

**MODERATING EFFECTS OF CORPORATE GOVERNANCE ON
THE RELATIONSHIP BETWEEN FINANCIAL LEVERAGE AND
FIRM PERFORMANCE IN EMERGING ECONOMIES – A CASE
STUDY OF VIETNAMESE LISTED COMPANIES**

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CHAPTER I: INTRODUCTION

1.1 Research Background

An appropriate corporate governance mechanism may prevent a nation from encountering a crisis (Detthamrong et al., 2017). For example, in some cases, it is the use of a high level of leverage or holding much temporary obligation due to the irrelevant decisions of using debt made by the managers. Another reason may be a powerless corporate governance practice which leads to a financial crisis (Karaman et al., 2020). In fact, this situation has been happening to many enterprises all over the world. Thus, practising a firm and durable corporate governance can contribute to the effectiveness of monitoring and incentive-based arrangements, which assists managers in avoiding any harmful action to the wealth of the enterprise's owners (Al-Dhamari et al., 2018). Good corporate governance plays an essential role in diminishing not only opportunistic behaviours but also agency conflicts (Ngatno et al., 2021).

The common task of corporate governance is widely acknowledged as a procedure and technique to guide, set up plans and manage both financial and human resources in a company (Naimah and Hamidah, 2016). Principles of good corporate governance tend to be closely related to transparency, accountability, responsibility and independence (Orazalin, 2019). As a consequence, it is generally said that firm performance can be improved when corporate governance is practised correctly. Many factors in corporate governance mechanisms, such as board composition, outside directors, audit committee, and audit quality are tested in many studies. In a research by Shrivastav and Kalsie (2017), corporate governance and stock returns have a firm interrelationship which indicates that there is an increase in profitability when managers conduct effective corporate governance. In other words, an application of good corporate governance will probably strengthen a corporate's performance.

Similarly, Worokinasih and Zaini (2020) emphasized that an enterprise should draw attention to stakeholders' internal and external benefits. Because of the fact that only when a company takes into account the equilibrium of interests among stakeholders it can maximize the long-term target of firm value or firm performance (Naseem et al., 2020). In the same way, corporate governance is a type of management that clarifies the association among different kinds of parties which can influence firm performance (Ruwanti et al., 2014). Therefore, corporate governance in connection with financial problems, agency conflicts, firm performance or the need to enhance information disclosure has been an attractive research domain until now.

Corporate governance is examined from many areas, namely finance, economies, management and regulations (Ahmed and Hamdan, 2015). Accordingly, many researchers from all over the world have investigated corporate governance with its characteristics and its effect on corporate performance and capital structure, beginning in developed countries and then spreading to emerging or transitional economies.

Stemming from the principle of balancing the interests of investors and stakeholders, corporate governance is a practical approach to minimising agency conflicts (Ngatno et al., 2021). In developing nations, corporate governance consists of guidelines and rules that contribute to an organisation's success (Shleifer and Vishny, 1997). The literature also has highlighted that corporate governance strongly relates to firm performance, investor confidence and investment chances. Karaman et al. (2020) indicate that corporate governance has become the primary concern for global business, especially in Asian regions with many emerging economies.

Several studies suppose a positive association between these two factors regarding the significance of the relation between financial leverage and firm performance (Al-Rdaydeh et al., 2018). Meanwhile, other research found that financial leverage has a negative impact on corporate performance (Iqbal and Usman, 2018; Al-Rdaydeh et al., 2018). Hence, there has been disagreement on the direct association between financial leverage and firm performance. These mixed results might come from the differences in competitive advantages and business environment (Bruijl and Gerard, 2018). Essentially, using debt will be efficiently when managers are possible to pay the loan on time when agency problems are controlled, and costs for administration are reduced. Thus, financial leverage and its impact on corporate performance can be accessed in many other ways than just the straightforward relationship. Notably, in emerging economies, the dilemma between agency costs and asymmetric information becomes the central element in explaining the interaction of corporate performance and capital structure (Kumar et al., 2015).

A large and growing body of studies has a focal point on the direct correlation between leverage and performance (Abdullah and Tursoy, 2021; Dao and Ta, 2020; Ibhagui and Olokoyo, 2018). In addition, other researchers investigate the impact of corporate governance on leverage (Bulathsinalage and Pathirawasam, 2017; Kartikasari and Merianti, 2016). It is also worth noting that there is a large volume of published studies describing the function of corporate governance in firm efficiency (Singh et al., 2018; Ciftci et al., 2019; Evgeny, 2015). Therefore, the question of whether or not corporate governance has a moderating impact on the connection

between financial leverage and firm performance should be clarified carefully. Some necessary reasons are explained as follows:

First, the leverage and performance association and conflicts among agencies will directly impact profitability and firm value. Agency problems will appear when managers have the encouragement to pursue their own prosperity and advantages (Agrawal and Knoeber, 1996). The agency problem is possible to happen, especially since there are distinct interests among the managers (agents) and the owners (principals). This is obvious when managerial shareholders and concentrated ownership or blockholders exist in the capital structure of a firm.

What is more, a massive volume of research on the relationship between financial leverage and firm performance shows contradictory results. The problem is because of the uncertainty and context elements which the scale of debt financing and performance association can diversify with other moderating components (Ngatno et al., 2021; Okiro and Aduda, 2015). For many years, research on the topic of firm performance has targeted the effect of financial leverage (Awunyo-Vitor and Badu, 2012). However, they were mixed results and non-monotonic (Vithessonthi and Tongurai, 2015). When the benefits of using leverage beat cost of using debt, financial leverage undoubtedly has a constructive influence on firm performance. In contrast, Negash's (2001) research indicates an adverse effect of financial leverage on performance because of agency conflicts. Hence, the moderating effect of corporate governance should be included while judging the relation between leverage and performance.

Second, many studies have been concentrating on the straightforward relationship of corporate governance and firm performance (Nguyen et al., 2020). This assessment may not express the entire problem for the reason that corporate governance might indirectly link to performance. In reality, each institution and corporation requires a proper corporate governance structure for each decision made by the board of directors (Kweh et al., 2019), which significantly impacts the firm's performance and value (Arora and Sharma, 2016; Padmanabha and Bhatt, 2017). Hence, it is practical and valuable to test corporate governance as a moderate proxy rather than just as a direct factor.

1.2 Gap in the literature

Much of the current corporate governance literature proposes corporate governance's influence on business activities (Binh and Giang, 2012; Pham and Nguyen, 2020). According to Sharma (2013), corporate management is not a model that fits all kinds of enterprises or an accepted

standard. Corporate governance is conducted and practised in various legitimate patterns among companies and regions. The problems of corporate governance usually concentrate on both national and international degrees of the regulatory framework. In other words, corporate governance aids diagnosing issues concerning the difference between managers' impetus and firm action, which involves the durability of an enterprise (Agrawal and Knoeber, 1996; Adams et al., 2010).

In the modernized economy, the corporate governance of firms is recognized to be particularly vital. Developing countries mostly grow into a massive part of the global economy and potentially generate more rapidly than developed countries (Rankin, Ferlauto, 2018; Black et al., 2017). Emerging countries in general and Asia face diversified corporate governance practices thanks to varied cultural, economic, legal, and political features (Kumar et al., 2015). Nonetheless, in fact, the corporate governance study has chiefly been practised in advanced or developed economies. As a result, corporate governance in emerging markets is still a meaning gap in this research topic.

Financial markets and financial instruments are still not totally matured in the background of emerging economies. The financial crisis during 2007-2008 and the scandals of WorldCom and Enron were critiqued for failures of corporation management (Vu et al., 2018). Moreover, emerging markets are often known for fragile financial infrastructures and higher risks in dealing with corporate governance's challenges. It is not simple to defend investors and stakeholders as government-oriented regulatory bodies (Padmanabha and Bhatt, 2017).

Emerging markets are described with some iconic features which have the most rapid movement in the business environment. Growth rates in emerging economy contexts almost always tend to be higher than in developed nations (Borlea et al., 2017). Developing countries depend much on agriculture, which is why they are vulnerable to climate changes and economic adjustment, including currency devaluation, an increase in interest rates and inflation (Vo, 2018). However, there are many chances to develop in these emerging countries so they can attract many more foreign investors, both individuals and institutions. Additionally, regulatory organizations focus on establishing many rules, laws and guidelines, but these regulations seem not to be sufficient and strong enough to protect stockholders and investors (Liu et al., 2020). Emerging markets provide great potentiality to develop though these nations might lack advanced technology and complete infrastructure (Vo, 2018) and include potential risks of

economic crisis. Therefore, it should be noted about the conflict between executives and owners in operating business in an emerging context.

Many studies have investigated the importance of developing countries which contribute a significant proportion to the world economy. This part of the globe, with young labour forces and low costs advantages, appears to be the strong push for economic growth worldwide (Liu et al., 2020). In the upcoming years, it is forecasted that one of the largest developing nations like China, could be the leader of the global economy. This estimation emphasizes the essential role of emerging markets which increases the confidence of investors bringing much more commercial amount (Kumar et al., 2015). In the long-term, emerging markets are able to benefit venture capitalists, stockholders and other stakeholders with higher profitability and a greater level of return.

Likewise, enterprises in developing nations indicate a fragile debt ratio. In detail, on average, financial leverage for developing economies appears higher than advanced economies by cause of the accelerated credit boom since the financial turmoil. However, the impact of monetary policy on emerging economies is sometimes inconsistent with corporate profits and market values, causing some cash-flow problems. Thus, pursuing optimum financial leverage, efficient capital allocation, and enhancing corporate performance are important facets of corporate governance in developing markets.

An ideal experimental setting for this study is Vietnam. Over the past two decades, this country has witnessed rapid economic growth, urbanization and remarkable development (World Bank, 2021). With only two corporations listed on the stock market in 2000, until now, there are over seven hundred listed firms (World Bank, 2020). Nonetheless, Vietnam has been and still is in the process of economic transformation and development (Do and Phan, 2022). Vietnamese financial market has not yet been fully developed and the country face many challenges, such as bad debts, corruption and the need of sufficient capital and technology assurance (Knutsen and Do, 2020). It is also found that businesses in Vietnam are more likely to borrow short term loans from banks as their main funding source and the level of long term debt utilisation of Vietnamese firms is quite low, contrasting with other developing markets such as Thailand and Malaysia (Do and Phan, 2022). Another reason for this phenomenon found in a study by Luu and Nguyen (2021) is that the ratio of bank credit provided to private sector to GDP from World Bank Indicator (2019) is rather high compared to the world's average, which are 137.91% and 54.77% respectively. In addition, Vietnam's regulatory environment is weaker compared to

other developed countries until 2005, where corporate governance reforms were introduced for the first time and amended in 2014 (Phung and Hoang, 2013). Accordingly, there has not been much attention and studies on the dynamic relationship between corporate governance - leverage and the performance of listed companies in Vietnam. Currently, the research trend concentrates on leverage and corporate governance (Nguyen et al., 2021); or firm performance and corporate governance (Pham and Nguyen, 2020). As a result, this proposal intends to contribute to the current literature on corporate governance in emerging economies, specifically in Vietnam.

1.3 Scope of Research

Corporate governance' moderating effects on the association between leverage and corporate performance in Vietnam are examined in this study. The research data will be collected from non-financial companies, which are listed on two Vietnamese stock exchanges: The Hanoi Stock Exchange (HNX) and the Ho Chi Minh Stock Exchange (HOSE). HOSE and HNX are the two leading stock exchanges in Vietnam. To some extent, the current data set focuses on listed firms that may have influenced the generalization study. In order to measure the firm performance, Tobin's Q, ROA and ROE are commonly used. From the literature review, many corporate governance factors such as board size, board independence, gender, duality, and ownership concentration have been explored. Considering the differences in regulations and economic developments, this study aims to highlight dynamic governance in Vietnam - a typical emerging economy in Southeast Asia. Several variances are selected and analysed in the literature; combining this set of factors in an emerging context offers an exclusive perspective on this research topic.

