Business group, corporate governance and business performance: A study in Vietnam

Thong Tien Nguyen[1*], Nhi Phuong Doan[2,3], Tuong Minh Tran[2,3]

[1]Ho Chi Minh City University of Foreign Languages and Information Technology, Ho Chi Minh City, Vietnam
[2]Ho Chi Minh City University of Technology (HCMUT), Ho Chi Minh City, Vietnam
[3]Vietnam National University Ho Chi Minh City, Ho Chi Minh City, Vietnam
[*]Corresponding author: thongnt@huflit.edu.vn

ARTICLE INFO

DOI:10.46223/HCMCOUJS.econ.en.15.2.3275.2025

Received: March 01st, 2024

Revised: May 18th, 2024

Accepted: May 26th, 2024

JEL classification code:

H30; G32; G34

Keywords:

agency problem; business group; business performance; corporate governance

ABSTRACT

Corporate governance is essential for businesses, especially those with complex structures. This research examines the relationship between business group structures, corporate governance, and business performance in Vietnam, providing theoretical insights and practical management recommendations. Analyzing data from over 100 of the largest listed companies on the Vietnam Exchange AllShare, the study used the Fixed Effects Model, Random Effects Model, and Feasible Generalized Least Square estimations to assess the impact of business groups on governance and performance. The study reveals a positive but relatively weak impact of expanding the scale of business groups on the quality of corporate governance and business efficiency. Audit Committees, Independent Directors, and company size positively influence governance quality, while liquidity has a negative impact. Similarly, these factors positively affect business efficiency, whereas financial leverage has an inverse relationship. This research enhances the understanding of how business group structures influence corporate governance and business efficiency in Vietnam. It underscores the importance of good governance principles to improve accountability, transparency, and protect stakeholder interests, highlighting the positive role of certain governance structures in enhancing business efficiency.

1. Introduction

Corporate Governance (CG) is increasingly highlighted in recent Vietnamese studies. Its primary goals are legal compliance, ethical regulation, and aiding policymakers in improving legal and institutional frameworks, according to Organization for Economic Cooperation and Development (OECD, 2015). In Asia, corporate group models are common, with countries like Australia, China, Japan, Malaysia, and Singapore having parent companies with over 60 subsidiaries on average OECD (2022). Moreover, most conglomerates/parent companies are major shareholders in Asian regions. Major shareholders in these regions are typically conglomerates. For example, in Indonesia, conglomerates are the largest shareholders in about 440 of the top 500 companies, holding an average stake of 54.2%. Conversely, in Australia and Japan, institutional investors are the largest shareholders, but listed companies have more subsidiaries compared to other Asian countries.

The formation of Business Groups (BG) can result in market manipulation and unhealthy competition, negatively impacting the rights of minority shareholders, particularly those in subsidiary and affiliated companies.

The parent-subsidiary model challenges the Board of Directors (BOD) of subsidiaries, as they must follow parent company policies. This creates a dilemma in balancing the interests of the group and the subsidiary, especially when the subsidiary has minority shareholders and financial difficulties (Sørensen, 2021).

While previous studies have examined CG's impact on business performance, the relationship between BG structure and CG remains underexplored. Proper research is needed to protect shareholder rights and enhance transparency within BGs. This topic has only recently gained attention from the OECD, resulting in limited research globally and in Vietnam. This study aims to explore the relationship between BG structure, CG effectiveness, and business performance in Vietnam, contributing to theoretical and empirical understanding. Additionally, it may offer solutions and management implications to improve CG quality and business efficiency in BGs.

2. Background

2.1. Agency theory

The agency theory of Jenson and Meckling (1976) explains that shareholders in joint-stock companies delegate management to the BODs. This delegation creates inherent conflicts of interest between shareholders and managers. Robust CG practices can address these agency problems. CG plays a crucial role in oversight, ensuring adherence to rules and regulations, and ensuring management fulfills its responsibilities to benefit shareholders.

2.2. Business groups

There is no official legal definition of a BG. Practically, a BG consists of two or more companies interacting with each other, forming long-term economic, technological, and market relationships. These companies exclude mutual competition and aim for capital accumulation, concentration, and profit maximization. A BG is not a single enterprise but multiple interconnected enterprises, with activities benefiting both the group and individual companies. BGs typically form through mergers, consolidations, or acquisitions.

The Parent Company-Subsidiary structure involves multiple businesses linked through capital contributions and financial investments. Known as Keizetsu in Japan, Chaebol in South Korea, and Conglomerate in the West, this model features strong financial integration. A parent company invests to dominate and control subsidiaries, extending influence over personnel, labor, technology, and development strategy (Dao, 2007). International accounting standards define a parent company as a legal entity with at least one subsidiary. A subsidiary is controlled by the parent company, which holds more than 50% of voting shares directly or indirectly or controls more than 50% of voting shares through agreements with other shareholders.

An affiliated company involves multiple companies collaborating by holding shares or contributing capital, usually below 50%, to generate profits.

BG members in accessing capital, raw materials, and markets more efficiently. Additionally, reputable BGs can leverage government connections that are inaccessible to independent firms. Affiliated firms benefit by sharing the group's reputation when associated with a respected BG (Chang & Hong, 2000; Peng et al., 2005). Group reputation can help affiliated firms achieve superior and sustainable performance (Barney, 1991). Financial resources are crucial for company operations. Internal lending can substitute for banking systems, enabling access to capital when market conditions are unfavorable (Keister, 2001). Through intragroup transactions, affiliates gain enhanced access to raw materials and intermediate goods (Khanna & Rivkin, 2001).

2.3. Corporate governance

CG can be understood in both narrow and broad senses. Narrowly, it encompasses issues related to management structure, BOD, and relationships among BOD, management, and shareholders, along with the interests of participating groups within the company. Broadly, it refers to mechanisms through which stakeholders exert control over the company and its management to safeguard their rights (John & Senbet, 1998). Effective CG improves operational efficiency, boosts access to external capital, and fosters sustainable economic development (Le & Walker, 2008). CG emphasizes principles like accountability, transparency, fairness, and responsibility in company management, aiming to ensure the separation of ownership and control, albeit sometimes leading to conflicts (Byrnes et al., 2003; Ehikioya, 2009; Jenson & Meckling, 1976).

