 show the results. DPOR delineates the internal decision-making on dividend payment, while DY indicates the expectations of the external stakeholders. Model 1 comprises the coefficients and standard errors of the board and firm characteristics, while Model 2 shows the combination of Model 1 and ownership structure variables. Model 3 tests the whole set of variables, including demographic board diversity attributes and control variables, while Model 4 reports the DBDI and control variables to capture the cognitive feature of board diversity.

DPOR and DY are positive but insignificantly associated with the FemBrd, not supporting the first hypothesis (H1). This finding corroborates with the logit and probit regression estimates. DPOR and DY are positive but insignificantly associated with nationality diversity (Foreign), not supporting the second hypothesis (H2). This association remains the same in the logit and probit regression estimations. Diversity in experience (DivExp) is positively and significantly ( $p < 0.01$ ) related to DPOR and DY, consistent with the logit and probit regression estimations, and supports the third hypothesis (H3). The educational diversity (DivEdu) is positive and significantly ( $p < 0.01$ ) related to the DPOR and DY, supporting the fourth hypothesis (H4), and is in line with the findings of the logit and probit regressions. Additionally, tenure diversity (DivTen) is positive and significantly associated with the DPOR and DY, supporting

the fifth hypothesis (H5) as the logit and probit regressions do. However, age diversity (DivAge) is positive but insignificantly related to DPOR and DY, consistent with the findings of logit and probit regressions, not supporting the sixth hypothesis (H6).

The association of independent board members (IndDir) and the DPOR and DY is negative and significant. This relationship is consistent with the logit and probit regression estimates. The firm age (FirmAge) is positive and significantly ( $p < 0.01$ ) associated with the DPOR and DY and is in line with the findings of the logit and probit regressions. Moreover, firm size (FSize) is positive and significantly ( $p < 0.01$ ) related to DPOR and DY. This result is also in line with the logit and probit regression estimates. However, leverage (Lev) is negative and significantly ( $p < 0.01$ ) associated with the DPOR and DY, confirming the findings of the logit and probit regression estimates. The profitability (ROA) is positive and significantly ( $p < 0.01$ ) related to DPOR and DY being compatible with the logit and probit regression estimations.

**Table 5.6 Tobit estimations on the dividend payout (DPOR)**

Variables	Tobit regression				
	Model-1	Model-2	Model-3	Model-4	Model-5
FemBrd			0.088 (0.141)		
Foreign			0.260 (0.110)		
DivExp			0.527*** (0.145)		
DivEdu			0.199** (0.094)		
DivTen			0.221*** (0.080)		
DivAge			0.105 (0.137)		
DBDI				0.126*** (0.043)	0.166*** (0.043)
BrdSize	0.190*** (0.060)	0.186*** (0.062)	0.084 (0.067)	0.134 (0.064)	0.125** (0.063)
IndDir	-0.187* (0.108)	-0.220** (0.110)	-0.228** (0.110)	-0.222** (0.108)	-0.218** (0.107)
Duality	-0.095** (0.041)	-0.103** (0.041)	-0.086** (0.040)	-0.086** (0.041)	-0.081** (0.041)
FirmAge	0.003*** (0.001)	0.003*** (0.001)	0.002** (0.001)	0.002** (0.001)	0.002** (0.001)
Fsize	0.075*** (0.024)	0.070*** (0.024)	0.053** (0.024)	0.065*** (0.024)	0.06** (0.024)
Lev	-0.313*** (0.089)	-0.254*** (0.092)	-0.358*** (0.093)	-0.313*** (0.093)	-0.331*** (0.092)
ROA	0.530*** (0.172)	0.521*** (0.172)	0.378** (0.170)	0.480*** (0.171)	0.467*** (0.169)
InstInves		0.037 (0.078)	0.005 (0.080)	-0.020 (0.079)	-0.045 (0.079)
Family		0.083** (0.039)	0.068* (0.038)	0.064* (0.039)	0.060* (0.038)
OwnConcent		0.009 (0.074)	0.038* (0.074)	0.017* (0.074)	0.029* (0.073)
Cons	-0.390** (0.180)	-0.449** (0.183)	-0.593*** (0.195)	-0.533*** (0.183)	-0.544*** (0.181)
Observations	402	402	402	402	402
Pseudo R <sup>2</sup>	0.798	0.835	1.024	0.895	0.937
LR Chi statistic	78.75***	91.45***	93.05***	89.45***	133.57***
INDUSTRY	Yes	Yes	Yes	Yes	Yes

\*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.10; Z-statistics are reported in the parentheses. All the explanatory variables are lagged by one year except FirmAge, FSize, Lev, InstOwn, FamilyOwn, and CloselyHeld.

