ESSENTIAL OF CORPORATE GOVERNANCE ON PERFORMANCE OF COMMERCIAL BANKING INSTITUTIONS IN SOUTHEAST ASIA AND EAST ASIA

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DECLARATION

I hereby declare that:

(1) This Research Project is the end result of my own work and that due acknowledgement has been given in the references to all sources of information be they printed, electronic, or personal.

(2) No portion of this research project has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.

(3) The word count of this research report is 20,860 words.

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DEDICATION

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LIST OF ABBREVIATION

ANOVA	Analysis of Variance
BOD	Board of Director
CPI	Corruption Perceptions Index
CEO	Chief Executive Officer
CB	Commercial Bank
CG	Corporate Governance
EA	East Asia
GDP	Gross Domestic Product
GCC	Gulf Cooperation Council
ROA	Return on Asset
ROE	Return on Equity
RDT	Resource Dependency Theory
SEA	Southeast Asia
VIF	Variance Inflation Factor

PREFACE

MKMB25106 Research Project is a compulsory research project that all the master students should complete the study for Master of Business Administration (Corporate Governance). The topic of the research project conducted is Essential of Corporate Governance on Performance of Commercial Banking Institutions in Southeast Asia and East Asia. This research project is conducted to demonstrate the essence of corporate governance on the operation of banking institutions in Asia. Hence, the corporate governance variables included in this study includes the board size, number of non-executive directors, the existence of female director, CEO duality, and the existence of CEO on the board. In addition, there are two banks specific factors included as control variables which is bank age and bank liquidity. The commercial banks' performance will be measured by the accounting-based measures, including return on asset (ROA) and return on equity (ROE). These accounting-based measures could demonstrate how efficient commercial banks generate the income relative to its total asset and equity invested. The main differentiator between ROE and ROA is financial leverage, whereby the ROA will taking into account of company's debt, while ROE will be calculated by exclude the company's debt. As a result, ROA will reflects the efficiency of the funds that invested by the equity shareholders, preferred shareholders, and also total debt investment while the ROE will only consider the equity investors.

ABSTRACT

Corporate governance (CG) is growing and has become an essential mechanism that affects the firm's performance, especially financial institutions. The widespread corruption cases in ASEAN countries generally reflect the weak governance in SEA and EA countries. In order to deter the widespread corruption that threatens economic growth, strong corporate governance structures of banking institutions have become essential than ever. In fact, a number of previous studies examined the association between CG and banks' performance. However, there is a lack of research that comparing the roles of CG in SEA and EA countries. This paper aims to more precisely examine the impact of CG mechanisms on the commercial bank's performance across SEA and EA countries. This paper has involved five corporate governance variables, board size, number of non-executive directors, the existence of female directors, CEO duality, and the existence of CEO on the board while controlling the bank-specific factors such as bank size and bank liquidity. Moreover, the assets on asset and return on equity will be used to measure the performance or value of commercial banks. Besides, this paper tested a total sample of 99 commercial banks across SEA and EA countries for 2020 by carrying out a cross-sectional regression analysis. This study reveals that the board size, existence of non-executive director, and presence of CEO in the boardroom are typically demonstrated mixed relationship, while CEO duality is negative significantly influence on the CB's performance. Lastly, there is a significant finding in this paper, whereby the presence of the female director in the boardroom display an adverse correlation with the CB's performance. This finding is contradict with the mandatory pass by many countries to promote the gender diversified boardroom.

Keywords: Bank Performance, ROA, ROE, Board Size, Non-executive Directors, Female Director, CEO Duality, Presence of CEO on board, Bank Size, Bank Liquidity.

CHAPTER 1: RESEARCH OVERVIEW

1.0 Introduction

Chapter one starts with the research background by identifying the latest global economic situation and defining corporate governance (CG) terms. This is followed by outlined the problem statement, objectives of the study, and research questions. Moreover, the significance of this study is also elaborated, and the chapter layout is properly planned.

1.1 Research Background

Due to the COVID-19 pandemic, the economy dived. Businesses shut down, and many were set back financially, not to mention emotionally. This year the global economy was recovering from the pandemic-induced recession, with a combination of surging demand and disrupted supply chains that have led to a dramatic increase in inflation across many countries. Southeast Asian and East Asia economies in 2021 are widely emphasizing to regain the growth momentum they had before the COVID-19 pandemic triggered historic declines in the year 2020. As a result, people from all walks of life struggle financial problems. OECD (2020) claimed that the prolonged COVID-19 pandemic had generated a variety of challenges and uncertainty for banking institutions in terms of financial instability. During this challenging time, the banking institution played an essential role in preserving financial stability while continuing emphasized on assisting their clients through the difficult times (Bellen, Pogson, Bedford & Meekings, 2020). In fact, the banking sector was the first to recover as it will be needed for a strong recovery after the crisis. The banking sector has also played essential role in distributing various governments' fiscal packages to drive the immediate economic recovery of a country (Bellens et al., 2020).

In light of the ongoing COVID-19 pandemic, strong corporate governance structures have become essential than ever. Bank regulators and shareholders expect the banking institutions' boards of directors to actively oversee and monitor the business. This is owing to corporate governance will assist in navigating the unexpected effectively, identifying the changes it brings, and practicing for long-term survival. Banking institutions are also crucial during the post-pandemic economic recovery of a country. According to DBS Bank Indonesia (2021), financial institutions are always ready to support efforts to overcome the economic crisis triggered by the pandemic. The worse global economic condition tends to increase the commercial bank's risk of facing non-performing loans and bad debts. In this case, sound corporate governance may ensure the financial stability and sustainability of the commercial banks.

Based on Australian National Audit Office (1999) defined that corporate governance as "the process and structure used to direct and manage the business and affairs of the company towards promoting business prosperity and corporate accountability with the ultimate objective of realising long-term shareholder value while taking into account the interest of other stakeholder". Malaysian Code of Corporate Governance (2021) further outlined that CG offers a framework of control mechanisms that support the company in attaining its objectives while avoiding unwanted conflict. The foundations of CG, such as ethical behaviour, accountability, transparency, and sustainability, are essential to governance organizations and investor's capital management. Besides, organizations that practice these principles tend to generate long-term value than companies that do not. The main objective of CG was ensuring the interest of stakeholders in conformity with public interest on a sustainable basis. The critical components of sound CG principles generally consist of honesty, trust, integrity, openness, performance orientation, responsibility and accountability, mutual respect, and commitment to the organization on ("Malaysian Code of Corporate Governance," 2021).

According to Basel Committee on Banking Supervision (2015), the financial system exists to stabilize the economy of a country. Thus, sound CG is vital to ensure the banking institution operating efficiently. This is because it enables the intermediary financial process, which mobilizes the flow of funds between depositors and borrowers, making sure the effective allocation of financial resources to boost economic growth and development of a country. Financial stability defined as a smooth operation of the financial intermediation process and high level of confidence in major banking institutions and markets in the economy. When the bank's financial stability is enhanced, it will be central to the overall economic health.

Hence, CG is becoming a vital component of market discipline, driving the demand for strong CG mechanisms from investors and other financial market participants (Ramsay, 2005). Besides, corporate governance is also practiced to control the risk and offset the agency problem in the banking institutions (Peni & Vahamaa, 2012). Governance risk typically refers to risk culture, risk appetite, and their relationship to a bank's risk capacity. Furthermore, the essence of corporate governance for firm valuation, performance, and stability has been demonstrated in Bhagat and Bolton (2008) and Morey, Gottesman, Baker and Godridge (2009).

Previously, there were many research investigates on the association between CG and bank performance across various country. The study results demonstrate a mixed result due to contextual differences between studies, and some lack control variables in the analysis. On the other hand, few papers examined the CG mechanism on the performance of banking institutions in Asian countries, such as (Nguyen & Vo, 2020; Sobhy & Hussain, 2017). These studies show that board size, CEO duality could positively influence bank performance. The significant positive relationship between board size and the firm's performance is also further supported by a previous study in China (Li, Zhou, Zhou & Chen, 2021), Philippine (Kabigting, 2011) India (Abdul Gafoor, Mariappan & Thyagarajan, 2018) while contradicting with the research in Gulf Cooperation Council (Al-Musalli & Ismail, 2012; Naushad & Malik, 2015).

In Malaysia, the CG mechanism of the composition of non-executive directors was also found to significantly influence a firm's financial performance (Alhaji, Baba & Yusoff, 2013), which contradict with study in Nigeria (Olubukunola & Stephen, 2011), Pakistan (Sheikh & Schwarte, 2013). In terms of board gender diversity, Chan and Heang (2010) reported that the board gender diversity is negatively correlated with the firm performance in Malaysia's commercial banks supported by the study in Pakistan (Mirza, Andleeb & Ramzan, 2012), Norway (Yang et al., 2019), while the result disagreed by the study (Romano et al., 2012).

1.2 Problem Statement

In the past 20 years, the globalization of capital markets has led to the historic development of financial integration worldwide (Venard & Hanafi, 2008). However, globalization cannot promote the complete homogeneity of financial markets and institutions. There are still some local restrictions that limit the capabilities of the global financial services environment (Venard & Hanafi, 2008). Conflict of interest, oversight issues, accountability issues, transparency, and ethics violations are the common pitfalls in any organization, including financial institutions (Nabilah & Syazwani, 2017). These issues arise had indicated that the significance of corporate governance in an organization, as a poor policy, can expose the organization to lawsuit, reputational damage, fines, and loss of capital investment.

According to the report of the Asian Corporate Governance Association (2021), Hong Kong (an Asia leading international financial centre), further corporate governance improvements are needed as the city and financial centre in Asia continue to lag behind on some governance best practices. When addressing regulatory and enforcement issues, Hong Kong is at its most determined; however, it has lost its nerve when it comes to driving foundation improvement in an organization's governance (Bray, 2021). The report also found that Hong Kong's corporate sector displays "limited willingness" to practice high governance

standards. Furthermore, they stated that due to lack of lead independent directors, they tend to set a higher bar for board diversity, independent directors, and the quality of governance reporting. The report also found that the corruption issues also worsen in Hong Kong and Australia, and Singapore (Bray, 2021).

Furthermore, Loh, Thi, Thao, Lee and Thomas (2020) also reported that ASEAN's record on anti-corruption performance seems unsatisfactory. Despite continuing efforts to resolve the issue, corruption cases are still widespread. Based on the Corruption Perceptions Index (CPI) measured by Transparency International, which focuses on the perception of corruption in the public sector, the average CPI score of ASEAN countries in 2020 is 41.7 points. It demonstrated a decline compared with 42.3 points in 2019; however, it is also lower than the average score of 43.3 points for 180 countries and regions evaluated globally in 2020. Table 1.1 shows the CPI scores and rankings across 14 Southeast Asia (SEA) and East Asia (EA) countries in 2020. According to the table, Singapore had marked the best ranking and top performance among ASEAN countries, which gained from its national commitments to corruption control, especially in the public sector. Among the remaining thirteen countries, Hong Kong, Japan, Taiwan, South Korea and Brunei Darussalam, are considered less corrupt than China, Mongolia, Malaysia, Thailand, Vietnam, Indonesia, Philippines, and Cambodia. In recent years, the CPI performance of most ASEAN countries has remained stagnant and below World's average.

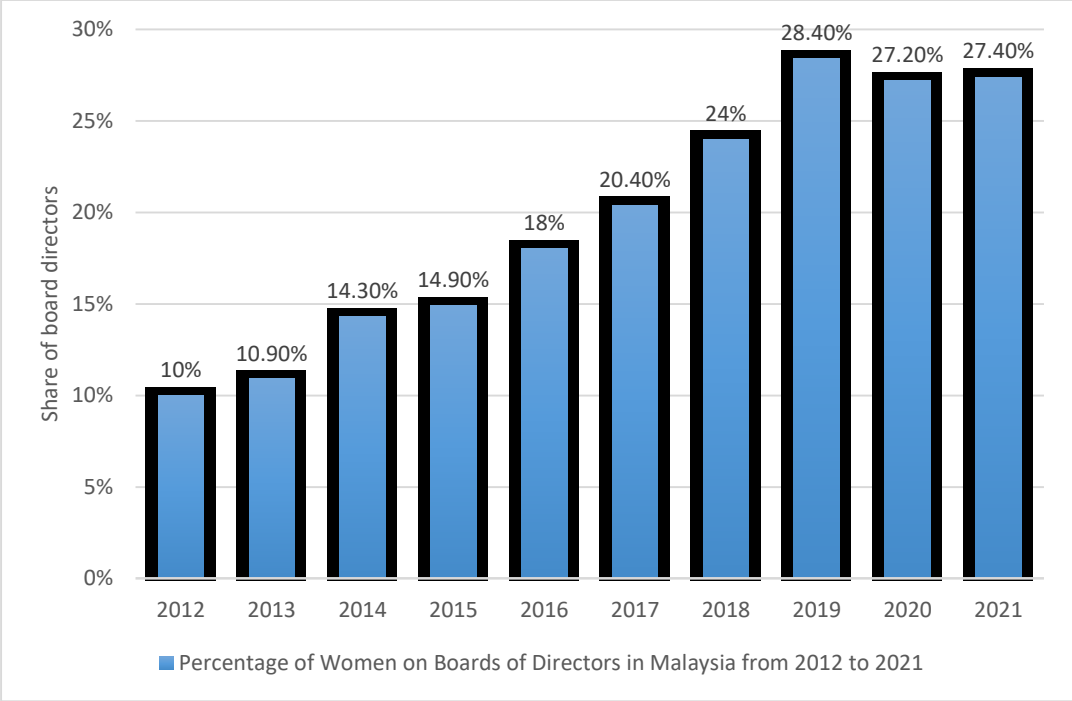
Table 1.1: CPI Scores and Rankings Across EA and SEA Countries

Country	Rank 2020	CPI Score 2020
East Asia Region		
Hong Kong	11	77
Japan	19	74
Taiwan	28	65
South Korea	33	61
China	78	42
Mongolia	111	35
	Average CPI Score	**59**
Southeast Asia Region		
Singapore	3	85
Brunei Darussalam	35	60
Malaysia	57	51
Indonesia	102	37
Thailand	104	36
Vietnam	104	36
Philippines	115	34
Cambodia	160	21
	Average CPI Score	**45**

Source: Transparency International

Yeap (2020) reported that although there was an improvement in promoting gender diversity in the boardroom, however, the progress remains low. As of 2021, the percentage of women on boards of directors in Malaysia marked 27.4% (refer to Table 1.2) and still has not achieved the 30% threshold of women directors, which implemented since 2011. In line with this, the Malaysia government mandates that public companies must have at least one female director and will take effect from 1st September of 2022, for capital companies, while 1st of June, 2023, for public listed companies in the Malaysia Budget 2022. (Raghu & Shukry, 2021). Malaysia Finance Minister Zafrul Abdul Aziz claimed that the role of females should be recognized in the decision-making process and enhancing leadership and effectiveness of the BOD (Raghu & Shukry, 2021). Executive director of All Women's Action Society, Nisha Sabanayagam, further emphasizes that a balanced gender composition board can finally lead to more creativity and innovation. Besides, California law also required all local publicly headquartered traded companies must have at least one female director in the boardroom by 2020 (Creary, McDonnell, Ghai & Schrugges, 2019). This is because it believes that diverse viewpoints could positively influence the success and sustainability of an organization. Generally, board diversity is justified as a key to better CG.

Table 1.2: Percentage of Women on Board of Directors in Malaysia from 2012 to 2021



Source: Statista

In addition, an effective financial system is essential, because it mobilizes domestic capital and a tool to gain a competitive advantage in the global capital market ("International Monetary Fund," 2021). In this case, commercial banks play as a vital group, and they perform several types of intermediation ("International Monetary Fund," 2021). Commercial banks convert and allocate uncertainties incorporated with default risk, including claims for depositors that are safeguarded to losses to some extent ("International Monetary Fund", 2021). Thus, good corporate governance practice is vital in commercial banking institutions as it is integral to the bank's performance and long-term sustainability ("Malaysian Code of Corporate Governance," 2021).

According to Young, Ahlstrom and Bruton (2016), the study mentioned that the Asian companies is still find themselves in a dilemma between embracing the new economy and trying to maintain traditional practices embedded in their diverse traditional culture. As a result, this dilemma is displayed in the ingoing reform of CG practices is Asia countries. For instances, the tradition mind-set of minimum disclosure to the public to maintain their competitive position in the market. The minimum transparency culture causes a corporate governance difficult to practices and adopt by the board of directors of the companies. In general, the CG practise is remain weak in Asian country (Young et al., 2016).

After reviewing the previous literature, the gap of the study on the influence of CG on the financial institution is identified in SEA and EA. There was lack of research on investigating the significance of CG on banking institutions in SEA and EA countries. Hence, this study emphasizes on studying the influence of CG on the performance of commercial banking institutions across SEA and EA countries.

1.3 Objectives of Study

This paper's main objective is to examine the influence of CG mechanism on the commercial banks' performance in both Southeast Asia (SEA) and East Asia (EA) countries in the year 2020. The objectives are accomplished by investigating the CG variables over the SEA and EA countries and measure the bank performance based on profitability. Furthermore, the objectives to investigate the commercial banks in SEA and EA countries is due to this two region have a lower average CPI scores as compared to other region in the world (refer to Table 1.1). However, in between these two regions the average CPI scores and rankings of EA is relatively higher as compared to SEA countries.

1.4 Research Questions

a. Does the board size a matter to influence the bank's performance?
b. Does the number of non-executive director significant to affect bank's performance?
c. Does the presence of at least one female director in the boardroom brings gender diversity that can improve bank's performance?
d. Does dual roles of the CEO will enhance the bank performance?
e. Does the presence of the CEO in the boardroom will improve the performance of bank?

1.5 Significance of Study

Firstly, the significance of this paper is to generate greater awareness and detailed reflection on the importance of various mechanisms of corporate governance that can impact commercial banking's performance. This is due to these mechanisms were significant to form a system of rules and practiced to demonstrate how well an organization operates and aligns the interest of all the stakeholders. Furthermore, this research is essential to enhance the knowledge and understanding of the policymakers and bank top management to implement corporate policies strictly. For instances, this study will conform to the Malaysian government's policy to mandates at least one female director to promote corporate governance structure in public listed company in Malaysia (Raghu & Shukry, 2021). Also, the essential of government's mandatory to promote gender diversity in boardroom in Singapore and Hong Kong can be demonstrated in this study. Lastly, this study will help the directors and management team to improve and practice a high level of corporate governance in their daily operations. A strong corporate governance structure will generally lead to ethical business practices, which result in financial viability.

1.6 Chapter Layout

In general, this study comprises five chapters. The first chapter generally emphasizes the general picture of this study, which consists of the background of the study, problem statement, research objective, questions, and significance of the research. Chapter two will demonstrate the literature review, which consists of previous scholar's review, theoretical models, conceptual framework, and development of hypotheses for the study. Furthermore, chapter three will discuss the research data and methodology. Chapter three will discuss the data collection method, research design, the sample used, research model, and diagnosis checking. Moreover, chapter four will analyze and interpret the results from SPSS Software based on the econometrics model showed in chapter 3. Finally, chapter five will conclude with the study's result, implication, limitation, and recommendations for future the scholar.

1.7 Conclusion

In short, chapter one provides a brief overview of the background of the study, the problem statement of the study, research objectives and questions, and the significance of the research. As mentioned, the banking industries is important in promoting the economic performance of a country; hence, it is vital to determine the CG variables that will affecting the banking institution's performance. This paper will investigate the influence of CG mechanisms on the CBs' performance in SEA and EA countries for the year 2020. Finally, the previous researcher's review, underlying theory, and conceptual framework will be covered in the following chapter.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

In this chapter, it consists of the underlying theories that support the CG variables. Besides, previous studies are reviewed for the relevant research variable. There are generally independent, dependent and control variable will be adopted in this research. Moreover, this chapter will cover the research framework and hypotheses development and a conclusion for this chapter.

2.1 Underlying Theory

There is a total of six theory implemented to support the identified CG variables. The six theories included agency theory, stewardship theory, resource dependency theory, stakeholder theory, managerial-hegemony theory, and gender stereotyping theory.

2.1.1 Agency Theory

This theory was originated by Jensen and Meckling (1976). They claimed agency theory is the relationship between the principals (shareholders) and agents (directors). The principal will hire and delegate the right of deciding on the directors to run the organization. Besides, agency theory also defines that shareholders expect the directors to make decisions in the principals' best interest. The agency theory's critical characteristics are the spathe ratio of ownership and control.