1.4 Research Aims and Objectives

There are significant discrepancies in accounting requirements, higher volatility, information efficiency, and less efficient stock trading in developing countries in comparison with developed countries (Esqueda and O'Connor, 2020). Therefore, corporate governance's impacts on the association between firm performance and financial leverage in developing countries generates typically mixed results. Since most studies have been carried out in advanced economies, this research aims to contribute to the literature on corporate performance and financial leverage under the moderating effect of corporate governance in developing markets, such as Vietnam.

In particular, the objective of this study is to examine corporate governance's moderating effects on the association between firm performance and financial leverage in developing countries, more particularly firms listed on Vietnamese stock exchanges. After delicate consideration and the reality of Vietnam's business information, ROA is used to measure firm performance. Corporate governance variables being examined in this research mainly include board independence and ownership concentration, which can show Vietnamese companies' corporate governance characteristics.

1.5 Research Questions

The direct impact of corporate governance is often considered in many academic papers and studies. This study tries to explore corporate governance's moderating impact on the association between firm performance and financial leverage. The characteristics of Vietnamese-listed firms also are clarified. This proposal intends to consider the three major questions, which hopes to bridge the research gap in corporate governance:

1. How does financial leverage influence firms' performance of Vietnamese listed companies?
2. How does board of directors' independence moderate the relationship between financial leverage and performance of listed firms in Vietnam?
3. How does the concentration of ownership moderate the relationship between capital structure and corporate performance of listed companies in Vietnam?

1.6 Research Contributions

In economic studies, corporate management and its influence on corporate performance is a popular research topic as many studies have examined and clarified the association between these factors (Ibhagui and Olokoyo, 2018). However, this type of research is done mainly in developed countries but is still limited in developing markets such as Vietnam. In fact, emerging and advanced economies cannot be at the same level when facing similar economic challenges. Thus, this work will have a significant contribution to the discipline of corporate governance in emerging economies.

This proposal aims to provide a basic theoretical framework for firm performance and financial leverage, with moderation effects of corporate governance, in non-financial firms in developing economies. This contains links to an all-inclusive body of knowledge associated with corporate

governance, namely agency theory, stakeholder theory and other theories such as transaction cost economics, business ethics theory, political approach, and social contract theory.

In addition, the moderate effects and usual effects of financial leverage of corporate governance on corporate performance through the process of introducing and testing hypotheses would diagnose this matter from an empirical perspective. The results would offer a more thorough understanding of corporate governance systems' knowledge in developing economies and a better perception of emerging markets' features.

The empirical results can also offer essential recommendations for policy implications for government and regulatory bodies. Consequently, managers in enterprises can carry out corporate governance practices more effectively. As a moderating factor, the influence of corporate governance could help the government and regulatory agencies step by step to establish a set of corporate governance rules in Vietnam.

To the author's best knowledge, very few academic work has been able to use Tobin's Q to measure performance in emerging markets due to the absence and insufficiency of data related to corporate market value. The experimental results of Vietnam can also provide valuable lessons for Southeast Asia's financial markets, which offers remarkable opportunities for expansion and application in future research.

1.7 Research Methodology

This proposal currently uses the dataset of 130 listed non-financial companies in Vietnam for seven years, from 2013-2019. Since 2013, there have been significant changes in accounting policies and regulatory guidelines that require most companies to adapt to new regulations related to information disclosure. Before 2013, data availability was limited, with plenty of missing value. Besides, the data for financial years 2020 and 2021 cannot be updated at the moment due to the Covid-19 pandemic, which created a delay in disclosing financial data. Therefore, a more extended period of data will be concluded in the following research to be able to represent the whole picture of listed companies on the Vietnamese Stock Exchanges.

The current panel data will apply a multiple regression approach in order to find the association among variables. This study excludes financial institutions and organizations such as insurance companies and banks because of their unique nature and characteristics in their operational

process. Furthermore, in a developing economy like Vietnam, the financial firms must adhere to specific policies to maintain their economic role in regulating the economy.

1.8 Structure

This proposal is structured with the first chapter of the literature review. In the second section, the theoretical background and hypotheses development are presented. Subsequently, research methodologies are shown in Chapter 3 and the results in Chapter 4 respectively. In Chapter 5 and Chapter 6, the results are discussed and conclusions are drawn.

CHAPTER II: LITERATURE REVIEW & HYPOTHESES

2.1 Firm's leverage and its effect on firm performance

2.1.1 Some features of firms using capital structure

The term capital structure, an essential facet of firm characteristics, is utilized widely in corporate finance (Alabdullah et al., 2018). According to Ngatno et al. (2021), the choice between internal or external sources of financing could generate different kinds of severe problems in a company. The relationship between capital structure and firm performance still attracts many researchers' interests. The conception of capital structure is different in many contexts and factors (Ngatno et al., 2021). In general, capital structure is an accepted approach that most companies consider using to develop their businesses.

Due to the fact that this relation provides the mixed outcome in corporate finance and financial leverage literature, theories explained capital structure seem to be unsuccessful in demonstrating the most favourable debt-to-equity ratio for big corporations (Mule and Mukras, 2015). Accordingly, the capital structure turns out to be a vital matter for both large and small enterprises.

Financial leverage can be explained mainly by trade-off theory, Modigliani and Miller (MM) theory, and pecking order theory (Mule and Mukras, 2015; Ngatno et al., 2021; Modigliani and Miller, 1963). From the trade-off theory, financial leverage mentions the presence of optimal capital structure based on the presumption of market efficiency and symmetric information (Dierker et al., 2019). Thus, the increase in leverage drives the growth in firm performance thanks to the tax reduction on debt (Oktavina et al., 2018). On the other hand, in some cases, using too much financial leverage can also bring serious economic costs, which have an adverse impact on firm performance (Abeywardhana, 2017). Therefore, the optimal financial structure might be achieved when there is a balance between the costs and benefits of using debt. In trade-off theory, the market value of a firm is calculated by the total of company value without debt and tax shield, then minus the expenses of bankruptcy.

It is believed that Modigliani and Miller is the most crucial theory for capital structure (Ngatno et al., 2021). The main content of this theory concerns the effect of capital structure on a firm's market value. In the same vein, Sibarani et al. (2020) indicate that a tax shield is a valuable source to compensate for losses from debt. From a literature perspective, it is not simple and straightforward for a company to obtain an optimal debt-to-equity ratio. In the long run, the

quality of management could significantly affect the profitability and firm value (Ezirim et al., 2017).

Moving on to consider the pecking order theory, the assumptions of this theory tend to explain the reason why internal financial resources are much more preferred than external finances (Myers and Majluf, 1984; Evgeny, 2015). The information asymmetry requires companies to set up rules and guidelines for financial leverage priority, which shows the ability of managers' ability to control expenditure (Wiagustini et al., 2017). Based on this theory, debt will be chosen if its costs are reasonable and flexible. Therefore, Ariyani et al. (2018) imply that the pecking order theory can well interpret managers' decisions in funding a company. A standard classification for funds should be internal sources, loans, then equity (Ngatno et al., 2021). Financing a company using internal resources is recommended in the interest of increasing the autonomy of corporate finance and diminishing the leakage of confidential information.

To sum up, capital structure is the use of debt and equity in a company's business operation (Abeywardhana, 2017). Using debt can alter the profits and losses of enterprises. The agency problem and agency costs should be considered more comprehensive in the relation between capital structure and firm performance.

2.1.2 Measurements of firm performance

A considerable amount of literature has been published on firm performance. There is quite a wide range of indicators which are possible to measure firm performance. Generally, these indicators are relevant and fundamental for evaluating the efficiency of a company (Kakanda et al., 2017). The measurements of firm performance can be classified into two main streams, including accounting-based measures and market-based measures. Return on assets (ROA), Return on Equity (ROE), Return on Investment (ROI), and Earning per Share (EPS) are popular ways to measure performance which depends on the accounting information or financial statements of enterprises. Return on assets (ROA) explains how a company generates income from using its assets which demonstrates how much earnings are gained from each unit of assets (Taouab and Issor, 2019). Return on Equity (ROE) is another way to measure a firm's financial performance (Naseem et al., 2020b). This ratio between net income and shareholders' equity illustrates the usage of equity finance to produce profit (Buallay et al., 2017). Financial performance discloses the productivity in managing a company's financial resources as well as financial health (Ngatno et al., 2021). Financial performance plays a fundamental role in

investigating this relationship in the research topic of firm performance and corporate governance, particularly in emerging markets.

Regarding market-based measures, Tobin's Q represents the assets' market value ratio and the replacement amount (Tobin, 1956; Singh et al., 2018). Ayako et al. (2015) suggested that Tobin's Q seems more helpful thanks to the consideration of systematic risk or tax regulations. In addition, Tobin's Q does not depend on accounting income. In other words, Tobin's Q is the better proxy to demonstrate a business's performance, especially in developed countries, because of the current availability of information.

2.1.3 Firm leverage and its impact on performance

2.1.3.1 The role of leverage to firm performance

The literature on leverage has highlighted that financing sources can be categorized into two groups: internal financing sources, including reserves and retained earnings, and external financing, which covers long-term loans, bonds, and stock issuance (Iqbal and Usman, 2018). A firm's capital structure is the composition or structure of its liabilities. Debt carries a fixed obligation of interest payment. Thus, financial leverage increases as the fixed financial expenses of firm growth, that is, interest expenses increase as a higher amount of debt is incurred. Financial leverage is a standard financial tool to enhance the rate of return and firm value. However, financial leverage can also generate financial risk for the company, mainly when a highly levered firm is unable to make a reasonable rate of return, not be able to meet its interest obligations, and cover other expenses of the firm. In short, financial leverage is the way of using debt as a corporation financing in a firm's capital structure.

Financial leverage seems to be a proper way to extend business operation (Al-Slehat et al., 2020) though there are capital costs as interest on loans. The motivation of a company to use debt is not the same among firms. Financial leverage could help a company to obtain assets and enhance share value (Ibhagui and Olokoyo, 2018). However, in some cases, managers can use debts as a way to improve their own interests, which might harm firm performance. In other words, it is worth noting that financial leverage has both positive and negative impacts on firm performance. Basically, using debt benefits business operations when that amount of debt could create a greater amount of profit than the capital costs. In addition, a balanced proportion between debt and equity also contributes to firm performance (Vithessonthi and Tongurai, 2015). It is clear that financial leverage brings many advantages to an enterprise, including the

possibility to scale-up investment and a chance to minimize financial costs. There are a number of vital disadvantages of utilizing financial leverage, namely, the misuse of financial leverage obviously risks the existence of a company or the burden of financial losses will affect business operation (Al-ahdal et al., 2020). Therefore, it is necessary to consider the function of leverage in the capital structure of a firm (Bulathsinalage and Pathirawasam, 2017). A deep understanding of managers about financial leverage can support executives to make good investment and financial judgment, have a proper vision to estimate the financial risks and also optimize the prosperity of stakeholders (Mule and Mukras, 2015). Financial leverage is frequently used in organizations on account of tax shield (Fernando et al., 2021), which offers a reasonable approach to reducing capital costs. Nonetheless, using debt should be rooted in the demand of enterprises, the features of each industry and, more importantly, the companies' policy and management. Hence, the role and relationship between financial leverage and corporate performance always attract the interest of researchers in this domain. The variety in corporate governance and institutional context in emerging markets, where financial regulations and policies are not stable and comprehensive, will significantly modify the impact of financial leverage's utilization.

