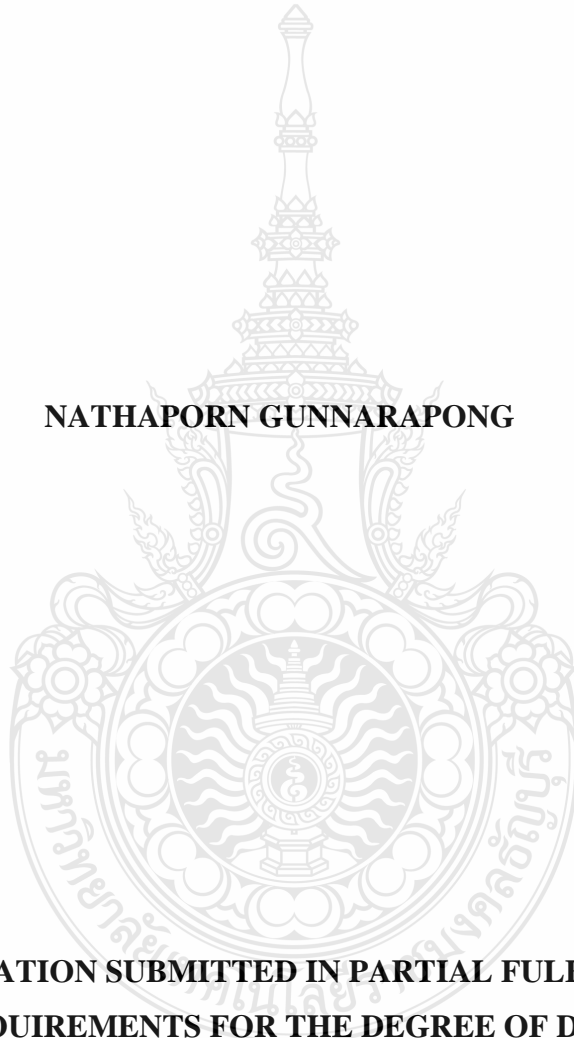


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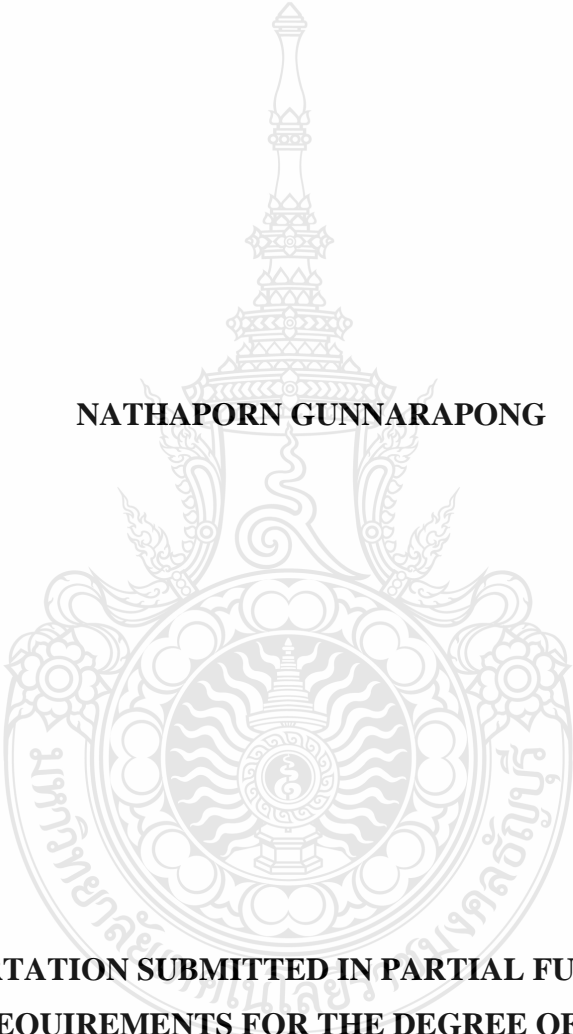
**NATHAPORN GUNNARAPONG**



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**Dissertation Title** Factors Influencing Voluntary Disclosures and Their Impacts on Stock Returns: Evidence from the Banking Industry in Thailand

**Name – Surname** Miss Nathaporn Gunnarapong

**Program** Business Administration

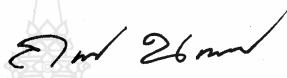
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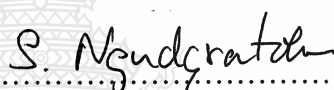
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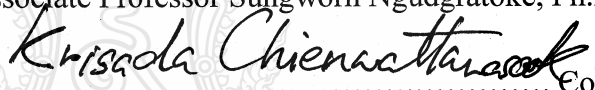
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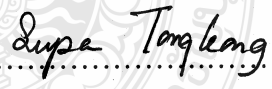
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November 1, 2021

## หัวข้อคุณนิพนธ์

ชื่อ - นามสกุล

สาขาวิชา

อาจารย์ที่ปรึกษา

อาจารย์ที่ปรึกษาร่วม

ปีการศึกษา

ปัจจัยที่มีผลต่อการเปิดเผยข้อมูลภาคสมัครใจและผลกระทบต่อ

ผลตอบแทนจากการลงทุนในหุ้น: หลักฐานเชิงประจักษ์จาก

อุตสาหกรรมการธนาคารในประเทศไทย

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2564

## บทคัดย่อ

งานวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาปัจจัยที่มีผลต่อการเปิดเผยข้อมูลภาคสมัครใจและผลกระทบต่อผลตอบแทนจากการลงทุนในหุ้นของธนาคารในอุตสาหกรรมการธนาคารในประเทศไทย เก็บรวบรวมข้อมูลที่ใช้ในการศึกษาจากรายงานประจำปี จากระบบข้อมูลตลาดหลักทรัพย์บนอินเทอร์เน็ตและแหล่งข้อมูลอื่น ในช่วงระยะเวลาระหว่างปี 2559 ถึงปี 2562 ดัชนีการเปิดเผยข้อมูลภาคสมัครใจพัฒนาจากการนำรายการการเปิดเผยข้อมูลทั้งสิ้น 572 รายการซึ่งประกอบด้วย การเปิดเผยภาคบังคับและการเปิดเผยภาคสมัครใจ หักออกด้วยรายการที่เป็นการเปิดเผยภาคบังคับ ได้รายการที่เป็นการเปิดเผยข้อมูลภาคสมัครใจจำนวน 185 รายการ นำมาสร้างดัชนีการเปิดเผยข้อมูลภาคสมัครใจแบบไม่ถ่วงน้ำหนัก จำแนกเป็น 2 ประเภท ประเภทแรกประกอบด้วย การเปิดเผยข้อมูลภาคสมัครใจโดยรวม การเปิดเผยภาคสมัครใจแบบพิเศษ และการเปิดเผยภาคสมัครใจทั่วไป ประเภทที่สองประกอบด้วย การเปิดเผยข้อมูลเชิงกลยุทธ์ การเปิดเผยข้อมูลทางการเงิน และการเปิดเผยข้อมูลที่ไม่ใช่ทางการเงิน วิเคราะห์ข้อมูลโดยใช้การวิเคราะห์เนื้อหา การวิเคราะห์ด้วยสถิติเชิงพรรณนาและการวิเคราะห์การถดถอยพหุคูณ

ผลการวิจัยพบว่า ธนาคารในประเทศไทยสมัครใจเปิดเผยข้อมูลภาคสมัครใจโดยมีค่าเฉลี่ยอยู่ในระดับปานกลาง และมีแนวโน้มการเปิดเผยข้อมูลภาคสมัครใจเพิ่มขึ้นในช่วงเวลาที่ศึกษา โดยสมัครใจเปิดเผยข้อมูลที่ไม่ใช่ข้อมูลทางการเงินมากที่สุด รองลงมาคือ การเปิดเผยข้อมูลที่เกี่ยวข้องกับกลยุทธ์ และการเปิดเผยข้อมูลทางการเงิน ตามลำดับ สำหรับการเปิดเผยข้อมูลภาคสมัครใจที่ไม่ใช่ข้อมูลทางการเงิน มีการเปิดเผยข้อมูลที่เกี่ยวข้องกับคณะกรรมการและผู้บริหารมากที่สุด รองลงมาได้แก่ ข้อมูลด้านพนักงาน และข้อมูลที่เกี่ยวข้องกับความรับผิดชอบต่อสังคม การเปิดเผยข้อมูลที่เกี่ยวข้องกับกลยุทธ์ มีการเปิดเผยข้อมูลทั่วไปที่เกี่ยวข้องกับกลยุทธ์มากที่สุด รองลงมาได้แก่ ข้อมูลที่ด้านกลยุทธ์การบริหาร ความเสี่ยง และข้อมูลด้านการวิจัยและพัฒนา ส่วนการเปิดเผยข้อมูลทางการเงิน มีการเปิดเผยข้อมูลทางการเงินทั่วไปมากที่สุด รองลงมาได้แก่ ข้อมูลหุ้น และข้อมูลกลุ่มธุรกิจ

นอกจากนี้ยังพบว่าที่ระดับนัยสำคัญทางสถิติ .05 ร้อยละหุ้นสามัญที่ถือโดยผู้ถือหุ้นภาครัฐผลตอบแทนต่อส่วนของผู้ถือหุ้นและอัตราส่วนเงินให้กู้ยืมต่อเงินฝากมีผลทางบวกต่อการเปิดเผยข้อมูลภาคสมัครใจ แต่ร้อยละของหุ้นสามัญที่ถือโดยนักลงทุนต่างชาติ อัตราส่วนความเพียงพอของเงินกองทุนสินเชื่อที่ไม่ก่อให้เกิดรายได้และธนาคารที่จดทะเบียนในตลาดหลักทรัพย์มีผลทางลบต่อการเปิดเผย

ข้อมูลภาคสมัครใจ และพบว่า การเปิดเผยข้อมูลภาคสมัครใจและอัตราส่วนสินทรัพย์สภาพคล่องต่อเงินฝากมีผลกระทบเชิงบวกต่อผลตอบแทนจากการลงทุนในหุ้นสามัญอย่างมีนัยสำคัญทางสถิติที่ระดับ .05 ผลการศึกษานี้เป็นประโยชน์ต่อผู้บริหารธนาคารเพื่อการสร้าง ความมั่งคั่งให้กับธนาคารและต่อนักลงทุน ในการสร้างความมั่งคั่งจากการลงทุนโดยใช้ข้อมูลการเปิดเผยโดยสมัครใจ

**คำสำคัญ:** การเปิดเผยภาคสมัครใจ ผลตอบแทนจากการลงทุนในหุ้น อุตสาหกรรมการธนาคาร



<b>Dissertation Title</b>	Factors Influencing Voluntary Disclosures and Their Impacts on Stock Returns: Evidence from the Banking Industry in Thailand
<b>Name - Surname</b>	Miss Nathaporn Gunnarapong
<b>Program</b>	Business Administration
<b>Dissertation Advisor</b>	Assistant Professor Supa Tongkong, Ph.D.
<b>Dissertation Co-advisor</b>	Associate Professor Wachira Boonyanet, Ph.D.
<b>Academic Year</b>	2021

### ABSTRACT

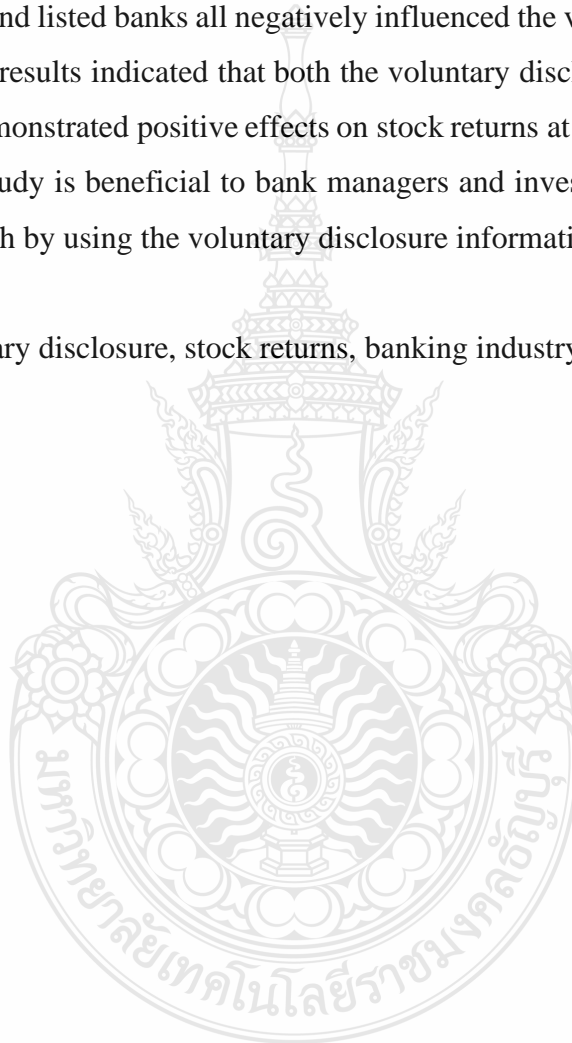
This research aimed to investigate the factors influencing voluntary disclosures and their impacts on stock returns of banks operating in the Thailand banking industry. Data were collected from annual reports, SET Market Analysis and Reporting Tool (SETSMART), and other sources during the 2016 to 2019 reporting periods. The voluntary disclosure indexes were developed from the total 572 initial disclosure items including both mandatory and voluntary disclosures. After carefully excluding all mandatory disclosure items, 185 items were selected as the total voluntary information disclosures. Then, the study developed self-constructed and un-weighted voluntary disclosure indexes classified into two categories: (1) total voluntary disclosure, extra voluntary disclosure, and non-extra voluntary disclosure; and (2) strategic information disclosure, financial information disclosure, and non-financial disclosure. The data were analyzed using content analysis, descriptive and multiple regression analyses.