The different goals and perspectives between principals and agents will raise a conflict, because some directors may not act in the principal's best interest. Also, the miscommunication and disagreement between principal and agents may raise issues and discord within companies. In the end, this incompatible desires may

lead to inefficiencies and financial losses of organizations. Therefore, the principal-agent problem happens. The issue happens when the interests of a principal and agent come into conflict because each has different objectives or opinions. In order to safeguard investors and the organization's interest, the organization should minimize this situation through solid corporate policy. These conflicts usually present ethical individuals with opportunities for moral hazard.

Hence, CG is required to ensure that the directors hired will play roles to maximize shareholder wealth. Bhuiyan and Biswas (2008) studied these control mechanisms and perceived them to reduce the differences between principals and agent interests significantly. Corporate governance is responsible for a control mechanism and used for effective use of the organization's resources. Specifically, corporate governance is a mixture of external and internal mechanisms that will fully utilize the organization's available resources. In general, CG offers a framework of control mechanisms that support the company in attaining its objectives while avoiding unwanted conflicts ("Malaysian Code of Corporate Governance," 2021). The CG mechanisms that may reduce the agency problem of the company generally included to avoid CEO duality and appointment of non-executive director to ensure the company is operate independently, rather than controlled by someone else. When the company taking into account of these CG mechanism while forming the corporate structure, the agency problem can be minimized.

The Malaysian Code of Corporate Governance (MCCG, 2021) outlined that different individuals should hold the position of Chairman and Chief Executive Officer (CEO) to practice good corporate governance. Separation of the Chairman and CEO positions promotes accountability and facilitates the division of responsibilities between them. In this case, no one can influence the discussions and decision-making of the board. The Chairman's responsibilities should include leading the board in its joint supervision, while the CEO should focus on its business and daily management. In order to make sure the agents have acted in the best interest of principals, agents must award with incentives that stimulating them

to act in unison. Agency theory may be applied to identify these incentives properly by taking into account the interests may motivate the agent to act.

2.1.2 Stewardship Theory

Stewardship theory was established by Donaldson and Davis in 1989 as a normative alternative to the agency theory (Subramanian, 2018). Stewardship theory refers to the situations in which the managers are not motivated by individual goals, but they are stewards whose motives are consistent with the objectives of their principals. Based on stewardship theory, these company executives and directors are more focused on completing a great work and being well steward of the organization's assets rather than being an opportunistic shirker. They are working for the shareholders, safeguards and generates profits for the shareholders. Under stewardship theory, agents are assuming as loyal to the organization. Moreover, this theory believes that there may be an alignment between the principals and directors which indicates a close relationship with agents acting in a community-focused manner, directing trustworthy moral behaviour towards the organizations and their shareholders (Davis, Frankforter, Vollrath & Hill, 2007). Therefore, stewardship theory argued that there would be no inherent, and general issue of executive motivation (Donaldson & Davis, 1991).

This theory is similar to agency theory which it emphasis on the essential to align the objective between the principal and the agent. However, the difference will be it assumes that the principal and agents are stewards whose behaviour is aligned automatically with the objectives of their principals on appointment. For instance, if the company's CEO is delegated the ultimate authority in the final decision making and their role is unambiguous and unchallenged, this corporate structure may assist the CEO in boosting corporate performance. This circumstance is achieved more readily when the CEO has both the company's presidency as the chairman of its BOD. Similarly, the expectations of subordinate managers and other members of the company's board of directors on the company's leadership will be more transparent and more consistent. As a result, the organization will enjoy the general benefits of unified direction and strong

command and control. In general, stewardship theory not only emphasizes the CEO's motivation, but it promotes empowering structures and believes that integrating the incumbency of the responsibilities of chairman and CEO will increase the effectiveness and efficiency of the corporate. In the end, it will maximize the shareholder's wealth than separate the roles of chairman and CEO. Generally, stewardship theory conform that the existence of CEO duality could lead to a better performance.

2.1.3 Resource Dependency Theory

The resource dependency theory (RDT) emphasizes on the responsibility of the corporate board in offering access to resources needed by the firm (Hillman Withers & Collins, 2009). This theory suggests that resources are important for organizational to success and that access and control over resources is a fundamental of power. Therefore, the resources are usually controlled by organizations, not in the control of the organization needing them, and it means that the strategies must be carefully planned to maintain open access to resources. At the same time, this theory also argued that directors of the company are essential to ensure that essential resources are provided to an organization through their linkages to the external environment. The provision of resources will promote organizational functioning, the firm's performance, and sustainability. The resources include information, knowledge, skill, and access to essential constituents such as suppliers, purchasers, policymakers, social groups, and legitimacy (Hillman et al., 2009).

Based on the recent study, the RDT has been applied to study the organization's performance (Findikli, 2019). In the framework of resource dependence theory, power is defined as the ability of an actor to control the resources needed by others. Thus, sufficient power should be granted to the management team and CEO to play their roles well. The research concluded that the managers with the necessary resources and knowledge would boost the company's performance. Moreover, Muchemwam, Padia and Callaghan (2016) reported that a larger board size could offer more significant opportunities for

external linkages and access to resources. This is due to one of the main roles of organization directors is to provide assistance and support in getting external resources that will benefit the company. For instance, when a company is required to apply for any external financial support such as debt and equity financing, it will increase the CEO's need for advice from experts, and thus, the board size of such an organization would increase (Muchemwa et al., 2016).

Furthermore, Martin and Herrero (2018), concluded that the complex companies generally required a larger board, along with a greater proportion of independents and broader diversity. It concluded that the diverse board with various skills and knowledge could contribute more significant value to the organization. Whilst, the large board that may lead to lack of coordination and communication and slowness the decision-making should be avoided. In general, the association between board size and firm performance as indicators of a successful resource dependence strategy.

2.1.4 Stakeholder Theory

The stakeholder theory originated by Edward Freeman in 1984, which offers a wider overview of CG than agency theory (Dao & Tran, 2017). Stakeholder theory incorporated the management's responsibilities to a wide range of stakeholders. The corporate stakeholders generally consist of shareholders, employees, customers, financial institutions, governments, and suppliers. This theory claimed that the directors in an organization should have a network of relationships that readily to serve. Furthermore, this theory emphasizes that managerial decision-making and interests of all stakeholders have intrinsic value, and no set of interests is assumed to dominate the others.

The main objective of this theory is to focus on treating and managing the stakeholders' interests, which will assist in creating the value of the firm and lead to a good performance (Freeman & McVea, 2005). The recent study of Parmar, Freeman, Harrison, Wicks, Purnell and de Colle (2010), reviewed by Freeman, concluded a positive correlation between stakeholder-oriented management and

performance, measured by financial performance. CEO, one of the most influential people in the organization, should safeguard the stakeholder's interest aside from maximizing the shareholder's wealth. CEO's power can be defined as the CEO's capacity to address and overcome opposing positions, both internally (other executives and directors) and externally (uncertainty), and to affect critical organizational decisions. Hence, involving the CEO in the boardroom could generally increase the power of the CEO in controlling the whole organization. At the same time, the existence of the CEO in the boardroom could also protect the stakeholder's interest of the company. This is owing to the main objective of the company shareholders is to maximize their wealth; hence, if the boardroom only consists of shareholders, the interest of the other stakeholder might be negligence. In this case, the existence of a CEO in the boardroom is particularly essential to safeguard the interest of the others stakeholders.

2.1.5 Managerial-hegemony Theory

Generally, agency theory refer to the failure of the board in some areas like reducing the extra pay to executive, while managerial hegemony theory claimed that boards are a legal fiction controlled by management (Gray, 1971). This theory argued that firm's management is obtaining more and more dominance because of the deficiency of shareholders in exercising ownership and control. Malaysian Code of Corporate Governance (2021) outlined that the board is entitled to depend on the advice, reports, and opinions of management to perform its oversight function. Therefore, this theory believes that managers have more power as compare to the stakeholders as they are more familiar with the daily operations of the firm and have the professional knowledge and skill to sustain positive financial performance. As a result, the board of directors tends to ultimately accept whatever decision made by management without basic input as management is believed to understand the operational details of the company. In the end, these inactive or weak boards will decide to embrace or ratify whatever decisions that are made by executive team.

Based on the study by Ponomareva, Shen and Umans (2019), they claimed that BODs are relatively difficult to restrict managerial opportunism when CEO also holds the position of the Chairman. In order to eliminate managerial opportunism in an organization, this paper suggested that the board member should increase strategic control over managerial decisions. This research revealed that board members' involvement in strategic decision-making tends to positively correlate with the firm's performance, enhancing the decision-making rather than limiting managers' latitude of actions. Moreover, the organization's boards can be more effective in containing managerial opportunism by closely monitoring managerial decisions and actions rather than relying on performance-based incentives. Hence, the separation of CEO and Chairman's roles could trade-offs between the reduction in managerial opportunism costs and the incurrence of strategic opportunity costs.

Nkundabanyanga (2016) stated that there is a limitation in this theory that has undermined the board's duty and only act as a passive role in making the strategic direction of the organization. This is due to the board-management power, and power boundaries between boards and management are not explicitly outlined under this theory. Moreover, this theory more emphasizes on management control and lack of clarity in justifying how resourceful the board is in promoting the financial performance of an organization.

2.1.6 Gender-stereotyping Theory

Gender stereotypes refer to the beliefs that people have about the characteristics of males and females. The belief of stereotypes different across cultures and time. These beliefs are generally correlated to the roles that the sexes satisfy in the culture. The incongruity of role and the gender-stereotyping theory reflect an adverse effect of female directors on organization performance (Yang, Riepe, Moser, Pull & Terjesen, 2019). Gender-stereotyping should prevent in every organization as it will lead to a negative workplace culture.

In fact, females are should be welcoming, gentle, respectful, and interpersonally experienced; however, men are believed to be resilient, influential, forceful, and goal-centered. The female directors have to recognize that the organizational structure that is not masculine or feminine however is satisfactory to male collaborators, overseers, and underlings. According to Solimene, Coluccia and Fontana (2017), research on the gender diversity on corporate boards in Italian public listed companies. They found that experienced and educated female directors could improve the performance of an organization. In contrast, Parker (2018) pointed out that being experienced does not mean a female will be promoted to the matching corporate level as a correspondingly performing male. On the other hand, Dezsö and Ross (2012) emphasized that females should be more fruitful compared to males in overcoming challenges, suggesting that tenured female executives are of a greater typical class compared to male colleagues. Hence, females are generally do not obtain fair attention to their talents and abilities due to the perception that they lack the experience of completing ordinary male jobs.

In Asia, certain have countries have started aware of the significance of promoting gender equality in the social and workplace. For instance, the employment policies of Singapore promote family life and gender equality that would enable all workers, including men, to better juggle work and care (Husna, 2018). The policies also benefit the women by offering paid care-giving leave or equalized parental leave and encouraging the fathers to be more active parents. In contrast, Qin (2019) reported that the discrimination against women in China has been on the rise over the years. In China, the women who have children are potentially being squeezed out from the workplace by the employer by urging them to emphasize more on family life. Simultaneously, those married women who have decided to continue working are increasingly obtaining lower salaries as compared to men.

In short, board diversity may improve the performance of an organization as it enables persons with different experiences, backgrounds, ages, and gender to make a better decision. The existence of female directors is believed that they

could provide fresh ideas and innovative suggestions, which facilitate better decision making. Also, female's contribution may add more value to problem-solving through communication and easiness of obtaining useful information from various sources.

2.2 Dependant Variable

2.2.1 Return on Equity (ROE)

According to Al-Matari, Al-Swidi and Fadzil (2014), there are two types of financial measurement tools applied in corporate governance research which are accounting and stock market based measures. In general, the most frequent accounting-based measures that applied by previous scholars are return on asset (ROA) and return on equity (ROE). De Wet and Du Toit (2007) defined that ROE is measured by taking in the net income, then divided by the book value of the shareholders' equity. Accounting-based measures are generally analyze based on the historical financial data (Krivogorsky, 2006). These accounting figures are typically obtained from the organization's annual report, statement of comprehensive income statement, and consolidated balance sheet. This method remains a vital dimension in identifying how well an organization is performing in the economy.

ROE is generally used to measure how efficient the company generates income relative to its total amount of shareholder equity. It is no doubt that a higher value of ROE indicates an effective use of banks' equities in raising the value of shareholder wealth by management of the banks. Furthermore, many previous scholars have been applied ROE to examine the corporate governance effects on bank performance, including Baidhani (2015), Belhaj and Mateus (2016), Dedu and Chitan (2013), Joh (2003), Sobhy and Hussain (2017).

2.2.2 Return on Asset (ROA)

Return on asset also an accounting-based measure frequently adopts by researchers to investigate the performance of an organization. Rosikah, Mutalib, Azis and Rohansyah (2018) defined ROA as the net income divided by total assets of the organization. ROA is a profitability ratio that demonstrates how much profit an organization could generate from its assets invested. Moreover, ROA is could reflect the bank's capability to make profits in the past to then be projected the future financial performance. Therefore, the greater value of ROE shows the efficiency of the organization's management in raising the organization's profit from its assets. Also, the maximization of ROA was considered a main organization goal, and the realization of both profitability and efficiency impacted ROA resulted in the development of a system of planning and control for all operating decisions in a firm (Kharatyan, Nunes & Lopes, 2016). Moreover, there are many previous researchers have been practiced ROA to study the influence of CG on bank performance, including Khanifah, Hardiningsih, Darmaryantiko, Iryantik and Udin (2020), Naushad and Malik (2015), Peni and Vahamaa (2012), Richmond (2019).

2.3 Independent Variable

2.3.1 Board Size

The board size of directors in a boardroom is an essential indicator of CG. However, various empirical studies found different findings on the association between the organization's performance and the board size of directors. Some researchers claim that a large board of directors could enhance the firm performance as they increase the resources and expertise in the company, which allow a better decision making and avoid the domination of a CEO. However, there are other papers that show an adverse association between board size and firm performance. This is due to boards tend to become less efficient and might be more correlated with bureaucratic issues and make the decision-making become complex and time-consuming when the boards are large (Jensen & Meckling,

1976). Another factor is that it will raise the difficulty to communicate, coordinate, and engage when the boards become too large; in the end, it declines the performance of an organization (Martin, G & Herrero, 2018).

The research by Al-Musalli and Ismail (2012) was a study on the association between board characteristics and intellectual capital performance in Gulf Cooperation Council (GCC) countries. Their research also found that the board size is negative and insignificant in influencing the firm's performance. Also, they suggested that GCC banks with a larger board size will have no advantage compared to smaller counterparts in IC performance. Staikouras, Staikouras and Agoraki (2007) investigated the influence of board size and composition on European bank performance from 2002 to 2004. Based on their research, they summarized that the board size is negatively associated with the bank profitability. They explained that the board size should limit or even be mandated based on the out-of-equilibrium interpretation.

Moreover, Naushad and Malik (2015) also statistically prove that the board size is significant negatively correlated with bank performance in the Gulf Cooperation Council (GCC) banking sector. This study is carried out by choosing 24 GCC banks from 2012 to 2013. They indicate that the smaller boards tend to be more capable of closely supervising the GCC region's management. In Nigeria, Olatunji and Stephen (2011) also reveal a negative association between board size and firm performance. They argued that, agency problem tend to arise and lead the board to become less effective when the board consists of more directors. Hence, they suggested that a smaller board size will add more advantages to the banks as it will reduce the agency and free-rider problems in financial institutions.

Another corporate governance study in the Philippine by Kabigting (2011) pointed out that board size has a significant positive relationship with ROA and ROE. He further explained that the increase in the number of directors is typically for board control, although other factors are also taken into account. Moreover, the study of Belkhir (2009) also reported a positive and significant association between board size and banks' performance calculated by ROA and Tobin's Q.

Hence, they suggest that adding more directors may increase the ROA and Tobin's Q of the banks. In India, Abdul Gafoor, Mariappan and Thyagarajan (2018) also examined the relationship between board characteristics over 36 commercial banks in India. The findings of this study indicate that the board size is positively associated with bank performance. They found that the association between board size and bank performance is statistically significant when the board is in between 6 to 9. In China, Li, Zhou, Zhou and Chen (2021) reported a strong positive association among the board size and the firm's performance. The findings recommend that the advantages of diversity in perspectives and expertise outweigh the potential free-riding issue and agency problems brought about by larger boards for young and growing firms.

On the other hand, Badrul Muttakin and Shahid Ullah (2012) examine the relationship between CG and bank performance in the Jordanian banking industry. This study tested on a total of 140 observations over the period 1997 to 2006. They revealed that the board size does not have a relationship with the bank performance. There is no significant difference in the number of BOD members in Jordanian banks. Aside from that, Kiambati, Ngugi, Katuse and Waititu (2013) proposed that board size may have positive and negative relationships with firm performance. Many previous literatures outlined that the board size may negatively influence the firm performance. It is believed that when the number of directors is more than an ideal limit, a more deteriorating effect may arise on firm value. However, if the number of directors is less than a certain amount, the board size will positively correlate with the performance. Thus, mixed-result was demonstrated across different region and organization.

2.3.2 Number of Non-Executive Director

According to The UK Corporate Governance Code (2018), According to The UK Corporate Governance Code (2018), it outlined that a balanced board of which at least half the members were independent non-executive directors, excluding the Chairman. The essential roles of non-executive directors included to appoint and remove the executive directors of the organization. Non-executive

directors generally are not engaged in the firm's daily operation; however, they offer an independent view on the operating of the business and governance. Also, the responsibilities of the non-executive director included reviewing and supervising management's performance to ensure they act in the best interest of the firm stakeholders. Non-executive directors are typically from different fields, and it is believed that they will offer a broader perspective and contribute to a firm's strategic developments.

Olatunji and Stephen (2011) examined the role of non-executive directors on the bank's profitability in Nigeria from 2006 to 2008. The research found that the proportion of non-executive directors is negative and significantly associated with ROE. This indicates that the greater proportion of non-executive director on the board, the financial performance of the bank will be reduce measured by ROE. Furthermore, they explained that the negative relationship was due to the non-executive directors being occupied with other tasks and only engaged with the bank's operation part-time. Also, they claimed that non-executive directors might not have a hands-on approach or are not necessarily proficient in operating a business, therefore, do not required make the best decisions. This invariably could influence the financial institutions' profitability.

Sheikh and Schwarte (2013) examined the effect of internal attributes of CG on firm performance in Pakistan over 2004 to 2008. This paper has used the pooled ordinary least squares to measure the association among the variables. This research found that there is a negative relationship between the proportion of outside directors and corporate performance. They mentioned that the negative association might be due to the very low representation of outside directors on Pakistani firms' boards, which might stimulate the managers to expropriate the corporate's resources for their personal advantages. In Pakistan, Alam, Abbas and Hafeez (2020) also found a significant negative correlation between the number of non-executive directors and bank performance. They justified that the negative correlation was due to the prevalence of cozy relationships between non-executive directors and executive directors, which limits the supervising role of non-executive directors on board performance.

In contrast, Alhaji, Baba and Yusoff (2013) studied the relationship between CG mechanisms and firm performance among publicly listed Malaysian companies. The governance mechanisms investigated in this paper are independent non-executive directors and audit committees, while measured using ROE and earnings per share. The findings concluded that the independent non-executive directors are positive and strongly associated with the firms' ROE. Also, they mentioned that the reason for the positive relationship was because the presence of outside directors may boost corporate competitiveness and generate new strategic outlooks for the firms.

Fauzi and Locke (2012) study on the role of board structure and the influence of ownership structure on performance of New Zealand's publicly listed firms. This study applies a balanced panel by including a total 79 New Zealand listed firms by employs a Generalised Linear Model. This paper revealed that the number of non-executive directors is a positive and significant influence on the ROA. They further justified that the existence of non-executive directors may ensure management fully utilized the company's assets to generate income.

2.3.3 Existence of Female Director

Gender diversity also considered as an essential component of CG nowadays. According to Sabatier (2015), the existence of women in boardroom is a good instrument to promote the board diversity. According to Terjesen, Sealy and Singh (2009), they concluded that the existence of women could enable a better decision-making due to their different viewpoints and innovative mindset. In addition, Perrault (2015) outlined that women could raise the perceptions of the board's lawfulness and reliability, therefore enhancing stockholder confidence towards the organization.

There are several scholars' research concluded a negative correlation between the existence of female directors and the organization's performance. The reason is maybe believing and perceptions of people that women are emotional, risk-averse, aggressive, low confident, and uncultivated and some invisible barriers,

which place the women in a lower position in the society. Hence, investors tend to have low confidence to invest in those companies that lead by females as compared to males. Moreover, there are also some arguments against diversity management. Some people critics that, heterogenous boards tend to generate more different viewpoints. This may lead to time-consuming and ineffective if the company is running in a highly competitive environment where required to react immediately to market shocks.