2.1.3.2 Theories related to financial leverage

Modigliani and Miller's theory has been considered the milestone theory related to business finance. Before Modigliani and Miller, there was no commonly recognized theory of capital structure (Abeywardhana, 2017). The Modigliani and Miller theory assumed that each company has its own set of cash flow structures. The cash flows will be divided among investors and stakeholders when a proportion of debt and equity is selected to finance the firm's assets. Investors can construct or eliminate any leverage. Therefore, in some cases, the leverage of the firm does not affect the market value of the firm (Baker and Wurgler, 2002). In other words, Modigliani and Miller's theory is not consistently relevant due to the development of knowledge in the capital structure field.

The research of Myers and Majluf (1984) commenced firstly with the Static trade-off theory and then the Pecking Order theory. The Static trade-off theory partly explains which elements determine the company's choice of leverage, including the effective marginal tax rate, tangibility, investment flexibility, or profitability. Meanwhile, the Pecking Order theory indicates that when the internal flows of cash are not capable of funding capital expenses, borrowing money will be a better choice than issuing equity (Abel, 2018). Therefore, the

Pecking Order theory provides not only the theoretical model but also a method for firms to finance themselves. When a firm uses financial leverage, there is a general thinking that higher financial leverage will increase the risk of bankruptcy (Kajola, 2008). Thus, an appropriate debt over equity ratio can increase the market value of a firm and minimize the cost of financing.

In addition, to measure the trade-off between the benefits and costs of using debt (Negash, 2001), the trade-off theory focuses on the equilibrium of tax-saving from debt, the reduction of agent cost, risk of bankruptcy, and financial distress costs (Nguyen et al., 2020). The relationship between financial leverage and firm performance shows mixed results. From an empirical perspective, leverage and firm performance relation shows a diverse outcome. This problem might stem from the differences in performance measures and also from other components like corporate governance.

On the one hand, a greater degree of financial leverage can magnify gains and increase the benefits to shareholders (Adenugba et al., 2016). In this case, the advantages of using financial leverage might involve the deduction of tax from debt and a fixed return to creditors. Similarly, according to Dangi and Zechner (2020) and Pradhan and Parajuli (2017), a high financial leverage ratio leads to a more efficient profit ratio. When the business environment is transparent and information is not asymmetric, debt seems to be a valuable signal of firm performance. Another explanation is the increase in leverage will decrease the agency costs, which links to better firm performance (Evgeny, 2015). However, in emerging economies, the leverage ratio should be kept under control due to the higher capital costs compared to other markets.

On the other hand, a negative relationship between financial leverage and firm performance can be found in the research of Adenugba et al. (2016). As the result of greater financial risk and higher interest rates, a high debt ratio brings out financial limitations. In the same vein, other studies mentioned the adverse connection between financial leverage and firm performance (Evgeny, 2015). This result reinforces the viewpoint that a firm with a too high leverage ratio or uncontrollable debt will affect firm performance negatively. Likewise, Nguyen and Nguyen (2012) found that a higher debt ratio will negatively impact firm value.

In the relationship between financial leverage and firm performance, it is necessary to consider the differences between developed and developing countries. Various economic factors might

affect firm performance differently (Adenugba et al., 2016). Emerging nations such as Vietnam have unique characteristics, namely market heterogeneity, sociopolitical governance, a chronic shortage of resources, unbranded competition, and inadequate infrastructure (Kumar et al., 2015), which differentiate them from developed countries. In the context of Vietnam, capital access is one concern (Bui, 2020) due to the high financial cost (Nguyen et al., 2019). Furthermore, the typical characteristics of the Vietnamese economy are rapid growth and an immature legal system (Pham and Nguyen, 2020). The capital market has improved significantly, although there are still issues with liquidity and interest rate (Nguyen et al., 2020). Therefore, this study proposes the first hypothesis as follows:

H1: Financial leverage negatively affects the firm performance of listed companies in Vietnam.

2.2 The impacts of corporate governance on the nexus of financial leverage and firm performance

2.2.1 Theoretical framework of corporate governance

Corporate governance has become a great matter for companies from all over the world, especially after the failure of many big multinational enterprises (Li and Faff, 2019). The effectiveness of the application of corporate governance in business operations varies from firm to firm and from nation to nation (Ngatno et al., 2021). To some extent, it is reasonable that there is no consensus on corporate governance definition. The research of Nour et al. (2020) emphasizes the role of many stakeholders, including shareholders, investors, suppliers, managers and even society, communities which creates diversity in the definition of corporate governance. In addition, an equilibrium of financial and social targets is needed in defining corporate governance (Belcher, 2002), which determines the responsibility of managers in handling companies' financial resources efficiently.

Another significant aspect of the corporate governance definition considered by Bulathsinalage and Pathirawasam (2017) is the requirement of the protection of stakeholders' interests and sufficient creation of shareholders valuation. Similarly, corporate governance is the term that is related to a group of purposes and plans designed for directors or executives so that the companies can obtain the expected return on their investing.

The Organization for Economic Cooperation and Development (OECD) pointed out that the most generally recognized terminology of corporate governance refers to a specific approach to conducting and controlling a firm. Although there is dissimilarity between companies and

nations, corporate governance is a mechanism to identify the allocation of authorities and duties among internal managers and outside stakeholders (OECD Principles, 1999). Many affairs and problems happen day after day in a firm's business operation; hence the underlying objective of corporate governance is to offer a proper schedule to attain firm performance (Hakimah et al., 2019). It is noted that principle-agent conflict can be reduced significantly through applying corporate governance practices (Ducassy and Guyot, 2017).

In brief, it has been shown from this overview that corporate governance is a key matter in the relationship between managers as controllers and shareholders as owners. Corporate governance is also a way to optimize firm value and create the most significant benefit for shareholders. The combination of mechanisms and practices from both inside and outside groups establishes a fundamental framework for enterprises to reach their targets (Aspan, 2017). Board composition, board independence and ownership structure or ownership concentration are vital internal mechanisms since there are executives and non-executive members who function differently in a board of directors and adequately control the management (Basco et al., 2019). In the same vein, ownership concentration is a remarkable feature of corporate governance that should be reviewed thoroughly. Due to the fact that the centralization of capital resources tends to make use of the voting rights to affect the company's management. These corporate governance features will be considered in the following sections.

A considerable amount of literature has been published on corporate governance theories. These studies introduce a wide range of theories, namely agency theory, stakeholder theory, stewardship theory, resource dependency theory, transaction cost theory and political theory (Susanti et al., 2019). Corporate governance has been broadly examined, which is supported by many ideas (Singh et al., 2018b). Each theory can explain a specific facet of the corporate governance concept, which is why combining these theories can better clarify the beneficial, sustainable impacts of corporate governance practices (Claessens and Fan, 2002). Corporate governance often faces some significant issues, for example, agency problems which are disparities between principals and agents, and stakeholders issues like how to protect investors' interests. In the development of corporate governance, factors including ethics, information asymmetry, and market risks enhance the necessity of a comprehensive understanding of corporate governance (Uribe-Bohorquez et al., 2018). The demand for attaining effective corporate governance is fundamental, therefore understanding corporate governance theories will provide the baseline to pursue transparency and accountability in business operation (Ciftci

et al., 2019b). From the viewpoint of the literature review, a single theory or concept cannot clearly explain corporate governance. Therefore, in this research, corporate governance theories are divided into two groups: the first group considers corporate governance from the shareholders' viewpoint, and the remaining group assesses this concept from the stakeholders' perspective. In fact, each theory has its own strength and limitations. Hence, grouping and combining would be the better way to deeply understand corporate governance (Young et al., 2008).

2.2.1.1 Agency theory – Theory from shareholders' view

Agency theory is rooted in economic theories and was developed by Jensen and Meckling in 1976. Agency theory mainly concerns the association between agents (company executives) and principals (owners). Notably, it presents the relationship between the management system and ownership (Panda and Leepsa, 2017; Zogning, 2017; Shi et al., 2017; Vitolla et al., 2020). The principal-agent problem arises when managers and owners are not on the same side in a company (Cvitanić et al., 2018; Ma and Rubin, 2019). Due to a mismatch between shareholder and agent expectations, the agent may act and make decisions that are contrary to the principal's interests (Burlea and Remmé, 2017).

Based on the research of Agrawal and Knoeber (1996) and Mule and Mukras (2015), companies are pictured as relationships of contracts involving many individual factors of production. From this standpoint, executives in general and the board of administrators primarily function as supervisory tools. An extensive and increasing number of corporate governance literatures have concentrated on the separation of principals and agents, producing principal-agent or agency problems (Kaal, 2021; Zardkoohi et al., 2017). An increase in agency costs is caused by the agency problem (Jadiyappa et al., 2019). In this instance, the chief executive officer is an advisory and decision-making tool to alleviate agency problems through the mechanisms of corporate governance.

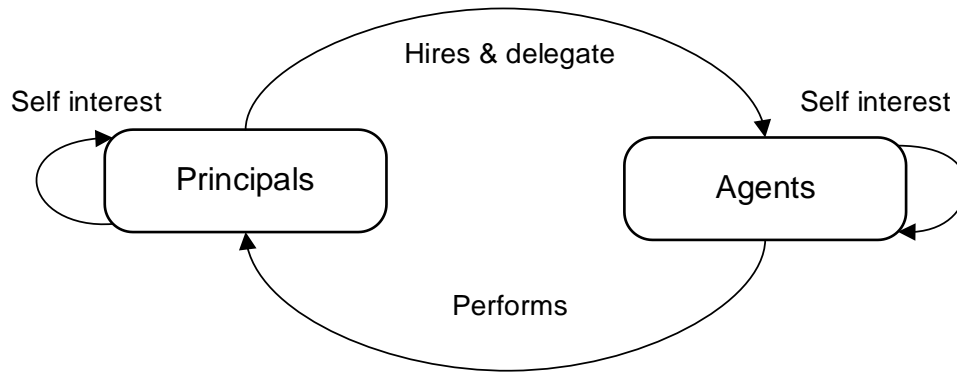


Figure 2.1. A framework of agency theory based on Abdullah and Valentine's (2006) study

On the agency issue, the agency costs arise from different interests and purposes between agents and principals (Jensen and Meckling, 1998; Aktas et al., 2019). Agency costs are unavoidable because there are conflicts of interest between agents and shareholders (Panda and Leepsa, 2017; Massis et al., 2018). Further issues about agency theory are that it is primarily aimed at chief managers and influential shareholders and is not focused on the business environment or customers. Therefore, the complete authority of corporations would be a precious explanation for the issue of the agency.

2.2.1.2 Theories from stakeholders' view

From the perspective of related parties, business management can be interpreted from both stakeholder and stewardship theories. First, stewardship theory is needed to show the common characteristics of managers (Davis et al., 1997), which is helpful in clarifying the integration of interests within managers and principals. Stewardship theory provides relative support to agency theory (Davis et al., 2018).

Rooted in psychology and sociology, stewardship theory claims a different management style in which the board tends to act in the principal's best interests (Davis et al., 1997; Keay, 2017; Chrisman, 2019). In the role of managers and corporate executives, the managers push themselves to achieve the principal's goals (Davis et al., 2018). Another interpretation of stewardship theory is that managers tend to favour the organization and the collective rather than individualism and self-serving, which speculates a strong relation between manager satisfaction and the corporation's wealth. Stewardship theory assumes that managers seek not only financial but other goals (Torfining and Bentzen, 2020). In short, a company can enhance its overall strength by combining agency theory with stewardship theory, in which the bonds among managers and owners are adaptable and trusted. As a result, a company's operational

efficiency will be improved in a sustainable way. Regarding the stakeholder theory, numerous forms of this theory have been used since industrialism. Pirozzi (2019) discovered that stakeholders consist of persons or parties affecting or being affected by the action and performance of a firm. The stakeholder theory emphasises the relationship between stakeholders in a business (Davis et al., 1997; Chrisman, 2019), which requires a firm's accountability for expansive participants than just the stockholders.