2.4. Business performance

Business performance serves as a crucial indicator for stakeholders like shareholders, BODs, creditors, and suppliers when making business or investment decisions. It gauges the company's operational outcomes through indicators reflecting economic goals, including profitability and market value metrics (Venkatraman & Ramanujam, 1986).

In scientific research, business efficiency is typically assessed through market analysis, financial reporting, or a combination of both. Various indicators are used to measure efficiency, categorized into two main groups: (1) indicators reflecting profitability and (2) indicators reflecting market value.

2.5. The relationship between Business Group, Corporate Governance and Business Performance

In a BG, the parent company, or holding company, primarily emphasizes the financial aspects of group objectives. Initially, the focus is on achieving a streamlined vertical ownership structure, followed by objectives related to economic efficiency. Within a BG, the holding company, which controls two or more other companies, typically functions as the largest shareholder.

At the group level, CG is increasingly vital in setting a unified standard to boost CG levels and enforcement capabilities of internal control systems for both the parent company and its subsidiaries. This enhances the group's overall competitive advantage. A robust CG foundation is essential for an effective operational control system (OECD, 2022).

2.6. Number of members in the business group and corporate governance score

When expanding into new markets, organizations establish subsidiary companies. However, this process must follow a strategic approach to enhance CG across the entire group. Ineffective management of subsidiaries can lead to legal issues, with minor problems potentially escalating into major concerns for the parent company, such as the risk of penalties, damage to reputation, and even imprisonment for directors in certain regions (Sørensen, 2021).

International accounting standards mandate the disclosure of subsidiaries and affiliated companies in the consolidated financial statements of the parent company. For effective management and governance risk mitigation, the BOD and top management of the parent company should possess a thorough understanding of all group members (Frederick, 2014). To streamline operations and prevent excessive complexity, the parent company may oversee the establishment of new subsidiaries through its approval procedures. Moreover, the dissolution of subsidiary companies that have fulfilled their objectives can be contemplated (OECD, 2015).

Deloitte (2013) highlights that parent companies shoulder a substantial governance and compliance burden concerning their subsidiaries. Notably, 68% of parent CG boards invest significant time monitoring the activities and risks of subsidiaries, and 84% have specific approval processes for subsidiary actions or expenditures. This underscores the interrelation between the number of subsidiaries and affiliated companies and CG efficiency. It can be argued that the more subsidiary and affiliated companies a parent company has, the tighter CG systems it must have to control the stability of the entire group of companies, making this relationship positive.

H1: Greater subsidiary and affiliated companies within a business group are associated with an elevated Corporate Governance score

2.7. Number of members in the business group and business performance

The BG model is prevalent in emerging economies, though its specific features vary across countries (Ghemawat & Khanna, 1998; Granovetter, 2005). Leff (1978) and Ghemawat and Khanna (1998) explain BG emergence as a response to market imperfections, serving three primary functions. First, it optimizes benefits by granting team members access to scarce resources like capital and information. Second, BGs provide an alternative to portfolio diversification. Third, they address monopoly issues through vertical integration. Affiliated companies tend to be more profitable than independent ones in the same country.

BG members can share resources through joint development agreements, such as financial support, to maintain their financial standing. For instance, one member may guarantee capital for another, but they are unable to secure it independently. Some BGs operate internal manufacturing or service facilities, fostering extensive transactions within the group, which is crucial for stakeholders (Sørensen, 2021).

The BG was formed to boost accumulation, concentrate capital, enhance competitiveness, and maximize profits. Independent companies lacking capital and technology can join forces to form a BG, leveraging advantages such as resource concentration, scale, brand recognition, specialization, and unity to improve competitiveness and mitigate risks from market fluctuations.

Empirical evidence shows that affiliated firms within BGs share intangible resources like R&D, advertising, and reputation (Chang & Hong, 2000). Furthermore, BGs can share key personnel and talented managers and provide their employees with extensive technical and management training (Chang & Hong, 2000). BGs also facilitate the sharing of key personnel, talented managers, and extensive technical and management training among members, enhancing overall business performance by mobilizing tangible and intangible resources, particularly in emerging economic stages (Chang & Hong, 2000).

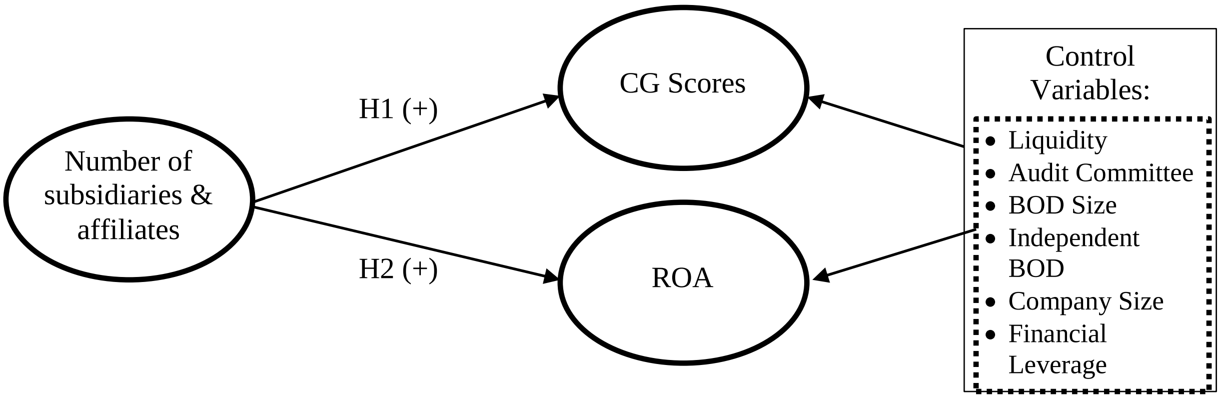
Moreover, BGs benefit from easier access to domestic and foreign capital sources, labor, and product markets at lower costs (Khanna & Rivkin, 2001). Affiliated firms may gain competitive advantages through strong inter-organizational ties within the BG and preferential capital support from governments compared to independent companies (Peng et al., 2005), which can spread to members and create higher financial returns.