The research results showed that Thai banks preferred to voluntarily disclose the voluntary disclosure information. The average score of the overall voluntary disclosure was at the medium level and tended to increase during the study periods. The highest level of voluntary disclosures was non-financial information, followed by strategic information and financial information, respectively. Within non-financial information, the board and director section provided the highest score, followed by the employee information and social responsibility section. Within strategic information, the general information section provided the highest score, followed by the risk information section and the research and development information section. Within financial information, the general financial information section

provided the highest score, followed by the stock information section and the business segment information section.

Further, the findings revealed that at a statistically significant level of .05, the percentage of common shares held by the government shareholders, return on equity, and loans to deposits all positively affected the voluntary disclosures. Conversely, the percentage of common shares held by foreign shareholders, capital adequacy ratio, non-performing loans, and listed banks all negatively influenced the voluntary disclosures. In addition, the study results indicated that both the voluntary disclosures and liquid assets to total deposits demonstrated positive effects on stock returns at a statistically significant level of .05. The study is beneficial to bank managers and investors who are seeking to increase their wealth by using the voluntary disclosure information.

**Keywords:** voluntary disclosure, stock returns, banking industry



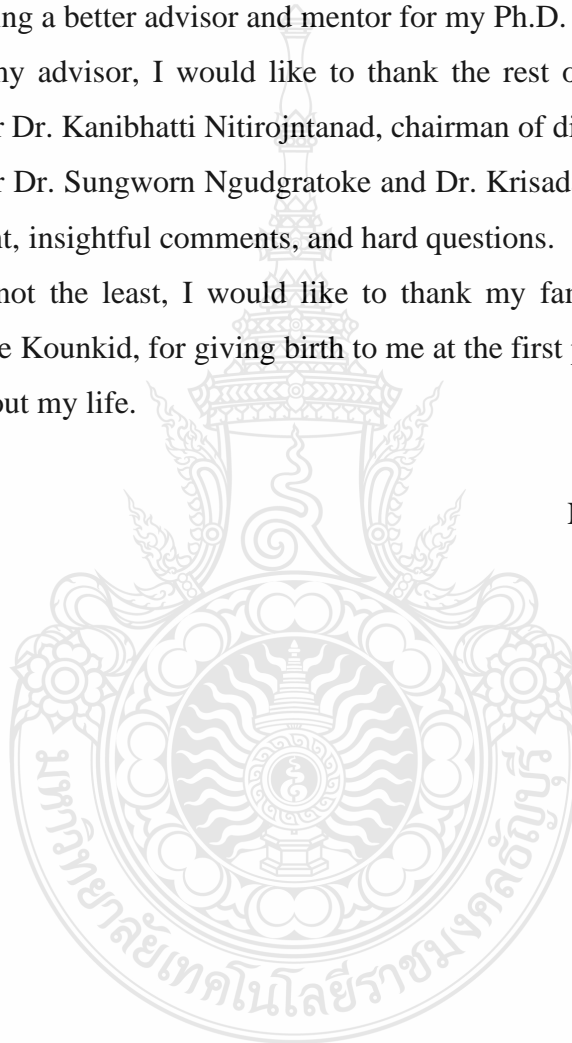
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Besides my advisor, I would like to thank the rest of my thesis committee: Associate Professor Dr. Kanibhatti Nitirojntanad, chairman of dissertation test as well as Associate Professor Dr. Sungworn Ngudgratoke and Dr. Krisada Chienwattanasook, for their encouragement, insightful comments, and hard questions.

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Nathaporn Gunnarapong





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# CHAPTER 1

## INTRODUCTION

### 1.1 Background and Statement of the Problem

In current market, factors such as environmental attributes or specific attributes of a corporate such as firm size, profitability, government ownership, liquidity, listing status, and foreign ownership has a huge effect on how corporate behave on its information disclosure report. In which case, this situation caught the attention of various academic researcher of over the world. Researchers have conduct researches on to what extent does these fore mentioned factors influence the corporate information disclosure. Whether it is being mandatory, voluntary, or aggregated.

Recently a review on academic literature about corporate information disclosure has been made. The review suggests that a numerous number of studies on corporate information disclosure and how the corporate attributes influenced the disclosure behavior have been completed for both developed and developing countries. However, these studies although may cover most of corporate and environmental attributes, most studies were conducted only on non-financial companies. Considering that banking sector and financial institutes have a major influence in the growth of the economic they exist in, very few academic studies were conducted in this specific condition. Here is where the weakness in data is exploited.

When making decisions, it is beneficial for stake holders to consider the information they possess to base their economic decisions on. In current economic any disclosed information whether being financial or non-financial related, plays an essential role in business decision making. It could be inferred from various financial theories that to provide business stake holders with a wide range of information, when making any economic decision, is the main objective of why corporate financial reports and disclosure exist.

It was stated by Abu-Nasser and Rutherford, 1996; Al-Razeen and Karbhari, 2004, that corporate stakeholders and interested parties including shareholders, management board, employees, suppliers, creditors, government agencies, and financial agencies finds their source of information both that are financial and non-financial related

mostly from corporate annual report disclosed by the corporate. International financial organizations such as the International Accounting Standards Board (IASB), believes that the greatest importance information that are disclosed are the ones disclosed from banks financial reports. An example of solution implemented by the IASB is the IAS 30, “Disclosure in the Financial Statements of Banks and Similar Financial Institutions”, a unique accounting standards for banks. Other examples include IAS 32, “Financial Instruments: Disclosure and Presentation” and IAS 39, “Financial Instruments: Recognition and Measurement”.

Another organization that presents concerns on the banks disclosure of information is the Basel Committee on Bank Supervision (Basel Committee). The Basel committee wrote various notes and guidance of conducting on banking disclosure of information. One example was the “Enhancing Bank Transparency” publicized in September of 2019. This notes provide the banking sector with the core topic on the financial information that must be disclosed to the public. It also gives guidance as a structural of regulation when disclosing information as a reporting standard content to the public.

Another regulation the Basel Committee place on the banking sectors is sufficiency of disclosed information. This encourage the banking sectors to provide information that is enough for assessment made by the market participants. To further understand this influence, the supplied information must explain a basic understanding of the risks the bank has taken or the activities done. To satisfy this condition the regulated requirement of information has been simplified into six categories as follows:

- Financial Performance
- Financial Position – this include solvency, liquidity, and capital.
- Risk management practices and strategies
- Risk exposures – this include credit risk, market risk, operational risk,

legal

risk, liquidity risk, and etc.

- Policies for Accounting
- Corporate business management and governance information

Information on the banks' accounting policies, such as their valuation of asset policies and liabilities, or their risk management policies, such as their capital components and their risk profiles, are significant information for assessing and comparing of banks' characteristics and the adequacy of the institute capital. The Basel Committee realize how crucial the information are for financial statements users, and issued a consultative paper in June of 1999, "A New Capital Adequacy Framework". This paper further influences the banks the disclose more of their information on accounting policies and risk management policies.

Later in July 1999, the Basel Committee further pursue the disclosure of information from banking sectors, and issued two papers namely "Sound Practices for Loan Accounting and Disclosure" and "Best Practices for Credit Risk Disclosure" These two paper provides banks with a best practice procedure for accounting and disclosure practices and disclosure to public of credit risk, respectively. Bearing in mind that the paper was issued to influence how banks should operate their information disclosure as a whole. Supplying the public with the sufficient information for assessment of banks' credit risk made by interested parties and the public participants.

According to Basel Committee, there are five categories that banks should look into about increasing the disclosed details information. These five categories include as follows:

- Accounting Policies and its practices
- Credit Risk Management
- Credit Exposures
- Credit Quality
- Earnings

To further enhance the role of market discipline in promoting bank capital adequacy, the Basel Committee issued disclosures of information in structure of capital, risk exposures, and capital adequacy areas in both qualitative and quantitative terms.

Other international financial institutes also consider regulative banks increase in disclosure of information as a serious issue. Some of these institute includes the World Bank (WB) and the international Monetary Fund (IMF). Both organizations encourage



banks in both developed and developing country to disclosed further information, then just the amounts that are required as a recommendation.

It was stated in Hirtle, 2007, p.27 that, “Disclosure is particularly important in the banking industry, since banks are generally viewed as being opaque to outsiders.” It could be concurred from this statement that information disclosed to public by banks should be enhance. With sufficient information, market participants would be capable of evaluating the banks’ activities and risk management practices, and therefore encouraged to include the information into the published annual reports.

If commercial banks are to effectively communicate to external interested party, it is necessary that these banks consider the use of published annual report that contains both financial and non-financial information as the mean of communication. Financial market participants or any interested parties will benefit greatly if they are supplied with accurate qualitative and quantitative information. Commercial banks should include their financial performance and their positions to the annual reports published to the interested parties. This would also benefit commercial banks as well. Tadesse (2006) stated that if banks received sufficient financial support, then they are less vulnerable to any crisis that may occur.

The reporting structure should be characterized by the following attributes, (i) more timely financial report, (ii) more comprehensive disclosure (iii) more informative, and lastly (iv) more credible financial information disclosure.

Although when comparing the corporate annual reports between one country and another, it could be recognized that their disclosure practices are somewhat similar, both voluntary and mandatory. However, in fact, among countries, the regulation issued by political and legal circumstances have shown differences. As stated by ISB, 2004; Alexandar et al.,2005; Nobes and Parker 2006, these differences are usually on topics such as accounting systems, economic systems, tax regulations, accounting professionals, and the nature of the country’s markets.

As stated that each country regulations and practices on disclosure of information is different. This different usually generates from the difference in culture, social standards, economic, and legal systems (Cairns, 1988; Kettunen, 1993). These factors are generated from environmental factors, another environmental factors that

cause difference occurs from the external users' information needs that are different when establishing the national disclosure requirements (IASB, 2004).

Other than the environmental factor that effect the disclosure practice of countries, there are also corporate attributes that are to be concerned (e.g. firm age, firm size, profitability, liquidity, listing status, auditor- types, government ownership, and foreign ownership). Currently many researches and studies have been considering these attributes into their research on information disclosure level. However, even with this considered, the number of research that made their research under the banking sector are still small when compared to other industries. This also includes all research that are made on both developed and developing countries.

Although as little in numbers as it may be, some studies have been made on banks. A few studies on commercial banks are mostly concentrate on banks' voluntary disclosure practices and their determinants ( Kahl and Belkaoui, 1981; Hossain and Taylor, 2007; Hossain and Reaz, 2007; Hooi, 2007). Furthermore, these studies were only conducted for one year. So far, there are no known study that has been conducted on commercial bank over a period of time. This includes the studies of commercial banking voluntary disclosure practices both the listed and unlisted commercial banks.

In previous studies, rather than considering both the listed and unlisted commercial banks, studies are usually made on listed commercial banks only. Studies are usually on commercial banks specified characteristics such as size, age, listing status, profitability, foreign ownership, government ownership, and liquidity position and its impact on the bank's voluntary information disclosure.

In conclusion, the voluntary disclosure of information of various corporate and industry differs. Not always does the interested party be informed with adequate amount of information. This serves negatively on both ends. When banks or corporate provide the interested parties with in adequate information in their annual reports, it raises suspicious among the interested parties. These suspicious would then cause the lacking of confidence, effecting the willing nest to invest. In this study, the objective is to research and develop a study on disclosure of information of commercial banks to its disclosed level. In this design, the study would incorporate commercial banks both on list and unlisted. With this we would be able to find out the correlation between each bank

characteristics and how they associate to the level of disclosure, mainly in a developing country like Thailand.