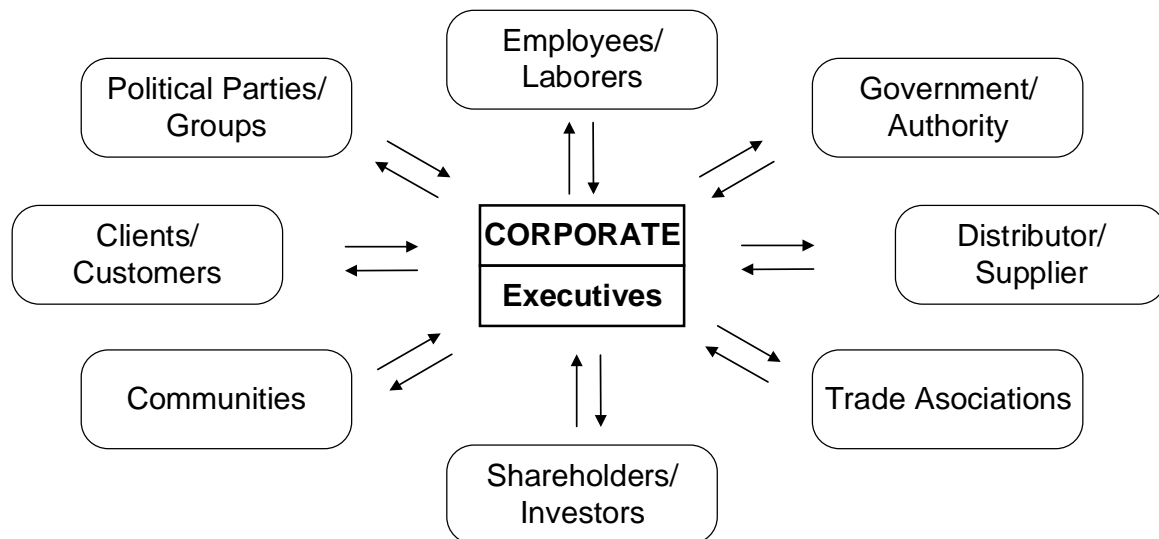


Figure 2.2. Model of the stakeholder theory developed from the research of Miles (2017)

There are two major groups of stakeholders, including internal and external (Kim and Scheller-Wolf, 2019). Stocker et al. (2020) state that stakeholders are divided into three types: consubstantial, contractual, and contextual. Consubstantial stakeholders, such as shareholders, investors, partners, and staff members, play a crucial role in business operation.

2.2.2 The moderating effect of corporate governance on the relationship between leverage and firm performance

Corporate governance has been a traditional research topic in advanced nations (Al-Gamrh et al., 2018). However, quite a few aspects in developing countries that have not been explored due to the distinction in social circumstances, financial rules and business conditions (Taouab and Issor, 2019). Besides, the association between business performance and financial structure has been proved to be vital to business management (Neneh and Van, 2017).

There is some evidence that corporate governance positively influences financial leverage and the efficiency of corporate operation. Several studies support this opinion, namely Ruwanti et al., 2019; Bhatt and Bhatt, 2017; and Kyere and Ausloos, 2021, which indicate the advantages

of pursuing an equal and stable debt-equity structure. In other words, a high level of performance depends substantially on the proper pattern of using financial leverage. In contrast, poor corporate governance practices are associated with higher debt ratios, higher agency costs, and underperformance due to information asymmetry.

Furthermore, as a core factor of corporate governance, board composition and board independence significantly contribute to a company's performance. From the viewpoint of agency theory, managers have a tendency to devote their knowledge and capacity to increase value for shareholders (Hogarth et al., 2018). Likewise, the integration of financial leverage and corporate governance plays an essential function in improving shareholders' resources (Detthamrong et al., 2017). The transparency disclosure and good corporate governance practices can assist the corporation in tackling problems related to capital access as well as reinforcing the effectiveness of firm performance (Okiro and Aduda, 2015). The degree of independence of the board of directors is an acceptable way to diminish agency costs (Baysinger and Butler, 2019).

As previously discussed, reliable corporate governance leads to the improvement of management and efficiency of enterprises' operations (Tang and Chang, 2015), which managers are able to expect for better capital flows in coming years. Nevertheless, the empirical evidence concerning corporate governance and the relation between firm performance and capital structure turns out to be variable. When there is a deduction of agency costs, then corporate governance practices improve firm performance (Danoshana and Ravivathani, 2019; Ciftci et al., 2019) and vice versa.

A financial structure can be interpreted as an instrument of corporate governance (Kieschnick and Moussawi, 2018; Zaid et al., 2020). The change in debt and equity will alter the amount of taxes and affect management activity, influencing firm performance. Financial leverage is believed to be a moderate governance structure. Evidence shows that enterprise performance depends on corporate governance and capital systems (Ibhagui and Olokoyo, 2018).

Corporate governance is asserted to affect financial leverage and firm performance in many ways. Board structure and ownership structure, such as ownership concentration, state ownership, and family business, are the primary facets of corporate governance affecting both accounting and non-accounting performance measures (Nuryanah, 2015). Audit committee, audit reputation, board accountability, transparency, and disclosure level are other corporate

governance elements that significantly affect firm performance. Board independence and its depth of intellectual knowledge aid the decision-making process and improve performance (Arora and Sharma, 2016).

In the same way, exploring the influence of corporate governance on an enterprise's operation, Padmanabha and Bhatt (2017) realize that internal control assists in forming an excellent corporate governance code since the application of corporate governance code prevents firms from not complying with regulations and enhancing performance. Additionally, firm-specific characteristics like business strategy, industry structure, firm size, firm age, and gender diversity could effectively contribute to firm performance (Shahwan, 2015). Besides, accepted risk levels in crisis and non-crisis times should be considered carefully concerning firm performance (Al-Gamrh et al., 2018).

Corporate governance is acknowledged as the foremost vital implication for corporations to attain market confidence, appeal for capital funding, minimize market threats, and progress corporate performance (Shad et al., 2019). Corporate governance provides guidance for firm executives to construct the optimal leverage and mitigate agency costs (Tripathy and Shaik, 2020), resulting in more outstanding accounting and market performance. It is worth noting that financial leverage and firm performance can positively affect corporate governance when leverage is a tool for management and helps reduce agency costs. Nonetheless, high indebtedness negatively impacts performance due to the firm's financial limitations and stress (Evgeny, 2015). Firms in developing regions are strongly recommended to implement good corporate governance practices (Arora and Sharma, 2016). It might be said that board independence and ownership concentration are the two important facets of corporate governance that are closely linked to corporate performance and financial leverage (Buertey et al., 2020).

In summary, based on theories of corporate governance, this literature review constructs a fundamental framework to explain the critical position of corporate governance in financial leverage and corporate performance. It has been shown from this review that corporate governance is a vital issue, especially in emerging economies. Last but not least, financial leverage is a threshold variable, which means that leverage increases firm performance up to a point when performance starts to decline. Therefore, the moderate impacts of corporate governance on the financial leverage - firm performance nexus varies from case to case and is supposed to be a valuable resource.

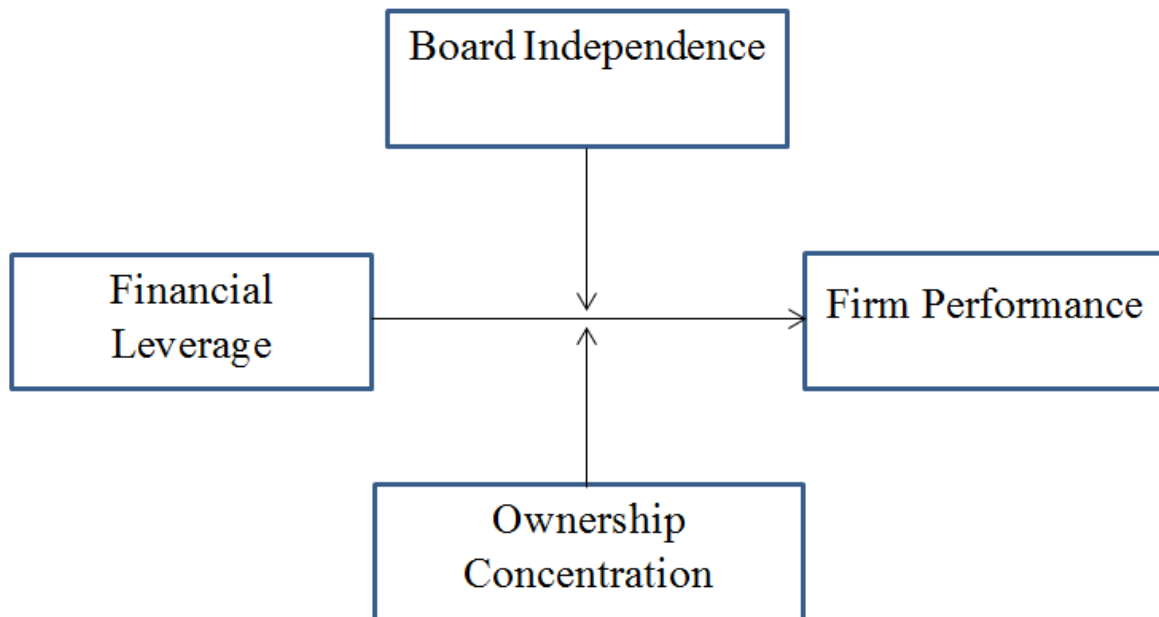


Figure 2.3. The relation between board independence and ownership concentration on leverage and performance in this research

The following sections will look deep into the impact of board independence and ownership concentration on firm performance.

2.2.2.1 Board independence and its moderating effect on financial leverage and firm performance relation

In this section, the impact of board independence on financial leverage and firm performance nexus will be considered comprehensively. Board independence can be marked as a suitable mechanism of corporate governance (Kyerem and Ausloos, 2021), thanks to the decrease in conflicts among principals and executives. Indeed, independent directors seem to have no critical interests in the company to inspire and affect shareholder benefits. Thus, the actions and decisions of independent board members are vital in balancing the interests of shareholders and managers (Ntim, 2018).

Besides, board independence is supported in many good corporate governance codes, for example, the Australian Stock Exchange and UK corporate governance codes (Aspan, 2017; Ekasari and Noegroho, 2020). The moderating impact of board independence on the financial leverage and firm performance relationship has shown meaningful and affirmative results (Pham and Nguyen, 2020). Board independence also weakens the possibilities of diverse interests, which creates chances for opportunistic behaviours (Uribe-Bohorquez et al., 2018).

Moreover, board independence promotes stockholders' welfare protection as a consequence of the mitigation of agency problems (Buerthey et al., 2020).

The previous research has reported the positive effects of board independence (Mullins and Holmes, 2018; Tulung and Ramdani, 2018) on the nexus of capital structure and corporate governance and suggested a balanced mixture of executive and non-executive administrators will bring many advantages to companies. Regarding corporate debt policy, independent directors help to solve agency problems and then decrease the problem of free cash flow and cost of equity capital (Ngatno et al., 2021).

Last but not least, better corporate governance can bring many possibilities for firms to obtain accessible sources of external funds. On the other hand, debt can be taken advantage of by companies with poor corporate governance to keep ownership rights and control (Martins et al., 2017). With a more independent board of directors and various expertise and experience, a company will probably approach a broader range of financial resources to generate better performance. Therefore, this research would like to test the following hypothesis:

H2: Board independence positively moderates the relationship between financial leverage and firm performance of listed companies in Vietnam.

2.2.2.2 The moderating effect of ownership concentration

Shahrier et al. (2020) explain ownership concentration as the total proportion of ownership that is held by big shareholders who might be a single possessor or institutional owner. Ownership structures in general and ownership concentration are the influential aspects of corporate governance practices (Alnabsha et al., 2018; Gerged, 2021). More recent attention has been concerned with the effect of ownership structures on corporate performance. Ownership concentration helps reduce information asymmetries and agency matters related to the disconnection of proprietorship and control (Altaf and Shah, 2018), leading to improved performance. In emerging countries, where external corporate governance is still underdeveloped, ownership concentration turns out to be an important corporate governance mechanism.