Given these factors, there's a link between the number of members in a BG and business performance, encompassing subsidiaries and affiliated companies. Therefore, it's proposed that:

H2: A positive correlation exists between the number of subsidiaries and affiliated companies within a business group and the level of business efficiency it attains

Figure 1

Research Model



Note. The Authors

3. Methodology and sample description

3.1. Sample and data collection

We collect data for a sample of the 100 largest listed companies in the Vietnam Exchange (VNX) AllShare index for the period of 04 years from 2018 to 2021, forming a sample of 400 firm-year observations. Data for analysis includes financial performance data, corporate structure data, and CG data.

3.2. Measurement and variables

The key independent variable is the number of subsidiaries and affiliates in the BG, measured by the number of subsidiaries and affiliates, as shown in the annual reports. The CG score is obtained by assessing the listed companies in Vietnam using the CG criteria specified in the Vietnam Corporate Governance Award, an annual assessment done by Ho Chi Minh City Stock Exchange (HOSE), Hanoi Stock Exchange (HNX) and collaborative associations, which includes 79 criteria[1], of which 64 questions for fundamental requirement with a total score of 100 points forming level 1, and 15 questions for advanced requirement with maximum 10 points forming level 2. Based on this assessment, the CG score of a company can range from 0 to 110 points as the total scores of both level 1 and level 2 criteria.

Business performance encompasses the operational outcomes of a company, gauged through indicators reflecting economic goals. These indicators typically include two main groups: profitability indicators and market value indicators (Venkatraman & Ramanujam, 1986). In this study, following Akpan and Riman (2012), and Tomar and Bino (2012), ROA is used to measure the company's business performance of the group company.

[1]Vietnam Corporate Governance Scorecard award with list if questions is accessed through the link https://www.aseansc.com.vn/uploads/2021/12/29/20211229_20211229%20%20BaoCaoDanhGiaQTCT_VLCA2021_Final%20ban%20nhe%20CBTT.pdf. The link was retrieved in August 21st, 2024

Control variables are included in the research models to properly reflect the impact of the explanatory variable on the response variable (Black et al., 2006; Li et al., 2012; Nguyen & Nguyen, 2017; Sinaga et al., 2022) as listed below:

Table 1

Summary of Research Variables

No.	Variable name	Symbol	Type	Determination	Expected	Supporting research
The relationship between the number of subsidiaries and affiliated companies and CG score						
1	CG score	CG	Dependent	Total score of level 1 and level 2 of the Vietnam Corporate Governance Scorecard (VCGS) evaluation criteria		(Dwianika & Murwaningsari, 2019; Husnaini & Basuki, 2020); Simamora (2020)
2	Number of subsidiaries	NUMSUB	Independent	Number of subsidiaries in the annual report	(+)	(OECD, 2022)
3	Number of affiliated companies	NUMAFFI	Independent	Number of affiliated companies in the annual report	(+)	(Chang & Hong, 2000; OECD, 2022)
4	Audit Committee	AUCOM	Control	Dummy variable, equal to 1 if the company has an Audit Committee, equal to 0 otherwise	(+)	(Sinaga et al., 2022)
5	BOD Size	BSIZE	Control	The number of members of the BOD in the annual report	(+)	(Sinaga et al., 2022)
6	Independent BOD	INDE	Control variable	Number of independent members of the BOD/Number of members in the BOD	(+)	(Naveed et al., 2015; Sinaga et al., 2022)
7	Company Size	SIZE	Control	Logarithm of total assets	(-)	(Li et al., 2012; Nguyen & Nguyen, 2017)
8	Financial Leverage	LEV	Control	Total debt/Total assets	(+)	(Li et al., 2012; Nguyen & Nguyen, 2017)
9	Liquidity	LIQ	Control	Logarithm of total volume of shares traded in the year/Number of trading days in the year	(+)	(Campbell et al., 1993; Li et al., 2012; Nguyen & Nguyen, 2017)

No.	Variable name	Symbol	Type	Determination	Expected	Supporting research
The relationship between the number of subsidiaries and affiliated companies and business performance						
1	Business efficiency	ROA	Dependent	Profit after tax/Total assets		(Akpan & Riman, 2012; Tomar & Bino, 2012)
2	Number of subsidiaries	NUMSUB	Independent	Number of subsidiaries in the annual report	(+)	(Chang & Hong, 2000; OECD, 2022)
3	Number of affiliated companies	NUMAFFI	Independent	Number of affiliated companies in the annual report	(+)	(Chang & Hong, 2000; OECD, 2022)
4	Audi Committee	AUCOM	Control	Dummy variable, equal to 1 if the company has an Audit Committee, equal to 0 otherwise.	(+)	(Anderson et al., 2004)
5	BOD Size	BSIZE	Control	The number of members of the BOD in the annual report	(+)	(Dalton et al., 2003; Nguyen et al., 2016)
6	Independent BOD	INDE	Control	Number of independent members of the BOD/Number of members in the BOD	(+)	(Liu et al., 2015)
7	Company Size	SIZE	Control	Logarithm of total assets	(+)	(Amato & Burson, 2007; Anum Mohd Ghazali, 2010; Chhibber & Majumdar, 1997)
8	Financial Leverage	LEV	Control	Total debt/Total assets	(+)	(Abor, 2007)

Source. Authors compiled

3.3. Statistical analysis

The three most commonly used methods for panel data regression models are Pooled OLS, Fixed Effects Model (FEM), and Random Effects Model (REM).

The study employs testing techniques proposed by Dougherty (2011) to select a suitable regression model. For the random effects estimate, the study employs the Lagrangian Multiplier (LM) method along with the Breusch-Pagan test to assess its suitability (Baltagi, 1981). Hausman test (Hausman, 1978) is utilized to select the appropriate estimation method between FEM and REM (Gujarati, 1995).