## **1.2 Purpose of the Study**

This study is conducted under the principal of Thai commercial banks level of information disclosure. This study would research and evaluate the information that are voluntarily disclosed to the public in the annual report of commercial banks that are listed. The research would also try to determine the influence of banking fundamentals on the qualitative and quantitative of the data disclosed. This principal aims the following objectives have been set:

Objective 1: To measure the extent of voluntary disclosure provided in the annual reports of Thai banks over the period from 2016 to 2019.

Objective 2: To examine whether there has been any significant improvement in the levels of voluntary disclosure provided in the annual reports of Thai banks throughout the study period.

Objective 3: To investigate whether there is any significant association between bank fundamentals (government ownership, foreign ownership, and bank type) and CAMEL (capital adequacy reserve, management efficiency ratio, non-performing loans, return on equity and liquidity ratio) with the extent of total voluntary disclosure, extra voluntary disclosure and non-extra voluntary disclosure in the annual reports throughout the study period.

Objective 4: To investigate whether there is any significant association between bank fundamentals (government ownership, foreign ownership, and bank type), and CAMEL (capital adequacy reserve, management efficiency ratio, non-performing loans, return on equity and liquidity ratio) with the extent of strategic information, financial information and non-financial information in the annual reports over the period of the study.

Objective 5: To evaluate whether CAMEL (capital adequacy reserve, management efficiency ratio, non-performing loans, return on equity and liquidity ratio), and voluntary disclosure information (total voluntary disclosures, extra voluntary disclosures and non-extra voluntary disclosures) significantly affecting the stock returns.

### **1.3 Research Question**

In particular, this study aims to provide answers to the following research questions:

Research Question 1: To what extent have Thai banks voluntarily disclosed information in their annual reports during the period between 2016 and 2019?

Research Question 2: Is there any significant improvement in the extent of overall voluntary disclosures in the published annual reports of Thai banks throughout the study period?

Research Question 3: Is there any association between bank fundamentals (government ownership, foreign ownership, and bank type), and CAMEL (capital adequacy reserve, management efficiency ratio, non-performing loans, return on equity and liquidity ratio) with the voluntary disclosures (total voluntary disclosures, extra voluntary disclosures and non-extra voluntary disclosures)?

Research Question 4: Is there any association between bank fundamentals (government ownership, foreign ownership, and bank type) and CAMEL (capital adequacy reserve, management efficiency ratio, non-performing loans, return on equity and liquidity ratio) with the voluntary disclosures (strategic information, financial information and non-financial information)?

Research Question 5: Do voluntary disclosure (total voluntary disclosures, extra voluntary disclosures and non-extra voluntary disclosures and CAMEL (capital adequacy reserve, management efficiency ratio, non-performing loans, return on equity and liquidity ratio) have effects on stock returns?

### **1.4 Research Hypothesis**

In order to answer the fifth research question, this section focuses on the development and formulation of research hypotheses. Previous empirical studies that examined the association between the level of disclosure and corporate-specific factors revealed that numerous company variables can influence the extent of disclosure (i.e. mandatory, voluntary or aggregate disclosure) in annual reports.

Based on the findings of previous empirical disclosure research and the Thai socio-economic environment, banking fundamentals (government ownership, foreign

ownership, and bank type) are considered as drivers of voluntary disclosure. According to Smith (2004), the formation of research hypotheses should be guided by theory and the existing literature. As a result, the concepts of agency theory and signaling theory, as well as their association with the level of voluntary disclosure are used to generate the research hypotheses as follow:

H1 : There is a significant association between banking fundamentals and CAMEL analysis to extent of total voluntary disclosure score in annual report.

H2: There is a significant association between banking fundamentals and CAMEL analysis to extent of extra voluntary disclosure score in annual report

H3: There is a significant association between banking fundamentals and CAMEL analysis to extent of non-extra voluntary disclosure score in annual report.

H4: There is a significant association between banking fundamentals and CAMEL analysis to extent of strategic information disclosure score in annual report.

H5: There is a significant association between banking fundamentals and CAMEL analysis to extent of financial information disclosure score in annual report.

H6: There is a significant association between banking fundamentals and CAMEL analysis to extent of non - financial information disclosure score in annual report.

H7: There is a significant association between the total voluntary disclosure index score and CAMEL analysis to stock returns.

H8: There is a significant association between the extra voluntary disclosure index score and CAMEL analysis to stock returns.

H9: There is a significant association between the non-extra voluntary disclosure index score and CAMEL analysis to stock returns.

### **1.5 Definition of Terms**

1. Bank disclosure (Hossain and Taylor, 2007) is the act of bank revealing information of the bank both financial and non-financial. Information disclosure is proved as a footnote attachment in a financial statement. Bank disclosure information are key information exported from summaries that registered banks disclosed. This information would usually use to determine the financial position and operating performance of an

institute. In most government, the law would regulate banks to provide customers with credit terms information. Usually any kind of residential mortgagors and consumer would requires the disclosure. Banks are usually required to disclose the following items 1) finance charges 2) method of interest rate computation and 3) monthly minimum payment. Disclosure must also include information on procedure required for finding error whenever there are dispute between parties. If an occasion rise where bank refuses to provide consumer loan, disclosure must be providing, and must include the reason of rejection. Full of disclosure is when all material pertaining to certain transaction must be included into the disclosure.

2. The concept of Voluntary Disclosure is when the disclosing party agrees to disclose information with in the prerogative is the disclosing party (Maingot and Zeghal, 2008). Voluntary disclosures are design as a mean to provide decision maker or interested party with additional information on companies. This information can be both financial and non-financial, which increases the number of disclosures required by law. Voluntary disclosure is also defined as a solution to supply more information of companies in intention to increase the professionalism, legal, and regulatory requirements, in which the information disclose would fall under the prerogative of the company's management on the rights to disclosed the information. Voluntary disclosure could also be define as any information disclosed that are not in compulsory to the law. The information could be general accounting, securities, or etc. Meaning that any information in addition to the accounting disclosures.

3. Stock returns (Widya Retno Utami et al., 2015) are the profits earned by investors in the stock market. It could be earned as a profit or dividends through trading which was provided by the company to its shareholders occasionally. Dividends announced by the companies can be used to generate stock market returns. A profitable company typically distributes a portion of its profits to its shareholders at the end of each quarter. This is one of the potential sources of stock market profit that an investor could ever expect. Trading on the secondary market is the most prevalent method of producing stock market returns. An investor can make a profit from the stock market by purchasing a stock at a lower price and selling it at a higher price in the secondary market. Returns on the stock market are not guaranteed and are subject to market risk since they could be

beneficial or harmful. Stock returns are not uniform and may vary from investor to investor depending on the level of risk one is willing to accept and the quality of this Stock Market Analysis. The stock market returns are independent variable, in contrast to the fixed returns given by bonds. The idea behind stock returns is to purchase low and sell high, but risk is prevalent in this market, and an investor can experience negative returns if he or she makes the wrong bets.

### **1.6 Limitation of Study**

The following section contains limitations and restrictions related to this study. There are several restrictions existed as follows;

1. The research is exclusively focused on the Thailand Stock Exchange (SET).
2. The data collected and used in this study regarding disclosure tasks is based on the annual report for SET in 2016-2019 from no. 56-1 of listed commercial banks.
3. This study will exclude a number of companies, including those that are not listed or have been removed from the risk. Companies that are being reorganized, as well as those with only limited information, will be removed from the list. Moreover, financial and security, and insurance sector are also excluded from the study as well. These companies were excluded due to their distinct fiscal structures and other characteristics when compared to other companies chosen for inclusion.

### **1.7 Scope of the Study**

As mentioned in the objective of study, this study seeks to evaluate the voluntarily disclosed information of Thai commercial banks. However, the scope is limited to information that are disclosure in the annual reports published only by those in the listed commercial banks. The annual reports evaluated would only be confined to that of period from 2016-2018. This whole annual reports would be consisting of financial statements, banks' board of director report, including information that are non-financial and other financial information. Not only will the study evaluate the disclosed information, it would take into consideration the influence of seven specific characteristics on the quality and quantity of disclosed information.

As stated in Article of 56-1 year 2016-2019, commercial bank is defined as A commercial bank is defined as a firm that accepts deposits in current demand accounts or time deposits, grants loans and credit facilities, and engages in other banking activities in accordance with the rules of paragraph (II) of this article.

In this study, banks that are consider to specialize would not be consider into the scope which is stated in Article 56-1 in 2016-2018 that A specialized bank whose primary aim is to fund and grant credit for certain activities but whose primary activities do not include the acceptance of demand deposits is not a comer bank.

Other researches define the term “voluntary disclosure” with a different definition. As an example, Meek et al., (1995, P. 555) define the term of voluntary disclosure as Excessive disclosures-represent corporate managements' free choices to give accounting and other information deemed important to the decision needs of users of their annual reports. Another definition given to voluntary disclosure is the one given by Bara o et al., (2006, P. 114), over and above the mandatory obligations, the discretionary release of financial and non-financial information through annual reports.

Since our studies specifies on banking sector, voluntary disclosure should also be defined in banking perspective. Hossain and Taylor (2007, P.111) stated that material generated and released to the public by firms that goes beyond the level of disclosure required to meet the firms' legal reporting obligations. Another specific definition of voluntary disclosure is the one given by Maingot and Zeghal (2008, P.231) defining voluntary disclosure so simply as information that the banks choose to provid even if they are no obligated to give under regulations.

According to our discussion, the word "voluntary disclosure" does not have a defined definition. Each study defines the term according to their convenience in usage of the term to their research which differ in each study due to the different objectives and conditions limited by the environment. In this study, the term voluntary disclosure will be defined as the disclosed information that exist in the annual report provided by Thai commercial banks which is not required by regulation and by the Stock Exchange of Thailand.



## **1.8 Significance of the Study**

Although there are numerous studies on voluntary information disclosure, as previously said, there are still certain gaps in the literature that can be filled. Therefore, this research is being carried out with the objective of doing such. There are few recent studies that examine the features of banks in terms of voluntary disclosure. The study would contribute to the accounting literature by delving deeper into specific features and analyzing their impact on the provided data. This study is conducted on the intent to further the provide literature with more insight on to the specific character in banking section to voluntary disclosure practices. Focusing is the study on banking section, it is expect that answers to why banks provide this specific voluntary disclose information in their annual report, which in most literature have not been gives. As previously mentioned, there are a huge number of literature studying the financial reporting and information disclosure application in both developing and developed countries, but only few focused its study on to the banking section, which in this literature will be attempting to do so. Furthermore, when taking consideration of banks specific characteristics, a few of the factor have not been specified in most of the academic disclose literature on listed and unlisted commercial banks annual report.

Another point of concern where this study comes into play is on the fact that most studies despite the fact that they have focus on the disclosure of information in the annual report of companies, it failed to make studies specifically on financial institute (Abdul Hamid, 2004; Linsley et al., 2006). Most literature were only made on non-financial companies. This was due to banking sector and financial institutes use a different regulation protocols and compulsory law that are different from the non- financial companies. With different environments and conditions, it is most likely that evaluation made on the same basis between non-financial and financial would result in the evaluation being biased (Choi; 1973, Cooke, 1989b; Raffournier, 1995; Wallace and Naser, 1995; Hossain et al., 1995).

Furthermore, when reviewing specifically only on financial sector, financial institute such as banks or insurance are place under different circumstance, characteristic, and the nature of conduct, which made them rather difficult to be placed under the same

evaluation, and is therefore why this area of studies has been left with much to explore (Hossain et al., 1995; Hossain and Taylor, 2007; Hassan et al., 2009).

In this literature we have mentioned on specific characteristics such as size, age, listing status, liquidity position, government ownership, profitability, and foreign ownership and how these attributes influence on the annual report that are disclosed voluntarily. However, these studies are currently numbered in few. Previous empirical studies shows result that are rather conflicting and not conclusive. This means that in all the characteristic that has been researched on some attributes are very influential to the disclose information, while other may seems to be insignificant and are rather inconsistent. Some characteristics are both significant and insignificant in two different studies.