As mentioned in agency theory, the conflict of principals and agents induces asymmetry of information which produces a foundation for private interests (Carvalho et al., 2017). Corporate transparency and accountability can only attain when there is proper diverse ownership among stakeholders (Cremers, 2017). Nonetheless, block ownership might create higher risks

(Buertey et al., 2020). In Vietnam, based on the Enterprise Law 2005, major or large ownerships are those who hold at least 5% of a company's shares.

From a literature review perspective, ownership concentration, capital structure and firm performance demonstrate a negative association (Ngatno et al., 2021), primarily due to problem of information asymmetry. In some cases, block ownership increases long-term debt, resulting in inadequate performance (Githaigo and Kabiru, 2015). Therefore, the following hypothesis is proposed below:

H3: Ownership concentration negatively moderates the relationship between financial leverage and firm performance of listed companies in Vietnam.

CHAPTER III: RESEARCH METHODOLOGY

3.1 Research Sample

The sample of this study consists of 130 non-financial companies listed on Ho Chi Minh Stock Exchange (HOSE) and Ha Noi Stock Exchange (HNX) from 2013-2019, creating a panel data of over 910 firm-year observations. These companies are from a wide range of industries, including basic materials, heavy sectors, customer services, technology, etc. For the reason of the peculiar economic features and business operations, the companies in the finance as well as insurance domains, are not included in the dataset of this study. The sampling strategy significantly depends on the purpose of this research, which covers all non-financial companies. The dataset is structured as panel data, combining time series and cross-sectional data.

3.2 Research Strategy

This proposal exploits the dataset from listed non-financial companies in Vietnam from 2013-2019. Financial institutions, banks, insurance companies, or mutual funds are omitted in this study due to the differences in features and operation processes compared to non-financial enterprises. Multiple regression analyses should be used to analyse this panel data. The Ordinary Least Square (OLS), Random Effect Model (REM) and Fixed Effect Model (FEM) are adopted sequentially to test the relationship among variables in research models.

3.3 Data Collection

The study will use mainly secondary data and a quantitative approach. Data of the sample companies will be collected from annual reports, financial statements, and companies' websites at the end of each year from 2013 to 2019. Due to the fact that before 2013, there were not adequate requirements for financial disclosure for listed companies in Vietnam's Stock Exchanges, leading to many missing values. The two years 2020 and 2021 are the peak of the Covid-19 pandemic. To cope with this situation, the Vietnamese government has issued several solutions like permitting companies to delay their financial disclosure and tax deduction. Therefore, the dataset can only cover the 2013-2019 periods in this proposal. The data for the year 2020 and 2021 should be considered in future research. The following research should consider the data extension carefully for a more comprehensive examination and results. The data collection process is carried chiefly out by hand, company by company.

3.4 Research methodology and econometrical model

The quantitative approach is the central methodology used in this proposal. This technique tends to measure data and generalize the outcome of the targeted data sample, which is consistent with the majority of previous research related to the financial leverage – firm performance – corporate governance network (Shahrier et al., 2020; Abdallah and Ismail, 2017; Nguyen et al., 2020; Bhatt and Bhatt, 2017).

The corporate governance-leverage-performance relation in this study is represented in Figure 3.1 as below.

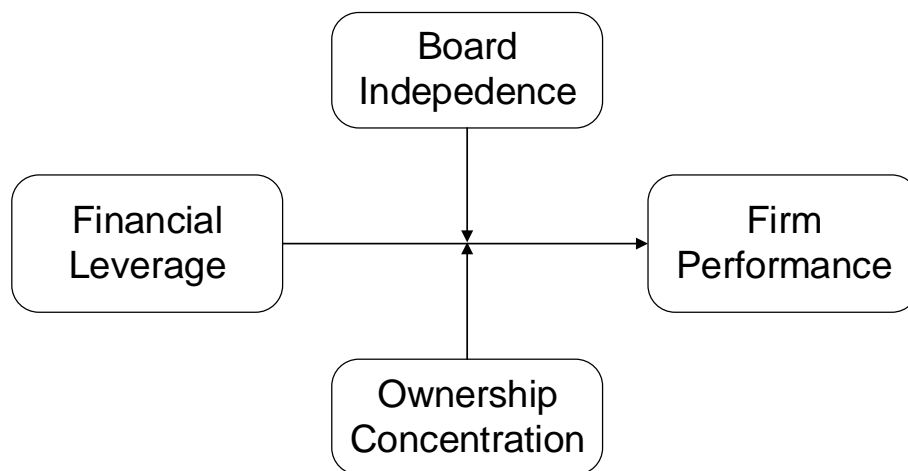


Figure 3.1 The moderate impacts of board independence and ownership concentration (corporate governance’s elements) on financial leverage and performance of Vietnamese listed companies

ROA and ROE as accounting-based indicators and Tobin’s Q, market-to-book ratio as market-based indexes are the most common ways to measure firm performance. However, in the condition of an emerging country like Vietnam, due to the lack of data availability and the limitation of market value, ROA is primarily used to measure firm performance, which is the dependent variable in the econometric models. Much of prior research has focused on identifying and evaluating ROA as firm performance (Mule and Mukras, 2015; Vu et al., 2019; Bulathsinalage and Pathirawasam, 2017; Iqbal and Usman, 2018; Shahrier et al., 2020). Accounting measures like ROA seems to be the most popular indicator of corporate performance in developing countries (Chen, 2010; Abu-Jarad et al., 2010; Mehari and Aemiro, 2013).

This study applies panel data regression which is proper to attain the research objective and can address the research problem through three research questions. In this model, financial leverage is the independent variable. Most researchers investigate firm performance in the relation to financial leverage because the capital structure has a substantial impact on the efficiency of using resources in a company (Sibarani et al., 2020; Ibhagui and Olokoyo, 2018; Vithessonthi and Tongurai, 2015; Nguyen et al., 2019). Financial leverage is the ratio of total liabilities to total assets, which is the popular way to examine the benefit of using financing sources. Data on these variables were primarily extracted from the annual reports of the sampled companies. The statements are accessed from authentic sources like company websites and governmental websites.

In regression estimation, a moderating impact can be understood as an association between a main independent variable and a factor that specifies the proper circumstances for undertaking the model research (Stromberg et al., 2019). In this proposal, moderate variables are board independence and ownership concentration as corporate governance variables, which are measures following the prior studies (Uribe-Bohorquez et al., 2018; Borlea et al., 2017; Corvino et al., 2019). Board Independence (BI) is the ratio of independent directors on the board of directors, which represents the percentage of independent non-executive directors on a board of directors. Meanwhile, the term ownership concentration or block ownership is calculated by the sum of ordinary shares of investors, who keep at least 5% of the equity ownership in a firm.

Firm size, which is measured by total assets, is a control variable. The size of a firm will differentiate the way the company uses debts and also the efficiency of financial leverage on performance. The vast majority of studies have considered the impact of firm size, such as (Corvino et al., 2019), (Ibhagui and Olokoyo, 2018), (Vithessonthi and Tongurai, 2015), and (Nguyen et al., 2020).

3.5 Variables Table

Dependent Variables	Symbol	Concepts	Measurement
Return on Asset	ROA	The ratio between net income and total assets	Net income / Total assets

Independent Variables	Symbol	Concepts	Measurement
Leverage	LEV	Financial leverage	The ratio of total debt over total assets
Board independence	BI	Independent directors who have no social or business relationship with management	The ratio of directors who are independent over the total members of the board
Ownership concentration	OC	Equity of large shareholders	Total of percentage equity shares held by the first largest shareholders
Firm size	Z	The size of a company measured by total assets	The natural log of total assets

Table 3.1. Concepts and measurement of variables

Using content analysis to collect financial information disclosure on annual reports allows researchers to have an overall review of the dataset. This approach is also persistent with previous studies. Concerning data analysis technique and empirical models, this research is based on panel data which has the possibility to decrease multicollinearity and exclude intangible heterogeneity (Ruwanti et al., 2014). The regression models below are used to test the research questions:

$$ROA_{it} = \alpha_1 + \beta_1 LEV_{it} + \gamma_1 Z_{it} + \epsilon_{it} \quad (1)$$

$$ROA_{it} = \alpha_2 + \beta_2 LEV_{it} + \beta_3 BI_{it} + \beta_4 OC_{it} + \beta_5 LEV_{it} \times BI_{it} + \beta_6 LEV_{it} \times OC_{it} + \gamma_2 Z_{it} + \epsilon_{it} \quad (2)$$

Equation (1) is the baseline model where i is firm at time t ; α is the intercept, and β is the regression coefficient; ϵ is the error term. Equation (2) is used to test the moderating impacts.

An adequate regression model requires no multicollinearity, autocorrelation and heterogeneity. Therefore, the VIF value needs to be calculated and be sure less than 10. In other words, the tolerance value should be bigger than 0.01 (Kalnins, 2018). Usually, the OLS then FEM and REM will be used to analyse panel data (Hsiao, 2022). After that Hausman test is helpful in choosing the better results between FEM and REM.

CHAPTER IV: DESCRIPTIVE ANALYSIS AND REGRESSION RESULTS

For full and detailed results, please see the Appendix, which is placed at the end of this study.

4.1 Descriptive statistics

First of all, descriptive statistics are run to outline and summarize roughly the characteristics of the dataset. This stage is helpful in providing general information on variables which is employed in the research model. Table 4.1 introduces the mean, minimum and maximum values for the final sample of 910 observations.

ROA has a mean value of 5.19, meaning that most of the companies in this research have a positive income. Additionally, most board directors have independent directors with a 19.98 mean value. Besides, the mean of firm size is 13.01. The mean value of leverage is 0.59.

Table 4.1. Descriptive statistics of variables

Variables	Mean	S.D	Minimum	Maximum
ROA	5.19	13.61	-168.22	83.91
LEV	0.59	1.60	0.03	31.77
BI	19.98	21.96	0	100
OC	32.40	32.40	0	99.4
Z	13.01	1.76	9.02	19.81

Regarding the correlation coefficients among variables, low correlations have been found in the regression model, which means that multicollinearity does not exist among independent variables. Usually, multicollinearity might occur if VIF values are more than ten or the ratio $1/VIF$, called tolerance coefficient, is less than 0.1. In this study, multicollinearity cannot drive the results because all the tolerance coefficients are bigger than 0.1.

4.2 Regression results

OLS is usually run first in multiple regression analysis. The influence of leverage on firm performance, such as ROA and the moderation effect of corporate governance on the relation between financial leverage and performance of the enterprise, is shown in Table 4.2.

Table 4.2. Pooled OLS results

ROA	Pooled OLS		
	Coefficient estimates	t-statistic	P > t
Constant	3.09	1.43	0.154
LEV	-9.34	-18.86	0.000
BI	-0.07	-4.32	0.000
OC	0.07	4.13	0.000
LEV*BI	0.21	8.25	0.000
LEV*OC	-0.19	-7.11	0.000
Z	0.59	3.67	0.000
R-Squared	0.61		

Overall, financial leverage has an adverse effect on ROA. The two corporate governance elements, namely board independence and ownership concentration, have significant negative and positive impacts, respectively.

After that, the fixed-effect model (FEM) and the random effect model (REM) are used. With the dataset of listed companies in Vietnam between 2013 and 2019, the results are demonstrated in Table 4.3. The Hausman test was carried out to determine which model is more proper. In

this study, the Hausman test shows that $\chi^2 = 30.16$ and $\text{Prob} > \chi^2 = 0.00 < 0.05$, which means that the fixed effect model is more suitable than the random effect model to explain the dataset.