Based on Mirza, Andleeb and Ramzan (2012), study on the influence of gender diversity on firm performance by including a total of 395 public listed company from Pakistan. This paper revealed that female directors are adversely associated with the performance of the firm. They mentioned that the firm tends to display a negative sign to investors and threats the firm performance when the females are placing on top of the firm. In addition, Yang et al. (2019) measured the relationship between women directors and firm performance in Norway. In this paper, they concluded that the women directors are negatively associated with the firm's performance. They found a significant negative effect on both accounting-based performance and market-based performance as measured by both ROA and Tobin's Q ratio. Moreover, Kochan, Bezrukova, Ely, Jackson, Joshi, Jen, Leonard, Levine and Thomas (2003) tested the influence of diversity on the business performance for US companies. Generally, they do not found a positive correlation between gender diversity and firm performance.

Another relevant research by Chan and Heang (2010), examines the relationship between CG, board diversity, and bank efficiency in Malaysia's commercial banks. In this study, they found that the mechanism of gender diversity is negatively insignificant in affecting the cost and profit efficiency of the CB in Malaysia. This owing to the portion of females in Malaysia has a low percentage, even no females on the board. Hence, their contribution might not critically influence the efficiency of the banks.

In contrast, Romano et al. (2012) investigate the impact of CG on the performance in the Italian banking institution across 2006 to 2010. Findings

revealed that female directors' existence could positively correlate with the bank performance in Italian banking groups. They clarify that the presence of women that are experienced and skilful could boost the organization's performance. As they could contribute to a large pool of skills and knowledge, competencies, and relationships that can boost the performance. Nevertheless, they claimed that the existence of women in the bank's boardroom is still limited.

2.3.4 CEO Duality

Based on agency theory, separating the roles and responsibilities of the CEO and chairman of the board can reduce agency costs. The chairman, as a leader of the board, plays a vital role in supervising the CEO's decision-making and overseeing the process of CEO hiring, firing, evaluation, and compensation. Hence, the combination of two leadership roles would restrict the chairman from carrying out an effective and objective supervisory role, thereby promoting CEO entrenchment and intensifying agency conflicts. Besides, Grove, Patelli, Victoravich and Xu (2011) study on the CG and US commercial banks' performance in the wake of the financial crisis. They practiced the factor structure to examine the multiple dimensions of CG for 236 public financial institutions. In general, their study revealed that CEO duality is negatively correlated with financial institution's performance. Another research study on the influence of board characteristics on financial institution's performance in GCC countries (Arouri, Hossain & Muttakin 2011). This study argued that CEO duality does not have a crucial influence on the banks' performance.

In Lebanon, El-Chaarani (2014) study on the influence of CG on the bank's performance from 2006 to 2010. In this paper, a total of 182 banks have been taken into analysis. The findings of this paper concluded that CEO duality is negative and significant associated with the bank performance measured by ROA and ROE. He claimed that the role of CEO and chairman should not combined, because it could potentially reduce the effectiveness of board monitoring. This negative relationship is further supported by (Mishra & Nielsen, 2000). This research was conducted by using a sample of the 100 largest commercial holding companies. They found a negative association between CEO duality and ROA and

ROE which suggests a managerial entrenchment in the form of CEO duality. In India, Abdul Gafoor, Mariappan and Thyagarajan (2018) studied the relationship between board characteristics over 36 commercial banks in India over 14 years. This paper found that the CEO duality is adversely correlated with ROA and profit after tax.

In Sri Lanka, Nazar (2016) investigated the influence of dual role of CEO on firm performance across 128 listed firms in the year 2013. This research has applied a cross-sectional ordinary least square analysis to measure the relationship. In the end, he found that there is a negative and significant correlation between ROA. In Turkey, Dogan, Elitas, Agca and Ogel (2013) studied the association between CEO duality and firm performance across 204 listed firms. This paper uses ROA, ROE, and Tobin's Q ratio as independent variables to measure the association. By applying the multiple regression analysis, they found that dual role of CEO is negatively correlated with firm performance. In short, this negative relationship is supported by the agency theory.

In contrast, there are several previous study report that CEO duality delegate power to CEO in instructing the company daily operations and enables him to make effective decisions will boost the company performance. As a result, dual role of CEO could be efficient as such it can boost performance and enhance conformity of an organization. Naushad and Malik (2015) examined the influence of CG denoted by CEO duality across 24 GCC banks. This paper reported that the duality of CEO is likely to foster the financial and accounting performance of the banking sector. In general, this paper concludes that CG plays a crucial role in influencing the financial and accounting performance of the GCC banking sector. Yang and Zhao (2014) found a positive relationship between CEO duality and firm performance. In the research, they practice a new framework that offset these difficulties and realizes that duality will add advantages to firm performance when competition intensifies. Also, the positive influence of duality is increasingly significant when the companies have greater information costs and better CG.

2.3.5 Presence of CEO on the board

Chief Executive Officer (CEO), as the top manager of the organization, is generally responsible for supervising the organization's operation and reports to the chairman and the BODs. In this research, the association between the existence of the CEO as one of the board members and the performance of banks will be investigated.

First and foremost, when a CEO is present on the board as one of the board members, it will provide the CEO with more control and authority to overcome the issue of the organization and enhance the performance of the firm. A powerful CEO will have the capacity to position an organization to generate more significant profit and maximize stakeholders' interests (Banerjee, Nordqvist & Hellerstedt, 2020).

Moreover, the presence of the CEO as a board member enables the CEO to channel the bank's latest operating situation and information to the board from time to time. As a result, it will enable the board of directors to make an informed decision beneficial to the banking institution. The placement of the CEO generally will be beneficial to the organization as it will provide expert advice and updated information to other board members before making any decision (Ma, Kor & Seidl, 2020). Meanwhile, it will enhance the organization's governance structure by splitting the role of Chairman and CEO and reduce the agency problem in the organization. As of now, the CEO appears on the board as a member to provide opinions and suggestions instead of making the decision. In general, the participation of the CEO on the board will enable more direct and effective supervision than just relying on an external monitoring mechanism. Thus, it believes that the involvement of the CEO in the boardroom will positively impact the organization's financial performance.

In contrast, the CEO serving as the board member also could lead to a conflict of interest. This is because the BOD's roles are supervising the CEO's performance; however, the involvement of the CEO in the boardroom might

increase the complexity of the organization structure (Carlo, 2017). For instance, conflicts may happen in the nominating process of the BOD. The CEO as a board member may nominate the directors who are personally loyal to the CEO, revealing the CEO's influence on other board members.

Another challenge of the CEO serving as a board member will lead to the BOD becoming heavily reliant on CEO opinion and decision. As time goes, the trust between BOD and CEO will be formed, and more power and authority will be granted to the CEO. After that, the BOD will be becoming reliant on the CEO as he/she is the one who is familiar with the business practice and has the professional knowledge and skill to operate the business. It is a danger for the BOD if having a strong CEO that is the attempt to micro-manage or meddle in the company's day-to-day operation (Hossack, 2006). As a result, the board of directors tends to ultimately accept whatever decision made by management without primary input as management is believed to understand the operational details of the company. Lastly, a powerful CEO can abuse their tremendous power to challenge the interest of the company and shareholders.

Based on Harymawan, Nasih, Ratri, and Nowaland (2019), they investigated the impact of CEO busyness on the firm performance in Indonesia. This study included a total of 268 sample firms across the period 2014 to 2017. The CEO busyness of this result is measured by dummy variables, 1 if the CEO is holding more than one or more positions. The result shows a negative correlation between CEO busyness and firm performance calculated by ROA and ROE. They further elaborated that the CEO holding more positions will overburden and put less effort on the particular organization, in turn negatively influencing the firm's performance. Thus, they suggest that the CEO should focus on the current position as CEO to maintain the smooth operation of the firm. Thus, the serving of the CEO in the boardroom might increase the burden of the CEO; in the end, it will negatively affect the CEO's performance in managing the company's daily operation. However, there is a lack of previous research on investigating the relationship of the CEO served as a member of the board and the performance of the financial institutions.

2.4 Control Variable

2.4.1 Bank Age

The age of banks is generally in line with the experience in operating a banking business that will influence the existence of banks in the face of competition. Particularly, a newly formed bank lacks information regarding the bank's condition and overall banking sector. Also, it is relatively for companies to initiate their business operations mainly aim to generate profits in the early stages of their operations. However, there was a mixed result identified by previous scholars.

According to Baidhani (2015), he investigated the influence of CG on bank performance in Arabian Peninsula countries. He concluded that the bank age has a positive and strong relationship with ROE. Based on the learning curve principle, financial institutions will always capture from their previous good and bad experience for rectification, enhancement, and development, as long as other CG predictors remain constant. In Arabian Peninsula, Al-Baidhani (2013) examined the association between CG on bank performance. The Arabian Peninsula countries included in this study are Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, Arab Emirates, and Yemen. The control variables applied are bank size and bank age. The result of regression analysis indicates that bank age is positively correlated with bank performance. Another relevant study by Ben Abdallah and Bahloul (2021) examined the impact of Shariah governance on the financial performance of Islamic banking institutions. This research has involved bank-specific factors such as bank size, leverage, and age as the control variables. The findings demonstrate that the bank age mechanism was positively associated with the ROA and ROE.

Another study from Dutch and Danish by Marinova, Plantenga and Remery (2016) studied the correlation between board diversity and firm performance by using 186 public listed firms in 2017 by controlling for firm specific factor. This study found that the firm specific factor of firm age is adversely linked with the

performance of the firm. They explained that the firm's ability would become weak to compete over time. This negative relationship is also supported by (Loderer & Waelchli, 2011). The findings of Loderer and Waelchli (2011) demonstrate that there is a negative relationship between firm age and performance. Besides, they also concluded that the firm age is negatively correlated with the firm's growth opportunities. They justified that decline in the financial performance could indicate that the agency problem incurred between agents and principals intensifies as time goes by. Whereby, the agents prefer a quiet life and hence, manage to work less, steer away from high-risk investment and simply milk the present lines of business (Loderer & Waelchli, 2011). As a result, this will hurt the firm's performance due to the shirk responsibilities of the agents.

Afriyie, Aidoo and Agboga (2021) studied the relationship between CG and the financial performance of CBs in Ghana. This study generally included a total of 20 commercial banks across the year 2011 to 2017. The result of the study reported a negative association between the bank age and ROA of CBs. They argued that the extended period of financial institutions' presence does not offer an absolute assurance of improved and better performance of the banks as its probability of facing challenges is high. Another CG research conducted by Leite and Carvalhal (2016), investigated the association of firm age, value, performance, and CG in Brazil. The study analyzed a total of 250 Brazilian public listed firms across the period 2002 to 2009. The regression result shows a negative relationship among the firm age and firm performance calculated by ROA. They stated that the new firms are generally will have more significant growth opportunities as compared to the older firm.

2.4.2 Bank Liquidity

Liquidity management is a vital management tool for organizations as it will show the organization's capability to meet its immediate and short-term financial obligations by using its current assets. In order to ensure the liquidity of a bank, they have to identify precisely how many assets, liabilities, and reserves to keep. The bank's primary objective is to maximize its profitability, which is generated

by making the interest rate differential between loans, deposits, and investments return. Profitability is the main concern for shareholders since it determines their return on investment. However, liquidity is the main concern of depositors as it demonstrates the bank's capability to meet the withdrawal needs of depositors. Based on trade-off theory, holding high liquidity may reduce bank risk; however, in turn it will lower the compensation demanded by investors for bankruptcy probability. On the other point of view, holding a high liquidity level would cause lower returns to the financial institution since these funds are held idle or with very low returns (Osborne, Fuertes & Milne, 2012). Loans are generally the largest interest-bearing assets of financial institutions; hence, financial institutions generally tend to transfer more deposits into loans to maximize profit. However, the banks are required to pay a higher cost for funding purposes if they wish to raise their loan portfolio. As a return, it will increase the financial institution's overall risk and reduce the liquidity as more customer deposits are transferred into loans. Thus, this will result in a negative relationship with the bank profitability.

Besides, Arif and Nauman Anees (2012) tested the association between liquidity risk and bank profitability in Pakistan. The study concluded that banks' profitability is negatively affected by the rise in liquidity gap and non-performing loans. They justified that when the banks face liquidity risk, they may be required to borrow from the repurchase agreement (REPO) market at a higher rate, increasing banks' costs. The cost incurred will directly reduce the profit of the bank. In Korea, Lee and Kim (2013) investigated bank performance and its determinants. The bank performance was measure by using the ROA and ROE. The findings display a negative association between liquidity and bank performance in Korea. In another CG research by Isik and Ince (2016), their paper examined the impact of board size and board composition on the performance in Turkish financial institutions. Their research applied bank-specific factors such as liquidity, bank size, credit risk, net interest margin, and non-interest income as control variables. Based on the regression result, it demonstrates that the bank's liquidity was negatively associated with the bank's performance. This reflects that the banks with higher credit and expose to greater liquidity risk will perform

worse. Also, the negative association outlined that there is a detrimental influence of risk measures on banks' financial performance.

In contrast, Huong, Nga and Oanh (2021), they examined the correlation between liquidity risk and bank performance in Southeast Asian Countries. They included 171 banks across nine countries in the SEA region for the years 2004 to 2016. The results indicate that the liquidity risk is positively correlated to the performance of the bank. However, they mentioned that the liquidity risk is negatively correlated with bank performance if there is a financial crisis. They further explained that banks tend to seek to raise the liquidity assets to enhance profitability, leading to an increase in financial costs and lower bank efficiency during the crisis. Besides, Alam, Abbas and Hafeez (2020) carried out a study on the CG structure's influence on bank performance in Pakistan. In this paper, bank liquidity has been applied as a control variable to test the association between the variables. They found that the bank liquidity is generally positively correlated with the bank performance measured by ROA, NIM, and Tobin's Q ratio. Besides, Musah and Gakpetor (2018) tested the effect of liquidity on the CBs' performance in Ghana. This study covered 21 banks over a ten-year period from the year 2007 to 2016. The result displays an insignificant positive relationship between liquidity and ROA. The researchers claimed that commercial banks in Ghana hold a reasonable level of liquid assets to enhance profitability.

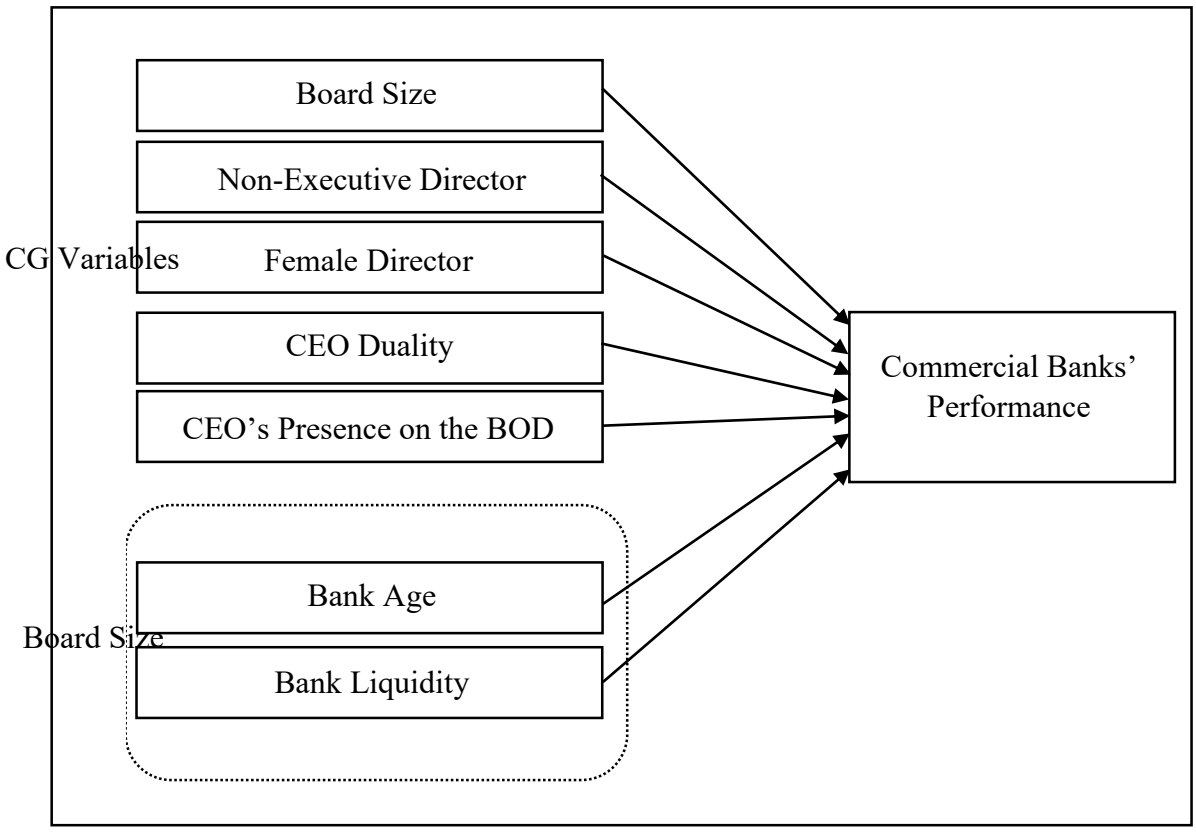
In Malaysia, Wasiuzzaman and Tarmizi (2010) conducted research on investigated the influence of bank characteristics and macroeconomics factors on the profitability of Islamic banks in Malaysia. By implemented ordinary least square regression, the scholars found that liquidity is positively correlated with bank profitability. They claimed that the banks are more likely to engage in lending activities to increase profitability. Hence, they suggest that reduce the amount of loan loss reserves will reduce the loan loss provision expense so that more funds are available to lend out. The higher the negative loan loss reserves, the higher the loan loss expenses. Another research by Bassey and Moses (2015), investigated the association between bank profitability and liquidity management in Nigerian's financial institutions. They concluded mixed results for the liquidity

ratio that was used to measure the bank liquidity. Based on their result, they found a negative and significant association for current ratio, liquid ratio, cash ratio on ROE. However, they identified a significant positive relationship for loans to deposit, loans to asset ratio on ROE.

2.5 Proposed Theoretical Framework

Figure .1 demonstrates the proposed theoretical framework for this study. This framework design to investigate the influence of CG mechanisms (board size, non-executive director, female director, CEO duality and CEO's presence on the BOD) by controlling bank-specific factors (bank age and bank liquidity) on the commercial banks' performance measured by ROA and ROE in SEA and EA region.

Figure 2.1: Proposed Theoretical Framework



2.6 Hypotheses Development

Based on the proposed theoretical framework, a total fourteen hypotheses are developed to meet the research objective in this study.

Hypothesis 1

H_0: There is no relationship between board size and bank's ROE.

H_1: There is a relationship between board size and bank's ROE.

This hypothesis is supported by resource dependency theory. Resource dependency theory suggests that resources are the key to organizational success and that access and dominate over resources is a basis of power. Thus, the board equipped with various skills, knowledge, and resources could contribute more significant value to the organization. Generally, the diverse board could positive significantly correlates with a better performance of the banks.

Hypothesis 2

H_0: There is no relationship between number of non-executive directors and bank's ROE.

H_1: There is a relationship between number of non-executive directors and bank's ROE.

This hypothesis was backed by agency theory and stewardship theory. Agency theory suggested that the roles and responsibilities of principal and agent should be separated to avoid conflict of interest. Hence, the existence of non-executive directors could eliminate the conflict of interest, which could negatively influence the bank's performance. Besides, stewardship theory supported that the agents should be motivated so that the agents will work in line with the organization goals set by the chairman. Stewardship theory also established to eliminate the agency cost incurred from the conflict between the principal and agents. In short, these two theories proposed that the existence of non-executive directors could enhance the bank's performance.

Hypothesis 3

H_0: There is no relationship between existence of female director and bank's ROE.

H_1: There is a relationship between existence of female director and bank's ROE.

The essential roles of female directors have been suggested by gender-stereotyping theory. This theory proposed that females should obtain fair attention to their talents and abilities. Thus, board diversity could improve the performance of an organization as it allows persons with different experiences, backgrounds, ages, and gender to make a better decision. The existence of female directors is believed that they could provide fresh ideas and innovative suggestions, and lead to a positive growth of the bank.

Hypothesis 4

H_0: There is no relationship between CEO duality and bank's ROE.

H_1: There is a relationship between CEO duality and bank's ROE.

Managerial-hegemony theory recommended that the management team should provide with more power and control over the organization's operation. This is because the management team has closer interaction with the business's daily operations and has the professional knowledge to foster sound financial performance. As a result, as a leader of the management team, the CEO should delegate with greater power and control by holding a dual position in the organization.

Hypothesis 5

H_0: There is no relationship between presence of CEO on the board and bank's ROE.

H_1: There is a relationship between presence of CEO on the board and bank's ROE.