**Table 5.7 Tobit estimations on the dividend yield (DY)**

Variables	Tobit regression				
	Model-1	Model-2	Model-3	Model-4	Model-5
FemBrd			0.018 (0.018)		
Foreign			0.009 (0.014)		
DivExp			0.050*** (0.018)		
DivEdu			0.031*** (0.012)		
DivTen			0.012 (0.010)		
DivAge			0.020 (0.017)		
DBDI				0.014*** (0.005)	0.014*** (0.005)
BrdSize	0.019** (0.007)	0.014* (0.008)	0.002 (0.008)	0.008 (0.008)	0.009 (0.008)
IndDir	-0.022 (0.013)	-0.030** (0.014)	-0.037*** (0.014)	-0.030** (0.013)	-0.031** (0.013)
Duality	-0.008 (0.005)	-0.009* (0.005)	-0.008 (0.005)	-0.007 (0.005)	-0.007 (0.005)
FirmAge	0.001** (0.000)	0.002** (0.000)	0.001** (0.000)	0.001* (0.000)	0.000* (0.001)
Fsize	0.004 (0.003)	0.003 (0.003)	0.003 (0.003)	0.003 (0.003)	0.002 (0.003)
Lev	-0.013 (0.011)	-0.008 (0.011)	-0.016 (0.012)	-0.014 (0.011)	-0.014 (0.011)
ROA	0.077*** (0.021)	0.083*** (0.021)	0.069*** (0.021)	0.079*** (0.021)	0.079*** (0.022)
InstInves		0.019* (0.010)	0.014 (0.010)	0.012 (0.010)	0.011 (0.011)
Family		0.012** (0.005)	0.011** (0.005)	0.010** (0.005)	0.010** (0.005)
OwnConcent		-0.007 (0.009)	0.014* (0.009)	0.010* (0.009)	-0.011 (0.009)
Cons	-0.025** (0.022)	-0.025*** (0.022)	-0.045*** (0.024)	-0.034*** (0.023)	-0.033*** (0.022)
Observations	402	402	402	402	402
Pseudo R <sup>2</sup>	-0.062	-0.069	-0.082	-0.075	-0.0747
LR Chi statistic	76.88***	73.54***	75.34***	77.84***	96.45***
INDUSTRY	Yes	Yes	Yes	Yes	Yes

\*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.10; Z-statistics are reported in the parentheses. All the explanatory variables are lagged by one year except FirmAge, FSize, Lev, InstOwn, FamilyOwn, and CloselyHeld.

Finally, the association of family ownership (FamilyOwn) and ownership concentration (CloselyHeld) are positive and significant for the DPOR and DY, contrary to the general expectations. This result is compatible with the findings of logit

and probit regression estimates. Tables 5.8 and 5.9 summarize the hypotheses and their relationship with dividend policy.

**Table 5.8 Summary of the hypotheses for logit & probit results**

Hypothesis	Variable Codes	Expected sign	Actual sign	Level of support
<b>Demographic board diversity</b>				
<i>H1: There is a positive association between women's presence on the board and dividend payout.</i>	FemBrd	(+)	(+)	No
<i>H2: There is a positive association between national diversity on the board and dividend payout</i>	Foreign	(+)	(+)	No
<i>H3: There is a positive association between experience diversity on the board and dividend payout</i>	DivExp	(+)	(+) <sup>***</sup>	Yes
<i>H4: There is a positive association between educational diversity on the board and dividend payout</i>	DivEdu	(+)	(+) <sup>***</sup>	Yes
<i>H5: There is a significant association between board tenure diversity and dividend payout</i>	DivTen	(-/+)	(+) <sup>**</sup>	Yes
<i>H6: There is a positive association between age diversity on the board and dividend payout.</i>	DivAge	(+)	(+)	No
Demographic board diversity index	DBDI	(+)	(+) <sup>***</sup>	
<b>Control variables</b>				
<b>Board Characteristics</b>				
Board size	BrdSize	(+)	(+)	
Independent board member	IndDir	(+)	(-) <sup>*</sup>	
CEO duality	Duality	(-)	(-)	
<b>Firm-Specific Factors</b>				
Firm age	FirmAge	(+)	(+) <sup>***</sup>	
Firm size	Fsize	(+)	(+) <sup>***</sup>	
Leverage	Lev	(-)	(-) <sup>***</sup>	
Firm profitability	ROA	(+)	(+) <sup>**</sup>	
<b>Ownership Structure</b>				
Institutional ownership	InstOwn	(+)	(+)	
Family ownership	FamilyOwn	(-)	(+) <sup>*</sup>	
Closely-held ownership	CloselyHeld	(-)	(+) <sup>**</sup>	