Table 4.3. Estimation results of FEM and REM

ROA	Fixed Effect Model			Random Effect Model		
	Coefficient estimates	t-statistic	P > t	Coefficient estimates	z-statistic	P > z
Constant	-9.47	-1.31	0.192	0.71	0.20	0.844
LEV	-7.97	-16.32	0.000	-8.64	-19.14	0.000
BI	-0.08	-3.90	0.000	-0.08	-4.27	0.000
OC	0.16	4.74	0.000	0.11	4.63	0.000
LEV*BI	0.21	10.32	0.000	0.22	10.75	0.000
LEV*OC	-0.31	-5.52	0.000	-0.24	-6.28	0.000
Z	1.43	2.62	0.009	0.70	2.63	0.009
R-Squared	0.4702			0.4676		

Wooldridge test is used to check autocorrelation in panel data; this dataset has no autocorrelation. Another checking for heteroscedasticity using the Wald test indicates that the fixed effect model offends heteroscedasticity. Then a robust standard error regression was implemented to fix this violation. Finally, we have the adjusted FEM model in Table 4.4.

Table 4.4. Adjusted FEM regression result

ROA	Adjusted FEM
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	Coefficient estimates	t-statistic	P > t
Constant	-9.47	-0.99	0.360
LEV	-7.97	-11.72	0.000
BI	-0.08	-4.31	0.005
OC	0.16	10.36	0.000
LEV*BI	0.22	7.32	0.000
LEV*OC	-0.31	-6.90	0.000
Z	1.43	2.06	0.085
R-Squared	0.4702		

Six independent variables statistically correlate significantly with ROA – the dependent variable (p-values were significant at 0.01 level). R-Squared is 47.02% meaning all the variables can explain 47.02% of the research model. A negative correlation was found between financial leverage and ROA. Similarly, there was a significant negative interaction between board independence and ROA. In addition, ownership concentration negatively interacted with ROA.

Regarding the moderating effect of corporate governance, board independence shows a positive moderating impact on the relationship between financial leverage and firm performance, while ownership concentration presents a negative correlation. This study will elaborate on these empirical results in chapter 5 – discussion.

CHAPTER V: DISCUSSION

5.1 The negative impact of financial leverage on firm performance in Vietnam

From the regression results, it can be concluded that there is enough statistical evidence to accept all three research hypotheses of the article (see summary table 5.1 at the end of this chapter on page 46). First of all, this research found a negative relationship between financial leverage (LEV) and firm performance (ROA) for Vietnamese listed firms during 2013-2019. This result supports the first research hypothesis that financial leverage negatively affects the firm performance of Vietnamese listed companies. The coefficient estimation of the financial leverage is -7.97 and it is statistically significant at 99%. This number indicates that holding other factors unchanged if financial leverage increases by 1%, the value of ROA will decrease by 0.08%. Financial leverage might enhance a company's financial performance when management is well-controlled and wasteful investment is reduced (Nhung and Okuda, 2015; Thaddeus and Chigbu, 2012). This finding was also consistent with the findings of Ibhagui and Olokoyo (2018) and Hou (2019). These results support the idea that most listed companies in Vietnam do not keep the leverage controllable (Detthamrong et al., 2017a). Costs of financial leverage exceed the profits. Weill (2008) also stated that the fragile competitiveness and the insufficient ability to apply the latest technical and managerial development could prevent companies from using leverage efficiently. As discussed in the literature review, the pecking order theory is one of the theories that explains the dynamics of a firm's capital structure decision making. In which, business owners prefer to raise internal capital over external capital and only use external capital when internal capital is not enough (Myers and Majluf, 1984; Evgeny, 2015). The motivation for preferring internal capital is because the cost of using the internal source of capital is lower compared to the external source. Therefore, if the enterprise increases the loan capital, the profitability of the enterprise will decrease due to the increase in the cost of capital mobilization. The result of the negative impact of financial leverage on ROA found in this research supports the pecking order theory, because this result shows a clear relationship that increasing debt reduces a firm's profitability. In the context of the Vietnamese market, raising capital from an external source has a very high cost at around 7.8% - 10.4% (World Bank Data, 2022). Meanwhile, the cost of borrowing in the period 2013-2019 of developed countries such as the United States or Japan ranged from 3.3%-5.3% or 1%-1.3%, respectively (World Bank Data, 2022). Therefore, the cost of borrowing in Vietnam is much higher than that in developing countries. Evidently, funding from external sources causes businesses to shrink their profit margins, hence, lowers the company's profitability. This study

suggests that firms operating in Vietnam should make capital structure decisions according to the pecking order theory. Specifically, businesses should only borrow capital when their own capital is insufficient. When the company generates free cash flow, they should pay off the debt to reduce the burden of costs, which can help the business improve its profitability ratios in the future. In addition, according to the agency cost theory, there exists a conflict between directors and shareholders which leads to an increase in agency cost, thus making the business inefficient and reducing its profitability of the business (Jensen and Meckling, 1976; Jadiyappa et al., 2019). However, in the context of Vietnam, the regulations on separating the role of the director from the board of directors of the enterprise are not clear. Since 2017, Ministry of Finance has issued the Decree No. 71/2017 / ND-CP which stated that the Chairman cannot concurrently hold the position of CEO of the same company. This clause has come to effect on 2020 (Grant Thornton, 2017). Therefore, in the period of 2013-2019, it is possible that due to the non-separation of the roles of directors and shareholders, agency costs did not emerge in most Vietnamese enterprises. Therefore, using a lot of leverage appears not a tool to help reduce agency costs, but instead increases interest costs, making Vietnamese businesses unprofitable.

5.2 The moderating role of board independence on the relationship between financial leverage and firm performance

Turning to board independence (BI), this factor is supposed to assist a board of directors in making a better decision for firm performance, thanks to the fact that non-executive board members tend to have no obligation or interest conflicts (Rashid, 2018). However, the role of board independence is not visible in this study because we found a negative correlation between board independence and ROA. The coefficient estimation of the board independence variable is -0.08. This number says that other things being equal, if the proportion of independent members on the board of directors increases by 1%, ROA will reduce by 0.0008%. Thus, the effect of board independence is relatively small on ROA. With a large board of directors, adding an independent member will have less reduction of ROA than that effect on a smaller board of directors. For example, an increase in the number of the independents by 1 on a board of directors of 5 can cause a 1.6% decrease in ROA. However, with a board of directors consisting of 10 people, an increase in the number of independent members by 1 only reduces ROA by 0.8%. The negative correlation between board independence and firm performance is consistent with prior findings in the following studies (Shan, 2019; Rashid, 2018; Vu et al., 2019). Based on agency theory, carefully considering the separation between ownership and management is necessary. However, the results of the negative relationship between board

independence and firm profitability in this study are evidence that does not support agency theory cost; because it is believed that the degree of independence of the board of directors is a tool to help diminish agency costs (Baysinger and Butler, 2019). As explained above, in the period 2013 – 2019, Vietnam have not yet had strict regulations about separating the roles of directors and shareholders, directors often hold the role of board members or chairman. Therefore, in this period the role of the board independence did not really important. It is interesting in the future to study the impact of board independence on the relationship between financial leverage and firm performance in the pre- and post-issued of regulations.

In the period of 2013-2019, the director can also be company's chairman, hence the director will tend to make decisions in order to optimize the interests of shareholders. Therefore, lowering agency costs or even agency costs do not exist in the context of the Vietnamese market. This result can also imply that increasing leadership independence can increase disagreement in the decision-making process. This makes the decision-making process longer and inefficient. According to Alabdullah et al. (2018), board independence enhances objectivity, but on the other hand, it can disturb the efficiency of administration. Previous studies in emerging markets have also shown that the dual role of the company director improves corporate profitability (Bokpin and Arko, 2009; Thuy et al., 2017). Furthermore, Vietnam's leadership style is "high power distance", with the characteristic that the director is also the firm's shareholder (Truong et al., 1998). With this leadership style, the power of the director is high, hence they will have a higher influence over every decision of the company. According to Truong et al. (1988), this is an effective leadership system in Vietnam as the independence of management reduces agency costs. It can contribute to the improvement of the performance of the business.

In addition, it is important to examine the possible impact of board independence on the firm's financial leverage and performance relationship. The regression coefficient of the interaction term between LEV and BI is 0.22 and it is statistically significant at 99%. This result implies that board independence can improve the firm efficiency in using financial leverage. This result shows that, although increasing the independence of the board of directors can reduce the profitability of the business, it helps to have a negative impact on financial leverage on the profitability of the business. Specifically, if the independent ratio of management increases by 1%, the negative impact of financial leverage on ROA decreases by 0.22%. This result supports the second research hypothesis that board independence is positively moderating the

connection between financial leverage and firm efficiency of listed companies in Vietnam. With the results of the moderate effect of board independence on the relationship between financial leverage and ROA, this research suggests that if the business is forced to use external capital, considering increasing an independent member on the management board might help reduce the negative impact of financial leverage on firm profitability. For example, with a board of directors consisting of 5 people and having 2 independent management members. If the leverage ratio increases by 1%, the addition of 1 independent member on the board of directors will help reduce the negative impact of financial leverage on ROA in which the reduction of ROA will increase from -2.94% to 2.02%. That is, the increase of independent members on the board of directors reduces the negative impact of financial leverage on ROA by 0.92%. As the size of the board of directors increases, the moderating effect of board independence on the relationship between financial leverage and ROA will decrease. For example, with a board of directors consisting of 10 people, the addition of 1 independent member only reduces the negative impact of financial leverage on ROA by 0.46%. This result is consistent with the findings of Pham and Nguyen (2020) with the sample of Vietnamese enterprises.

This correlation is interesting because the results show a significant moderating impact. As noted above, the evidence on the negative impact of financial leverage and board independence on ROA indicates that agency costs may not be an issue for businesses in Vietnam. It raises a question that through which mechanism does board independence help to mitigate the impact of financial leverage on ROA? While the fact that a director is both a shareholder can reduce the conflict between shareholders and directors, it nevertheless increases the power of the CEO which might result in financial statement fraud (Beasley, 1996). The supervision of independent directors will help minimize the risk of the CEO manipulating financial statements. Independent boards help monitor the use of borrowed capital to invest in projects beneficial to the business instead of using it for the CEO's individual purpose (Kochhar, 1996; Le and O'Brien, 2010). According to agency cost theory, a manager's motivations or goals influence their decision-making process. If the CEO is also the company's shareholder, the CEO will have a common goal of maximizing the company's profits. In this case, the CEO who is also the shareholder will help improve operational efficiency. However, the duality CEO also has a disadvantage that the power is too concentrated on one manager, making it easier for them to manipulate the financial statements of the business, and make decisions that benefit the greatest shareholders at the cost of shareholders. Therefore, the existence of an independent

board helps monitor the CEO's activities and minimizes the risk that the CEO takes advantage of debt capital to finance personal purposes and manipulate financial statements to deceive investors. Thus, this result suggests that in the event that investors perceive that the director aggressively increases the leverage ratios, it is important to vote for the increase in independence members on the board of directors. With the presence of independent members, transparency in the use of loans is guaranteed (Peng, 2004; Mura, 2007). Therefore, increasing independent members, in this case, will help investors feel more secure before the managers' decision to borrow capital. In addition, increasing the number of independent members can help improve the efficiency of loan utilization because independent members can contribute their experiences, as well as their external relationships to help enterprises (Mizruchi and Stearns, 1994). For example, managers who are independent of a bank background can have relationships with banks to help businesses access loans at a lower cost. This will result in a higher profit margin therefore allowing the company to generate higher profit. Thus, independent managers help enhance the effectiveness of debt using by monitoring managers' performance. They can contribute their expertise and experience so that businesses can access loans at a lower cost or use capital more efficiently through more rational investment decisions.