Stakeholder theory suggests that the stakeholder's interest should be safeguarded while operating an organization. This is because the stakeholders play a vital role in assisting an organization to meet its strategic objectives by contributing their experience and perspective to a project. The internal

stakeholders such as employees, managers, and owners are key management of the company; therefore, they are of utmost importance for the company's better future and performance. Hence, the existence of a CEO on the board could safeguard the interest of the stakeholders.

Hypothesis 6

H_0: ***There is no relationship between bank age and bank's ROE.***

H_1: ***There is a relationship between bank age and bank's ROE.***

Hypothesis 7

H_0: ***There is no relationship between bank liquidity and bank's ROE.***

H_1: ***There is a relationship between bank liquidity and bank's ROE.***

Hypothesis 8

H_0: ***There is no relationship between board size and bank's ROA.***

H_1: ***There is a relationship between board size and bank's ROA.***

Hypothesis 9

H_0: ***There is no relationship between number of non-executive directors and bank's ROA.***

H_1: ***There is a relationship between number of non-executive directors and bank's ROA.***

Hypothesis 10

H_0: ***There is no relationship between existence of female director and bank's ROA.***

H_1: ***There is a relationship between existence of female director and bank's ROA.***

Hypothesis 11

H_0: ***There is no relationship between CEO duality and bank's ROA.***

H_1: ***There is a relationship between CEO duality and bank's ROA.***

Hypothesis 12

H_0: ***There is no relationship between presence of CEO on the board and bank's ROA.***

H_1: ***There is a relationship between presence of CEO on the board and bank's ROA.***

Hypothesis 13

H_0: ***There is no relationship between bank age and bank's ROA.***

H_1: ***There is a relationship between bank age and bank's ROA.***

Hypothesis 14

H_0: ***There is no relationship between bank liquidity and bank's ROA.***

H_1: ***There is a relationship between bank liquidity and bank's ROA.***

2.7 Conclusion

In general, this chapter has discussed the underlying theory that explains and elaborates on the research problem identified during chapter 1. Moreover, those relevant previous scholar's research was also reviewed and assessed. Based on these studies, dependent, independent, and control variables are well-defined, and hypotheses of the study are outlined. Also, the theoretical framework was constructed to hold and support the theory of this research.

CHAPTER 3: RESEARCH METHOLODY

3.0 Introduction

This chapter will discuss the method of research and explain how it adopts in this research study. In general, this chapter consists of research design, data collection method, sampling design, econometric model, and diagnostic checking.

3.1 Research Design

Akhtar (2016) describes the research design as the structure of study that it "glue" all the components in research together, and it can be known as proposed research work. This research aims to identify the corporate governance variable effect on commercial banks in SEA and EA for the year 2020.

According to Apuke (2017), there are two ways to collect and analyze the data, which are the quanlitative and quantitative approach. In general, a quantitative approach was applied to collect and analyze the numerical data, while a qualitative approach was used to collect and analyze non-numerical data. In this study, a quantitative approach was generally applied to gather data from bank's annual reports, CG reports, and Bloomberg in SEA and EA countries in 2020.

3.2 Data Collection Method

Kabir (2016) defined that "data collecting is the process of gathering and measuring information on variables of interest, in an established systematic fashion that enables one to answer stated research questions, test hypotheses, and evaluate outcomes." Data collection methods generally divided into primary and secondary data for specific research; however, only secondary data is applied in

this paper. The objective data collection is to capture high-quality evidence, then transformed into rich data analysis and enables the establishment of convincing and credible answers to the research questions.

Primary data refer to the data that has been gathered from first-hand experience and has not been published yet (Kabir, 2016). On the other hand, secondary data generally refer to the data already being published in any form (Kabir, 2016). The secondary data included the source of data from books, biographies, newspapers, internet articles, research articles, and databases. In this paper, the secondary data sources are mainly gathered from published annual reports, corporate governance reports, and Bloomberg.

Secondary data can assist the scholar in saving valuable time. This is due to these data are ready and can be obtained easily via the databases and Internet. Besides, it also allows the scholar to generate new insight and deep understanding with the provided high-quality statistical analysis. For instance, efficiency ratio, profitability ratio, and liquidity ratio of the commercial bank. Moreover, the credibility of secondary data is assured because various authorities have assessed the information in the annual report before it is published. Hence, this will generally rise the accuracy of the data in this study.

The CG variables of this study are generally based on the board information and composition. The variable included the number of board of directors, number of non-executive directors, the existence of female directors, CEO of the company, and Chairman of the board obtained from the CB's annual report and corporate governance. Whilst, the bank-specific factors of this research are act as control variables. For instance, the bank age, total deposit, and total asset of the bank are collected from the Bloomberg and audited financial statement of the bank. Furthermore, previous journal articles, conference papers, newspapers, and databases were also assessed and reviewed to expand and broaden knowledge on the theories implemented in this research.

In short, the data are gathered from the annual report, audited financial report, corporate governance report, and Bloomberg. After gathering these data, the data was arranged accordingly in a single Excel file for analysis. The variable was then tested by using SPSS Software Version 25 and EView 12.

3.3 Sample Design

Sample design refers to the plan and ways to be followed in choosing a sample from the target population and the estimation technique formula for calculating the sample statistic. Sample design is crucial as a good sampling design will save time and money, enable the collection of comprehensive data, and increase the accuracy of the results.

3.3.1 Target Population and Sampling Frame

Target population refers to the group of individuals that the intervention intends to carry out research in and draw conclusions from. This is due to it is impossible to study every single bank in the world; hence a sample of the bank that is likely to be represented will be selected. This is significant as it will generalize the sample to the target population. The more representative the sample selected, the higher the confidence level that the results can be generalized to the target population. This research aims to evaluate the CG mechanism on the performance of the CB across the SEA and EA regions. Hence, this research covers both the public listed and private limited banks in the SEA and EA region. According to Central Intelligance Agency (2021), Southeast Asia countries included Brunei, Myanmar, Cambodia, Timor-Leste, Indonesia, Laos, Malaysia, Philippines, Singapore, Thailand, and Vietnam, while East Asia country consists of China, Hong Kong, Japan, Macau, Mongolia, North Korea, South Korea, and Taiwan.

A sampling frame is a list that specifies the source of the data from that is applied to draw the sample from (Stasny, 2015). It can be a map from which specific areas are outlined. Hence, the data of this study are obtained from the list of The Asian Banker Strongest Banks By Balance Sheet evaluation 2021. The target population comprises 500 commercial banks in the Asia Pacific. Out of the 500 banks, it consists of 95 CBs from the SEA region and 314 CBs from the EA region.

3.3.2 Sampling Period

The sampling period covered in this research is the year 2020. It is inspired by the poor corruption performance in the Asian country. Although Hong Kong plays a role as an Asia leading international financial centre, the corruption performance is continuing to lag behind compared to some Western countries such as New Zealand and Australia. In 2020, aside from the pandemic outbreak, several significant events had also happened that have challenged the financial stability and governance of the country in SEA and EA. For instance, the political instability in Malaysia and Thailand has led to foreign funds outflow and reduced the foreign investors' confidence in the country. It is believed that it has potentially challenged the CG standards of the country. Besides, the rise of public awareness on the importance of gender equality transformation across the world (Unicef, 2020). In many countries, the government started to take the necessary steps to remove all obstacles to promote gender equality and the advancement and empowerment of women. As a result, the shareholders, policymakers, and regulators have a common interest in proactively practicing the gender diversity of the corporate board. They believe that the diverse board will lead to a better performance of the organization, and it is consistent with the gender equality transformation (Khidmat, Khan & Ullah, 2020). Hence, by assessing the corporate mechanisms and financial information, it will reflect the significance of CG in enhancing the financial stability and sustainability of the banking institution in this particular period.

3.3.3 Statistical Sampling Technique

Sampling is the way of choosing a representative subset of the population which is known as a sample (Showkat & Parveen, 2017). Besides, sampling could make the study more accurate and precise. In fact, there were two types of sampling techniques which are probability sampling and non-probability sampling. This paper uses the non-probability sampling technique, which is judgment sampling, to collect the data. Judgmental sampling is a non-probability sampling technique where the sample is selected based on the existing knowledge and judgment of the researcher. In this paper, the top 50 commercial banks are selected respectively from SEA and EA regions based on the researcher's judgment. In the data selection process, it is not merely based on the researcher's knowledge; however, it was supported by the databases obtained.

The top 50 commercial banks are obtained by referring to the list of The Asian Banker Strongest Banks By Balance Sheet evaluation 2021. The performance of these banks is evaluated and measured based on the balance sheet of the banks. The financial information in the first half of the year 2020 was obtained and incorporated into the evaluation of how these commercial banks performed throughout the COVID-19 pandemic. The performance measurement tools included assets to gross domestic product, the growth rate in loans and deposits, loan to deposit ratio, capital adequacy ratio, growth in operating income, return on asset, the cost to income ratio, non-interest income to total operating income, loan loss reserves to gross non-performing loans, gross non-performing loan ratio and liquid assets to total deposit and borrowings. In the end, a weighted average strength score is generated by taking all these measurements into account. Hence, it believes that these 100 samples will act as a representative sample and can reflect the overall corporate governance performance in both the SEA and EA regions.

3.3.4 Sample Size

The sample size has been carefully fixed to ensure a valid and generalized conclusion is drawn. This is due to sampling size is vital, especially for data analysis methods to be applied. According to Delİce (2001), sample size between 30 and 500 at 95% confidence level will be enough for study. Hence, a total of 99 commercial banks are selected in the SEA and EA region, whereby 49 CBs from the SEA region and 50 CBs from the EA region (refer to Appendix 1 and Appendix 2 for the list of the CBs). Table 3.1 demonstrates the number of commercial banks from each SEA and EA that are being included for the study. One of the bank in Vietnam, which is Vietcombank, is excluded from the study due to the lack of the latest annual report for the year 2020.

Table 3.1: Total Sample

Countries	Total Banks	Banks Excluded	Total banks included in the Sample
East Asia Region			
China	16	0	16
Hong Kong	15	0	15
Japan	4	0	4
Macau	1	0	1
Mongolia	1	0	1
South Korea	3	0	3
Taiwan	10	0	10
Southeast Asia Region			
Brunei	1	0	1
Cambodia	3	0	3
Indonesia	12	0	12
Malaysia	11	0	11
Singapore	4	0	4
Thailand	9	0	9
Philippines	6	0	6
Vietnam	4	1	3
		Total	99

3.4 Variable Definition

The construct of instruments is generated based on the previous research. The following table 3.2 defines the selected variables that will be adopted for this study. Generally, it consists of the explained variables, explanatory variables, and control variables.

Table 3.2: Definition of Variables

Variables symbols	Definition	Measurements
Explained Variables		
ROE	Return on Equity	Net Income / Total Equity
ROA	Return on Assets	Net Income / Total Assets
Explanatory Variables		
SIZE	Board Size	Number of board of directors
NONEX	Non-Executive Directors	Number of non-executive directors
FEM	Female Director	If Female director exist = 1; otherwise = 0
DUA	CEO Duality	If the CEO and Chairman is the same person = 1; otherwise = 0
PRE	CEO's presence on the board	If the CEO is one of the BOD = 1; otherwise = 0
Control Variables		
AGE	Bank Age	Years of bank establishment
LIQ	Bank Liquidity	Total deposit to total asset

3.5 Econometric Model

This study practices cross-sectional regression analysis to examine the association between the CG mechanism and CBs' performance. The regression model is illustrated below:

Equation 1

$$ROE_{it} = \beta_0 + \beta_1 SIZE_{it} + \beta_2 NONEX_{it} + \beta_3 FEM_{it} + \beta_4 DUA_{it} + \beta_5 PRE_{it} + \beta_6 AGE_{it} + \beta_7 LIQ_{it} + \varepsilon_{it}$$

Equation 2

$$ROA_{it} = \beta_0 + \beta_1 SIZE_{it} + \beta_2 NONEX_{it} + \beta_3 FEM_{it} + \beta_4 DUA_{it} + \beta_5 PRE_{it} + \beta_6 AGE_{it} + \beta_7 LIQ_{it} + \varepsilon_{it}$$

Whereas,

i	= Commercial Banks in SEA and EA region
t	= Financial Year 2020
ROE	= Return on Equity
ROA	= Return on Asset
SIZE	= Board Size
NONEX	= Non-Executive Director
FEM	= Female Director
DUA	= CEO Duality
PRE	= CEO's Presence on the board
AGE	= Bank Age
LIQ	= Bank Liquidity
ε	= Error term

3.6 Diagnostics Tests

In this study, several diagnostics tests are carried out to confirm that the concepts of the cross-sectional data regression are not contravened. Hence, the diagnostic test is conducted to ensure that the data is normally distributed, the sample is reliable, there is no multicollinearity issue, and the variance of the error term is homoscedastic.

3.6.1 Normality Test

The normality test of a study is essential in testing the normality of the data to decide the measures of central tendency and statistical methods for data analysis. Generally, normality tests have little statistical power in a small sample size (Öztuna, Elhan & Tuccar, 2006). In fact, there are various methods that can carry out to test the normality of a dataset. In this research, Jarque-Bera Test is practiced to measure the goodness-of-fit of sample data. The Jarqua-Bera test is a combined square of normalized skewness and kurtosis in a single statistic that was originally found by Bowman and Shenton in 1975. In some circumstances, graphical interpretation may allow better judgment into normality when numerical tests might be over or undersensitive. However, numerical methods will be adopted to avoid the wrong interpretations.

3.6.2 Reliability Test

A reliability test typically conducts to measure the consistency of a result. In this study, analysis of variance (ANOVA) is adopted to measure the variation in a response variable. However, there are four assumptions required to meet before carrying out the ANOVA test. The four assumptions are the individual observations are mutually independent, the sample adheres to an additive statistical model comprising fixed effects and random errors, the random errors are normally distributed, and lastly, the random errors have homogenous variance (Larson, 2008). After meeting these criteria, the ANOVA is conducted to explain the association between the explained and explanatory variables in this study.

3.6.3 Multicollinearity

Multicollinearity potentially exists in the case of multiple linear regression analysis. This is due to it includes several variables that could significantly correlate not only with the dependent variable but also to each other (Daoud, 2018). In the research, the variance inflation factor (VIF) is applied to determine how inflated the variance is. Multicollinearity can be detected by inflating the variance of the independent's coefficient in the case of correlation among the dependent's standard error. When multicollinearity exists, it will reduce the precision of the estimated coefficients, weakening the regression model's statistical power. Therefore, the VIF will be analyzed to offset the problematic effects in the regression model.

3.6.4 Heteroscedasticity

Heteroscedasticity primarily happens when the presence of an outlier in the data or omission of variables in the regression model (Klein, Gerhard, Buchner, Diestel and Schermelleh-Engel, 2016). When heteroscedasticity occurs, it will generate a smaller p-value. As heteroscedasticity rises the variance of the coefficient estimates; however, the ordinary least squares (OLS) procedure does not identify this increase. As a result, the OLS will measure the t-values and F-values of the model by taking into account the underestimated amount of variance. Lastly, it will make the model term become statistically significant; however, in fact it is not significant (Klein et al., 2016). Therefore, the heteroscedasticity will be evaluated by using both Breusch-Pagan Test and the scatter plot. Breusch-Pagan-Godfrey tests heteroscedasticity in a linear regression model and assumes that the error terms are normally distributed. It will measure whether the variance of the errors from regression is predicated on the values of the predictor variables. Besides, analysis based on the scatter graph is also a way that assists in the process of identifying the heteroscedasticity. A heteroscedasticity issue will exist if the scatter graph demonstrates a rough cone shape.

3.7 Conclusion

In this chapter, the explained variables, explanatory variables, and control variables are generally obtained from CB's annual report, financial report, and Bloomberg. Also, several diagnostic tests have been explained and will be perform in the following chapter. The next chapter will interpret, analyses, and discuss the statistical results in details.

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

The results analyzed and generated from SPSS Software Version 25 and EView 12 will demonstrate in a table form and interpret particularly in this chapter. This chapter will initiate with the descriptive analysis for the econometric model, followed with measurement of scale and inferential analysis.

4.1 Descriptive Statistics

Table 4.4 demonstrates the summary of descriptive statistics for all variables of ROE, ROA, board size, number of non-executive director, existence of female director, CEO duality, presence of CEO in BOD, bank age and liquidity of CBs of year 2020. ROA and ROE are act as indicators to measure the commercial banks' financial performance in this study.

First and foremost, the descriptive analysis will be carry out by measuring the means or average value of the data. The ROE demonstrates the mean value of 9.59 in SEA, which slightly higher than 9.42 in EA. On the other hand, the ROA demonstrates the mean value of 1.15 in SEA, which also relatively higher compared to 0.76 in EA. This demonstrates that the commercial banks' profitability in relation of assets and shareholder's equity in SEA is better than EA. Besides, standard deviation will generally indicate the dispersions and spread out of the data distribution (Barde & Barde, 2012). In general, the standard deviation of ROA and ROE in SEA region are much greater than the standard deviation in EA region. This indicates that profitability of SEA is typically spread out greater than the profitability in EA. In terms of maximum and minimum value of ROE and ROA, SEA displays a greater value compared to EA region. The entire sample across SEA and EA registered a mean value 9.5 of ROE and 0.95 of ROA.

Also, it shows a high variation between the overall data. This is due to although EA was recognised as world's most prosperous economies, however, the SEA witnesses the growth of some of the world's fastest growing emerging economies (refer to Appendix 32).

The average board members of SEA are lesser as compared to EA. The mean board size of SEA around 10 board of directors, while, EA are 12 board of directors. Thus, this indicates that board size across both SEA and EA are typically large. Also, the maximum and minimum number of BOD in SEA are 5 and as much as 19 members. Whilst, the maximum and minimum number of BOD in EA are 7 and 17 members. On the other point of view, the means across both SEA and EA are marked 10.97 and a 3.10 in the volatility among the board size.

In terms of the number of non-executive directors, EA consists more NONEX as compared to SEA. In average, the board consist of around 8 non-executive directors in EA, while SEA consists of 6 NONEX. The maximum and minimum of non-executive directors in SEA and EA are same, which are 0 and 14 members. The overall cross-sectional data indicates that there is a means of 6.83 and a variation of 4.12.

Figure 4.1: Existence of Female Director

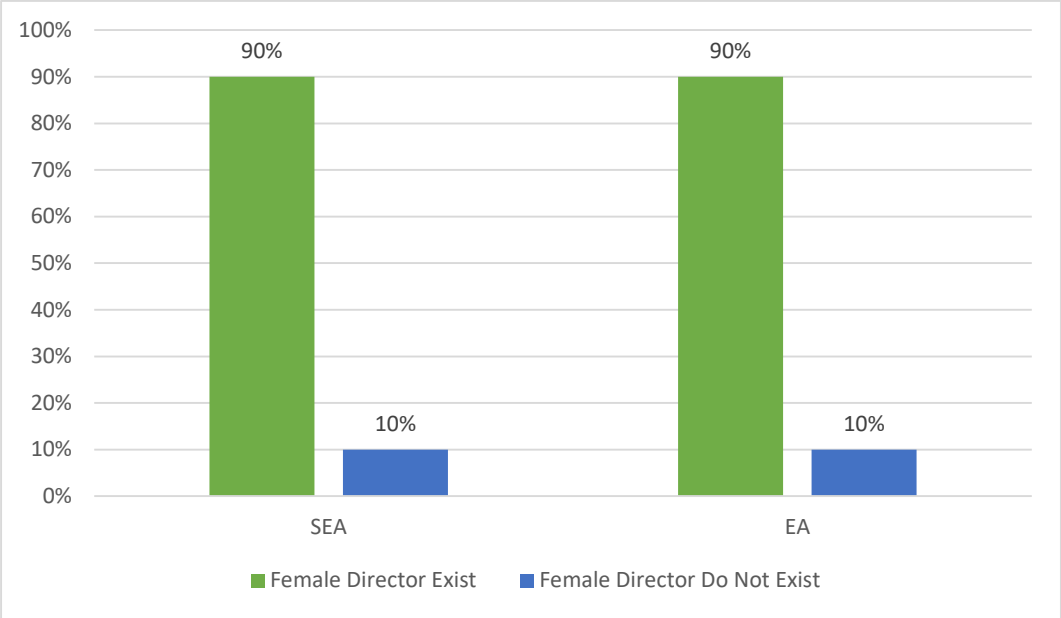


Table 4.1: Existence of Female Director

		Frequency	Percent (%)
SEA	Female director exist (Dummy = 1)	44	90
	Female director do not exist (Dummy = 0)	5	10
EA	Female director exist (Dummy = 1)	45	90
	Female director do not exist (Dummy = 0)	5	10
	Total	**99**	**100**

Figure 4.1 shows that the existence of female director is the almost same across both SEA and EA region, which indicate that 90% of the selected banks consist of at least one female director in the boardroom. This result shows that SEA and EA region are generally practising a gender diversity on the board. Also, this outcome is consistent with the code of governance and mandatory of worldwide to include at least one female director in the boardroom to promote the diversity of the board. Moreover, the variation of the existence of the female director in table 4.4 shows that there is average of 0.30 in term of SEA, EA and overall cross-sectional data.