This study is based on the principle to provide the academic research data with more information in the area of banking sector disclosure. As the aim is to complete the data in which some areas haven't been fully explored this study will also serve as a confirmation of the findings of previous studies that haven't been validated, and therefore more of the studies in banking and financial sector should be conducted (Malone et al., 1993). This study is considered to benefit in comparison to previous studies as more studies and evaluations are conducted in this area. This research is likely to help not only those who use or are interested in the data, but also financial institutions. The study is expected to provide commercial banking managers, banking regulators, central banks, international institutions, financial analysts, government agencies, and any potential investors both local and foreigner with a significant amount of information. This will allow them make assessment with more detailed and a transparent information when making decision.

This study also provides significant amount and benefit for developing countries. The results could improve their information transparency, since the regulations on this particular field is basically lacking.

Lastly to the current knowledge of the researcher, there are no literature that was made to specifically evaluate both qualitative and quantitative measures of listed commercial banks' in Thailand annual report. Specifically, one that is conducted to determine its progress over a period of time. Therefore, this study of voluntary disclosure

practices in Thailand banking sector of 2018, will surpasses the previous studies that was conducted to understand the progression of voluntary disclosure in other developing countries.



## **CHAPTURE 2**

### **REVIEW OF THE LITERATURE**

#### **2.1 Introduction**

Studies of corporate voluntary disclosure (CVD) on developed and emerging economies have been conducted on several researches. Kahl & Belkaoui (1981), Adams & Hossain (1998), Cooke (1989), Bujaki & McConomy (2002), Babío Arcay, & Muiño Vázquez (2005), Brockman et al. (2008), are examples of important studies from developed economies while Hossain et al. (1994), Chau & Gray (2002), Laventis & Weetman (2004) Barako et al. (2006), Hossain & Reza (2007), Hossain & Hammami (2009), Jiang et al. (2011), Samaha & Dahawy (2011) are examples of research studies conducted on the CVD on both developed and emerging economies. The determinations of CVD was the main factor in which these studies focused on. On the study made by attempted to introduce a new checklist of voluntary disclosures using previous studies both in banking and non-banking business. Initially, the study replicated the work of Meek et, al (1995). Then, the study developed the checklists from subsequent studies and rectified based economy and banking practices in Thailand.

Not many researches dedicated towards determining behavior of corporate information disclosure for financial institute when compared to banking sections. This phenomenon could perhaps be explained as stated by several authors that the research to determine the information disclosure of banking sectors are limited due the complex and opaque compositions of banks. Morgan (2002) compared banks were in black holes. This was due to the reason that stakeholders received less effect information disclosure no matter how much information which banks disclosed. In addition, banking businesses in all economy have been allotted a crucial and important role in financing the planned economic growth. This is because banks have been exposing to all risks which always adversely affected the performance of banks. These came to one of the main reasons why this study intended to carry on the study relating to banking sectors.

In addition, voluntary disclosure indices in banking businesses have been introduced and developed since the late of 20th century (i.e. Kahl & Belkaoui (1981); Hamid (2004), Hossain & Reaz (2007), Soliman (2013) and Abeywardana &

Panditharathna (2016)). The only corporate annual reports had been announced. However, the recent trend of corporate disclosures has been spread in various themes like social media, press conference among others. Also, a kind of this present has never been carried out in Thai banking sectors. Therefore, this study intended to introduce voluntary index and adjusted and updated previous indices recommended by prior studies using all publicly available information.

## **2.2 Theoretical Foundations**

In the following part of this literature, we will be discussing about the theoretical frame work of any corporate voluntary disclosure practice. Of many literatures on the corporate voluntary disclosure, most of them points out to the same academic theories that explains why corporates practice voluntary disclosure. The Agency Theory, Signaling Theory, Capital Need theory, and Legitimacy theory are the most frequent of the theories that had been used by accounting researchers to explain why corporates practice voluntary disclosure.

In this chapter we will be reviewing about how these mentioned four theories attempt to explain the behavior of companies' incentives to disclose additional information. These theories, according to most voluntary disclosure literature, are the most dominant in explaining those behaviors. However, scholars such as Khlifi and Bouri (2010) viewed differently. Khlifi and Bouri give the following statement, "after discussing different theoretical explanations of corporate disclosure, we conclude that there is no definite theory that explains that's there are any factors that stimulate voluntary disclosure".

The following sections of this chapter would be covering the discussion of these theories. Starting with Agency Theory, Signaling Theory, Capital Need Theory, and Legitimacy Theory which would be titled as Section 2.2, 2.3, 2.4, and 2.5 respectively whereas the final section of this chapter, 2.6, would be the summary and conclusion of what we learned in this chapter.

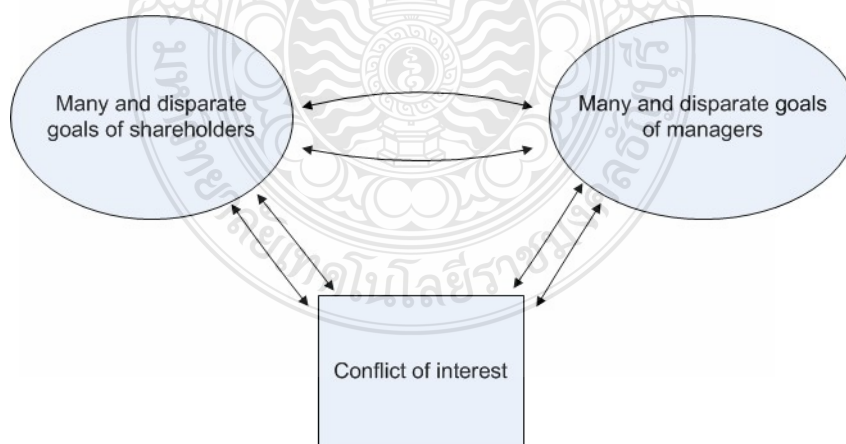
### **Agency Theory**

Jensen and Meckling first introduced the Agency Theory as an economic theory in 1976. Accounting researchers has been basing their findings on the Agency theory to

explaining and understanding the corporate behavior of voluntary disclosure. In which it was used worldwide in different culture, society, countries, economy, political status, and history (e.g. Chow and Wong-Boren, 1987; Cooke, 1989a, 1991 and 1993; Hossain et al., 1994; Hossain et al., 1995; Meek et al., 1995; Raffournier, 1995; Inchausti, 1997; Depoers, 2000; Haniffa and Cooke, 2002; Ferguson et al., 2002; Hossain and Taylor, 2007; Chen et al., 2008; Akhtaruddin and Hossain, 2008).

The Agency Theory presents that there is a main different of interest between two parties, the principals and the agents. In corporate case, the Agency Theory specify the shareholders as principals, and companies' manager as agents. Their difference, mainly comes from their functions in the company. Both parties will try to protect their own interest within the company. The Agency Theory also points to the conflicts that may occur between the parties in the company due to the difference goals that are not in complete agreement ( i. e. conflicts of interest between companies' managers and shareholders, as can be seen in Figure 3.1).

For the sake of this literature, we're going to refer "conflict" as described by Intone (2010). A conflict is "a situation where an individual or an organization has multiple interest and of those interests one could possibly corrupt the motivation for an act in the other".



Source: Adapted from Ittonen (2010) which has been adapted from Soltani (2007)

**Figure 2.1** Conflict of interest between shareholders and managers

The conflict of interest between principals and agents are categorized into four components as described by Lambert (2001). First (i) the effort aversion by agent, second (ii) the agent is capable of diverting company resources of his or her own benefits, third (iii) divergence of time horizons, and lastly (iv) the agents own differential risk aversion in which case a study was made to lower the risk of agency conflict. By having the principals monitoring their agents, the risk of conflict may be reduced or even eliminated. While another approach as described by Lacoste et al (2010), one can reduce or eliminate the risk by aligning the agents' interest to that of the principals'.

There's another addendum to agency theory on how principals can lower the risk of conflict with agents. Jensen and Meckling (1976) as well as Hill and Jones (1992) suggested that it is possible to limit conflict on agents by procuring an appropriate amount of incentives to the agents. Another approach is by setting up a monitoring of cost that's designed to limit the agents' actions.

There are two addendum in the rising problems of the agency relationships that the Agency Theory is looking to solved. The first problem is the confirmation of agents' behaviors toward the conflict. It is a very delicate matter when there's a conflict of interest between principals and agents. However, it is a very costly and difficult task to confirm whether the agents' behavior is considered as inappropriate. If actions are made improperly it could severe the relationship between the principals and agents. The second problems happens when there a different in perspective toward any risk that arise to the company. If both parties have an opposing direction in solving the crisis, it is usually the case that they do not share their thoughts on the risk matter (Eisenhardt, 1989).

Heal and Palepu (2001) suggested solutions consisting of three common strategies to solve the principals and agents problems. Firstly (i), it is highly plausible to that by presenting the agents with the opportunity to be limited by contract, it would keep the agents managerial action and interest in line with that of the principals. By presenting the agents to be involved with the outcome of their actions, it would encourages disclosure to the agents. Usually when issuing these contracts, it would be necessary to specify that the contact regulate the agents or corporate managers to disclose appropriate information, which would allow the stakeholders to monitor whether the corporate managers are

working in compliances with the contract. This would also allow the stakeholder to make sure that the company's resources are being used according to the principal interest.

The second factor is rather a simple but yet effective strategy. This is to utilize the authorities of the board of directors. This is a very important role in disciplining and monitoring the actions of the agents. The board of directors is allowed to act in the interest of the principals, and is therefore a highly effective factor in managing the risk conflict between the agents and the principals. This mechanism is responsible for generally assessing the performance of the managerial, but in particular they are responsible in monitoring the financial disclosure. Where this would lead us on to the last common way that is used to finalize any dispute. That is the use of outside resources or intermediaries. These are consultants whom for example may be experts on financial analysis, rating agencies, or the industry's expert. This party would be highly involved in assessing and searching of information of the companies, and discovering whether there're misapplications of companies resources and what are they for. Hossain et al (1995) stated that agency costs are most likely inevitable, among any companies with a conflict of interest between the principals and the agents.

Raffournier (1995) agrees with the statement above. When a firm ownership, is separated from the firm management control, there will most likely be a conflict of interest between the owner and the management, which in turn would bring agency cost to the firm. Agency cost usually is a result of company managers', agents, and company shareholders', principal, interests does not lie in agreement was what described by Watts and Zimmerman (1970). They also stated that in any situations where two or more people form a cooperation there will be a rise in agency cost. Where the agency cost is the cost of monitoring, bonding, or any residual losses. Does not matter whether there's a clear definition of the parties whether they are agents or principals.

Costs that are budgeted where principals find appropriate to monitor agents' action are defined as monitoring costs. In which case, these costs would include auditing cost, bonding costs, or residual losses. These are the cost that was incurred to confirm that the agents' actions are in line with the interest of the principals' interest, or as a safe guarantee, that there will be compensation for any damage made from agents' action that are not approved by principals. Some of the example are internal auditing, using out



sources member as a board of director. Jensen and Meekling (1976) as well as Hill and Jones (1992) define residual losses as any expense that costs the principal any expenses due to a pool management decision made by any parties.

A theory that has been commonly used to lower these cost is that by disclosing more information involving the financial aspect of the firm, the management activities of the firm, or related information to the stakeholders, a better monitoring of management of the firm can be achieved for stakeholders and other investors.

It was stated by Akhtaruddin Hossian (2008) that, by making sure that firm managers' actions and responds to any conflict that may occurs between stakeholders and managers in an efficient method, information disclosure of the firm will be motivated. To further support this argument Gray et al. (1995) stated that "accounting information is a mechanism for conflict resolution between various stakeholders for both explicit and implied contracts".

Information of the firm is usually shared equally within the firm, however, some of the times it is different. Noreen (1998) called this situation "asymmetric information". This, when both parties, principals and agents, does not have same amount of information, and usually the agents are the ones holding more information.

An asymmetric information situation would usually result in a moral hazard problems. When there's an asymmetric information between the two parties, as stated previously, the agents hold more information. This would cause principals to miss detecting certain aspect of agents' actions that are diverging from the preference of the principals (Walker, 1989). Another kind of problems that may occur is adverse selection. This is a problem that occurs when the agent accesses information that the principal may not be aware of precedent action alternative (Walker, 1989). Fortunately these problems can be eliminated as stated by Walker, 1989. By disclosing improved public information an adverse selection problems of agents and be diverted.

To summarize the cause of problems that arise from asymmetry information, it is caused from outside principals that are stakeholder or invertor of the firm. Lacks the information about current operation of the firm or any further action that the firm may take. This is also true when company managers decide to put their interest in front of the stakeholders' interest, and the managers have the benefit of information rather than the

stake holders ( Arnold and Lange, 2004) . Firms that organized their authorities by separating the management and the owners further encourage the management to acquire much advanced information of the company in comparison the those of the stakeholders, activities wise, financial wise, and prospects wise (Squith and Mullins, 1986).