However, the selected model must undergo tests to detect multicollinearity (VIF), heteroscedasticity (Breusch-Pagan test), and residual autocorrelation (Wooldridge test). If the model is affected by one of these phenomena or both, the Feasible Generalized Least Square (FGLS) estimation method will be applied. According to Wooldridge (2002), when dealing with heteroskedasticity or residual autocorrelation in models using panel data, FGLS regression is the estimation method that should be used.

4. Main results and discussion

4.1. Measurement models

To explore the correlation between BG structure and CG effectiveness, as well as to assess the relationship between BG structure and business efficiency of listed companies on the Vietnamese stock market, two research models are proposed:

Model 1 analyzes the impact of the number of subsidiary and affiliated companies on CG scores:

$$CG_{i,t} = \beta_1\, NUMSUB_{i,t} + \beta_2\, NUMAFFI_{i,t} + \beta_3\, AUCOM_{i,t} + \beta_4\, BSIZE_{i,t} + \beta_5\, INDE_{i,t} + \beta_6\, SIZE_{i,t} + \beta_7\, LEV_{i,t} + \beta_8\, LIQ + e_{i,t} \quad (1)$$ *and*

Model 2 examines the influence of the number of subsidiary and affiliated companies on the business efficiency of the parent company:

$$ROA_{i,t} = \beta_1\, NUMSUB_{i,t} + \beta_2\, NUMAFFI_{i,t} + \beta_3\, AUCOM_{i,t} + \beta_4\, BSIZE_{i,t} + \beta_5\, INDE_{i,t} + \beta_6\, SIZE_{i,t} + \beta_7\, LEV_{i,t} + e_{i,t} \quad (2)$$

In which:

$CG_{i,t}$: Corporate governance score of company (VCGS) *i* in year *t*;

ROAi,t: Rate of return on total assets of company *i* in year *t*;

$NUMSUB_{i,t}$: Number of subsidiaries of company *i* in year *t*;

$NUMAFFI_{i,t}$: Number of affiliated companies of company *i* in year *t*;

$AUCOM_{i,t}$: Audit committee of company *i* in year *t*;

$BSIZE_{i,t}$: Number of BOB members of company *i* in year *t*;

$INDE_{i,t}$: Proportion of independent members in the BOD of company *i* in year *t*;

$SIZE_{i,t}$: Size of company *i* in year *t*;

$LEV_{i,t}$: Financial leverage ratio of company *i* in year *t*;

$LIQ_{i,t}$: Calculate the stock liquidity of company *i* in year *t*.

4.2. Assessment of research models

The research utilizes data from the 100 largest listed companies in VNX AllShare, amounting to 400 observations. However, inconsistencies in report disclosure and presentation among enterprises pose challenges in accessing data for variables within the research model. Consequently, companies unable to provide comprehensive necessary information are excluded from observations for each corresponding year with missing data. After data cleansing, the final study sample comprises 100 stocks with 346 observations, specifically 54 observations fewer than described in Table 2.

Table 2

Descriptive Statistics of Observed Variables

	N	Mean	Std. Dev	Min	Max
NUMSUB	346	12.28	18.11	0	114
NUMAFFI	346	2.85	4.1	0	20
BSIZE	346	6.63	1.64	3	11
INDE	346	0.22	0.15	0	0.6
SIZE	346	13.33	0.66	12.03	15.19
LEV	346	0.56	0.21	0.06	0.96
LIQ	346	5.94	0.68	3.68	7.43
CG	346	64.46	9.96	25.93	89.56
ROA	346	0.06	0.07	-0.1	0.47

Source. Data analysis result of the research

The first dependent variable, CG Score, has an average value of 64.46. This suggests that most companies in the study sample scored higher than the average of all listed companies in the VLCA. However, this score falls below the benchmark set by Southeast Asian countries. While companies in many nations adhere to good governance practices of the G20/OECD, Vietnamese enterprises are still unclear and unprepared to implement these practices effectively.

The second dependent variable, ROA, averages 6%. Compared to the average ROA of listed companies in Vietnam in 2021, which is around 3%, this figure can be considered relatively high. Particularly among the top 100 listed companies in the VLCA, spanning banking, industry, agriculture, real estate, and competitive sectors, this ROA reflects a favorable outcome.

The average Number of Subsidiaries (NUMSUB) is 12.28, relatively low within the range of 0 to 114. The average Number of Affiliated companies (NUMAFFI) is 2.85, which is also relatively low within the range of 0 to 20.

Regarding the control variable Internal Audit Committee (AUCOM), around 19.94% of companies adopt the Internal Audit Committee (IAC) model per new CG regulations instead of the old Supervisory Board (SB) model. The IAC aims to enhance transparency and accountability to investors, ensuring greater independence and professionalism compared to the SB. The IAC conducts detailed audits, focusing on the company’s resources and operations, enhancing the internal control system, transparency, and independence in management, thus improving the company’s credibility and the reputation of the Vietnamese stock market.

Pearson correlation analysis reveals no significant correlation among the independent variables. Thus, all the independent variables mentioned can be utilized for regression analysis, as presented in Table 3.

Table 3

Correlation Matrix between Variables

	NUMSUB	NUMAFFI	AUCOM	SIZE	NDE	IZE	EV	IQ	G	OA
NUMSUB	1.0000									
NUMAFFI	0.3822*	1.0000								
	0.0000									
AUCOM	0.1877*	0.2308*	1.0000							
	0.0004	0.0000								
BSIZE	0.1242*	0.1433*	0.0112	1.0000						
	0.0209	0.0076	0.8357							
INDE	0.0582	0.0897	0.3282*	0.0380	1.0000					
	0.2805	0.0959	0.0000	0.4816						
SIZE	0.2920*	0.0418	-0.0827	**0.4091***	-0.1012*	1.0000				
	0.0000	0.4382	0.1245	0.0000	0.0601					
LEV	0.0847	-0.1218*	-0.0796	0.2919*	-0.1668*	**0.6704***	1.0000			
	0.1157	0.0235	0.1394	0.0000	0.0019	0.0000				
LIQ	0.1683*	-0.0680	0.0075	0.0504	0.1017*	**0.5451***	0.3278*	1.0000		
	0.0017	0.2071	0.8887	0.3495	0.0587	0.0000	0.0000			
CG	0.0534	0.1413*	0.3144*	0.1340*	0.2873*	0.0845	-0.0217	0.0222	1.0000	
	0.3222	0.0085	0.0000	0.0126	0.0000	0.1165	0.6875	0.6809		
ROA	-0.1281*	-0.0097	0.1612*	-0.0943	0.0682	-0.3971*	-0.5759	-0.3176*	0.0935	1.0000
	0.0172	0.8575	0.0026	0.0799	0.2060	0.0000	0.0000	0.0000	0.0824	