Figure 4.2: CEO Duality

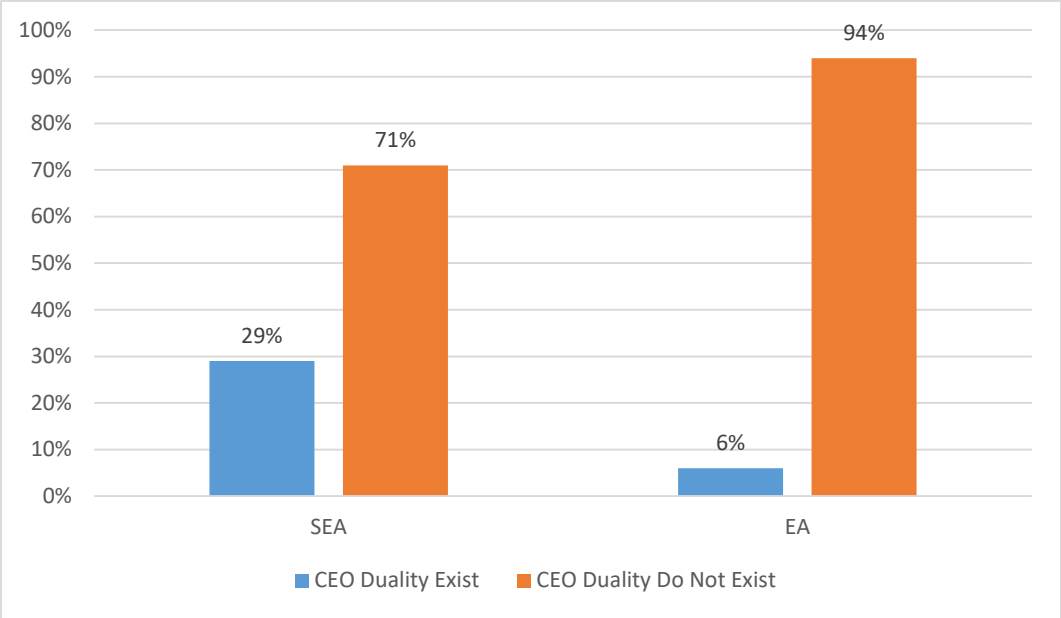


Table 4.2: CEO Duality

		Frequency	**Percent (%)**
SEA	CEO duality exist (Dummy = 1)	14	29
	CEO duality do not exist (Dummy = 0)	35	71
EA	CEO duality exist (Dummy = 1)	3	6
	CEO duality do not exist (Dummy = 0)	47	94
	Total	**99**	**100**

Apart from that, figure 4.2 display that the CEO duality in SEA is typically higher in SEA compared to EA, which recorded 29% and 6%. These value outlined that there are 29% of CBs (14 out of 49 banks) in SEA and 6% (3 out of 50 banks) of CBs in EA have the same person who hold for the position of CEO and Chairman of BOD. Lew, Yu and Park (2018) stated that the China Securities Regulatory Commission (CSRC) has started to strengthen the board independence by separating the roles of CEO and Chairman in the past few years. Since the data of EA is mainly taken from China's commercial bank, therefore, the CEO duality have a low portion in EA region. As a result, the variation of the CEO duality of SEA is 0.46 greater than EA which recorded 0.24 (refer to Table 4.4).

Figure 4.3: Presence of CEO on Board

Table 4.3: Presence of CEO on Board

		Frequency	Percent (%)
SEA	CEO presence on board (Dummy = 1)	42	86
	CEO do not presence on board (Dummy = 0)	7	14
EA	CEO presence on board (Dummy = 1)	46	92
	CEO do not presence on board (Dummy = 0)	4	8
	Total	**99**	**100**

In contrast, Figure 4.3 demonstrate the presence of CEO in a board of director in SEA is slightly lower as compared to EA, which marked mean value of 86% and 92% respectively. These value shows that 86% (42 out of 49 banks) of CEO in SEA and 92% (46 out of 50 banks) of CEO in EA are one of the banks' director. By referring to the Table 4.4, it shows that the presence of CEO in a BOD in SEA is more spread out from the EA, which marked 0.35 and 0.27. The maximum and minimum value for the existence of female director, CEO duality and presence of CEO in BOD are not explained due to these mechanisms are dummy variable.

Furthermore, the average bank age in SEA is slightly older than EA. The average bank age in SEA is 59.8 years, while, EA is 57.38 years. The variation of bank age is high in both SEA and EA, which recorded 31.80 and 38.47 respectively. The maximum and minimum age of bank in SEA are 155 years and 12 years, while 161 years and 9 years in EA region. Lastly, the mean liquidity of banks in SEA is 71.58, which is greater than EA 68.17. However, CBs in SEA have a lower variation which indicates 7.78 as compared to EA 13.49.

Table 4.4: Summary of Descriptive Statistics

	SEA Region				**EA Region**				**SEA and EA Region**			
Variables	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max
DEPENDENT VARIABLES												
ROE	9.59	6.31	-3.65	31.27	9.42	3.93	-1.83	18.69	9.50	5.22	-3.65	31.27
ROA	1.15	0.79	-0.57	3.57	0.76	0.36	-0.11	1.90	0.95	0.64	-0.57	3.57
INDEPENDENT VARIABLES												
SIZE	9.92	3.28	5.00	19.00	12.00	2.54	7.00	17.00	10.97	3.10	5.00	19.00
NONEX	6.00	4.41	0.00	14.00	7.64	3.67	0.00	14.00	6.83	4.12	0.00	14.00
FEM	0.90	0.31	0.00	1.00	0.90	0.30	0.00	1.00	0.90	0.30	0.00	1.00
DUA	0.29	0.46	0.00	1.00	0.06	0.24	0.00	1.00	0.17	0.38	0.00	1.00
PRE	0.86	0.35	0.00	1.00	0.92	0.27	0.00	1.00	0.89	0.32	0.00	1.00
CONTROL VARIABLES												
AGE	59.80	31.80	12.00	155.00	57.38	38.47	9.00	161.00	58.58	35.17	9.00	161.00
LIQ	71.58	7.78	40.18	81.88	68.17	13.49	5.93	83.84	69.86	11.12	5.93	83.84
TOTAL OBSERATIONS	49				50				99			

4.2 Scale of Measurement

4.2.1 Normality

Table 4.5: Normality Test - Jarque-Bera Test

	SEA Region		**EA Region**		**SEA and EA Region**	
Variables	ROE	ROA	ROE	ROA	ROE	ROA
Jarque-Bera	0.66	1.11	1.28	3.86	3.75	14.94
Probability	0.72	0.57	0.53	0.15	0.15	0.00
Observation	49		50		99	

Table 4.5 displays the result of the normality test that used the Jarque-Bera test to determine the normality of the error terms. Null hypothesis (H_0) outlined that the model is normally distributed, while alternatives hypothesis (H_1) outlined that the model is not normally distributed. After that, the decision rule is design to reject H_o if the p-value is smaller than the 5% significant level, otherwise it will not be rejected. The result indicates that the p-value of the ROE and ROA model in the SEA region is 0.72 and 0.57 respectively. In this case, the H_o will not be rejected since the p-value of 0.72 and 0.57 is greater than the 5% significant level. The EA region demonstrated that the p-value of the ROE and ROA model are 0.53 and 0.15 respectively. The H_o will not be rejected since the p-value of 0.53 and 0.15 are greater than the 5% significant level. In the overall multiple regression model, the p-value of the ROE model and ROA model is 0.15 and 0.00 respectively. In the ROE model, the H_o will not be rejected since the p-value of 0.15 is greater than the 5% significant level. However, the H_o in model ROA will be rejected, since the p-value of 0.00 is lower than the 5% significant level.

In general, the ROE and ROA model in both SEA and EA region meet the normality assumption on the error term; therefore, it is normally distributed. For the overall multiple regression model, the ROE model meets the normality assumption on the error term; therefore, this model is normally distributed. However, the ROA model does not meet the normality assumption on the error term; therefore, this model is not normally distributed. The reason might due to the huge difference of total assets value between the SEA and EA banks.

4.2.2 Reliability

Table 4.6: Reliability Test - Analysis of Variance (ANOVA)

	SEA Region		**EA Region**		**SEA and EA Region**	
Variables	ROE	ROA	ROE	ROA	ROE	ROA
F-value	5.15	4.46	3.07	3.42	4.10	4.05
Sig	0.00	0.00	0.01	0.01	0.00	0.00
Observation	49		50		99	

Table 4.6 demonstrated the result of reliability test by adopting the analysis of variance (ANOVA). Null hypothesis (H_0) outlined that the model is insignificant, while alternatives hypothesis (H_1) outlined that the model is significant. After that, the decision rule is design to reject H_o if the p-value is greater than 5% significant level, otherwise it will not be rejected. In the SEA region, the results indicate that the F-test statistic of ROE and ROA model in SEA region is 5.15 and 4.46 respectively. Based on the result above, H_o will be rejected, since the p-value is 0.00 less than 5% significant level. In the EA region, the results show that the F-test statistic of the ROE and ROA model in SEA region is 3.07 and 3.42 respectively. In this case, H_o will be rejected, since the p-value is 0.01 less than 5% significant level. In the overall cross-sectional model, the F-test statistic of the ROE model and ROA model are 4.10 and 4.05 respectively. H_o will be rejected, since the p-value is 0.00 is less than 5% significant level. In short, these multiple regression models are significant to explain the commercial banks' performance.

4.2.3 Mutlicollinearity

Table 4.7: Multicollinearity Test - Variance Inflation Factor (VIF)

Variables	**SEA Region**	**EA Region**	**SEA and EA Region**
	VIF	VIF	VIF
SIZE	2.132	1.984	1.795
NONEX	4.115	2.011	2.368
FEM	1.181	2.238	1.262
DUA	2.899	1.257	1.582
PRE	1.279	2.032	1.342
AGE	1.134	1.013	1.026
LIQ	1.046	1.084	1.046

In order to identify the correlation between the variables, variance inflation factor are analyzed. O'Brien (2007) reported that multicollinearity will exist in the model if the predictor value of VIF is greater than 5. Based on table 4.7, the result of VIF value is generally fall in between 1 to 4, which are not greater than 5. Thus, it is concluded that the regression model has low mutlicollinearity and does not suffer serious multicollinearity problems.

4.2.4 Heteroscedasticity

Table 4.8: Heteroscedasticity Test - Breusch-Pagan-Godfrey

	SEA Region		**EA Region**		**SEA and EA Region**	
Variables	ROE	ROA	ROE	ROA	ROE	ROA
SIZE	1.73	0.03	0.63	-0.01	0.02	0.02
NONEX	-4.40	-0.06	-0.51	-0.00	-1.59	-0.03
FEM	2.27	0.09	8.67	-0.01	-1.94	-0.17
DUA	-28.41	-0.07	-1.91	-0.08	-1.32	0.27
PRE	4.77	0.06	2.52	-0.05	-22.78	-0.51
AGE	-0.09	-0.00	-0.05	-0.00	-0.10	-0.00
LIQ	0.06	0.01	-0.06	0.00	-0.05	0.00
F-statistic	0.65	0.78	0.85	0.54	1.50	3.17
Prob. F	0.71	0.60	0.55	0.80	0.18	0.00

Table 4.8 demonstrated the result of heteroscedasticity test by adopting the Breush-Pagan-Godfrey. Null hypothesis (H_0) outlined that the model is homoscedasticity, while alternatives hypothesis (H_1) outlined that the model heteroscedasticity. After that, the decision rule is design to reject H_o if the value is smaller than the 5% significant level, otherwise it will not be rejected. In the SEA region, the p-value of both ROE and ROA model is 0.71 and 0.60 respectively. Therefore, H_o will not be rejected, since the p-value 0.71 and 0.60 is greater than the 5% significant level. In the EA region, the p-value of both ROE and ROA model is 0.55 and 0.80 respectively. Hence, H_o will not be rejected, since the p-value 0.55 and 0.80 is greater than the 5% significant level. In the overall model, the p-value of both ROE and ROA model is 0.18 and 0.00 respectively. In ROE model, H_o will not be rejected, since the p-value 0.18 is greater than the 5%

significant level. However, H_o will be rejected in ROA model, since the p-value 0.00 is smaller than the 5% significant level.

Besides, there is no obvious pattern and any cone shape appear on the scatter graph, hence, there is no heteroscedasticity (refers to scatterplot in Appendix 27, Appendix 28, Appendix 29, Appendix 30, Appendix 31, Appendix 32). In short, there is a homoscedasticity in the model of both SEA and EA, therefore, the statistical testing of significance for the cross-sectional data regression models in this study is still valid.

4.3 Regression Results

Table 4.9: Result of Cross-sectional Multiple Regression Analysis

	SEA Region		**EA Region**		**SEA and EA region**	
Variables	ROE	ROA	ROE	ROA	ROE	ROA
C	12.63 (0.09)*	1.79 (0.06)*	15.73 (0.00)***	1.70 (0.00)***	16.68 (0.00)***	1.73 (0.00)***
SIZE	0.38 (0.24)	0.07 (0.08)*	-0.55 (0.05)**	-0.09 (0.00)***	-0.11 (0.61)	-0.02 (0.36)
NONEX	-0.85 (0.01)***	-0.09 (0.05)**	0.36 (0.07)*	0.05 (0.00)***	-0.13 (0.47)	-0.00 (0.93)
FEM	-6.16 (0.02)**	-1.07 (0.00)***	-5.07 (0.04)**	-0.65 (0.01)***	-2.86 (0.11)	-0.47 (0.03)**
DUA	-4.85 (0.08)*	-0.09 (0.79)	-5.94 (0.01)***	-0.58 (0.01)***	-1.83 (0.25)	0.23 (0.25)
PRE	-4.93 (0.04)**	-0.63 (0.04)**	4.01 (0.13)	0.28 (0.23)	-2.13 (0.23)	-0.40 (0.07)*
AGE	-0.04 (0.10)*	-0.00 (0.28)	-0.04 (0.00)***	-0.00 (0.14)	-0.05 (0.00)***	-0.00 (0.10)*
LIQ	0.17 (0.09)*	0.01 (0.33)	0.02 (0.62)	0.00 (0.35)	0.04 (0.42)	0.01 (0.30)
No of Observations	49	49	50	50	99	99
R-squared	0.47	0.43	0.34	0.36	0.24	0.24
Adjusted R-squared	0.38	0.34	0.23	0.26	0.18	0.18
F-statistic	5.15	4.46	3.07	3.42	4.10	4.05
P-value	0.00	0.00	0.01	0.00	0.00	0.00

Note: Significant level ***1%, **5%, *10%. Probability is in parenthesis.

Table 4.10: Result of Board Size and Bank Performance

SEA Region		EA Region	
ROE	**ROA**	**ROE**	**ROA**
Positive insignificant	Positive significant	Negative significant	Negative significant

Based on the result summarized above, the relationship between board size and bank performance is found to be positively correlated in SEA Region, while negatively correlated in EA Region. The positive correlation in SEA Region is consistent with the study of Abdul Gafoor et al. (2018); Belkhir (2009); Kabigting (2011); Li et al. (2021). These studies suggest that the larger the board, the better the bank performance of the financial institutions. Li et al. (2021) suggest that the larger the board, the more diverse knowledge and expertise of directors which can lead to a better performance of the banks. In contrast, the negative association between board size and bank performance is supported by Al-Musalli and Ismail (2012); Naushad and Malik (2015); Ranti and Stephen (2011); Staikouras et al. (2007). These scholars indicate that large board size could increase the conflict, as difficulty of communication and coordination increase (Golden & Zajac, 2001). As a result, agency issue could negatively influence the bank performance.

Table 4.11: Result of Non-executive Director and Bank Performance

SEA Region		EA Region	
ROE	**ROA**	**ROE**	**ROA**
Negative significant	Negative significant	Positive significant	Positive significant

The result concluded that the number of NONEX has a negative significant influence on the bank performance in SEA Region, while positively significant influence in EA Region. The negative influence between the number of non-executive director and bank performance is supported by the previous study such as Alam et al. (2020); Olatunji and Stephen (2011); Sheikh et al. (2013). Olatunji and Stephen, (2011) explained that the negative correlation was because the NONEX is busy with other tasks and only engaged with the bank's operation part-time. Besides, the function of independent non-executive directors in SEA is practically absent because, in reality, none of them is independent. One of the

conditions to ensure the director is independent is that the term of NONEX appointment shall be restricted. However, the code of corporate governance in SEA does not specify the expiration of the term of appointment for the NONEX (Lim, Young & Lee, 2021; "Malaysian Code of Corporate Governance," 2021). As a result, the NONEX might not carrying out their roles independently to monitor and advise the board on the decision making process. On the other point of view, the positive influence of non-executive director on the bank performance is backed by Alhaji et al. (2013); Fauzi and Locke (2012). The positive correlation could explained by the non-executive directors may provide a broader perspective and generate new strategic outlooks for the firms (Alhaji et al., 2013). In China, the CG legislation and authorities enforced that the term of director's appointment including independent non-executive director shall no more than three years (Ribeiro, Hui & Hui, 2020). The directors are eligible to re-elect or re-appoint upon expiration of each term; however, the term of appointment of independent directors must not more than six consecutive years to ensure the NONEX is independent. (Ribeiro et al., 2020).

Table 4.12: Result of Existence of Female Director and Bank Performance

SEA Region		**EA Region**	
ROE	**ROA**	**ROE**	**ROA**
Negative significant	Negative significant	Negative significant	Negative significant

The findings of this study demonstrates a negative significant relationship between the existence of female director and bank performance across SEA and EA region (Chan & Heang, 2010; Kochan et al., 2003; Mirza et al., 2012; Yang et al., 2019). The negative relationship could have explained by the existence of female on board may indicates a negative sign to the public and negatively influence the performance of the banks (Mirza et al., 2012). On the other point of view, the negative relationship could explain by the low percentage of female directors and even no females on board. Therefore, their contribution might not significant affecting the performance of banks (Chan & Heang, 2010). However, the negative relationship was contradicts with the findings of Romano et al. (2012). In a study of Asian American women who had experienced discrimination,

nearly 14% of the respondents claimed that they had viewed to incapable to become the leaders, and 34% of the respondents argued that they assumed to be submissive or passive (Ro, 2020). It is believe that the women's career opportunity in SEA and EA will continue to be restricted unless it is accompanied by training of men and majority groups to counteract the biases they may not even realise they carry (Ro, 2020).

Table 4.13: Result of CEO Duality and Bank Performance

SEA Region		EA Region	
ROE	**ROA**	**ROE**	**ROA**
Negative significant	Negative insignificant	Negative significant	Negative significant

The result of this research concluded a negative association between CEO duality and bank performance in SEA and EA region. This findings has backed by previous study (Abdul Gafoor et al., 2018; Dogan et al., 2013; El-Chaarani, 2014; Grove et al., 2011; Mishra & Nielsen, 2000; Nazar, 2016). El-Chaarani (2014) reported that the duality of CEO may would constrain the chairman from playing its responsible to monitor the bank operation and therefore may lead to agency conflicts. The findings of this study is consistent with the previous research reveal that the dual role of CEO may negatively influence the bank performance.

Table 4.14: Result of Presence of CEO on the Board and Bank Performance

SEA Region		EA Region	
ROE	**ROA**	**ROE**	**ROA**
Negative significant	Negative significant	Positive insignificant	Positive insignificant

In terms of presence of CEO, the result concludes a negative relationship in SEA region, while positive relationship in EA region. The negative relationship could explained by the busyness of CEO. When a CEO holding more position in a firm, it could increase the burden and put less effort in particular organization and could negatively influence the organization's performance (Harymawan et al., 2019). In contrast, the presence of CEO may also positively associate with the bank's performance. Ferris et al. (2003) argued that the presence of reputable

CEO on board could increase the public confidence and lead to positive bank performance. The presence of CEO on board may provide the board members with strategic advice and enable the board to make informed decision.

Table 4.15: Result of Bank Age and Bank Performance

SEA Region		EA Region	
ROE	**ROA**	**ROE**	**ROA**
Negative significant	Negative insignificant	Negative significant	Negative insignificant

Based on the result, the bank age shows a negative association with the bank performance in SEA and EA region. The negative association is supported by Afriyie et al. (2021); Leite and Carvalhal (2016); Loderer and Waelchli (2011); Marinova et al. (2016). Loderer and Waelchli (2011) clarified that the agency problem tend to incur between the chairperson and CEO as time goes due to different objectives. As a result, it will negatively influence the bank's performance when the bank is older as compared to new established bank. Leite and Carvalhal (2016) also mentioned that, the new establish firms are typically have more growth opportunities as compared to matured firms. Kapelko (2006) argued that the long-established firms are not flexible enough to deal with the rapid change, implying barriers to innovation. This is because the old company typically has obsolete machinery, plant, and equipment, restricting their ability to innovate immediately. Furthermore, organizations' rigidity will also limit their growth by inhibiting change because they become harder to change over time.