To further confirm that firms' managers usually have much more advanced information of the firm, it was stated by Ahtaruddin and Hossain (2008) that, "it is well known that managers have better access to private information than outside shareholders". The ones that have the authority to monitor or even distort the firms' information are usually managers, and if these critically impact information was kept away from stakeholders, then it would most certainly complicate the agency problems (Hill and Jones 1992). With information that are both disclosed from stakeholders, and that are distorted by managers, it would be nearly impossible for stakeholders to identify if managers are acting in line of their interest. Furthermore, difficulty may arise even when information is not disclosed to public, information given by managers could be increased inappropriately (Hossain et al. 2005).

In those countries where requirements of financial reporting standards and corporate reporting offer less disclosure, it is said that the degree of information asymmetry for financial information between two parties, corporate managers and external users, is especially high (Young and Guenther, 2003). However, when there's a high requirement of financial reports standards, it could be inferred that there are higher accounting and financial reports quality. Therefore, external users of the corporate annual report in these countries can expect to face a much lower information asymmetry problems that those country with a lower accounting quality standards.

The nature information asymmetry problem has a very lethal potential. Thus, it is a general act by management of the firms to simply provide private information or any other required information to stakeholders through the use of annual financial reports. Healy and Palepu (2001) stated that, the increase of demand of financial reporting and disclosure of information originate from the asymmetry problems as well as the conflicts in interest of the agencies and principals of the company.

Managers of firms are more willing and motivated to further provide a higher level of disclosure due to their behavior that are being controlled and monitored by the

stakeholders. Therefore, managers are more inclined to work and act in a more optimal manners (Watson et al., 2002). It is also recognizable that both the cost of agency and the problems of information asymmetries between managers and outsiders can be reduced by the increased of both financial and non-financial information disclosure Inchausti (1997). This view was also supported by Gray et al. (1995, p. 46 “the firm is inspected as a ‘nexus of contracts,’ and accounting information is required by outside owner-shareholders as a means of monitoring contracts with managers”.

It is critical that external stakeholders, such as investors and owners, are able to acquire beneficial and reliable financial and non-financial data regarding the company. With enough information, stakeholders will be able to effectively manage the company. Therefore it is crucial that the corporate annual report includes essential information that the stakeholders require when a situation of decisiveness is required (Mustafa et al., 2007). It is also stated by Imam (2000, p. 133) that “Financial information is the communication of information about the entity's resources, obligations, income, expenditure and revenues to users. It involves communicating information to those who have limited authority, capacity, or resources to obtain the information needed. Also, it communicates information on the economic entity to the users.”

Not only is the corporate annual report important for external stakeholders, it is utilized by managers of the firm to as a means of communication the performance and governance of the company to stakeholders (Healy and Palepu, 2001). The company annual report also is required for stakeholders to make any economic decision and the analysis of the companies’ performance. This is especially necessary for stakeholders such as creditors, employees, suppliers, customers, competitors, financial analysts, and regulatory authorities. ArabSalehi & Velashani (2009) reconfirmed that accurate companies’ annual report of both financial and non-financial information are essential for company’s users and investors in decision making.

For outside investors to evaluate the firm performance, it is essential that they are able to evaluate timing and uncertainty of the present and the future of the firms’ cash flow. This could only be done with the company disclosure of information to investors and stake holders. (Meek and Roberts, 1995). Stakeholders and other investors may

acquire these valuable corporate information through their financial statement, managerial reports, and their security analysis' reports (Asquith and Mullins, 1986).

To summarize the effect of disclosing of corporating information in the terms of agency theory, the agency cost can be reduced when companies' managers voluntarily disclose additional and valuable information of the companies, benefitting to the company by reducing the risks of conflict between the managers and shareholders. The agency theory utilizes the disclosing corporate annual reports as a beneficial mechanism to the corporate. These reports lower the problems of information asymmetry between the two parties, agents (company insider) and principals (outside investors).

Corporate financial report and annual report plays many roles in the agency theory. These reports can be utilized by shareholders in many possible ways. First, these reports can be used to monitor the performance of management, reducing agents costs. Secondly, it is utilized as a control mechanism to monitor and evaluate the managers' performance. Allowing stakeholders to recognize which managers tend to voluntarily disclose valuable information (Khlifi and Bouri, 2010), the agency theory is explained in Table 2.1.

**Table 2.1** Agency theory overview

	<b>Positive Agency Theory (after Eisenhardt, 1989)</b>
➤ Key Idea	• Principal-agent relationships should reflect productive organisation of information and risk-bearing costs
➤ Unit of Analysis	• Contract of principal and agent
➤ Human Assumptions	• Self-interest • Bounded rationality • Risk aversion

**Table 2.1** Agency theory overview

	<b>Positive Agency Theory (after Eisenhardt, 1989)</b>
➤ Organisational Assumptions	<ul style="list-style-type: none"><li>• Partial goal conflict among participants</li><li>• Efficiency as the effective criterion</li><li>• Information asymmetry between principal and agent</li></ul>
➤ Information Assumption	<ul style="list-style-type: none"><li>• Information as a purchasable Commodity</li></ul>
➤ Contracting Problems	<ul style="list-style-type: none"><li>• Agency (moral hazard and adverse selection)</li><li>• Risk sharing</li></ul>
➤ Problem Domain	<ul style="list-style-type: none"><li>• Relationships of the principal and agent have partly different goals and risk preferences (e.g., compensation, regulation, leadership, impression management, whistle-blowing, vertical integration, transfer pricing)</li></ul>

*Source: Adapted from Eisenhardt, 1989.*

### **Signaling Theory**

There is another one theory that is generally used by analyst and accounting research to explain why it is encouraged that corporate disclose private and additional information in their annual financial report (Raffournier, 1995; Haniffa and cooke, 2002;Walston et al., 2002; Akhtaruddin and Hossain, 2008). This theory originated as a theory to explain the asymmetric information in the labor markets (Spence, 1973). Signaling is a situation where the party with an additional information of the market signal this information to another party. When the party with more information signals the

information to another party in a market with information asymmetry, it will reduce the asymmetry in the market (Morris, 1987). Connely (2011) mentioned that, “the signaling theory offers unique, practical, and empirical testable perspectives on problems of social selection under imperfect information conditions”.

A signal can come in various ways depending on the signaler's action. An et al. (2011) defined signal as a kind of visible action or utilization of structure that indicates the sign of quality. However, these signals are typically information that has been viewed as a positive information to the signaler. Morris (1987) described that there are several steps that would eventually take place in most signaling models. Originally it is safe to assume that the essential information of the market are usually presented with the ones selling the product rather than with ones buying the product. In a usual situation, buyers most have little or none information about the particular product they are purchasing. However buyers are still capable of evaluating the products that are being purchased through their general perspective they have of the product. Buyers then used the knowledge they have to assess the value of the sellers' products at various prices.

In this kind of environment, products that have a higher quality are much likely to be sold in a higher price, assuming that the quality of the products has been informed and perceived by the buyer. Consequently, products that have a lower quality are capable of making a chance gain. However it is also possible for sellers of high quality products to withdraw their products due to the incentive they may gain.

It was stated by Erdem and Swait (1998) that, due to the imperfect information of the products in the market between two parties, seller and buyer, buyers may not be able to easily evaluate the quality of the product. Since sellers are the ones with the information to assess the products' quality (asymmetric information), thus, sellers of higher quality products are more motivated to signal this information to the market (Dye, 2001, p.217).

Assuming that a particular market sells the products with both low and high quality at the same price, it could be referred that the quality of products has not been signal to the buyers. The conclusion to this case is that products with higher quality are undermined, while products of low quality are being overestimated. Due to the asymmetry of information in the market, only the seller knows of the quality of products.

This resulted in bad products being sold at the same value as good products due to the inability of the buyers to evaluate the quality of products (Akerlof, 1970).

Buyers usually interpret when sellers does not disclose the product information (non-signalling) as a sign of “bad news” (Einhorn, 2007). Therefore it is sensible to assume that it is advantageous for sellers to disclose any information of the products. However, this is only true if the product is of high quality and is therefore should have its information that indicates a higher quality disclosed to the buyer, such self-verification will give credit to the rest (Easterbrook and Fischel, 1984).

Buyers who thought that information that are not disclosed to them are bad news, tend to bargain the price of the product. Until eventually the seller is forced to disclose the information themselves in their own interest. However it was argued by Kirmani and Tao (2000) that only in market where products are considerably new, is the signaling of quality information effective. The signaling theory suggested by having sellers signaling detailed information to the markets’ buyer, it is possible to solved the asymmetric information between the two parties (Morris, 1987). It is a delicate matter when signaling in choosing the communication medium or the information convey. Signaling theory explained that the two parties behave differently in a signaling situation. First party is the senders whom is responsible to choose how information are communicated and what must be conveyed. While the other party must decide, how the information conveyed should be interpreted.

In another environment signaling theory explain a different scenario. In corporate environment, managers of a highly performance companies uses a common practice to signal information to shareholders and market through the use of corporate disclosure of valuable information. In affiliation with the signaling theory, information asymmetry between managers (agents) and stakeholders (principal) can be reduced by the corporate use of information disclosure such as annual reports or financial report (Alvarez et al., 2008). Khlifi and Bouri (2010) mentioned that companies’ managers can use the voluntarily disclosing of corporate information as a mean to signal detailed specific information to parties involved or the market participants.

According to Inchausti (1997), in order for the firm to avoid any kind of undervaluation from their shareholders, companies managers has been utilizing the

signaling theory by disclosing information that are perceived as good news by the market participants. Khelifi and Bouri (2010) stated that a company whom have their additional information disclosed is signaling that the firm's performance is doing well by lowering the risk of information asymmetry. In conclusion, the signaling theory proposed that by conveying a positive information of the firm or the products to those market participants, the firm is conveying a positive managerial situation of the company. Lowering the problems of information asymmetry as well as conveying a positive view to stakeholders.

The signaling theory is capable of predicting the state of managerial of companies. From previous argument, it could be inferred that companies with a high performance management will most likely signal their activities to stakeholders and disclosing more information. However in contrast, Companies with a lower performance management will issue accounting policies that would try not to disclose reliable information that would identify the managerial performance as poorly (Morris, 1987). As an example, a higher quality companies tends to utilize segment report as a tools to disclose their activities that are of risk-return profile, which are usually not found in lower quality companies (Cai et al., 2007). Another mechanism that can't be found in a poor quality companies is in their capability of reducing the gap of information asymmetry. This is due to a high quality signaling tools are most of the time more costly, and is therefore only attainable by higher quality companies.

Another example of hos signaling theory is capable of predict managerial status is how the information is perceived by stakeholders. Companies that released information that are both financial and non- financial is to be perceived that the company is signaling that they are working in the interest of the stakeholders (Akhtaruddin and Hossain, 2008). Companies manager that whom are working in the interest of the stake holders would be more encouraged to disclose all positive information that indicates their quality to maximize the own benefit (Campbell et al., 2001). It could also be referred that companies with a better project would disclose more information to stakeholders in order to distinguish themselves from companies that are not doing as well (Easterbrook and Fischel, 1984).

Another interesting turn of events is that companies with the same business with in the same competition level of the market, would most likely try to adopt the same



standard of disclosure with each other. If a firm is not disclosing the same level of information, quantity wise and quality wise, as the competitor, it would most likely be perceived by stakeholders that the firm is trying to hide negative information (Victoria et al. 2009).

Another common yet effective utilization of signaling is when management of a company is revealing specific information that are required by certain regulations voluntarily, due to the information being perceived as a benefit by revealing to stakeholders (Gray et al., 1995). One example of this case is when firms are trying to signal their superiority over other competitors to outside investors by revealing certain social disclosure. This is usually done at the firms' annual report. On the other hand, during a poor performance of the company, if the information that is to be revealed could cause the management responsible for any further poor performance of the company, they would most likely attempt to hold off on increasing the level disclosure (Healy and Palepu, 2001).

There are two categories of situation which is recognized that signaling is a feasible strategy.

First (i) for some of the management of a high-quality company, the benefits of signaling may outweigh the benefits of other strategies. Secondly (ii) signaling may not be the best choice of action for every company size. In a lower quality company, signaling strategies may not benefit as much as non-signaling strategies (Kirmani and Rao, 2000). It is very important that when a company discloses information to the market, those information are credible. If the company signals a credible information, the market will eventually be reaffirmed of the company's true quality. However, if the company discloses information that lacks in credibility, and if the credibility is true, the company can be perceived as low quality.