5.3 The moderating role of ownership concentration on the relationship between financial leverage and firm performance

Ownership concentration (OC) is a vital factor of corporate governance, particularly in emerging economies where block holders seem to exist in most of the companies. The results indicate ownership concentration positively impacts firm performance. The regression coefficient of OC is 0.16 and it is statistically significant at 99%. This result says that if the holding of other factors is unchanged, when the percentage of equity shares held by the largest shareholders increases by 1%, ROA will then increase by 0.16%. This result implies that the more ownership is concentrated on one person, the more profitable the business is. This result is consistent with the study of Waheed and Malik (2019) and Nguyen et al. (2017). Thus, the positive relationship between ownership concentration and ROA found in this study supports the view that an increase in power for a large shareholder will help improve the profitability of the firm. The ownership concentration is similar to the role of independent boards to help monitor managers' activities. Investors with large ownership provide their views on corporations and influence the strategic planning of managers. Shleifer and Vishny (1986) found statistical evidence indicating that higher shareholder ownership reduces the scope of managerial opportunism through closer shareholder oversight of managers, hence improves the

operational efficiency of the business. It is important to note that Vietnam has a number of exclusive issues regarding corporate governance in general and ownership structure in particular (Vu et al., 2018), where state ownership was quite popular in previous years. Nowadays, ownership concentration under the form of institutional ownership is still associated with performance (Karaman et al., 2020; Buerthey et al., 2020). Therefore, launching Transparency and Disclosure in Vietnam should be conducted as soon as possible to reinforce the corporate governance practices in Vietnam (Mukhtaruddin et al., 2019).

Another explanation for the positive relationship between ownership concentration and firm profitability is based on the agency cost theory. This research finding verifies the agency's view that greater centralization increases shareholders' power, aligns the interests of managers and shareholders, and finally raises performance. According to Jensen and Meckling (1976), when managerial ownership increases, conflicts between parties decrease, thus increasing the operational efficiency of the enterprise. The closer the relationship between owners and management, the more their interests are similar so agency costs are less than in the case of separation of management and owners. As mentioned above, Vietnamese enterprises still remain the ownership structures in which the director is also a member of the board of directors or the chairman. This means that the benefits between management and shareholders are the same, thus reducing agency costs. If the percentage of ownership of a large shareholder who can also be a director increases, it means that the power of the director is greater and all decisions can be made quickly. This creates a compact management apparatus, which runs faster so as not to miss any investment opportunities. With the CEO having a close relationship with shareholders, the CEO has the power to push other managers to act in a way that is in the best interests of shareholders (Bhagat and Bolton, 2008). The fact that CEOs are also shareholders creates a financial incentive to encourage CEOs to work more efficiently and make decisions that maximize the profits of the business, because then they will also benefit from holding shares in the business. This result suggests that in order to improve profitability, firms should increase ownership concentrated on a single major shareholder. This result also suggests that it is advisable to provide stock incentives for business managers to unify the interests between managers and owners. However, it is worth noting that too much power increase for one owner can lead to information asymmetry, hence, the owner with the most power can make management decisions in favour of them instead of the company's common goal. Some specific studies on the relationship between ownership concentration and firm performance have shown that they are not following a linear relationship but instead a U-shape

relationship. When the power of an owner reaches a certain level, it no longer helps to improve the efficiency of the business. Instead, if the ownership concentration kept increasing, the firm performance started to decline (Hoang, 2017).

Regarding the last research hypothesis, this study found statistical evidence to support the hypothesis of ownership concentration negatively moderates the financial leverage – firm performance nexus of Vietnamese listed firms. The correlation coefficient of the interaction term between financial leverage and ownership concentration is -0.31. This result implies that the greater the concentration of owners, the stronger the negative effect of leverage on ROA. Specifically, assuming other things are constant, a 1% increase in the ownership ratio of the largest shareholder will increase the negative impact of financial leverage on ROA by 0.31%. The higher the initial leverage ratio, the larger the increase in the negative effect as ownership concentration increases. This result is consistent with previous studies by Filatotchy et al. (2007) and Najjar (2016). This result suggests that, if the enterprise is using a high leverage ratio, the increase in ownership of a major shareholder will further reduce the performance of the business. The reason for this relationship may be that shareholders tend to prefer to use borrowed capital while keeping ultimate ownership and control rights over the firm (Haque et al, 2011). The higher the power of the largest shareholders allows them to have the largest rights to vote. Moreover, shareholders prefer to use the debt for their own benefit and avoid stock dilution (Harris and Aviv, 1988). Large shareholders prefer to use leverage as a monitoring tool to alleviate agency problems and increase their value (Jensen, 1986). Major shareholders should also enjoy the benefits of an interest tax shield and reduce risk in their portfolios through the diversification of financial investments. This research has already found that the use of leverage in Vietnam reduces the efficiency of companies due to the high cost of capital mobilization. Thus, empowering shareholders who tend to use high leverage for their own benefit will result in aggressive leveraged capital structures rather than optimal capital structures. This will hurt the company's profitability.

Independently analysed, the increase in centralized ownership will help improve the performance of the business because the owner can have enough power to monitor the manager's decisions. Ownership concentration is especially important for businesses with a separation of roles between CEO and shareholders. However, for businesses that already have a highly leveraged structure, increasing owner concentration will further damage the profitability of the business. It is because shareholders tend to use a lot of leverage while in the

context of the Vietnamese market, where using high leverage hurts the firm performance due to the high cost of financing. The inconsistency in the effect of ownership concentration on firm performance in the presence and absence of financial leverage suggest the existence of an optimal ownership structure. The optimal ownership structure is a balanced ownership structure so that shareholders have enough power to monitor the manager's operations. At the same time, they do not have too much power which allows them to use too much leverage which can benefit major shareholders at the cost of shareholders (Pagano and Roell, 1998).

Concerning firm size as the control variable, according to Nhung and Okuda (2015), firm performance and firm size have a positive relationship which is similar to this research result. It might be said that the more giant firm, the higher their performance. The regression coefficient for company size is 1.43, which is statistically significant at the 95% confidence level. When other factors remain unchanged, the company's size increases by 1 unit, that is, the company's total asset value increases, and the company's ROA increases by 1.43%. Larger companies have more stable cash flows and more diversified operations. Therefore, they are less likely to collapse. According to the pecking order theory, large companies have less information asymmetry. This gives them easier and better access to external financing markets than smaller companies. Also, due to economies of scale, larger companies have access to cheaper credit.

This study found evidence that the regulation of corporate governance mechanisms on the relationship between financial leverage and firm performance. First, this study finds positive evidence that the use of leverage has a negative effect on firm profitability in the context of the Vietnamese market. The reason is that the cost of borrowing is too high in Vietnam compared to other developing countries. Therefore, it is suggested for business managers in Vietnam to follow the pecking order theory when making capital structure decisions. The company should only use external capital when the internal capital is not sufficient. Second, the study found that the role of board independence in corporate governance mechanism contributes to improving business operations by helping to rebalance capital structure. This result suggests that if enterprises are forced to increase their loan structure, the increase of independent management members will help manage the use of this loan more effectively and transparently. Finally, this study finds the role of ownership concentration in corporate governance mechanisms does not really help firms improve profitability for firms with high leverage. This result suggests that if the firm is forced to increase its loan structure, the company should not

increase the ownership ratio for a major shareholder. Combining all the findings, this study suggests that when a business is forced to increase its leverage ratio because internal capital is no longer sufficient, the company should increase the number of independent management members to reduce the negative impact of financial leverage on firm performance. The decision to increase the ownership ratio of the largest shareholder, in this case, is not recommended.

In view of these findings, the legal framework, the country level, institutional strength, and the rule of law all affect governance quality and need to be considered. In addition, the corporate level will generally decide the kinds of governance challenges a firm may confront. In addition, the implementation of corporate governance codes has confirmed productiveness in urging the market towards more preferable governance practices. Most developing countries keep showing progression because they not only apply corporate governance rules and regulations to set their standards but also make amendments periodically to raise these standards further. This research result also creates favourable conditions for regulators and firm managers to foster more effective corporate governance. Shareholders can take advantage of our findings of listed companies and therefore, diversify their business strategies. Further investigations may look at similar relationships in other developing countries for a deeper understanding of the research issue, and consider the concentration of ownership and the formation of controlling shareholders to monitor agents' behaviour. In developing economies, with immature capital markets and incomplete legal systems, the protection for small and medium shareholders' interests must be scrutinized. Thus, optimizing the stock rights structure is a premise to protect the interests of investors.

Another element to be examined in corporate governance in emerging economies is risk management. Effective risk management drives better and more accurate risk-reward or cost-benefit decision-making. Besides, the performance of the board should be assessed regularly. A self-assessment process should be performed by the board members, including the execution of individual directors, to help identify weak points in the board's performance and then apply reforms to enhance the board of directors' performance. In addition, capital markets and foreign investment in most emerging economies are in solid development. Thus, the adoption of international regulation will enable countries to keep attracting foreign capital and prevent low standards of supervision in a country from possibly disastrous effects abroad.

Currently, the availability of data is limited. Thus, other factors describing the properties of effective boards should be examined in future studies. As a result, more extensive and valuable

insight can be expected. In addition, this study is limited by the use of secondary reports or financial accounting reports. Financial accounting statements can be easily manipulated which can systematically undervalue assets or create biases due to the depreciation policy and the treatment of revenues and expenses. Future research may integrate different types of block holders, further investigate the knowledge or skill composition of the board, or consider other inner and outer management mechanisms affecting the company's performance. Ownership concentration is found to help improve firm profitability. However, the presence of ownership concentration in highly leveraged firms may further damage the firm performance. This result suggests that the relationship between ownership concentration and firm performance is not linear. It is interesting to further investigate the non-linear relationship between ownership concentration and firm performance whether financial leverage is the mechanism that leads to the decrease of firm performance when ownership concentration increase.

	Literature Review	Result
Hypothesis 1 – negative relationship between leverage and firm performance of Vietnamese listed firms.	–	–
Hypothesis 2 – positive moderating impact of board independence on the relationship between leverage and firm performance of Vietnamese listed firms.	+	+
Hypothesis 3 – negative moderating impact of ownership concentration on the relationship between leverage and firm performance of Vietnamese list firms.	–	–

Table 5.1. Outline of results of hypotheses testing

CHAPTER VI: CONCLUSION, LIMITATION AND FUTURE RESEARCH

6.1 Conclusion

For many centuries, the concept of corporate governance has been rekindled, existed and developed. Until now, the issue remains a fascinating subject for scholarly experts, managers, administrators, and shareholders. Business management is the relationship between the board of executives, management, minority stakeholders, controlling stockholders, and other parties. Effective corporate governance assures that firms can be handled more effectively, have greater access to capital resources, minimize risks and ensure shareholder protection. In addition, business management not only brings greater transparency plus an accountable business community but also provides useful insights for comprehensive corporate innovation to consider the economic effects of different modes of coordination among companies.

In accordance with the regression results, this study has found that: (1) financial leverage negatively impacts corporate performance, (2) board independence positively moderates the relationship between leverage and firm performance, and (3) ownership concentration negatively moderates the relationship between leverage and firm performance.

The first conclusion is that financial leverage is a significant but negative indicator of firm financial performance in terms of ROA. This result has consented to hypothesis 1, which is supported by many studies (Evgeny, 2015; Bansal and Sharma, 2016; Bui, 2020). This outcome demonstrates the fact that some emerging countries cannot make use of their advantages of having lower capital costs than developed nations and holding a greater chance of extending business. Agency problems and the conflict of interests still are the major obstacles to using debts efficiently to improve operational performance.

In addition, the moderate effect of board independence is significant and positive to the association between financial leverage and firm performance. This conclusion aligns with the hypothesis 2, expecting a positive role of board independence in financial leverage and corporate performance. This evidence means that the increase in the number of independent board members can improve the firm efficiency when using financial leverage. The presence of independent members also helps to guarantee the transparency in the use of loans, thus contributes to the advancement of firm performance. These empirical results in an emerging country like Vietnam, for board independence specifically, are comparable to advanced market places (Uribe-Bohorquez et al., 2018; Shan, 2019) but opposite to other developing nations

(Rashid, 2018; Borlea et al., 2017). Briefly, the outcome of board independence – the important factor of powerful and productive management, is meaningful and implies significant suggestions for improving the quality of board independence.