Table 4.16: Result of Bank Liquidity and Bank Performance

SEA Region		EA Region	
ROE	**ROA**	**ROE**	**ROA**
Positive significant	Positive insignificant	Positive insignificant	Positive insignificant

Based on table 4.16, bank liquidity generally demonstrates a statistically positive insignificant relationship with the bank performance. The positive relationship is further supported by Alam et al. (2020); Huong et al. (2021); Musah and Gakpetor (2018); Wasiuzzaman and Tarmizi (2010). Wasiuzzaman

and Tarmizi (2010) argued that likely to engage in lending activities to increase profitability. When the bank lending out more deposit, it will indirectly increase the liquidity risk of banks. From another point of view, high lending out may increase the interest income of the banks and enhance the financial performance of the bank. However, the result is contrary to the theoretical view that seeks to form an inverse correlation between bank liquidity and profitability (Arif & Nauman Anees, 2012; Isik & Riza Ince, 2016; Lee & Kim, 2013). Arif and Nauman Anees (2012) implied that the bank generally tend to borrow money from REPO market at a higher rate when they face liquidity risk, which in turn will negatively affect the profit and bank performance. Liquidity risk of banks may increase due to the phenomena of sudden withdrawal of deposits and increase of non-performing loan during financial crisis. Therefore, the relationship between liquidity and bank performance tend to become negative when financial crisis (Huong et al, 2021).

4.4 Summary of Hypothesis Result

Table 4.17: Summary of the Hypothesis

Hypothesis	Description	Decision	
		SEA Region	EA Region
1	*H_0: There is no relationship between board size and bank's ROE*	**Accept**	**Reject**
2	*H_0: There is no relationship between number non-executive directors and bank's ROE*	**Reject**	**Reject**
3	*H_0: There is no relationship between existence of female director and bank's ROE*	**Reject**	**Reject**
4	*H_0: There is no relationship between CEO duality and bank's ROE*	**Reject**	**Reject**
5	*H_0: There is no relationship between presence of CEO on the board and bank's ROE*	**Reject**	**Accept**
6	*H_0: There is no relationship between bank age and bank's ROE*	**Reject**	**Reject**
7	*H_0: There is no relationship between bank liquidity and bank's ROE*	**Reject**	**Accept**
8	*H_0: There is no relationship between board size and bank's ROA*	**Reject**	**Reject**
9	*H_0: There is no relationship between number of non-executive directors and bank's ROA*	**Reject**	**Reject**
10	*H_0: There is no relationship between existence of female director and bank's ROA*	**Reject**	**Reject**
11	*H_0: There is no relationship between CEO duality and bank's ROA*	**Accept**	**Reject**

12	*H_0: There is no relationship between presence of CEO on the board and bank's ROA*	**Reject**	**Accept**
13	*H_0: There is no relationship between bank age and bank's ROA*	**Accept**	**Accept**
14	*H_0: There is no relationship between bank liquidity and bank's ROA*	**Accept**	**Accept**

CHAPTER 5: DISCUSSION, CONCLUSION AND IMPLICATIONS

5.0 Introduction

In this chapter, it will offer an overall insight of the research by drawing an overall conclusion of the major findings. This chapter will follow with determine the implications for the board of director, bank's management team, shareholder, government as well as investor. Furthermore, some limitations of the study will be highlighted along with the recommendations for the future scholars.

5.1 Conclusion

The main objective of this paper is to investigate the association between CG and the performance of commercial banks in SEA and EA. This study uses a sample of 99 commercial banks from both SEA and EA for the year 2020. Furthermore, several diagnostics tests were also carried out to ensure that the concepts of the cross-sectional data regression were not contravened. For instance, normality test, reliability test, multicollinearity test, and heteroscedasticity test. Based on the cross sectional multiple regression results, it is concluded that CG mechanisms such as board size, non-executive directors, female directors, and CEO duality on the board are generally essential to influence the commercial banks' performance across both SEA and EA regions. While, the variable of the presence of CEO on board only demonstrates a significant association in SEA region, while insignificant in EA region.

The result demonstrates that the board size is statistically significant in influencing the financial performance of commercial banks. The finding suggests that the board size should design based on the requirement of the organization. This is due to the large board size could increase the difficulty of communicating and engaging, while the small board size could be less diversified and result in

greater potential for "group think." This finding is consistent with the resource dependency theory, suggested that diverse board could lead to a better financial performance of the banks. Therefore, it suggests that to limit the boardroom size according to the company needs and overall business size. The number of non-executive directors also could potentially impact the performance of CBs. The positive effect of non-executive director in EA region was supported by the agency theory and stewardship theory. This is due to non-executive directors play an essential role in reviewing and monitoring the management's performance while ensuring that the stakeholder's interest is safeguarded. Practice 5.2 of Malaysian Code of Corporate Governance (2021) recommends that the board should comprise at least half of the independent non-executive directors, while it is advisable that the large company comprises a majority independent directors. Whilst, the negative effect of non-executive director in SEA region was due to the busyness of non-executive director as they might hold several position in difference organization and lack of engagement in the bank's operation.

Besides, the existence of female directors is negative significantly influencing the CBs' performance. This finding is contradict with the mandatory pass by many countries to include at least one female director in the boardroom. It believes that the existence of female director in the boardroom may bring a negative perception to the public and damage the financial performance of the banks. The result is generally in-line with the gender stereotyping theory, clarified that people tend to belief women is emotional, risk-averse, aggressive and low confident. However, it suggests that the banking institution in SEA and EA to conduct research in their geographical location to identify whether the mandating of females' director composition in the boardroom could effectively boost the banks' performance. This is due to the fact that women in some countries might have a stronger self-oriented motivation and focus on a higher social status. This could generally associate with the country's culture, background, and tradition

Furthermore, the mechanism of CEO duality is also essential in influencing the performance of commercial banks. Based on the findings, it demonstrates that combining of two leadership roles would negatively impact the power of chairman

from carrying out a practical and objective supervisory role, thereby increase the conflict and lead to more serious agency problem in an organization. This finding is oppose with the managerial-hegemony theory that recommend that CEO should delegate with greater power and control over banks' operations. However, the result is consistent with agency theory suggesting that the roles of CEO and chairman should be separated and in line with Practice 1.3 of MCCG 2021.

Lastly, the existence of a CEO on board negatively influences commercial banks' performance in the SEA region while having no significant effect in the EA region. The insignificant could be explained by the negative association from the busyness of the CEO. While CEO is holding more positions, it will be overburdened and tend to put less effort into the particular organization; in the end, it could threaten the performance of the banks. In short, it recommends that the CEO put more effort into their roles to develop business strategy and steer a growth company in the right direction. While, the positive association may be because the CEO has extensive skill and knowledge as they hold more positions within an organization, which may allow them to make an informed decision. The positive correlation is backed by the stakeholder theory suggesting that presence of CEO in the boardroom could safeguard the interest of stakeholder. Generally, the regression result concludes that the CG mechanism plays a crucial role in affecting the financial performance of commercial banks. CG makes sure that commercial banks have make the best decision and controls in place so that the interests of all stakeholders are safeguarded.

This paper is expected to contribute to relevant literature to a certain extent. Also, the empirical evidence contributes to the existing literature in determining the significance of CG on CBs' performance via various theories that will help the bank form a stronger corporate governance structure. Moreover, the findings of the research are generally supported by the theory that established by the previous scholars.

5.2 Implication of Study

This research studies the CG mechanism such as board size, non-executive director, female director, CEO duality, presence of CEO on the board on the performance of commercial banks measured by ROE and ROA. In general, all the variables have shown a significant relationship either in the SEA region or EA region. Therefore, the results are sufficient and clearly prove that corporate governance mechanisms play an essential role in SEA and EA countries.

First and foremost, the government has to provide and promote an enabling environment for a commercial bank to sustain itself in this competitive environment. The public outcry over the recent scandals has made it clear that corruption, fraud, and negligence are no longer acceptable. The public is solely emphasizing accountability and responsibility for corporate behaviour. Hence, the government should restore the public and investors' confidence in the economy by effectively enforcing the code of CG, improving auditing, and stepping up law enforcement to maintain a sound CG structure in banking institutions. This is because the banking industry's operation is complex; therefore, the government needs to play their roles in safeguarding the interest of depositors in the chain. Also, the government should ensure these commercial banks are operated in compliance with the corporate governance standard or guidelines that have been set.

Along with the growing importance of diverse boards, the banks should practice a diverse board to form sound CG and improve financial performance. For instance, the banks may stress on the roles of NONEX as well as the importance of independence of the board. The involvement of NONEX could offer an independent point of view for the business operation and act in the interest of company stakeholders. Moreover, the banks should include directors with different educational background and professional qualifications in the boardroom. The intangible factors such as working experience and personal attitudes could also take into consideration while appoint a director. This is due to

the homogeneity board may limit the potential contribution to board decision-making. Consequently, a greater diversity of boards may lead to an activist board.

Lastly, the roles of the CEO are demonstrated as an effective mechanism for influencing the bank's performance. In the context of the increasing workload of board members, in light of the rapid change of the banking sector, the roles of a chairman and CEO could raise severe concerns on the time commitment. The CEO should spare more time to focus on the banks' daily operations, while the chairman should lead the board and develop a strategic plan for the organization. Also, the combination of dual leadership roles may lead to an excessive concentration of power vested in an individual. In the worst case, this could result in the infamous corporate governance issue of "imperial CEOs." Hence, the banking institution should separate the board leadership structure that is grounded in agency theory and code of corporate governance's focuses on the potential for management domination of the board.

5.3 Limitation of Study

In this study, there are a few limitations in different aspects had identified. The first limitation is the sample size of the study. The sample size of 99 commercial banks may have difficulties in generating sufficient and accurate data to the scholars in examining the influence of CG on bank performance. This is because the CG arrangement and institutions vary from place to place, though the focus is to develop corporate fairness, transparency, and accountability. As a result, the sample size of 99 banks might not precisely reflect the roles of CG in the SEA and EA region.

Furthermore, limited access to the targeted population as only secondary data was obtained from the Internet. Wanjau (2007) conducted a survey to investigate the relationship between the CG and performance in microfinance institutions in Kenya. This research found that CG is potentially influence the performance of microfinance institutions in Kenya. Besides, another study that carry out the

investigation by conducting questionnaire survey on CG practices at the firm level and on directors' opinions about various aspects of CG in Asia country (Nam & Nam, 2004). However, the research data in this paper is only obtained from secondary sources such as annual reports, Bloomberg and World Bank. The primary data collection method was not practiced in this study, while the data originally originates from and is regarded as the best kind of data in research. It believes that obtaining the data from both primary and secondary sources could add more value to this paper. As a result, the face-to-face interview and physical survey cannot be carried out while conducting this research. The lack of a primary data source could limit this study analyze based on historical data that might not reflect the specific information needed, and the measured things may change over time.

Lastly, this paper only focuses on measuring the commercial bank's performance using accounting-based measures, ROA and ROE. The ROA and ROE have generally measured performance based on the historical data. The market-based measures, Tobin's Q ratio was widely used by previous scholars; however, it is not practiced in this study. Tobin's Q ratio could reflect the changes in the corporate value when the share price changes in the market. Greater share value shows that better public trust towards the organization; hence they are willing to pay higher based on their expectations and obtain a higher return. Hence, the share price is also an important indicator to reflect the public confidence towards the performance of commercial banks.

5.4 Recommendation of Study

Throughout our paper, it recommends that a wider sample size be involved to reflect the significance of corporate governance on commercial banks in various regions. Larger samples sizes will help in identifying the average value of quality among selected samples. Thus, the greater the sample size, the more precise the mean value. Hence, it may increase the result's completeness and eliminate the gaps in the data obtained.

Besides, the market-based measures, Tobin's Q should be included to measure the performance of the commercial banks. Tobin's Q ratio could express the association between the intrinsic value of a physical asset and its market valuation. Tobin's Q could also indicate the particular organization or industry whether it is overvalued to undervalued. Moreover, Tobin's Q ratio could show how attractive a commercial bank would be to investors and the public.

Furthermore, various data collection methods could be practiced to obtain more precise data, such as online surveys and interviews. For instance, the first-hand data collected by Wanjau (2007) demonstrate that the adequate length of board meetings will promote the information and ideas flow in the boardroom. As a result, adequate length of board meetings will ensure that the unanimous decision is achieved in the meetings and increase the efficiency of the decision-making process and in turn, boost the organization's performance. The length of board meetings is difficult to obtain and measure by simply looking at the annual report. Hence, the mixed-methods will provide a voice to study participants and ensure that research findings are grounded in participants' experiences, not only on the past historical data. Practicing mixed data collection methods will increase the richness of the data, providing a more expansive view of the research objectives.

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LIST OF APPENDIXES

Appendix 1: List of Commercial Banks in EA Region

Serial No.	Country	EA Commercial Banks
1	Hong Kong	Bank of China (Hong Kong)
2	Hong Kong	HSBC
3	Hong Kong	Standard Chartered Bank (Hong Kong)
4	Hong Kong	Hang Seng Bank
5	China	China Construction Bank
6	China	Industrial and Commercial Bank of China
7	China	Agricultural Bank of China
8	Japan	Sumitomo Mitsui Financial Group
9	China	Bank of China
10	Hong Kong	CMB Wing Lung Bank
11	Hong Kong	Industrial and Commercial Bank of China (Asia)
12	Japan	Mitsubishi UFJ Financial Group
13	Hong Kong	China Construction Bank (Asia)
14	Hong Kong	Bank of Communications (Hong Kong)
15	South Korea	Hana Financial Group
16	Japan	Mizuho Financial Group
17	Hong Kong	Chiyu Banking Corporation
18	China	Bank of Ningbo
19	Hong Kong	Nanyang Commercial Bank
20	Taiwan	Cathay United Bank
21	Hong Kong	DBS Bank (Hong Kong)
22	Hong Kong	Shanghai Commercial Bank
23	South Korea	KB Financial Group
24	Japan	Norinchukin Bank
25	Hong Kong	Citibank (Hong Kong)
26	Taiwan	First Financial Holding
27	Taiwan	Fubon Financial Holding
28	China	Bank of Chengde
29	China	China Merchants Bank
30	South Korea	Shinhan Financial Group
31	Taiwan	Bank of Taiwan
32	Taiwan	E.SUN Commercial Bank
33	China	Dongguan Rural Commercial Bank
34	Taiwan	King's Town Bank
35	China	Bank of Nanjing
36	Taiwan	Mega International Commercial Bank
37	Mongolia	Khan Bank
38	China	Guangdong Huaxing Bank
39	Macau	Tai Fung Bank
40	Taiwan	CTBC Bank
41	China	Bank of Qingdao
42	Hong Kong	Chong Hing Bank

43	Hong Kong	Bank of East Asia
44	Taiwan	Shanghai Commercial & Savings Bank
45	China	Zhejiang Xiaoshan Rural Commercial Bank
46	China	Xiamen Bank
47	China	Industrial Bank
48	China	Bank of Changsha
49	China	Bank of Chengdu
50	Taiwan	Bank SinoPac

Sources: The Asian Banker 2021

Appendix 2: List of Commercial Banks in SEA

Serial No.	Country	SEA Commercial Banks
1	Singapore	DBS Group
2	Malaysia	Hong Leong Financial Group
3	Malaysia	Public Bank
4	Thailand	Bangkok Bank
5	Malaysia	Maybank
6	Singapore	OCBC Bank
7	Cambodia	Canadia Bank
8	Singapore	United Overseas Bank
9	Thailand	Kasikorn Bank
10	Indonesia	Bank Central Asia
11	The Philippines	Security Bank
12	Singapore	Citibank Singapore
13	Thailand	Siam Commercial Bank
14	The Philippines	Metropolitan Bank & Trust Company
15	Thailand	Krung Thai Bank
16	The Philippines	Asia United Bank
17	Thailand	TMB Bank
18	Vietnam	Techcombank
19	The Philippines	Union Bank of the Philippines
20	Brunei	Bank Islam Brunei Darussalam
21	Indonesia	Bank Mega
22	Thailand	Bank of Ayudhya
23	Malaysia	BIMB Holdings
24	Cambodia	ACLEDA Bank
25	Malaysia	CIMB Group Holdings
26	Indonesia	Bank Mandiri
27	Cambodia	Advanced Bank of Asia
28	Indonesia	Bank OCBC NISP
29	Malaysia	United Overseas Bank (Malaysia)
30	Malaysia	AMMB Holdings
31	Indonesia	Bank Mizuho Indonesia
32	The Philippines	China Banking Corporation

33	The Philippines	BDO Unibank
34	Malaysia	RHB Bank
35	Thailand	Industrial and Commercial Bank of China (Thai)
36	Indonesia	Bank HSBC Indonesia
37	Indonesia	Bank Negara Indonesia
38	Malaysia	Standard Chartered Bank Malaysia
39	Malaysia	Citibank Malaysia
40	Vietnam	Tien Phong Commercial Bank
41	Thailand	Land and Houses Group
42	Indonesia	Bank Jatim
43	Indonesia	Bank Rakyat Indonesia
44	Malaysia	Alliance Bank Malaysia
45	Thailand	TISCO Financial Group
46	Indonesia	Bank UOB Indonesia
47	Indonesia	Bank Jateng
48	Vietnam	Asia Commercial Bank
49	Indonesia	Bank CIMB Niaga

Sources: The Asian Banker 2021

Appendix 3: Cross-Sectional Data Regression of Overall Data (ROE)

Dependent Variable: ROE
Method: Least Squares
Date: 08/26/21 Time: 17:04
Sample: 1 99
Included observations: 99

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	16.68303	3.947816	4.225888	0.0001
SIZE	-0.105056	0.206528	-0.508677	0.6122
NONEX	-0.128421	0.178282	-0.720326	0.4732
FEM=1	-2.860965	1.769555	-1.616771	0.1094
DUA=1	-1.828088	1.583189	-1.154687	0.2512
PRE=1	-2.127987	1.749879	-1.216076	0.2271
AGE	-0.048464	0.013741	-3.526944	0.0007
LIQ	0.035278	0.043910	0.803422	0.4238

R-squared	0.239596	Mean dependent var	9.501903
Adjusted R-squared	0.181104	S.D. dependent var	5.219922
S.E. of regression	4.723658	Akaike info criterion	6.020400
Sum squared resid	2030.478	Schwarz criterion	6.230106
Log likelihood	-290.0098	Hannan-Quinn criter.	6.105247
F-statistic	4.096184	Durbin-Watson stat	2.389627
Prob(F-statistic)	0.000596		

Appendix 4: Cross-Sectional Data Regression of Overall Data (ROA)

Dependent Variable: ROA
Method: Least Squares
Date: 08/26/21 Time: 17:05
Sample: 1 99
Included observations: 99

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.732661	0.484444	3.576596	0.0006
SIZE	-0.023077	0.025343	-0.910588	0.3649
NONEX	-0.001700	0.021877	-0.077691	0.9382
FEM=1	-0.472354	0.217146	-2.175290	0.0322
DUA=1	0.226867	0.194276	1.167754	0.2460
PRE=1	-0.399924	0.214731	-1.862440	0.0658
AGE	-0.002802	0.001686	-1.661617	0.1000
LIQ	0.005578	0.005388	1.035200	0.3033

R-squared	0.237433	Mean dependent var	0.952275
Adjusted R-squared	0.178774	S.D. dependent var	0.639638
S.E. of regression	0.579649	Akaike info criterion	1.824569
Sum squared resid	30.57538	Schwarz criterion	2.034275
Log likelihood	-82.31614	Hannan-Quinn criter.	1.909416
F-statistic	4.047687	Durbin-Watson stat	2.173256
Prob(F-statistic)	0.000665		

Appendix 5: Cross-Sectional Data Regression of SEA (ROE)

Dependent Variable: ROE
Method: Least Squares
Date: 08/26/21 Time: 16:27
Sample: 1 49
Included observations: 49

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	12.63019	7.166903	1.762294	0.0855
SIZE	0.384008	0.320397	1.198537	0.2376
NONEX	-0.853889	0.330759	-2.581609	0.0135
FEM=1	-6.156594	2.555523	-2.409133	0.0206
DUA=1	-4.851978	2.683069	-1.808369	0.0779
PRE=1	-4.925512	2.300858	-2.140729	0.0383
AGE	-0.040535	0.024086	-1.682920	0.1000
LIQ	0.165317	0.094569	1.748109	0.0879