Source. Data analysis result of the research

Hausman test suggests that the FEM is the most appropriate model. Subsequently, the Wald test was employed to assess the presence of heteroscedasticity (Baum, 2001). The results revealed the presence of heteroscedasticity in the model. Additionally, autocorrelation tests confirmed the absence of autocorrelation within the models. To address the heteroscedasticity issue, the FGLS method was employed.

Table 4 presents the regression results of Model 1 using the FGLS model, where the independent variable NUMSUB exhibits a negative impact on the CG score at a 1% significance level. This finding contradicts initial expectations but aligns with the research of Feng et al. (2022). This suggests that as the company structure becomes more complex, represented by the number of subsidiaries, operating costs due to loss of control (agency costs) increase, resulting in a decrease in CG quality.

Expanding scale by owning numerous subsidiaries leads to control dispersion, posing risks related to CG, such as loss of control over strategy, supervision, and financial control. These risks can give rise to operating costs due to loss of control (agency costs), thereby affecting CG quality.

Table 4

Results of Model 1 Regression

	Expectation	CG	p-value
NUMSUB	β_1 (+)	-0.0553^{***}	0.001
NUMAFFI	β_2 (+)	0.112	0.215
AUCOM	β_3 (+)	6.402^{***}	0.000
BSIZE	β_4 (+)	0.155	0.483
INDE	β_5 (+)	14.32^{***}	0.000
SIZE	β_6 (-)	2.814^{***}	0.0000
LEV	β_7 (+)	-2.34	0.25
LIQ	β_8 (+)	-1.34^{***}	0.023
Observations			346
R-sq			0.051

Source. Data analysis result of the research

Table 5 presents the regression results of Model 2 using the FGLS model, where the independent variable NUMSUB demonstrates a negative impact on ROA at a 1% significance level. This finding contradicts initial expectations but aligns with the research of Cahyo et al. (2021). Corporate diversification is found to have a negative impact on company business performance.

The study suggests that companies focusing on their core business are better able to allocate resources and capabilities to maximize profits and business performance. Conversely, diversifying activities across multiple industries may lead to resource and capability mismanagement, resulting in power dispersion and reduced business performance. This finding is consistent with the study of Phung and Mishra (2016) on Vietnamese listed companies, which highlighted the negative impact of excessive diversification, particularly when companies venture into unrelated industries.

Table 5

Results of Model 2 Regression

	Expectation	ROA	p-value
NUMSUB	β_1 (+)	-0.0004^{***}	0.000
NUMAFFI	β_2 (+)	-0.0012^{***}	0.000
AUCOM	β_3 (+)	0.0248^{***}	0.000
BSIZE	β_4 (+)	0.0028^{***}	0.000
INDE	β_5 (+)	-0.0058	0.475
SIZE	β_6 (+)	0.0035^{*}	0.065
LEV	β_7 (+)	-0.173^{***}	0.000
Observations			346
R-sq			0.126

Source. Data analysis result of the research

4.2. Discussion

Model 1's results reveal that in BGs, more subsidiaries correlate with lower CG scores, though the impact is modest, reflecting Vietnam's emerging market context. Challenges persist in evaluating CG due to incomplete financial data and limited transparency in some firms, compounded by insufficient motivation within BGs to adopt robust CG practices. Moreover, complexities in CG activities hinder accurate assessments, especially in large conglomerates.

Implementing effective CG in Vietnam faces hurdles, including the concept's novelty for many businesses, lacking stakeholder long-term strategies, and limited management capabilities. Furthermore, expertise shortages among Vietnamese professionals affect CG evaluation and implementation accuracy, impacting reliability.

On a positive note, establishing IACs rather than SBs enhances CG quality by ensuring transparency in financial reporting. This fosters stakeholder trust and assists in risk assessment and investment decisions.

A higher proportion of independent members on the BOD correlates with higher CG scores, which is in line with agency theory. Independent members offer unbiased perspectives and expertise, improving decision-making aligned with international CG standards.

Contrary to initial expectations, firm size significantly boosts CG scores, reflecting larger companies' ability to manage complexities with effective systems and resource allocation. Increased resources allow for better CG investment, ultimately enhancing CG capabilities and scores, contingent on robust systems and operations.

Contrary to expectations, stock liquidity negatively affects CG scores. Increased stock trading activity in corporate groups often correlates with decreased CG efficiency. Prior research has discussed the adverse effects of liquidity on CG, proposing that heightened monitoring by small shareholders can dilute control by larger shareholders within the company (Bhide, 1993; Burkart et al., 1997; Kahn & Winton, 1998). Bhide (1993) contends that high liquidity enables small shareholders to swiftly sell shares, resulting in frequent ownership changes and excessive monitoring. Similarly, Burkart et al. (1997) argue that such monitoring can weaken control and oversight by large shareholders. Kahn and Winton (1998) propose that excessive monitoring by small shareholders may devalue large shareholders, given their relative lack of expertise compared to large shareholders' capacity for effective control and monitoring.

Three variables-number of subsidiary companies, size of the BODs, and financial leverage ratio, show no statistically significant impact on the research model. The lack of significance regarding the number of subsidiary companies aligns with Hanifa et al. (2018), who found no direct link between subsidiary count and CG quality. Similarly, the size of the BOD doesn't significantly affect CG quality; while larger boards may offer benefits, issues like coordination inefficiency arise as the size increases. Financial leverage doesn't notably impact CG scores, highlighting the multifaceted nature of CG assessment, which encompasses shareholder rights, transparency, and BOD responsibilities.