<sup>\*\*\*</sup>p<0.01, <sup>\*\*</sup>p<0.05, & <sup>\*</sup> p<0.10

**Table 5.9 Summary of the hypotheses for Tobit results**

<b>Hypothesis</b>	<b>Variable Codes</b>	<b>Expected sign</b>	<b>Actual sign</b>	<b>Level of support</b>
<b>Demographic board diversity</b>				
<i>H1: There is a positive association between women's presence on the board and dividend payout.</i>	FemBrd	(+)	(+)	No
<i>H2: There is a positive association between national diversity on the board and dividend payout</i>	Foreign	(+)	(+)	No
<i>H3: There is a positive association between experience diversity on the board and dividend payout</i>	DivExp	(+)	(+)***	Yes
<i>H4: There is a positive association between educational diversity on the board and dividend payout</i>	DivEdu	(+)	(+)**	Yes
<i>H5: There is a significant association between board tenure diversity and dividend payout</i>	DivTen	(-/+)	(+)***	Yes
<i>H6: There is a positive association between age diversity on the board and dividend payout.</i>	DivAge	(+)	(+)	No
Demographic board diversity index	DBDI	(+)	(+)***	
<b>Control variables</b>				
<b>Board Characteristics</b>				
Board size	BrdSize	(+)	(+)	
Independent board member	IndDir	(+)	(-)**	
CEO duality	Duality	(-)	(-)**	
<b>Firm-Specific Factors</b>				
Firm age	FirmAge	(+)	(+)**	
Firm size	Fsize	(+)	(+)**	
Leverage	Lev	(-)	(-)**	
Firm profitability	ROA	(+)	(+)**	
<b>Ownership Structure</b>				
Institutional ownership	InstOwn	(+)	(+)	
Family ownership	FamilyOwn	(-)	(+)**	
Closely-held ownership	CloselyHeld	(-)	(+)*	

\*\*\*p<0.01, \*\*p<0.05, & \* p<0.10

## **CHAPTER VI**

### **CONCLUSION AND DISCUSSION**

Demographic board diversity has become increasingly important globally in developed and developing markets and plays an essential role in the business environment, especially in enhancing corporate governance. Companies that lag in an ever-deepening talent pool of diverse, experienced, and well-educated board members may run the risk of compromising sustainability, limiting value creation, and weakening long-run competitiveness.

Most of the studies on corporate board diversity have focused mainly on gender diversity, while there are relatively few studies on nationality, experience, educational background, tenure, and age diversity of board members, particularly in developed markets. The literature on board diversity and dividend payout is in its embryonic stage in emerging markets. The evidence suggests significant variations in the dividend-paying behavior of companies between developed and emerging markets. These variations could be attributable to several reasons, including different ownership structures, lack of satisfactory disclosure, weak corporate governance and regulations, and political instability (Aivazian et al., 2003a, 2003b; Glen et al., 1995; La Porta et al., 2000). In this frame, the association between demographic board diversity and dividend policy may play a vital role in improving corporate performance and competitiveness.

This study investigates the association between demographic board diversity and dividend policy by employing a sample of 67 non-financial firms listed on the BIST 100 Index from 2013 through 2018. For the aim of this study, the demographic board diversity implies diverse board members' attributes such as gender, nationality,

experience, educational background, tenure, and age. The dividend policy is determined by a binary variable, indicating whether a firm pays a dividend or not, and a continuous variable showing the intensity of dividend payments.