R-squared	0.467755	Mean dependent var	9.588623
Adjusted R-squared	0.376884	S.D. dependent var	6.312512
S.E. of regression	4.982953	Akaike info criterion	6.198205
Sum squared resid	1018.023	Schwarz criterion	6.507073
Log likelihood	-143.8560	Hannan-Quinn criter.	6.315389
F-statistic	5.147452	Durbin-Watson stat	2.636352
Prob(F-statistic)	0.000291		

Appendix 6: Cross-Sectional Data Regression of SEA (ROA)

Dependent Variable: ROA
Method: Least Squares
Date: 08/26/21 Time: 16:18
Sample: 1 49
Included observations: 49

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.791692	0.926516	1.933794	0.0601
SIZE	0.073517	0.041420	1.774921	0.0833
NONEX	-0.085491	0.042760	-1.999356	0.0522
FEM=1	-1.074603	0.330371	-3.252721	0.0023
DUA=1	-0.091543	0.346859	-0.263919	0.7932
PRE=1	-0.627279	0.297448	-2.108867	0.0411
AGE	-0.003384	0.003114	-1.086868	0.2834
LIQ	0.012141	0.012226	0.993050	0.3265

R-squared	0.432350	Mean dependent var	1.145803
Adjusted R-squared	0.335434	S.D. dependent var	0.790204
S.E. of regression	0.644182	Akaike info criterion	2.106610
Sum squared resid	17.01377	Schwarz criterion	2.415479
Log likelihood	-43.61195	Hannan-Quinn criter.	2.223795
F-statistic	4.461087	Durbin-Watson stat	2.497931
Prob(F-statistic)	0.000915		

Appendix 7: Cross-Sectional Data Regression of EA (ROE)

Dependent Variable: ROE
Method: Least Squares
Date: 08/26/21 Time: 16:50
Sample: 1 50
Included observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	15.73488	4.288021	3.669496	0.0007
SIZE	-0.547651	0.273603	-2.001629	0.0518
NONEX	0.355691	0.190382	1.868308	0.0687
FEM=1	-5.065957	2.435119	-2.080374	0.0436
DUA=1	-5.938881	2.305362	-2.576117	0.0136
PRE=1	4.012824	2.565768	1.563986	0.1253
AGE	-0.044406	0.012907	-3.440545	0.0013
LIQ	0.019191	0.038070	0.504104	0.6168

R-squared	0.338453	Mean dependent var	9.416919
Adjusted R-squared	0.228196	S.D. dependent var	3.930100
S.E. of regression	3.452688	Akaike info criterion	5.461830
Sum squared resid	500.6842	Schwarz criterion	5.767753
Log likelihood	-128.5457	Hannan-Quinn criter.	5.578327
F-statistic	3.069654	Durbin-Watson stat	1.915018
Prob(F-statistic)	0.010553		

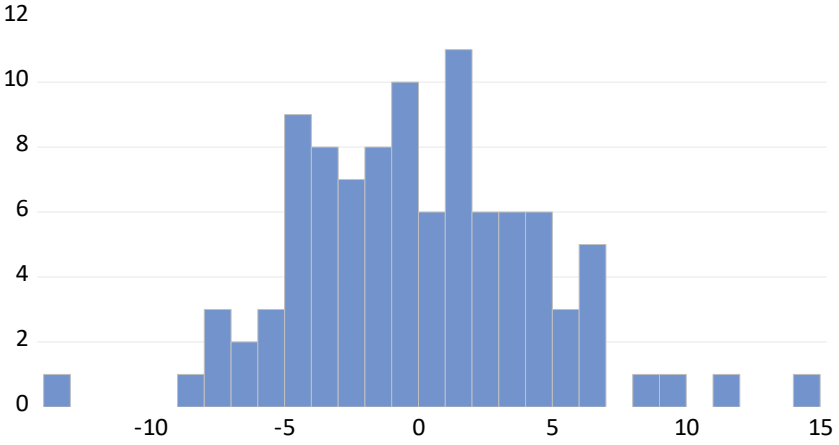
Appendix 8: Cross-Sectional Data Regression of EA (ROA)

Dependent Variable: ROA
Method: Least Squares
Date: 08/26/21 Time: 16:55
Sample: 1 50
Included observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.704605	0.389577	4.375527	0.0001
SIZE	-0.091742	0.024857	-3.690727	0.0006
NONEX	0.052174	0.017297	3.016401	0.0043
FEM=1	-0.653018	0.221236	-2.951674	0.0052
DUA=1	-0.584033	0.209448	-2.788445	0.0079
PRE=1	0.284430	0.233106	1.220175	0.2292
AGE	-0.001759	0.001173	-1.500102	0.1411
LIQ	0.003261	0.003459	0.942927	0.3511

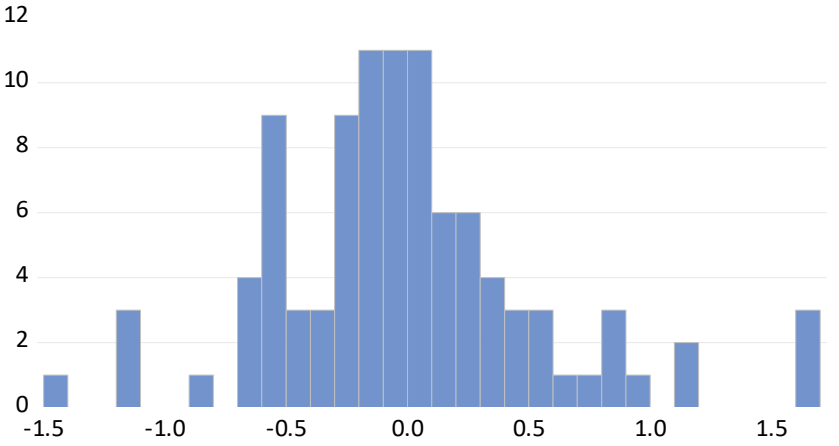
R-squared	0.363154	Mean dependent var	0.762618
Adjusted R-squared	0.257013	S.D. dependent var	0.363918
S.E. of regression	0.313685	Akaike info criterion	0.664791
Sum squared resid	4.132727	Schwarz criterion	0.970715
Log likelihood	-8.619787	Hannan-Quinn criter.	0.781289
F-statistic	3.421433	Durbin-Watson stat	1.822971
Prob(F-statistic)	0.005530		

Appendix 9: Jarque-Bera Test for Overall Data (ROE)



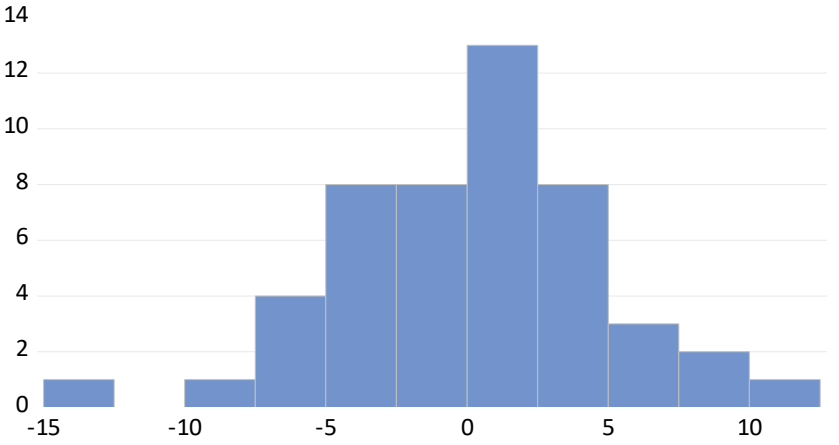
Series: Residuals	
Sample 1 99	
Observations 99	
Mean	-6.55e-16
Median	-0.351939
Maximum	14.79022
Minimum	-13.95703
Std. Dev.	4.551830
Skewness	0.250096
Kurtosis	3.810979
Jarque-Bera	3.745006
Probability	0.153738

Appendix 10: Jarque-Bera Test for Overall Data (ROA)



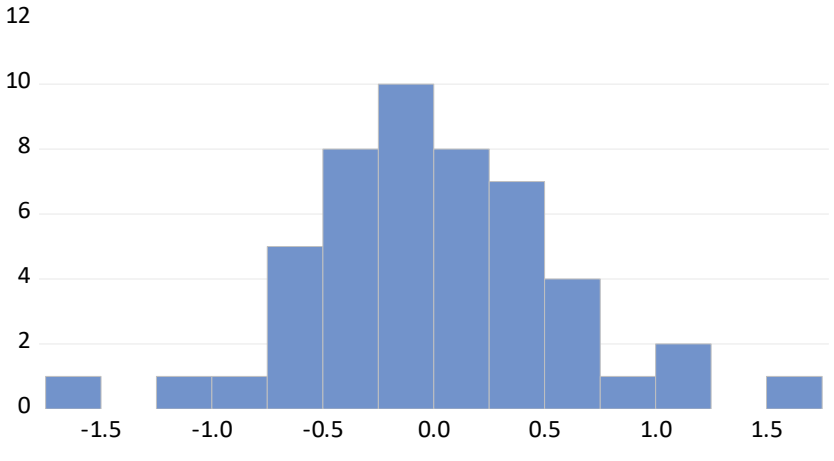
Series: Residuals	
Sample 1 99	
Observations 99	
Mean	-1.05e-16
Median	-0.060944
Maximum	1.680775
Minimum	-1.464196
Std. Dev.	0.558564
Skewness	0.613209
Kurtosis	4.455185
Jarque-Bera	14.93937
Probability	0.000570

Appendix 11: Jarque-Bera Test for SEA (ROE)



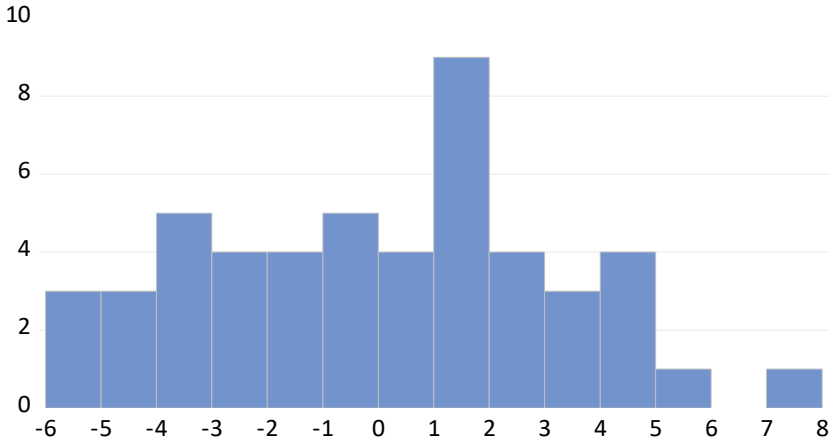
Series: Residuals	
Sample 1 49	
Observations 49	
Mean	1.41e-15
Median	0.652618
Maximum	10.97295
Minimum	-13.21090
Std. Dev.	4.605302
Skewness	-0.144265
Kurtosis	3.487887
Jarque-Bera	0.655952
Probability	0.720380

Appendix 12: Jarque-Bera Test for SEA (ROA)



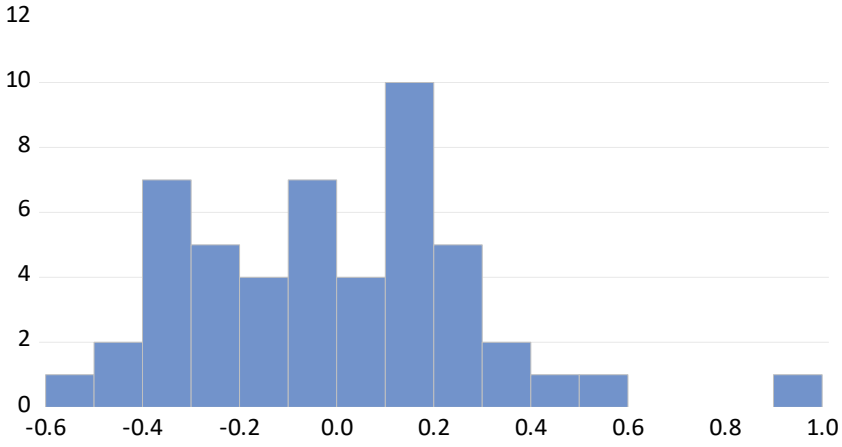
Series: Residuals	
Sample 1 49	
Observations 49	
Mean	-1.11e-16
Median	-0.015135
Maximum	1.622888
Minimum	-1.545259
Std. Dev.	0.595360
Skewness	0.215270
Kurtosis	3.598667
Jarque-Bera	1.110191
Probability	0.574017

Appendix 13: Jarque-Bera Test for EA (ROE)



Series: Residuals	
Sample 1 50	
Observations 50	
Mean	-2.88e-15
Median	0.150798
Maximum	7.122958
Minimum	-5.555101
Std. Dev.	3.196568
Skewness	0.008765
Kurtosis	2.215409
Jarque-Bera	1.283106
Probability	0.526474

Appendix 14: Jarque-Bera Test for EA (ROA)



Series: Residuals	
Sample 1 50	
Observations 50	
Mean	2.02e-16
Median	-0.006335
Maximum	0.936757
Minimum	-0.510070
Std. Dev.	0.290416
Skewness	0.603079
Kurtosis	3.630661
Jarque-Bera	3.859476
Probability	0.145186

Appendix 15: ANNOVA Test for Overall Data (ROE)

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	639.785	7	91.398	4.096	.001[b]
	Residual	2030.478	91	22.313		
	Total	2670.263	98			

a. Dependent Variable: ROE

b. Predictors: (Constant), LIQ, SIZE, AGE, FEM, DUA, PRE, NONEX

Appendix 16: ANNOVA Test for Overall Data (ROA)

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.520	7	1.360	4.048	.001[b]
	Residual	30.575	91	.336		
	Total	40.095	98			

a. Dependent Variable: ROA

b. Predictors: (Constant), LIQ, SIZE, AGE, FEM, DUA, PRE, NONEX

Appendix 17: ANNOVA Test for SEA (ROE)

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	894.672	7	127.810	5.147	.000[b]
	Residual	1018.023	41	24.830		
	Total	1912.695	48			

a. Dependent Variable: ROE

b. Predictors: (Constant), LIQ, PRE, NONEX, FEM, AGE, SIZE, DUA

Appendix 18: ANNOVA Test for SEA (ROA)

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.959	7	1.851	4.461	.001[b]
	Residual	17.014	41	.415		
	Total	29.972	48			

a. Dependent Variable: ROA

b. Predictors: (Constant), LIQ, PRE, NONEX, FEM, AGE, SIZE, DUA

Appendix 19: ANNOVA Test for EA (ROE)

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	256.155	7	36.594	3.070	.011[b]
	Residual	500.684	42	11.921		
	Total	756.839	49			

a. Dependent Variable: ROE

b. Predictors: (Constant), LIQ, SIZE, AGE, FEM, DUA, NONEX, PRE

Appendix 20: ANNOVA Test for EA (ROA)

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.357	7	.337	3.421	.006[b]
	Residual	4.133	42	.098		
	Total	6.489	49			

a. Dependent Variable: ROA

b. Predictors: (Constant), LIQ, SIZE, AGE, FEM, DUA, NONEX, PRE

Appendix 21: Breusch-Pagan Godfrey for Overall Data (ROE)

Heteroskedasticity Test: Breusch-Pagan-Godfrey
Null hypothesis: Homoskedasticity

F-statistic	1.503005	Prob. F(7,91)	0.1762
Obs*R-squared	10.25977	Prob. Chi-Square(7)	0.1743
Scaled explained SS	12.18365	Prob. Chi-Square(7)	0.0947

Appendix 22: Breusch-Pagan Godfrey for Overall Data (ROA)

Heteroskedasticity Test: Breusch-Pagan-Godfrey
Null hypothesis: Homoskedasticity

F-statistic	3.167757	Prob. F(7,91)	0.0048
Obs*R-squared	19.39712	Prob. Chi-Square(7)	0.0070
Scaled explained SS	28.31334	Prob. Chi-Square(7)	0.0002

Appendix 23: Breusch-Pagan Godfrey for SEA (ROE)

Heteroskedasticity Test: Breusch-Pagan-Godfrey
Null hypothesis: Homoskedasticity

F-statistic	0.651251	Prob. F(7,41)	0.7111
Obs*R-squared	4.903101	Prob. Chi-Square(7)	0.6718
Scaled explained SS	4.270187	Prob. Chi-Square(7)	0.7482

Appendix 24: Breusch-Pagan Godfrey for SEA (ROA)

Heteroskedasticity Test: Breusch-Pagan-Godfrey
Null hypothesis: Homoskedasticity

F-statistic	0.784694	Prob. F(7,41)	0.6040
Obs*R-squared	5.789059	Prob. Chi-Square(7)	0.5646
Scaled explained SS	5.266282	Prob. Chi-Square(7)	0.6275

Appendix 25: Breusch-Pagan Godfrey for EA (ROE)

Heteroskedasticity Test: Breusch-Pagan-Godfrey
Null hypothesis: Homoskedasticity

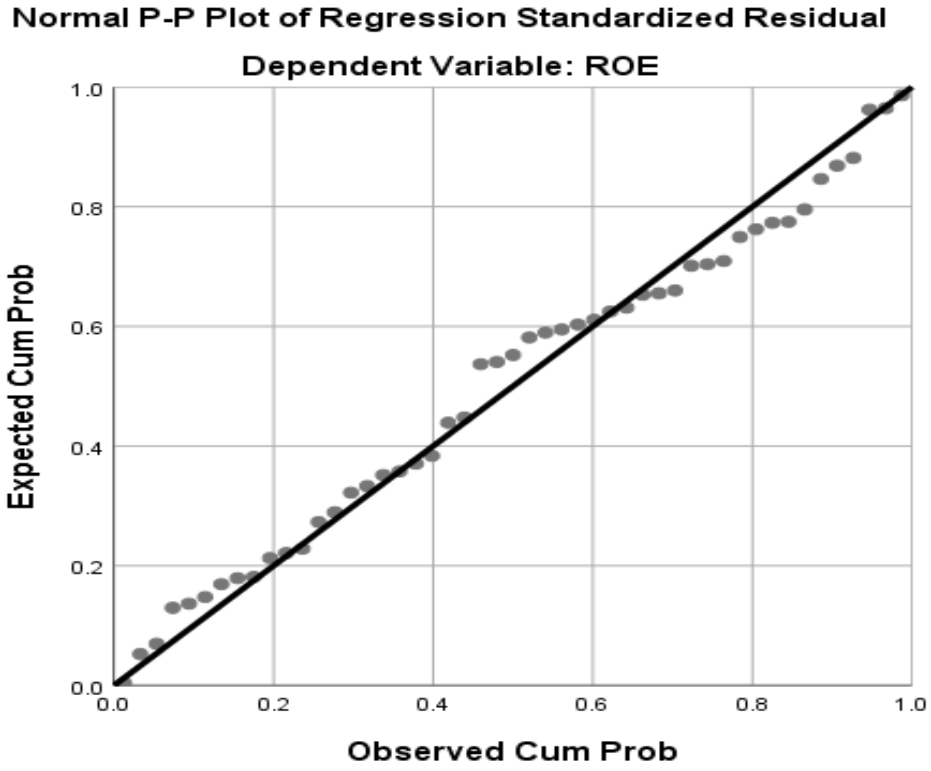
F-statistic	0.850032	Prob. F(7,42)	0.5530
Obs*R-squared	6.204582	Prob. Chi-Square(7)	0.5161
Scaled explained SS	2.660501	Prob. Chi-Square(7)	0.9145