Another moderating impact tested in this proposal is ownership concentration. This moderate influence indicates that block holders negatively connect the financial leverage – corporate performance (ROA) nexus. The results of this moderating effect seem to be various from case to case (Shahrier et al., 2020; Abdallah and Ismail, 2017; Altaf and Shah, 2018). Authorities should closely investigate the maximum share percentage that an individual or an institution can hold to prevent big stockholders from directing companies for their interests. Accordingly, an appropriate ownership concentration and efficient corporate governance practices are believed to assist the improvement of firm performance.

The main contribution of the study related to the corporate governance of firms in developing countries encounters the challenge of addressing unresolved issues. Related studies mainly utilized the agency notion and stakeholder theory as the foundation of the corporate governance concept. In this study, corporate governance is discussed in depth to figure out the firms listed on Vietnam stock exchanges. Therefore, this study provides a more applicable pattern to illustrate business management not merely from the country-economic level but also at the firm level. This study argues that measuring corporate management from an efficiency perspective could offer a viable way to improve the governance structure of listed firms. Furthermore, the peculiarities of companies' corporate governance in developing countries are also carefully considered. The theoretical review contributes significantly to the existing research base on corporate governance in firms in developing countries, which has recently gained increased attention.

After interpreting the theories to define the entire corporate governance framework, this study undertakes an empirical study to examine the association between capital structure and firm efficiency under the moderating impact of corporate governance. A literature review found that most studies on corporate governance were performed in advanced countries, while less work was carried out in developing markets. This study explored the link between corporate governance and firm performance in Vietnam by attempting to perceive the problem better. The empirical study focuses on the impact of board independence and ownership structures. The combination of elements of corporate governance in emerging markets provides a new perspective on management literature and corporate governance.

The key contribution to the knowledge of this study lies in the background of inclusive corporate management and empirical analysis that provide inside into the existing research on the relationship of corporate governance and firm performance. A dataset related to listed firms could significantly support the study of corporate governance – financial leverage - firm performance in developing markets. By studying the bonds between financial leverage and performance, this work provides a foundation for comprehension of the contextual factors that lead to a more complete understanding of the corporate level in Vietnam.

6.2 Limitations and Future recommendations

This proposal initiates with the relation between financial leverage and corporate performance and then examines the moderating effects of corporate governance on this relationship. Nonetheless, this study is limited in terms of the dataset and variables used in the research model. The methodology is mainly based on quantitative method and secondary data, thus might affect the reliability of regression results. Besides, the current approach is just carried out in Vietnam only and excludes companies in financial sectors, which is difficult to illustrate a comprehensive report of the association between financial leverage, corporate governance and performance. Furthermore, with the limitation of time, one typical performance measure, ROA, is utilized, which merely represents accounting-based performance.

Therefore, it is essential in the following research to extend the research period. The dataset should cover the financial information of listed firms in Vietnam in the years 2020 and 2021 which is possible to examine and compare the differences between normal time and pandemic time. Likewise, further studies should be conducted in other emerging markets in the South East Asia region as comparative research, providing sound shreds of evidence and background to set up a good corporate governance code for emerging markets. In addition, other variables are suggested to be added to the research models, such as the institutional context as a moderator variable, macro elements of firms or variables related to risk management. Further research with more focus on corporate performance, therefore alternatives measurements of performance, for instance, market-to-book ratio, will be included.

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APPENDIX

$$1. ROA_{it} = \alpha_1 + \beta_1 LEV_{it} + \gamma_1 Z_{it} + \epsilon_{it}$$

Pooled OLS

```
. regress ROA LEV Firmsize
```

Source	SS	df	MS	Number of obs	=	910
Model	94358.3765	2	47179.1882	F(2, 907)	=	576.48
Residual	74229.2373	907	81.8403939	Prob > F	=	0.0000
Total	168587.614	909	185.464922	R-squared	=	0.5597
				Adj R-squared	=	0.5587
				Root MSE	=	9.0466

ROA	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
LEV	-6.315667	.1869514	-33.78	0.000	-6.682575 -5.948759
Firmsize	.4106515	.1696361	2.42	0.016	.0777265 .7435765
_cons	3.584748	2.232748	1.61	0.109	-.7972043 7.966701

FEM

```
. xtreg ROA LEV Firmsize, fe
```

Fixed-effects (within) regression

Group variable: companycode

R-sq:

within = 0.3785

between = 0.6443

overall = 0.5328

corr(u_i, Xb) = 0.3306

Number of obs = 910

Number of groups = 130

Obs per group:

min = 7

avg = 7.0

max = 7

F(2, 778) = 236.88

Prob > F = 0.0000

ROA	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
LEV	-4.438832	.2185739	-20.31	0.000	-4.867896 -4.009768
Firmsize	1.224528	.5670568	2.16	0.031	.1113855 2.337671
_cons	-8.10984	7.414492	-1.09	0.274	-22.66462 6.44494

sigma_u	7.3745153				
sigma_e	6.7099841				
rho	.54707694	(fraction of variance due to u_i)			

F test that all u_i=0: F(129, 778) = 6.75 Prob > F = 0.0000

REM

```

. xtreg ROA LEV Firmsize, re

Random-effects GLS regression                Number of obs   =       910
Group variable: companycode                 Number of groups =       130

R-sq:                                       Obs per group:
  within = 0.3770                           min =           7
  between = 0.7004                          avg =          7.0
  overall = 0.5589                           max =           7

corr(u_i, X) = 0 (assumed)                  Wald chi2(2)    =     699.03
                                           Prob > chi2     =     0.0000

```

	ROA	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
	LEV	-5.094405	.1959584	-26.00	0.000	-5.478476	-4.710334
	Firmsize	.5105529	.2789608	1.83	0.067	-.0362002	1.057306
	_cons	1.564133	3.68464	0.42	0.671	-5.657629	8.785896
	sigma_u	5.575656					
	sigma_e	6.7099841					
	rho	.40845084	(fraction of variance due to u_i)				

Hausman Test

```

. hausman FEM2 REM2, sigmamore

----- Coefficients -----
      (b)          (B)          (b-B)          sqrt(diag(V_b-V_B))
      FEM2         REM2         Difference         S.E.
-----
LEV          -4.438832    -5.094405         .655573         .1074591
Firmsize     1.224528     .5105529         .7139753         .5082889

      b = consistent under Ho and Ha; obtained from xtreg
      B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

      chi2(2) = (b-B)' [(V_b-V_B)^(-1)] (b-B)
              =      41.37
      Prob>chi2 =      0.0000

```

Testing Heteroskedasticity

```

. xttest3

Modified Wald test for groupwise heteroskedasticity
in fixed effect regression model

H0: sigma(i)^2 = sigma^2 for all i

chi2 (130) = 4.8e+06
Prob>chi2 = 0.0000

. xtserial ROA LEV Firmsize

Wooldridge test for autocorrelation in panel data
H0: no first order autocorrelation
F( 1, 129) = 1.727
Prob > F = 0.1911

. xtscd ROA LEV Firmsize, fe

Regression with Driscoll-Kraay standard errors   Number of obs   =   910
Method: Fixed-effects regression                 Number of groups =   130
Group variable (i): companycode                 F( 2, 6)        =   58.49
maximum lag: 2                                  Prob > F        =   0.0001
                                                within R-squared =   0.3785

```

ROA	Drisc/Kraay		t	P> t	[95% Conf. Interval]	
	Coef.	Std. Err.				
LEV	-4.438832	.4163129	-10.66	0.000	-5.457513	-3.420151
Firmsize	1.224528	.6526884	1.88	0.110	-.3725427	2.821599
_cons	-8.10984	8.309039	-0.98	0.367	-28.44133	12.22165

$$2. ROA_{it} = \alpha_2 + \beta_2 LEV_{it} + \beta_3 BI_{it} + \beta_4 OC_{it} + \beta_5 LEV_{it} \times BI_{it} + \beta_6 LEV_{it} \times OC_{it} + \gamma_2 Z_{it} + \epsilon_{it}$$

Pooled OLS


```

. xtreg ROA LEV BI OWN LEVBI LEVOC Firmsize, re

Random-effects GLS regression              Number of obs   =       910
Group variable: companycode              Number of groups =       130

R-sq:                                     Obs per group:
    within = 0.4676                       min =           7
    between = 0.6922                      avg =          7.0
    overall = 0.6113                      max =           7

Wald chi2(6) = 965.10
corr(u_i, X) = 0 (assumed)                Prob > chi2     = 0.0000

```

ROA	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
LEV	-8.636492	.4513223	-19.14	0.000	-9.521068	-7.751917
BI	-.0780079	.0182513	-4.27	0.000	-.1137798	-.042236
OWN	.1149884	.0248299	4.63	0.000	.0663227	.163654
LEVBI	.2205841	.0205254	10.75	0.000	.1803551	.260813
LEVOC	-.2410208	.0383959	-6.28	0.000	-.3162754	-.1657662
Firmsize	.7044156	.2679807	2.63	0.009	.1791832	1.229648
_cons	.7068953	3.594376	0.20	0.844	-6.337953	7.751743
sigma_u	5.4239377					
sigma_e	6.211306					
rho	.4326375	(fraction of variance due to u_i)				

Hausman Test

```

. hausman roafem2 roarem2, sigmamore

----- Coefficients -----
             (b)          (B)          (b-B)          sqrt(diag(V_b-V_B))
             roafem2      roarem2      Difference          S.E.
-----
LEV          -7.968011    -8.636492          .6684819          .2035416
BI           -.0819117    -.0780079         -.0039038          .0109747
OWN          .1616698     .1149884          .0466815          .0240757
LEVBI        .2163813     .2205841         -.0042028          .0055242
LEVOC        -.3055149     -.2410208         -.0644941          .0409294
Firmsize     1.433553          .7044156          .7291378          .4860347

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

      chi2(6) = (b-B)' [(V_b-V_B)^(-1)] (b-B)
            = 30.16
      Prob>chi2 = 0.0000

```

Testing Heteroskedasticity

```

. xttest3

Modified Wald test for groupwise heteroskedasticity
in fixed effect regression model

H0: sigma(i)^2 = sigma^2 for all i

chi2 (130) = 1.6e+06
Prob>chi2 = 0.0000

. xtserial ROA LEV BI OWN LEVBI LEVOC Firmsize

Wooldridge test for autocorrelation in panel data
H0: no first order autocorrelation
F( 1, 129) = 1.145
Prob > F = 0.2867

. xtscs ROA LEV BI OWN LEVBI LEVOC Firmsize, fe

Regression with Driscoll-Kraay standard errors   Number of obs   =   910
Method: Fixed-effects regression                 Number of groups =   130
Group variable (i): companycode                  F( 6, 6)        =  650.36
maximum lag: 2                                   Prob > F        =  0.0000
                                                within R-squared =  0.4702

```

ROA	Drisc/Kraay			P> t	[95% Conf. Interval]	
	Coef.	Std. Err.	t			
LEV	-7.968011	.680012	-11.72	0.000	-9.63194	-6.304081
BI	-.0819117	.018989	-4.31	0.005	-.128376	-.0354474
OWN	.1616698	.0155995	10.36	0.000	.1234992	.1998405
LEVBI	.2163813	.0295688	7.32	0.000	.1440291	.2887334
LEVOC	-.3055149	.0442533	-6.90	0.000	-.4137987	-.1972311
Firmsize	1.433553	.6968116	2.06	0.085	-.2714831	3.13859
_cons	-9.465361	9.548479	-0.99	0.360	-32.82965	13.89893