As a leading emerging country in capital markets, Turkey offers an interesting framework for analyzing the influence of demographic board diversity on dividend policy. First, the Turkish market is predominantly ownership concentrated and generally controlled by families and large institutional investors, which usually affects decision-making, including dividend policies. Second, according to Hofstede's typology, Turkish culture is highly collectivized, distinguishing it from developed markets, implying that board diversity may positively affect dividend policy. Third, Turkish companies face problems in managing financing matters due to the limited development in equity markets, which compel companies to focus more on retained earnings than paying dividends. To the best of my knowledge, this is the first study to investigate the effect of demographic board diversity on dividend payout in Turkey. The findings provide valuable insights for companies to adequately structure their boards by accommodating demographic diversity attributes among members to improve corporate governance and pay high dividends.

This study sets forth six hypotheses. The first hypothesis (H1) is not supported by a positive connection between gender diversity or female presence on the board (FemBrd) and dividend payment. This result can be attributable to an ineffective role of female directors in dividend decision-making in family-dominated firms. Another reason may be the lack of compliance of 30 percent of the critical mass of independent female directors that should be free from the influence of family controls on boards.

The second hypothesis (H2) is also not supported, indicating that nationality diversity is positive but insignificantly related to dividend payments. One likely reason is that the presence of foreign directors does not have an effective relationship with the shareholders and does not force firms to pay high dividends. Another reason may be

their low-level attendance due to geographical differences not enabling them to monitor and advise the boards actively.

The experience diversity is positive and significantly linked to the dividend policy, holding up the third hypothesis (H3). Diversity in experiences among board members is more demanding in the business environment to solve complex problems that ultimately reduce agency conflicts and increase dividend payments. A diverse board with different expertise and skills counteract the "silo thinking" in any challenging decision and assess the risk through a multidimensional approach. This may encourage paying high dividends.

Educational diversity is positive and significantly related to the dividend payments, supporting the fourth hypothesis (H4). Board members with diverse educational backgrounds may bring different ideas and help companies manage resources optimally. Diversity in educational backgrounds may also help firms analyze a more excellent range of prospects and deal with challenging issues, including dividend payments.

Tenure diversity is positive and significantly associated with the dividend payment, supporting the fifth hypothesis (H5). One likely reason is that heterogenous tenured board members create synergy in improving monitoring and advising the board due to their expertise. Consequently, it reduces agency problems and encourages firms to pay high dividends. However, the age diversity is positive but statistically insignificant in influencing the dividend payments, not supporting the sixth hypothesis (H6).

Finally, this study uses the composite measure of board diversity by combining all the diversity attributes by an index to account for the critical mass of diverse viewpoints. This index shows the cognitive diversity of corporate boards better compared to emphasizing each diversity attribute. The results indicate a positive and significant relationship between the demographic board diversity index (DBDI) and dividend policy, implying that composite board diversity positively influences the dividend

payout. One reason is that the DBDI promotes creativity, increases efficiency in problem-solving, and enhances decision-making, including dividend payments.

When we refer to the control variables, board size is statistically significant and negatively connected with the dividend policy, indicating that a large board negatively influences companies to pay dividends. One likely reason may be that large boards usually have a suitable monitoring mechanism by investing in opportunities that necessitate using internal funds. Thus, they tend to retain profit and pay low or no dividends. Firm size is positive and significant, while leverage is negative and significant in logit and probit models. Large companies distribute more dividends than small ones because, in emerging markets like Turkey, controlling shareholders have more control, where minority shareholders have a low influence in monitoring.

Consequently, the agency problem intensifies due to information asymmetry. Large companies usually pay high dividends to convey positive signals to the public. This helps companies develop a good reputation, enhancing the likelihood of access to external financing at a reasonable cost. Since large firms perform better than small ones, they usually pay higher dividends. Larger firms also possess extra resources that enable them to pay high dividends even during economic turmoil or political instability. The negative association between leverage and dividend payout could be attributed to a high dependency of Turkish companies on external financing for growth opportunities, leading them to pay a low level of dividend.

On the other hand, we find pretty interesting results for ownership structure. Institutional ownership is positive but insignificantly related to the dividend payments. One possible explanation is that institutional investors like to dampen expropriating the minority shareholders by paying high dividends, but they have limited power in enforcing such decisions due to the predominant control of families. On the other end, family ownership is positive and significantly related to dividend payments. This relationship implies that family-controlled firms distribute profits to shareholders, including minority ones, to reduce the likelihood of principal-principal conflicts through mitigating the possibilities of expropriating the wealth of minority

shareholders. One likely reason may be that in family-controlled firms, the families are more concerned for their reputation, goodwill, and long-term financial success that make them behave as stewards rather than entrenching the minority shareholders' wealth for private benefits.