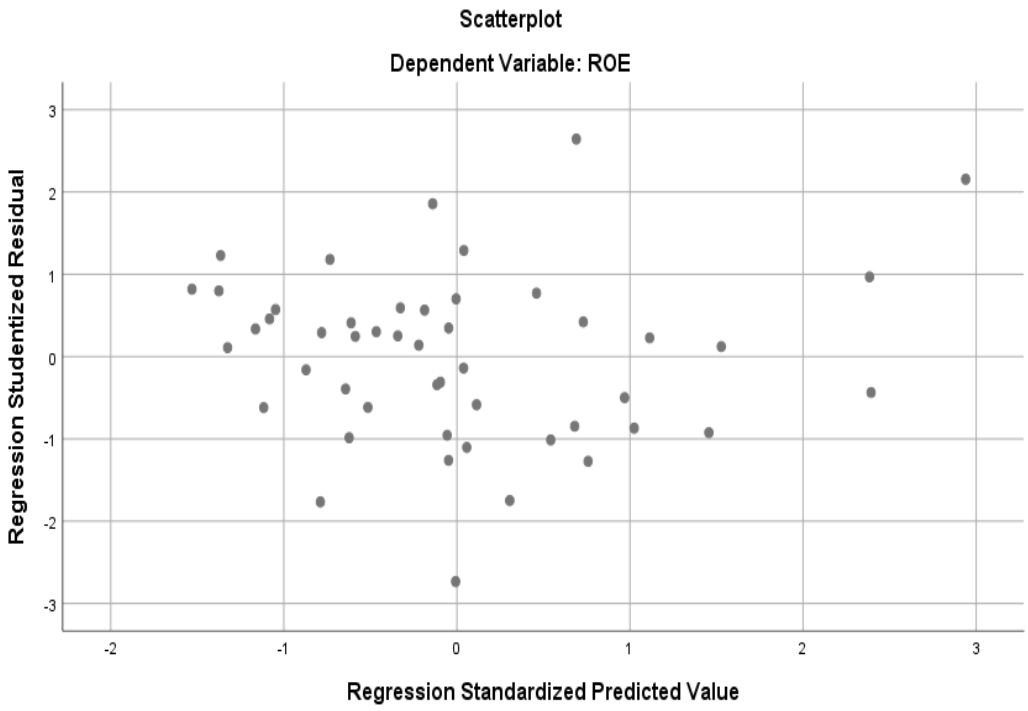
Appendix 26: Breusch-Pagan Godfrey for EA (ROA)

Heteroskedasticity Test: Breusch-Pagan-Godfrey
Null hypothesis: Homoskedasticity

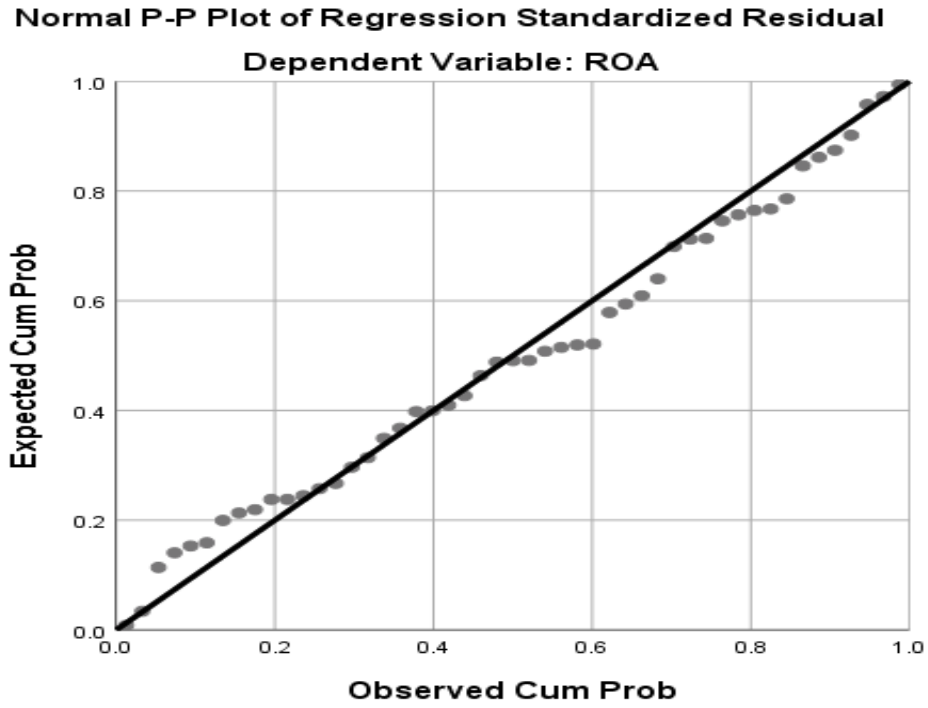
F-statistic	0.544305	Prob. F(7,42)	0.7959
Obs*R-squared	4.158614	Prob. Chi-Square(7)	0.7613
Scaled explained SS	3.859598	Prob. Chi-Square(7)	0.7958

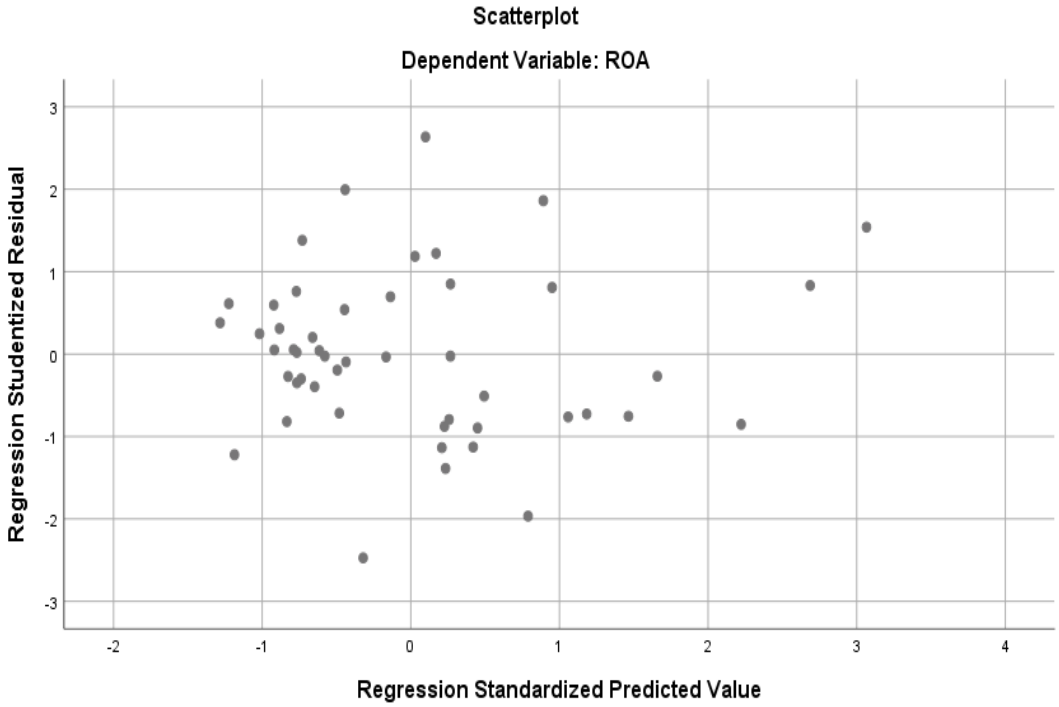
Appendix 27: Scatterplot for SEA (ROE)



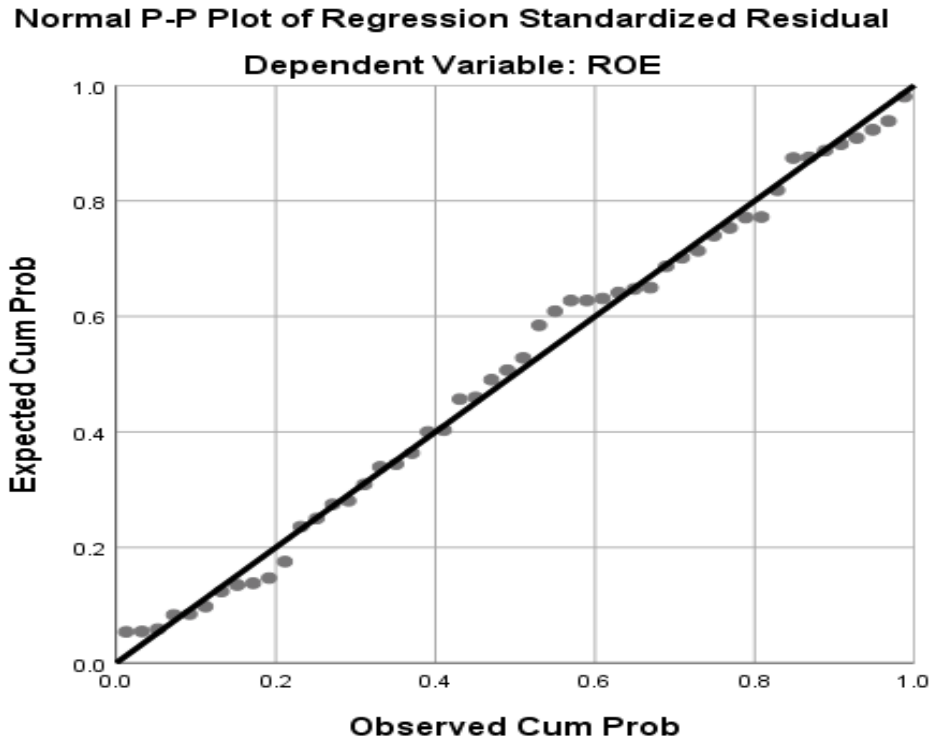


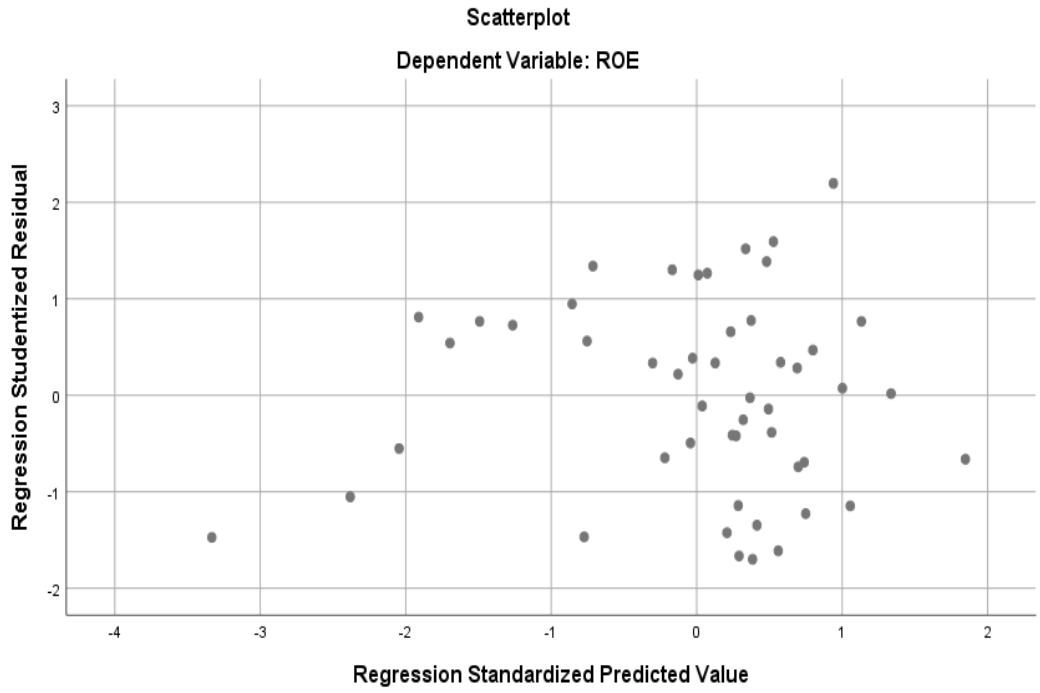
Appendix 28: Scatterplot for SEA (ROA)



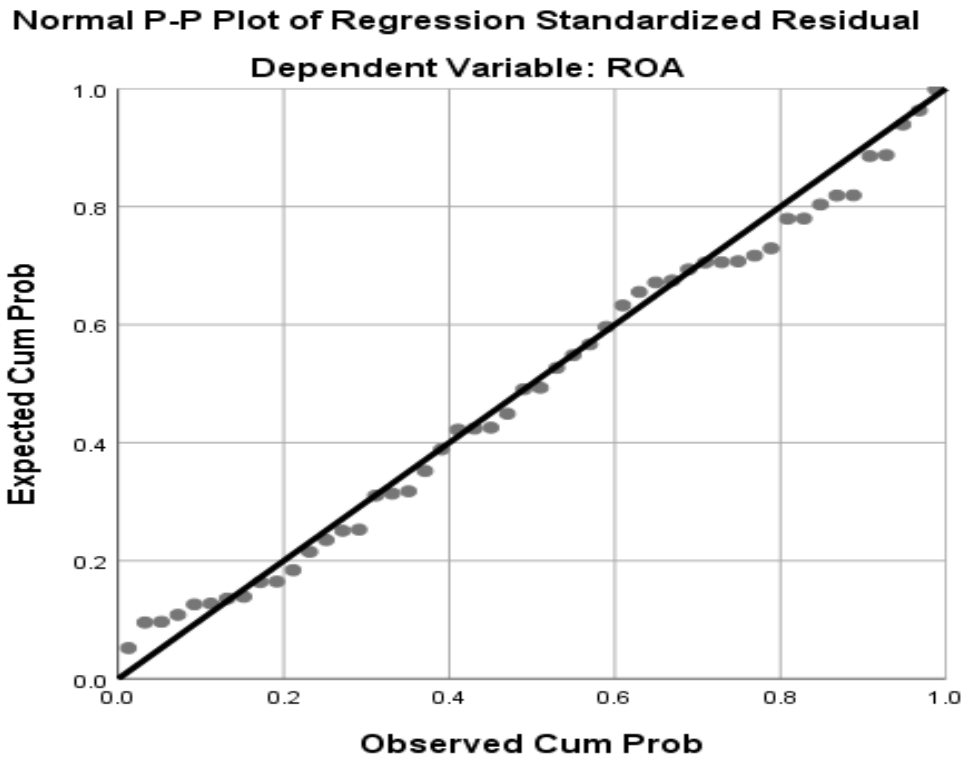


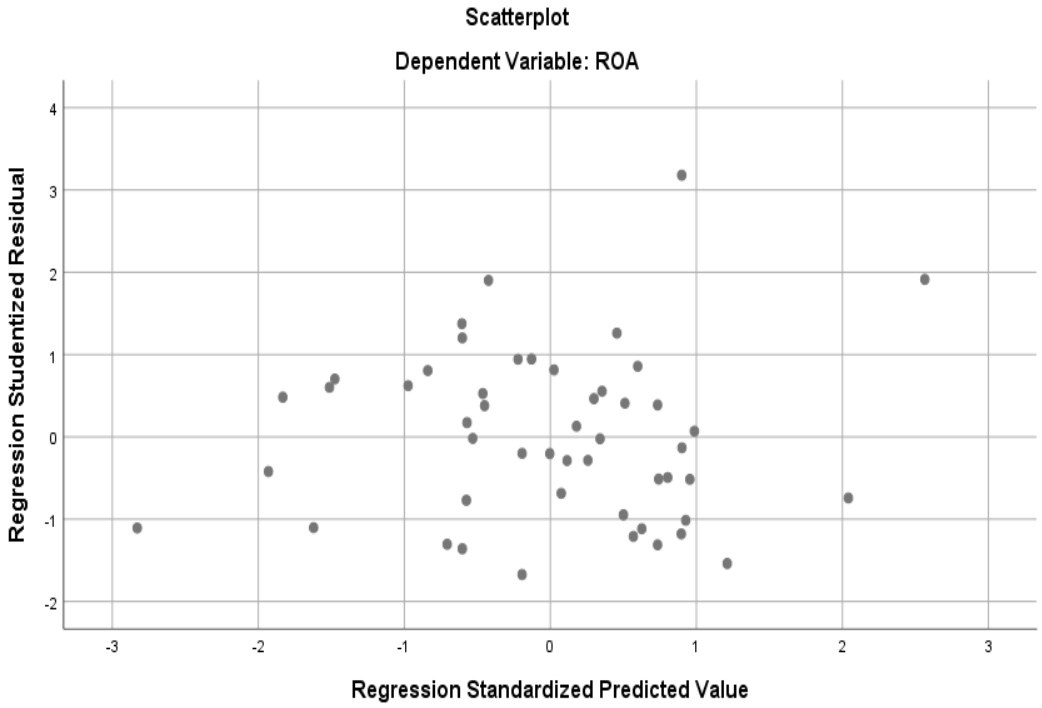
Appendix 29: Scatterplot for EA (ROE)



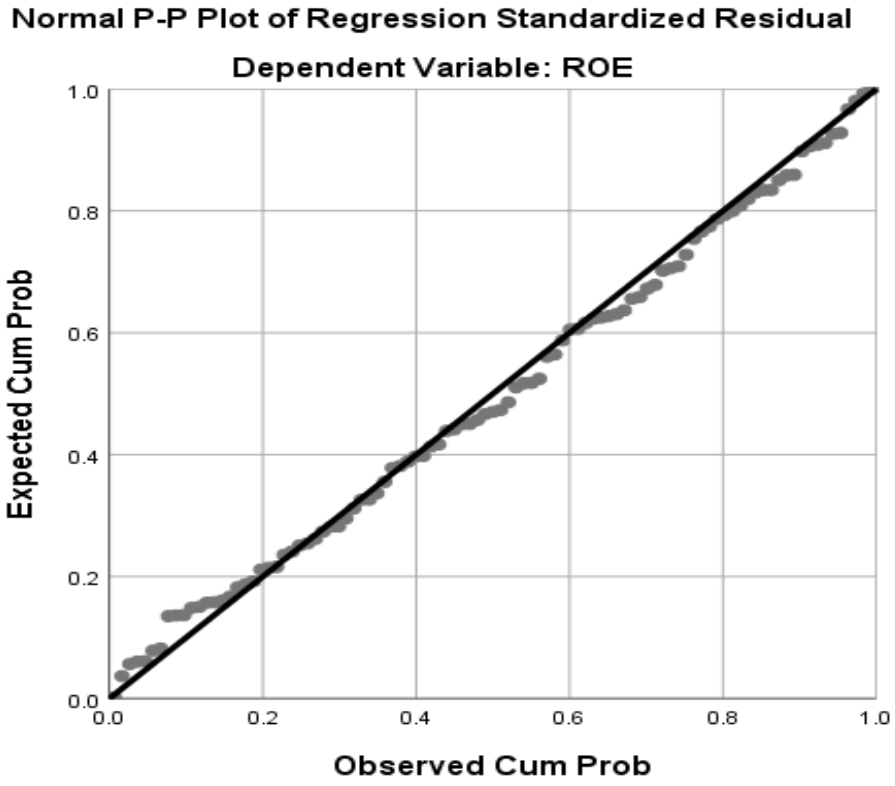


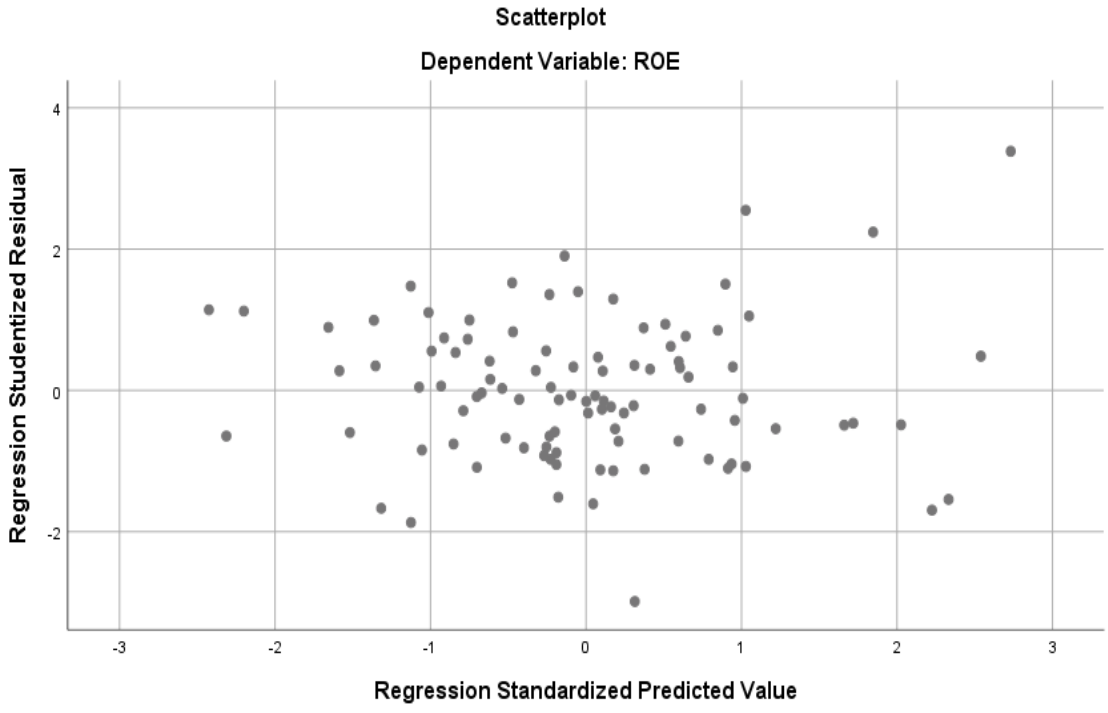
Appendix 30: Scatterplot for EA (ROA)





Appendix 31: Scatterplot for Overall Data (ROE)





Appendix 32: Scatterplot for Overall Data (ROA)