In Model 2, greater subsidiary presence within a BG correlates with lower business performance, especially notable amidst Covid-19's impact. While BG affiliation can enhance market power, it also risks monopolistic practices and transparency issues, potentially diminishing business efficiency.

Replacing the SB with an IAC positively influences ROA, indicating improved professionalism and control efficiency. Similarly, a larger BOD size correlates with higher ROA, aligning with resource dependence theory, though its impact is relatively small given management quality issues in emerging markets like Vietnam.

Company size significantly affects ROA, reflecting the advantages of scale in negotiation and investment. Surprisingly, financial leverage negatively impacts business efficiency, potentially due to inefficient capital usage. Meanwhile, an independent BOD doesn’t directly impact business efficiency, suggesting other factors influence company performance.

5. Conclusions

The sample’s descriptive statistics reveal that the average level of good CG performance, as per the VCGS criteria, among the largest listed companies in the VNX Allshare basket is approximately 64.46. This falls significantly short of the maximum possible score of 110. The disparity underscores a lack of emphasis on implementing robust CG practices among Vietnamese firms, signaling a pressing need for concerted efforts to enhance CG performance.

Regression findings suggest that the intricate structure of BGs, characterized by multiple subsidiaries and affiliates, does not enhance CG or business efficiency. Instead, this complexity correlates with lower CG and business efficiency within the group, consistent with prior research conducted in Asian countries (Cahyo et al., 2021; Feng et al., 2022; Sanan et al., 2021). This finding resonates with the research by Phung and Mishra (2016) within the Vietnamese market context. Experts note Vietnam’s strides in CG, particularly in bolstering specialized committees overseeing BODs’ activities, enhancing BOD independence, and reinforcing the audit function. However, a robust legal framework is imperative for Vietnamese enterprises to fortify their CG foundation. Additionally, businesses, BOD members, and market participants must possess adequate experience, expertise, professional ethics, and a profound understanding of CG’s significance for individual businesses and the broader economy.

The research results also contribute to validating the relationship between control variables and CG and business efficiency. In Model 1, IAC, independent BOD, and business size have a positive impact on CG quality, while stock liquidity has an inverse relationship with CG quality. However, the variables BOD size and financial leverage ratio do not exhibit a significant relationship with CG quality. In Model 2, IAC, BOD size, and company size positively influence business efficiency, while the financial leverage ratio has an inverse relationship with business efficiency. However, the research findings do not identify a significant relationship between the independent BOD variable and business efficiency.

This study makes a significant contribution to the existing literature and theoretical frameworks surrounding CG, particularly regarding the interaction between BG structure and CG effectiveness alongside business performance. Given the limited current research in this area, especially concerning Vietnam, the study enriches understanding of the complexities within the Vietnamese corporate landscape. It offers nuanced insights into the relationship between various variables, illuminating the specifics of the Vietnamese context. Furthermore, the study advances theoretical discourse by proposing strategic recommendations tailored to the challenges encountered by Vietnamese companies, thus bridging the theory-practice gap. By exploring cross-ownership transparency, the role of independent boards, and the adoption of the IAC model, the study introduces valuable dimensions to the literature, presenting a comprehensive and contextually relevant perspective on CG in Vietnam.

The study proposes recommendations to enhance CG quality and business efficiency in Vietnamese-listed companies in terms of:

- Awareness Aspect: To foster a culture of effective CG, an intensified focus on awareness is crucial. Initiatives such as educational programs and awards organized by business associations can significantly contribute to elevating CG quality. Broadening the scope of existing awards beyond listed companies will further incentivize responsible management practices.

- Legal Aspect: A robust legal foundation is imperative for shaping governance practices. The study advocates for a stringent legal framework, emphasizing the roles and responsibilities of the BOD, shareholder rights, and equitable treatment among shareholders. The Government and the State Securities Commission have issued many laws regulating the responsibilities and behavior of employees, such as the Enterprise Law in 2020 and the Securities Law in 2019, to protect the rights of shareholders. and stakeholders. However, investment into CG is still a challenge for businesses, especially in developing countries, because of financial and resource constraints. Government intervention in legislation is pivotal to ensuring strict compliance, striking a balance between overall development and adherence to legal requirements.

- Business Efficiency Improvement: Ensuring adherence to both domestic and ASEAN governance disclosure standards is essential. Furthermore, companies must enhance the quality of voluntary information disclosure, including comprehensive reports covering sustainable development, management insights, and annual performance. Transparency in cross-ownership situations, facilitated by thorough disclosure, will aid investors inaccurate assessments.

- Electronic Information Platform: The study emphasizes the need for providing English versions of company websites and reports, catering to the diverse audience of both domestic and international investors. Strengthening the technical infrastructure and display quality of these platforms will enhance the overall investor experience.

- Timely Disclosure: Timely and accurate disclosure of financial reports is identified as a critical element in maintaining regulatory compliance and preserving a company's value. Overcoming challenges related to remote document signing can be addressed through the implementation of innovative information management solutions, including data science and machine learning.

- Transparency in Cross-Ownership: Complete transparency regarding cross-ownership structures is paramount. Companies must disclose comprehensive information about subsidiaries, joint ventures, affiliates, ownership ratios, and relevant transactions. This transparency is instrumental in helping investors assess the group's control over affiliated entities.

- Independence of the BODs: Electing independent BODs is advocated to ensure objectivity in overseeing and managing the company. Emphasis on monitoring BOD activities is necessary to ensure independence and objectivity, minimizing undue influence from major shareholders.

- Audit Committee: Promoting the adoption of the IAC model is recommended to enhance professional standards and transparency. Increasing awareness among businesses about the pivotal role of the IAC in risk assessment and providing recommendations for improved business operations is essential.

- Role Model: By implementing recommended CG practices, BGs can serve as role models for small and medium enterprises, encouraging widespread adoption of CG principles.