The ownership concentration is positive and significantly related to the dividend payment since concentrated ownership holds sufficient voting power to drive management in influencing high dividend payments. High dividend payments mitigate agency issues because dividends substitute the monitoring function of shareholders.

### **6.1. Managerial Implications**

This study provides several insights for firms and policymakers. First, the findings confirm that the demographic board diversity strongly influences the dividend policy of Turkish companies. Therefore, the companies listed on Borsa Istanbul should structure their boards, accommodating demographic diversity among board members to improve corporate governance through effective monitoring and following sustainable dividend policies.

Second, this research may help policymakers develop regulations to accommodate the board diversity to mitigate principal-principal conflicts and improve relationships with external stakeholders to enhance competitiveness. Third, the positive but insignificant influence of gender diversity on dividend policy necessitates policymakers to increase female presence on board. Moreover, the independence of female directors in terms of decision-making should be ensured as most of the seats belong to families, colluding with the interest of controlling shareholders. Fourth, nationality diversity on boards should be encouraged to take advantage of their international experience.

Fifth, companies need to have a congenial culture that values diverse views to benefit from the benefits of demographic board diversity. In this regard, they should be careful in providing an environment that honors diverse perspectives in deciding on policies,

including dividend policy. Sixth, since families and concentrated holders predominantly own Turkish companies, they are likely to erode the positive impact of board diversity because most of the directors are linked to expropriate the rights of minority shareholders by paying low or no dividends. Therefore, it is essential for companies and controlling shareholders to facilitate developing board independence. Finally, the positive implications of board diversity increase over time as board members become more familiar with each other. This leads to the similarity in their thinking and creativity, leading to a more sustainable dividend policy for companies listed on stock exchanges.

## **6.2 Limitations and Future Research**

There are several limitations of this study. First, this study considers only non-financial companies. Future studies may consider financial, investment, and utility firms listed on Borsa Istanbul to enlarge the analysis. Second, the study focuses on cash dividends. However, dividend policy comprises other types of dividends, i.e., stock dividends and share repurchase. Future research may examine the impacts of demographic board diversity on stock dividends and share repurchase. Third, this research examines a limited number of diversity attributes. Researchers may need to analyze other board attributes such as race, ethnicity, religion, and physical abilities to extend the findings of this study. Fourth, this study uses only secondary data to investigate the impact of demographic board diversity on dividend policy. Future studies may use survey research methodology to obtain primary data from companies or investors to analyze stakeholders' perceptions regarding the board diversity and ownership structure in shaping the dividend policy in emerging countries.

Finally, this study covers only Turkish capital markets. Future research may hold cross-country analysis covering other emerging countries to create an enlarged framework and reflect the effect of different institutional and socio-economic dynamics on dividend policy.

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## Publications:

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Burki, A. K., Sadiq, A., & Burki, H. U. (2018). Financial sustainability and microfinance institutions from an emerging market. *Risk Governance and Control: Financial Markets & Institutions*, 8(4), 30-37. <http://doi.org/10.22495/rgcv8i4p4>

Burki, A. K. (2017). Monetary policy and industry performance: Empirical evidence from Karachi Stock Exchange (KSE) of Pakistan. *Research Journal of Finance and Accounting*, 07(21), 28-46.

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Burki, A. K., & Burki, H. U. (2017). A study of empirical evidence of effective internal audit in corporate governance in Pakistan. *Bahria University Journal of Management & Technology (BJMT)*, 1(1).

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Best Presentation award for the paper “*Financial sustainability and micro-finance institutes: Evidence from Pakistan*”; 2017 International Academic Conference on Business San Diego, USA; 12-16 March 2017; Conference sponsored by Clute Institute, USA

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- 2009: Awarded by *USAID Scholarship* Pakistan for MBA at Institute of Business Administration (IBA), Karachi, Pakistan
- 2005: Secured *Second Position in BA* (Economics) out of 67 affiliated institutions/colleges with Gomal University, D.I.Khan, Pakistan.
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