The credibility of the information disclosed is sometimes complicated. One example is how a manager of the firm may voluntarily disclose information that is serving their own interest, thus, it is rather unclear whether the information disclosed is truthful or not. Easter and Fischel (1984) stated that in order for investors to decide in which way they are going to utilize their money, it is essential that before making a decision they are informed of credible information. And is therefore, stated by Easterbrook and Fischel

(1984, P.673) that, “A world with insufficient truthful information is a world with insufficient investment, and in the wrong things to boot”.

As a solution to how the credibility of corporate information that is disclosed voluntarily, Healy and Palepu suggest two solutions that would enhance the credibility. First solution, it is possible to hire external agents such as consultants, auditors, or analyst to take the role of intermediaries in providing the credibility of the information. Secondly, a financial report of the corporate is usually on its own been validated by the requirement of the report itself. Even though there are several ways where the credibility of the information can be assured, it is important to be aware that certain information disclosed, may harm the company and as a consequence cost higher than the credibility of the information (Diamond, 1985).

It was stated by Darrough (1993) that for a disclosing company, it is possible that information that are disclose to public may affect the company in a negative manner, especially when market participants have plans to utilize the information for their own benefit. Elliott and Jacobson (1994) also pointed out another disadvantage to information disclosure. In an economic entity, competitors could utilize and develop their skill to learn from the information disclosed from their competitor company. Furthermore, when adding this to the previous problem of a disclosing firm, it would maximize the disadvantage. It was also indicated by Inchausti (1998) most managers would try not to disclose information that may benefit the competitors.

Another example of negative effect on disclosure of company is when the external users are planning to act against the benefit of the company. If such a thing is occurring, the disclosure of information may cost more than benefit Cormier and Magnan (1999). If the management of the firm suspect that there would be more damage from competitors than the benefits from disclosing information, management would tends to not to provide certain voluntary information disclosure (FASB, 2001). It was pointed out by Craswell and Taylor (1992) that there will always be costs if either company competitors, dissident stockholders, or employees can in anyway utilize the information to damages the company's benefit, no matter whether the information disclosed would be advantageous or disadvantageous to the firm itself.

There are three types of information that is considered to be potentially harmful to the value of the disclosing firms or caused any disadvantageous, as stated by Elliott and Jacobson (1994). First (i), are the information involving technological innovation or managerial innovations. Secondly (ii), information involving any kind of future strategies, plans, or the tactics of the company. Third (iii), are the information on how the company operates. Craswell and Taylor (1992) pointed as an example how these information may be damaging to the company, if information on oil and gas activities of the company is disclosed, the competitors may use these information to their benefits instead.

As a conclusion to this addendum, the signaling theory suggest corporate image or reputation, attracting of new investors, lowering capital cost, and the improvement of relationships with stakeholders can all be achieved by the use of disclosing corporate annual reports. Another suggestion it made was that in a highly performance economic entities it would be advantageous if there benefits is signaled to the markets. In conclusion, the signaling theory suggests that companies' managers would usually decide to go for information disclosure rather than hiding them.

Signaling theory points out that signaling mechanism utilized by corporate managers are used to distinguish themselves on their own achievements in comparison to other competitors. In order to reduce the asymmetry of information between the two parties, insider and outside of the company, as well as improving the corporate value, corporate could utilize voluntary information disclosure as a means to an end (Alvarez et al., 2008).

### **Capital Need Theory**

Excluding from the agency theory and signaling theory as mentioned above, the capital need theory is also one of the theories that explain the companies' reasons of voluntarily disclosing information. The capital need theory suggest that if a company's managers decided that by disclosing of additional information of the company would be beneficial in terms of raising capital, then mangers would be encouraged to do so (Gray et al., 1995). The capital need theory also suggest that if a capital market transaction is about to be made, then company would have the incentive to voluntarily disclose

information. When more information are disclosed, there would be a decrease in asymmetry problems benefiting the company.

It was stated by Schuster and O'Connell (2006), it could be referred from the capital need theory that it is possible that by voluntarily disclosing more information to the investor, would reduce the doubt and uncertainty they have in mind. Which it would in turn, benefit the company by lowering the company's cost of capital. In terms of stock market, by decreasing the costs of equity capital, the stock market liquidation can be enhanced. Thus, the disclosing of additional information would usually increase the demand of company's shares or reduce the transactions costs. Hassain et al. (2011) stated that it is more beneficial if the uncertainty surrounding the company's future performance is decreased, which could be don't when company choose to voluntarily disclose more information.

It is beneficial for the company if their shares are kept in demand, especially when the share price of the company is accurately reflecting its actual value. In order to achieve the mentioned, Cooke (1989) pointed out that, according to the capital need theory, it could be achieved by disclosing more information in the annual reports. Not only is it more beneficial in term of price credibility, by disclosing more information, the price of the share tends to be at a higher price in the long run (Stanga, 1976). Schuster and O'Connell (2006) stated that, by disclosing more information to the market, the improvement of investors' capital-allocation decisions is to be expected, as well as how the investors asses any form of return from the firm's share.

The companies' managers can be more encouraged to voluntarily disclose the company information through several means (Craven and Marston, 1999 p. 323-324). First, voluntarily disclosure is one the least costly means to raise the capital. When compared to other method, companies may choose to disclosed information voluntarily as a mean to raise their share price. Which not only would it lower the price, it would also reduce the asymmetries of information between the two parties, company management and market participants. Another benefit in terms of capital needs is the attraction of new investors. When more positive information is disclosed to the market, investors would be able to assess the company more accurately, hence enabling the companies to maintain their relationship with the liquid market.

Firth (1980) mentioned that, when the period of raising funds in the stock market arises, managers of firms are more prone to disclosed more information in their annual reports. There are three assumptions that are acquired to explain the relationship mentioned. First (a) company would usually want to keep the raising of capital cost to the minimum, secondly (b) not only will the capital raising cost reduce, the agency cost will also reduce due to the higher disclosure of information, hence, and lastly (c) by disclosing information the market it would benefit to reaffirm the investors on the credibility of the share by reducing the information asymmetry between the two parties, thus investors will be more encouraged to reduce the rate of return.

Hassan et al. (2009) stated that there are a few benefits from disclosing more information in the annual report. By disclosing more information in the report, it would result in a decreased transaction cost which would in turn result in an increased of stock liquidity, increase in the firm securities' demand, and increasing of credibility of the company due to the reduction of uncertainty from the lack of information. This statement was supported by Diamond and Verrecchia (1991) statement that the company's disclosure of information would highly raise the liquidity of the company shares, which in turn would benefit by reducing the company's cost of equity. Another benefit to voluntarily disclose company information, especially information pertaining financial, would improve the credibility of the company perceived by market participants (Schuster and O'Connell, 2006).

Another interesting argument of the voluntarily disclosure of information is that by disclosing more meaningful information, the company would benefit from the reduce in fluctuation of the company share price. One example put out by Singhvi and Desai (1971) was that, when corporate has a low disclosure of information to the market participants, it usually result in the fluctuation of the share price, further damaging the economy due to the inefficient allocation of capital resources. Einhorn (2007, p. 246) explained that, "Corporate voluntary disclosure is commonly viewed in the literature as motivated by the firm's management's desire to inflate expectation of investors about the firm's value and thus maximize the price at which the firm's stocks are traded in the capital market."

Another prove of information disclosure's benefiting the capital need was given by Soltani (2000) whom claims that there are three distinct type capital market effect that would occur from voluntary information disclosure. First, the improvement of company's share liquidity in the stock market. Second, lowering the capital's cost. And lastly, the increase of financial analyst on the firm. Specifically, stockholder would be more capable to evaluate the firm's potential from the disclosed information. This would be beneficial for managers learning of capital market value, resulting in company's strategy and operations being more efficient (Dye, 2001, p.228).

Research have shown that the level of information disclosure of the company in its annual report, is related to the cost of capital equity, in a negative manner. As an example, Botosan (1997) found that the firms with low-analyst companies have a negative link between voluntary disclosure level measurements of the self-constructed and equity capital costs. Sengupta (1998) also provides prove that companies that have high financial analyst following and was given a high disclosure ratings in their annual reports, would experience a lower capital equity cost, as well as a lower cost of debt.

Another negative relationship between the capital cost of equity and the financial analyst rating on the firm's disclosure level was founded by Botosan and Plumlee (2000). Empirical evidence was given by Botosan and Plumlee (2002) on the negative association between the capital cost of equity and the disclosure of information in the highest level. Empirical evidence was not only given by the mentioned. Another discovery with the same manner was made by Hail (2002), who founded that the level of disclosure in the annual report was a negative relation to the capital cost of equity.

Recent study made by Gietzmaan and Ireland (2005) also suggests that there is a negative relationship between the capital cost of equity and the level of information disclosure voluntarily. Poshakwalea and Curtis (2005), in banking voluntary disclosure context, also provide empirical evidence that a reduction in capital cost of equity is related to a high level of voluntarily disclosure of information. Another recent study made by Kristandl and Bontis (2007) also suggest a negative relationship between the capital cost of equity and the level of information disclosure voluntarily.

Reverte (2012) also documented a negative relationship between the rating on information disclosure voluntarily level and the capital cost of equity, which is inconsistent with the results of previous researches result. Most researches provide an empirical evidence pointing that with a higher level of disclosure in the annual report could result in a lower capital cost of equity. Dye (2001), p. 224) concluded that, “most accounting researchers would agree that, by disclosing more information, a firm can lower its cost of capital”.

Many empirical disclosure research evidence shows the same result that a higher level of information disclosure would enhance the stock market liquidity such as Glisten and Milgrom (1985), Diamond and Verrecchia (1991), Welker (1995), Healy et al. (1999), Zhang and Ding (2006), and Heflin et al. (2005). An explanation of the assumption was given by Diamond and Verrecchia (1991) that by disclosing more information to the market would reduce the information asymmetry between parties. This would result in the increase of company's shares liquidity.

Welker (1995) found another relationship in the study. In the study it was discovered that there's a positive relationship between the stock market liquidity of the company's shares and the ratings of information disclosure by the analysts. Another evidence was found by utilizing the bid-ask spreads and its depth as measures of liquidity that the higher the quality of disclosure, the higher the liquidity (Heflin et al., 2005). In a much recent research, an empirical evidence was provided on a negative relationship between bids-ask spreads and the high disclosure level (Zhang and Ding, 2006). There are several evidence given by the studies that suggest that when corporate disclose more information in their annual report, it has a negative effect on the bid-ask of the corporate.

Karamanou and Vafeas (2005) made an interest point of view on the benefits from corporate increased in disclosure of information in the annual report. It was argued that despite many benefits in each studies, such as a higher liquidity of corporate's shares and reducing the capital cost, managers are sometime lean towards withholding information. Corporate managers sometimes choose to withhold information from their investor when they realize that the shortage of information may sometime obstruct the capacity of investors.

Kothari (2000) pointed out that there are some major risks when disclosing information. It is possible that the information disclosed may not be credible and is sometimes unverifiable, which would put the company in risk of legal actions. Another risk of disclosure of information is when managers voluntarily disclosed information without any obligation from legal concerns. It is possible for shareholders and other parties to perceive these information as uncredible (Hassan et al., 2009).

As a conclusion, capital need theory suggest that there are benefits from disclosing more information in the annual report. This includes the decrease of information asymmetry between parties, company management and shareholders, it also provides more liquidity to company's shares, and it lowers the cost of raising capitals finances.

To further confirm the assumption, empirical evidence supporting the above assumption has been given by present literature. It was stated by Collett and Hrasky (2005 p. 190) that, "Empirical evidence suggests that, in general, voluntary disclosure is associated with positive capital market outcomes, which is consistent with the capital market transactions hypothesis."

### **Summary and Conclusions**

Accounting researchers have used theories to try to prove the reasons for companies to practice voluntary information disclosure. This chapter discussed four common academic theories, yet, efficiently explains the incentives the managerial have as follow: agency theory, signaling theory, capital need theory, and legitimacy theory. Even though these theories have been effectively used to provide insights to corporate voluntary disclosure, none of the theories was able to provide an universal explanation to the corporate voluntary disclosure of information behavior. This was due to the fact that each theory can only be true with certain assumptions and was only capable of explaining the phenomenon through certain point of view. In addition, Khlifi and Bouri (2010 p.62) also supported and provided conclusion that "despite the need of developing a specific theory of disclosure, no definite one has been conceived to delight this requirement."

Presently, there are no academic theory that is capable of definitely argue why corporate practices voluntary disclosure of information. However, accounting researcher is still capable of explaining the phenomenon to a certain extend by applying multi-



theoretical cross referencing. The use of many theory to better understand why corporate practices voluntary information disclosure.