Furthermore, improved CG practices can attract greater foreign direct investment by building trust and confidence among international investors. This can lead to increased access to capital and lower borrowing costs for Vietnamese companies. Strong CG practices might foster a culture of transparency and accountability, leading to better decision-making and improved long-term sustainability for Vietnamese companies. Improving CG can go beyond the immediate benefits for Vietnamese companies, helping the overall economic development and Vietnam's international position.

Due to time constraints, the study only conducted an analysis and examined the relationship between group company structure, CG quality, and business efficiency in the 100 largest listed companies on the VNX Allshare as of April 2022, with data collected over a four-year period (2018 - 2021). Therefore, the sample may not fully reflect the entire Vietnamese market. To ensure more comprehensive and widespread results for the overall market, future research is expected to increase the number of observations to include more companies from both HOSE and HNX exchanges and extend the observation period.

While there exists a rich body of literature on CG, the relationship between BG structure and CG quality has not received adequate attention. Most previous studies describe the complexity of corporate structures through diversification in industries and business sectors. Consequently, the current research lacks a solid theoretical foundation for using the number of subsidiaries and affiliated companies to represent the complexity of the group company structure. However, this assumption is entirely based on OECD theories, which have been extensively discussed in recent years regarding group company governance. The author anticipates that the collected data and the results of this study will contribute to future research on group companies in Vietnam.

ACKNOWLEDGEMENTS

This research is funded by Vietnam National Foundation for Science and Technology Development (NAFOSTED) under grant number 502.02-2020.305. Any opinions expressed are those of the authors and not those of NAFOSTED.

Disclaimer of conflict of interest

The author group commits to owning the legal copyright of the article, commits that the article has never been published before, and commits not to submit the article to another journal during the review period.

References

Abor, J. (2007). Corporate governance and financing decisions of Ghanaian listed firms. *Corporate Governance: The International Journal of Business in Society*, *7*(1), 83-92.

Akpan, E. S., & Riman, H. B. (2012). Does corporate governance affect bank profitability? Evidence from Nigeria. *American International Journal of Contemporary Research*, *2*(7), 135-145.

Amato, L. H., & Burson, T. E. (2007). The effects of firm size on profit rates in the financial services. *Allied Academies International Conference Academy for Economics and Economic Education Proceedings*, *10*(1), Article 1.

Anderson, R. C., Mansi, S. A., & Reeb, D. M. (2004). Board characteristics, accounting report integrity, and the cost of debt. *Journal of Accounting and Economics*, *37*(3), 315-342.

Anum Mohd Ghazali, N. (2010). Ownership structure, corporate governance and corporate performance in Malaysia. *International Journal of Commerce and Management, 20*(2), 109-119.

Baltagi, B. H. (1981). Pooling: An experimental study of alternative testing and estimation procedures in a two-way error component model. *Journal of Econometrics*, *17*(1), 21-49.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, *17*(1), 99-120.

Baum, C. F. (2001). Residual diagnostics for cross-section time series regression models. *The Stata Journal*, *1*(1), 101-104.

Bhide, A. (1993). The hidden costs of stock market liquidity. *Journal of Financial Economics*, *34*(1), 31-51.

Black, B. S., Jang, H., & Kim, W. (2006). Predicting firms' corporate governance choices: Evidence from Korea. *Journal of Corporate Finance*, *12*(3), 660-691.

Burkart, M., Gromb, D., & Panunzi, F. (1997). Large shareholders, monitoring, and the value of the firm. *The Quarterly Journal of Economics*, *112*(3), 693-728.

Byrnes, N., Henry, D., Thornton, E., & Dwyer, P. (2003). Reform: Who's making the grade a performance review for CEOs, boards, analysts, and others. *Business Week, 3850*, 80-80.

Cahyo, H., Kusuma, H., Harjito, D. A., & Arifin, Z. (2021). The relationship between firm diversification and firm performance: Empirical evidence from Indonesia. *The Journal of Asian Finance, Economics and Business*, *8*(3), 497-504.

Campbell, J. Y., Grossman, S. J., & Wang, J. (1993). Trading volume and serial correlation in stock returns. *The Quarterly Journal of Economics*, *108*(4), 905-939.

Chang, S. J., & Hong, J. (2000). Economic performance of group-affiliated companies in Korea: Intragroup resource sharing and internal business transactions. *Academy of Management Journal*, *43*(3), 429-448.

Chhibber, P. K., & Majumdar, S. K. (1997). *Foreign ownership and profitability: Property rights, strategic control and corporate performance in Indian industry* (Working Paper No. 64). William Davidson Institute. https://hdl.handle.net/2027.42/39454

Dalton, D. R., Daily, C. M., Certo, S. T., & Roengpitya, R. (2003). Meta-analyses of financial performance and equity: Fusion or confusion? *Academy of Management Journal, 46*(1), 13-26.

Dao, V. D. (2007). *Hoàn thiện cơ chế tài chính của công ty dịch vụ - Du lịch dầu khí theo mô hình công ty mẹ - công ty con UEH* [Improving the financial mechanism of the oil and gas tourism service company under the parent-subsidiary company model] [Master's thesis]. University of Economics Ho Chi Minh City.

Deloitte, D. T. T. L. (2013). *Governance of subsidiaries: A survey of global companies.* Deloitte. https://www2.deloitte.com/content/dam/Deloitte/in/Documents/risk/Corporate%20Governance/in-gc-governance-of-subsidiaries-a-survey-of-global-companies-noexp.pdf

Dougherty, C. (2011). *Introduction to econometrics*. Oxford University Press.

Dwianika, A., & Murwaningsari, E. (2019). The effect of Asean's corporate governance scorecard and company culture on profit management with ultimate ownership as a moderating variable. *International Journal of Business, Economics and Law (IJBEL), 18*(5), 197-207.

Ehikioya, B. I. (2009). Corporate governance structure and firm performance in developing economies: Evidence from Nigeria. *Corporate Governance: The International Journal of Business in Society*, *9*(3), 231-243.

Feng, Y., Yao, S., Wang, C., Liao, J., & Cheng, F. (2022). Diversification and financialization of non-financial corporations: Evidence from China. *Emerging Markets Review*, *50*, Article 100834.

Frederick, W. R. (2014). *Challenges in group governance: The governance of cross-border bank subsidiaries*. http://hdl.handle.net/10986/26117

Ghemawat, P., & Khanna, T. (1998). The nature of diversified business groups: A research design and two case studies. *The Journal of Industrial Economics*, *46*(1), 35-61.

Granovetter, M. (2005). Business groups and social organization. In N. J. Smelser & R. Swedberg (Eds.), *Handbook of economic sociology* (pp. 429-450). Princeton University Press.

Gujarati, D. (1995). *Basic Econometrics* (3rd ed.). McGraw-Hill.

Hanifa, H., Hamdan, M., & Haffar, M. (2018). Dividend policy in the banking sector in G-7 and GCC countries: A comparative study. *Risk Governance and Control: Financial Markets & Institution*, *8*(3), 70-79.

Hausman, J. A. (1978). Specification tests in econometrics. *Econometrica: Journal of the Econometric Society*, *46*(6), 1251-1271.

Ho Chi Minh City Stock Exchange (HSX), Hanoi Stock Exchange (HNX) and Vietnam Investment Review. (2021). *Vietnam Corporate Governance Scorecard award with list*. https://www.aseansc.com.vn/uploads/2021/12/29/20211229_20211229%20%20BaoCaoDanhGiaQTCT_VLCA2021_Final%20ban%20nhe%20CBTT.pdf

Husnaini, W., & Basuki, B. (2020). ASEAN corporate governance scorecard: Sustainability reporting and firm value. *The Journal of Asian Finance, Economics and Business (JAFEB)*, *7*(11), 315-326.

Jenson, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, *3*(4), 305-360.

John, K., & Senbet, L. W. (1998). Corporate governance and board effectiveness. *Journal of Banking & Finance*, *22*(4), 371-403.

Kahn, C. M., & Winton, A. (1998). *Ownership structure, liquidity demand, and shareholder monitoring*. Social Science Research Network. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6764

Keister, L. A. (2001). Exchange structures in transition: Lending and trade relations in Chinese business groups. *American Sociological Review*, *66*(3), 336-360.

Khanna, T., & Rivkin, J. W. (2001). Estimating the performance effects of business groups in emerging markets. *Strategic Management Journal*, *22*(1), 45-74.

Le, T. M., & Walker, G. (2008). Corporate governance of listed companies in Vietnam. *Bond Law Review*, *20*(2), 118-197.

Leff, N. H. (1978). Industrial organization and entrepreneurship in the developing countries: The economic groups. *Economic Development and Cultural Change*, *26*(4), 661-675.

Li, W. X., Chen, C. C. S., & French, J. J. (2012). The relationship between liquidity, corporate governance, and firm valuation: Evidence from Russia. *Emerging Markets Review*, *13*(4), 465-477.

Liu, Y., Miletkov, M. K., Wei, Z., & Yang, T. (2015). Board independence and firm performance in China. *Journal of Corporate Finance*, *30*, 223-244.

Naveed, F., Khurshid, M. K., & Shakeel, M. (2015). Factors affecting the corporate governance disclosure: An analysis of manufacturing firms of Pakistan. *European Journal of Business and Management ISSN*, *7*(22), 2222-1905.

Nguyen, P., Rahman, N., Tong, A., & Zhao, R. (2016). Board size and firm value: Evidence from Australia. *Journal of Management & Governance*, *20*, 851-873.

Nguyen, T. N., & Nguyen, T. T. T. (2017). Mối quan hệ giữa tính thanh khoản cổ phiếu, quản trị công ty và giá trị doanh nghiệp: bằng chứng thực nghiệm tại Việt Nam [The relationship between stock liquidity, corporate governance, and firm value: Empirical evidence from Vietnam]. *Tạp chí Khoa học Đại Học Mở Thành phố Hồ Chí Minh-Kinh Tế và Quản Trị Kinh Doanh*, *12*(2), 100-112.

Organization for Economic Cooperation and Development (OECD). (2015). *Indonesia - OECD corporate governance policy dialogue. corporate governance of financial groups*. https://www.oecd.org/daf/ca/PaperIndonesia2Dec2015.pdf

Organization for Economic Cooperation and Development (OECD). (2022). *Good policies and practices for corporate governance of company groups in Asia*. https://www.oecd.org/corporate/good-policies-practices-for-corporate-governance-company-groups-in-asia.htm

Peng, M. W., Lee, S. H., & Wang, D. Y. (2005). What determines the scope of the firm over time? A focus on institutional relatedness. *Academy of Management Review*, *30*(3), 622-633.

Phung, N. D., & Mishra, A. V. (2016). Corporation diversification and firm performance: Evidence from Vietnamese listed firms. *Australian Economic Papers*, *55*(4), 386-408.

Sanan, N. K., Jaisinghani, D., & Yadav, S. (2021). Corporate governance, firm performance, and business group affiliation: Evidence from India. *Management Decision*, *59*(8), 1863-1876.

Simamora, A. J. (2020). ASEAN corporate governance scorecard and firm value. *International Journal of Finance, Insurance and Risk Management*, *X*(3), 66-80.

Sinaga, J. G., Djajadikerta, H., & Setiawan, A. (2022). Factors affecting corporate governance and its implication on accounting information quality: Indonesia trusted company awardees. *International Journal of Family Business Practices*, *5*(1), 1-30.

Sørensen, K. (2021). *The governance of company groups.* OECD Publishing. https://www.oecd.org/en/publications/the-governance-of-company-groups_6302f79a-en.html

Tomar, S., & Bino, A. (2012). Corporate governance and bank performance: Evidence from Jordanian banking industry. *Jordan Journal of Business Administration*, *8*(2), 353-372.

Venkatraman, N., & Ramanujam, V. (1986). Measurement of business performance in strategy research: A comparison of approaches. *Academy of Management Review*, *11*(4), 801-814.

Wooldridge, J. M. (2002). Econometric analysis of cross section and panel data MIT press. *Cambridge Ma*, *108*(2), 245-254.