In accordance to the conclusion above, Cornier et al. (2005) suggest that corporate disclosure of information practice is too complicated to be explained by a single theory. By cross referencing different prediction basing from each theory, Morris (1987) predicted that the accounting policy or financial report information choices may be enhanced further. Morris (1987, p. 52) further emphasized that, “given the consistency, signaling, and agency theories, it is theoretically possible to combine them to generate predictions regarding accounting decisions that neither theory alone can provide.”

In Chapter Six, the agency theory and the signaling theory would be implemented to formulate research perceptions as hypotheses, and they would also be used to evaluate the results of the investigations conducted in Chapter Six and Seven. This research will use the evaluation and perception from agency theory and integrate it with the signaling theory to provide a framework that could be utilize to further explain the motivation behind voluntarily disclosing of information, rather than using a single theory’s perspective.

### **2.3 Review of the Relevant Literature**

This section was dedicated to review various literatures that base their study on the voluntary disclosure of corporate that have been conducted in both developing countries and developed countries. Focusing on how corporate annual reports under different level of information disclosure would be associated with certain characteristics of the corporate. To further specify the evaluation of this literature, the studies of voluntary disclosure would be categorized into two specific groups. The first group would be the review on empirical studies that conduct their research to evaluate companies that fall under the “non-banking sector” with their different level of voluntary disclosure in the annual reports. While the second group would be on empirical studies that conduct their research to evaluate companies that fall under the “banking sector” with their different level of voluntary disclosure in the annual reports.

The following is how the chapter would be structured: Section 2.2 reviews prior empirical studies that conduct their research to evaluate companies that fall under the

“banking sector” with their different level of voluntary disclosure in the annual reports. In the final section a summary and conclusion on the literature review would be provided.

### **Bank Disclosure**

There are not as many research dedicated towards determining behavior of companies' information disclosure for financial institute when compared to those companies that does not fall under banking sections. This phenomenon could be explained as stated by several authors that the research to determine the information disclosure of financial institute are limited due the complex and opaque compositions of banks. In 2002, Margan (2002) made a statement comparing banks to black holes. This was due to the reason that bank received less effect information disclosure no matter how much information they disclosed. Nevertheless, recent researchers have not given up and have been spending effort to create risk disclosure indices that was specified to evaluate the banks' disclosure level. One example was the indices constructed by Baumann and Nier (2004). In the research a sample size of approximately 600 banks, determining the relationship of information disclosure to banks' stock price volatility. Baumaan and near (2004) based their disclosure index on the index of transparency conducted by the Center for International Financial Analysis Research (CIFAR) while considering BankScope's database disclosed information of the annual accounts. This information from BankScope includes credit risk, liquidity risk, market risk, interest rate risk, and capital risk. To conduct the measurement determining the level of detail on the seventeen dimensions, a checkbox approach was utilized. Another example was by Huang (2006) which uses a similar approach, checkbox approach, to determine the bank disclosure index by measuring the information disclosure conducted by about 20,000 commercial banks across approximately 180 countries quantitatively. Huang (2006) designed a composite index for individual and by using weighted average of the individual index values he was able to design a national index. Erlend Nier (2004) designed the bank disclosure index that measures the seventeen indicators level of disclosure. Having the checkbox approach derived from his measurement framework that take into consideration the disclosure of items that could be under the risk categorized by the Financial Soundness Indicators (FSI), the International Monetary Fund (IMF) and the Basel Committee on Banking Supervision (Basel Committee). An indices that was capable of evaluating the process of

providing information by 50 major banks around the world quantitatively was introduced by Sowerbutts, Zimmerman and Zer in 2013. In their evaluation, five areas of measurement were used to evaluate the fourteen disclosure indicators. These areas include the method of valuation, group structure, funding risk, financial interconnections, and intra-annual information. In their research, the checkbox approach was also utilized. By not making any value judgments on the disclosed information's quality, they assign 1 to information that is certain to show up in the report and 0 for otherwise.

However, as pointed out by Greenspan (2003), an extensive disclosure of information is not the same as a higher level of transparency. In order for transparency to be achieved, market participants are required to provide information in certain aspects that make it understandable in a meaningful way. Thus, improving a firm's transparency is more challenging than improvement in information disclosure. Disclosure of information may be the minimum requirement of investors or outside stakeholders, but it may not be enough for an investor to be capable of processing the information, and is therefore not sufficient enough for effective market discipline (Sowerbutts et al., 2003). Another concern on information disclosure is the sheer amount of information disclosed. Morris and Shin (2002) stated that an excessive amount of information may not be beneficial to investors, since excessive information may include irrelevant information causing an opposing effect on the investor's understanding instead. As a result, the utilization of standard templates for financial and accounting reports came in handy and beneficial as suggested by Sowerbutts. These standard reports make it easier for investors to extract the main key information from the load of information. Nevertheless, a disclosure of information still has significant value even if it is at a minimal amount. Even banks would have a hard time to hide inconsistencies of financial reports throughout the years when they are required to disclose this financial information year after year.

Regarding Middleton (2009), commercial banks in Thailand are progressively providing financial support to neighboring Mekong countries, including hydropower projects in Laos. Bangkok Bank, Bank of Ayudhya, Kasikorn Bank, Krung Thai Bank, Siam City Bank, Siam Commercial Bank, Thai Military Bank, and Thanachart Bank are one of Thai banks that have lent to hydropower developers in Laos. To date, the dams they have financed, namely Nam Theun 2, Nam Ngum 2, and the Theun-Hinboun Expansion

Project, have all failed to adequately address social and environmental costs. The number of rural inhabitants in Laos is near the natural resources; and lots of other presented dams pose risks affecting the environment, neighborhoods, developers, investment bankers, and also the Lao authorities. On the study, many of the most Thai banks mentioned have some structure of Corporate Governance and Corporate Social Responsibility (CSR). Such undertakings differ, and yet they all include the following: fairness of relevant parties, such as clients, investment firms, partners, and greater community and environment; complying laws; clarity and data disclosure; and environmental conservation and focus on local societies. Because of all such remarkable commitments, major changes in the primary business activities of the bank have not actually happened, and therefore the regulations have yet to be effectively applied. Several global banks have introduced the forms of the regulations on sensitive segments, sustainability, and accountability and transparency as a general tendency in the global financial sector, even though the capability of these regulations has been particularly poor. The Equator Principles, a major platform, has been implemented by 67 financial organizations around the world. Compared to 45 powerful banking institutions, it is indicated that Thai banking organizations slowdown much further. However, the noticeable improvement of China on sustainable bank services illustrates that Thai banks are able to achieve with the proper commitment if the existing standards of the global financial institutions do not exceed. There are three banks of Thailand loaning to the hydropower projects in Laos possess global strategic capitalist, like GE Money owns 33% of the Bank of Ayudhya, ING Bank owns 26% of the Thai Military Bank, and the Bank of Nova Scotia owns 50% of Thanachart Bank. The strategic investors have agreed to adhere to a series of global benchmarks that the banks in Thailand seem unable to implement. As a result, these strategic investors should first acknowledge an important responsibility for improving the social and environmental impact of their Thai bank partner organizations. Still many global banks with existing standardization undertakings are small investors of Thai banks and can also play a key role. Commercial banks play an important role in distributing resources from the depositors to investment firms along all sectors of the economy. The commercial banks of Thailand are able to make a significant contribution to a wealthy, productive, and peaceful Thailand and Mekong Region for the current and future

generations by adopting extra sustainable financial practices and policies. This may also have the additional advantage of decreasing their loan risk and raising revenues from developing profitable "eco-friendly" businesses.

The study of Yoko (1994) discusses the financial businesses development and the introduction of financial business owners. Several entrepreneurs, one in Nakhon Ratchasima, have seemed to be likely to join the banking system. I made the argument that the local businessmen did appear to use an advantage over the peers in Bangkok. The benefits stem primarily from their individual knowledge about the local business terms that they acquired through social and business activities in the local Chinese communities. Since Business owners who are having difficulties to seize business opportunities and fully utilize their business skills, ability to manage business reputation in the provinces, whether formally or informally, was a rational decision.

Nevertheless, the financial officials' credible alternative avoided such business owners from the local bank establishment. The financial services regulation was deemed appropriate in order to boost confidence in the economy and organize investment in Thailand, on the whole.

The state's strict and cautious strategy to financial institutions reduced variation and eliminated the possibility of creating the financial institutions.

As a result, branches of Bangkok-based banks did not provide enough credit, which expressed interest in loaning financing to local small entrepreneurs because gathering information was expensive. This certainly lowered the business activities. Conversely, if the local banks establishment had been authorized, they would have contributed to the advancement of economic development in the cities and the centralized control of Thai financial sectors.

Another cause underlying Thailand's Bangkok-based financial system was political patronage, sought from the government during the 1950s and 1960s. The banking institutions appeared to have won the approval of their political sponsors to effectively restrict the new bank establishment and to limit competition among the banks. Multiple Bangkok-based banks have reaped enough benefits to allow them to expand their operations to such an extent that local small banks could well find it difficult to manage. The researcher came to the conclusion that the government's control

over the new bank establishment has altered allocation of resources and reduced the effectiveness of economic activities in the provinces.

Leightner (2007) studied Asia's phenomenal growth from 1985 to 1996, which held the respect of "Asian Miracle" and was widely praised by the IMF and world leaders. Economists and political researchers searched effective Asian countries for clues on how to replicate such a miracle. In Thailand, the miracle ended in disaster in 1997. By 1998, South Korea and Indonesia, both Asian miracle economies, had attended Thailand in its state of disarray. Economic problems can occur anywhere in our globalized world due to a rapid withdrawal of international investors. All it required would be enough disappointing news to send foreign investors into frenzy. The countries could decrease the risk of the firm crisis by these following: (1) more exports than imports; (2) no use of short-term flow of capital to fund projects that require long periods to be lucrative; (3) attempting to maintain flexible currency values or regularly adjusting fixed exchange rates; (4) Keeping government budgets balanced; and (5) keeping huge quantities of stable foreign exchange. The "risk-reduction" objectives are difficult to accomplish and maintain. Nevertheless, if the objectives are met, there is no guarantee that an economic crisis would not actually happen.

Nakonthab (2007) focuses on determining the security vulnerabilities of Thai banking system. The study is divided into three major sections. The researchers created several fundamental financial ratios using publicly available information. Regarding the conventional analysis, the researcher discovered that the business is at a good level of health and stability. Because the financial loan is the banking sector's greatest exposure, the researcher focused the second part of the analysis on the structural risk levels of the corporate loans. The researcher reported credit risk and default correlation matrices at both the overall average and separate rate with regard to the size and business using the Bank of Thailand's system-wide database, the two most common, but crucial, default risk drivers in a business credit risk. Eventually, the researcher conducted the analysis of loans and evaluated economic assets held by various banks over the last four years.

In accordance with Financial Soundness Indicators Compilation Guide (2019) in the late 1990s, the International Monetary Fund (IMF) initiated a massive data

collection effort—the Financial Soundness Indicators (FSIs)—to measure the validity of the framework banking system from the macro prudential perspective. The FSIs included financial stability, asset quality, profit growth, liquidity, and investment risk sensitivity indicators. The 2006 Financial Soundness Indicators Compilation Guide (2006 Guide), specifically matters on the source supervisory statistical data, consolidation alternatives, and collection and dissemination recommendations, all with the purpose of cross-country standardization. The effort was successful in convincing legislators of the importance of FSIs for tracking financial validity trend lines which could notify economic stability analysis and regulations, resulting in an increasing number of economies collecting and reporting the indicators.

After all, the international financial and economic crisis in 2007–2008 highlighted to the global community. The needs to strengthen this and several other financial sector data collections, and also bridge required information gap, such as supplementing with feather and macroeconomic measures, to boost macro-financial monitoring. The response included IMF adjustments to the initial list of FSIs, as well as the IMF/Financial Stability Board G-20 Data Gaps Initiative (DGI), which was supported by G-20 finance ministers governors, as well as the IMF's International Monetary and Financial Committee. Such initiatives, among other things, have resulted in the revised list of FSIs that includes new global norms, implementing the evaluation of concentration and tail risk in the financial system, and expanding FSI coverage. The efforts have been completed in discussion and collaborations with a diverse collection of the specialists, international standard-setting structures, the IMF's relevant divisions and all FSI-reporting regions, along with involved international agencies. The 2019 Financial Soundness Indicators Compilation Guide (Guide) contains new measurements to expand the economic sector of the economy protection to include other banking institutions, mutual funds, insurance industry, retirement funds, nonfinancial corporations, and households. The Guide suggests compiling 50 FSIs, 13 of which are new. New capital, liquidity, and asset quality metrics, along with intensity and allocation measures, could well improve forward aspects of FSIs and result in a greater regulation regarding financial system stability.

## **Measuring the Voluntary Disclosure**

Currently there are few academic researches that were dedicated towards the disclosure of information in companies under the banking sectors. Older research focused their findings of voluntary disclosure on non-financial institutes. There are not many empirical studies that strive to evaluate the disclosure level to the specific characteristics of commercial banks. This is why we try to determine the potential gap in academic literature that is relevant to the study on level of voluntary disclosure by reviewing previous empirical studies including social responsibility disclosure and aggregate disclosure).

Kahl and Belkaoui, (1981) conducted the primary practical study that was dedicated to determine the level of disclosure of commercial banking. They conducted their research on 70 commercial banks across 18 countries. These countries includes US 16, Sweden 3, Holland 1, Finland 1, Norway 1, UK 11, Germany 3, Singapore 1, Denmark 2, Australia 2, France 2, Switzerland 3, Austria 1, Italy 1, Canada 10, Japan 10, Spain 1, and Brazil 1. These countries follow two criteria for the research study. First is that they are in the non-communist world, and secondly these countries commercial banks provide an English version of their annual reports for year 1975.

There are a total of 30 information items that are evaluated in the disclosure index used to determine the commercial banking disclosure level. These items were chosen based on investment perspective, financial and accounting literature, and stock investment decision, and were given from knowledgeable entity in the international financial report, 15 Business and Administration Professor of University of Ottawa, in order to score the importance of each information items that are disclosed in a scale of zero to four, the higher the scores the higher the value of information. Even though these information were given by professors, Kahl and Belkaoui was not certain that their sample appropriately represent the users of international bank annual report. Hence, the questionnaire were then send to 50 bank financial analysts that hold the CFA (Certified Financial Accountants) title listed in the 1975 directory of Financial Analyst Federation.

Of those 50 mail questionnaire sent to the CFAs ( Certified Financial Accountants), 10 responded. The respond was evaluated as to a certain extend identical to that of the professors of University of Ottawa. The respond does not contain significant



difference in the weight of importance. The research then further conduct the evaluation on the annual reports of 70 banks, measuring the importance level of information disclosure and the relationship between the level of disclosure to the size of commercial bank, basing their disclosure index on the response score.

The researchers then found a positive relationship of the level of disclosure and the size of the commercial bank by utilizing Spearman's correlation test. However, the level of information disclosure from commercial bank is different in each country.

An empirical study was made by Abdul Hamid (2004) to find the relationship of the 48 banks and financial institute of Malaysia between specific corporate characteristic of those mentioned and the level disclosure on social information. The annual reports of 1999 were drawn from Malaysia Central Bank, Kualalumper Stock Exchange, and Banking Institute of Malaysia. Basing their research upon the corporate characteristics including firm size, financial performance (Return on Equity and Return on Assets), listing status, business aging, and company profile. Abdul Hamid uses multiple regression models to evaluate the effect of factors on the level of disclosure. The result shows a significant positive relationship between the firm size, listing status, and business aging to the level of social information disclose. However for the company profile and profitability there were no significant correlation towards the social information disclosure.

An empirical study by Hooi (2007) on the relationship between national culture and the level of information disclosure of the 37 listed domestic commercial banks' 2004 annual reports. The commercials banks were selected from 17 countries including both developed and developing countries. The countries selected were on five cultural values including individualism, masculinity, avoidance of uncertainty, distance of power, and long-term orientation.

Checklist for the 2001 Basel survey contains the measurement with 104 voluntary and mandatory items. They are classified into the following: capitalization (14), capital adequacy (7), market risk internal model (16), internal and external ranking (4), credit risk model (5), security activities (8), asset quality (13), credit insurance and other credit enhancements (6), derivatives (apart from financial products) (9), geological and line of business diversity (10), accounting and reporting (7), and other risks (5). The

research, conducting under multiple regressions, founded that only the cultural value uncertainty avoidance has a significant relation to the level of information disclosure of commercial banks. The study also shows that long-term orientation cultural value data is biased, and is therefore should not be used for analyzing the level of information disclosure. Additionally researches conducted under disclosure rated resulted in a better result compared to disclosure band in terms of clear defined explanation.

In the recent empirical studies such as the research conducted by Hossain and Taylor (2007) on the association of certain characteristics of commercial bank and the level of voluntary disclosure. These characteristics of commercial bank include size, audit firm link, and the profitability.

There are various factors that the researcher consider in order to select the information items for the disclosure index. First is that research that is used must use disclosure indices as methodology, the disclosure from financial institute must meet the requirement of IAS- 30, and that items must consider the interest of the following users: shareholders, financial analysts, government authorities, and accountants, totaling to 45 items of disclosure. In this research the un-weighted disclosure method was utilized to measure the voluntary disclosure score level. The scale was only at zero and one, where if the information is disclosed it is scored as one but if it doesn't, it is scored at zero. After implementing the multiple regression model to the research, the regression model is significant at ( $P < 0.005$ ). The result of the research shows that there is significant correlation between the bank size and audit firm link to the disclosure levels of banks (5% level). However, for the profitability variable there are no specific correlation which coincide with preview argument in the literature by Abdul Hamid (2004).

Hossain and Reaz, (2007) also conducted another empirical study upon the 38 listed banks in India. Where the research was conducted on six attributes of the sample companies in finding its relationship towards the level of information disclosure. These six attributes includes bank size, bank aging, multiple listing, the business complexity, composition of the board, and lastly its assets-in-place. There were a total of 65 items conducted as disclosure index.

In this research, the measurement method utilized a dichotomous approach or the un-weighted approach, where if the information is disclosed it is scored as one but if it doesn't it is scored at zero. In order to evaluate the association of information disclosure level to each bank attributes the regression model was used. The results indicated towards the fact the Indian banks voluntarily disclosed a considerable amount of information to the public. Hossain and Reaz studies indicate the highest disclosure score of 55% while the lower score is at 20%. In average, Indian banks disclosed 35% of the information items. This research was rather interesting. The scores indicate that public sector banks disclosed information at 38.66% while private sector banks disclosed 31.15%. Very few literatures conduct the studies focusing on the bank institute. Unfortunately, this research was only conducted on one country in a single fiscal year.

The result also shows that there are great correlation of the bank size and the level of disclosure. This is also true for the assets-in-place attribute of the bank. In contrast attributes such as bank aging, board composition, business complexity, and composition of the board does not have any significant effect on the information disclosure level.

Another study by Hossain (2008), conducted another empirical study upon the 38 listed banks in India. Where the research was conducted on various attributes of the sample companies in finding its relationship towards the level of information disclosure. These attributes includes bank size, bank aging, multiple listing, the business complexity, composition of the board, profitability, market discipline with the disclosure level, and lastly its assets-in-place.

In this research, Hossain constructed a total of 184 information items for the research disclosure indexes, consisting of 101 mandatory items, selected with the following criteria: 1) banking companies act, 1949 (2) company act, 1956, (3) listing rules-clause 49, (4) company act, 1956, (5) RBI guidelines, and 83 voluntary items that may disclosed in the banks' annual report select based on previous studies and BASEL.

In this research, the measurement method utilized a dichotomous approach or the un-weighted approach, where if the information is disclosed it is scored as one but if it doesn't it is scored at zero. In order to evaluate the association of information disclosure level to each bank attributes the regression model was used. The results indicates a significant correlation between the disclosure information levels and the bank size in a

positive manner. This is also true for profitability, composition of the board, and market discipline. However, bank age, assets-in-place, and the business complexity resulted in a negative correlation.

Though the research results may seem interesting, unfortunately there are several points that should be considered. First is that the research was again only conducted in single fiscal year. The sample size only consists of listed banking companies. If the research had included the unlisted banking companies this literature would have borne a much more meaningful result.

The next study was conducted by Maingot and Zeghal (2008). In this research the researchers investigated the conduct of 8 Canadian banks on their level of information disclosure. These banks were selected from three criteria. First the banks selected must not have a shareholder holding more than 10% of the shares, secondly, the bank exists on the stock market trade, and third, banks are chartered in Canada. The disclosure index constructed has a total of 54 information items. These items would be evaluated upon the annual report of 2003 of the mentioned Canadian Banks. These items were selected based upon previous literatures and Toronto Stock Exchange Corporate Guidelines. The evaluation was conducted using coding mechanism, where if the information is disclosed it is scored as one but if it doesn't, it is scored at zero.

The research was conducted on attribute of the bank size in finding its relationship towards the level of information disclosure. The study result indicated that larger banks disclose more information, utilizing their governance section of their web page as medium. However, smaller banks utilized the annual reports and the proxy circulars to inform the disclosed information to the public. Additionally, this research indicates that there is a positive relationship between the bank size and the amount of information disclosed.

Barako and Brown, (2008) conducted their research in Kenya market. The study was on three corporate governance attributes and its relationship towards the disclosure of information level in 40 of Kenyan banks annual report. These attributes conducted include composition of the board, gender represented on board, and foreign nationals on board. Barako and Brown (2008) constructed the disclosure index comprising of 22 social disclosure information items. These items are selected from previous disclosure studies.

In this research, the measurement method utilized a dichotomous approach or the un-weighted approach, where if the information is disclosed it is scored as one but if it doesn't it is scored at zero. When applying the multiple regression model to the study, the results indicate that there are a significant correlation between the compositions of the board to the level of information disclosure in the annual reports. This is also true for gender diversity where results shows a statistically significant relationship. In contrast, the foreign national on the board is insignificant to the level of information disclosure.

Additionally, the level of information disclosure in Kenyan bank was rather low in comparison to previous discussions. The mean of disclosure was only at 15% . Specifically, Kenyan banks failed to this close information retain to recruitments, employment of a specific group, employees productivity, turnover, and assistance provided form retired employees. Another interesting indication was that only 12.5% of environment policy information was disclosed and 0.03% of environmental activities banks undertake.

Kribat (2009) conducted their research in Libyan context. This research was conducted to evaluate the level of both mandatory and overall information disclosure made by Libyan Banks. However this research was conducted while considering the banks' annual reports from 2000 to 2006. The research evaluate the relationship of four bank characteristic towards the disclosure of information level. These characteristic includes bank size, bank age, ownership structure and profitability. The disclosure index was made upon 126 information items, while having its sample size of 11 government and private sector banks.

However the banks that undergo the investigation has its own aging characteristic. Eight of the eleven banks retained their annual reports for seven years. Some banks only have one annual report from over a seven-year period. Furthermore, the Commercial Arab Bank was also included, regardless of the fact that the bank received its commercial banking license in 2007, as mentioned in the CBL, Annual Reports of 2007, on page No. 72.

According to Kribat (2009), the mandatory disclosure checklist was developed in accordance with relevant Libyan laws, specifically the Commercial Law, Income Tax Law, and Banking Law. However, there was no available information about such

mentioned laws, and the researcher did not indicate the information resources including the total number of required items. Kribat (2009, p. 26) noted that “Libyan organizations are not requested to provide the data contained in the annual reports to the public.”

Surprisingly Kribat claimed that there were no mandatory disclosure information items for Libyan companies, and provided the conclusion that the Libyan banks failed to comply with the disclosure requirement throughout 2000 to 2006.

Since there are no law that specified than Libyan banking has to disclose any specific information, only the Banking Law No 1 was issued to request disclosure, in which it still does not include any mandatory information.

In this research, the measurement method utilized a multivariate panel regression analysis. The results indicate a positive relationship between both the profitability and the bank age towards the information disclosure. However, the bank size in contrast has a negative relationship.

Similar variables were also constructed as attribute that is to use to measure its relationship towards the level of disclosure of information. According to the findings, the size of the bank has a favorable relationship between the level of disclosure (e.g. Kahl and Belkaoui, 1981; Hossain and Reaz, 2007; Hossain and Taylor, 2007; Matingot and Zeghal, 2008; Hossain, 2008), whereas the age of the bank was discovered to be insignificant in relation to the level of disclosure (e.g. Hossain and Taylor, 2007; Hossain and Reaz, 2007; Hossain, 2008).

However, the study of Kribat (2009) revealed questionable reliability due to the fact that there is no law that govern the mandatory disclosure of information for Libyan’s banks.

### **Summary and Conclusion**

In the concluded chapter, the empirical studies on the disclosure of information has been evaluated. These studies measure the relationship of information disclosure toward various corporate characteristics across both developed and developing countries, which were categorized into two main sectors, those who falls under the banking sector and those who fall under non-banking factors. Although the chapter showed that a considerable number of studies was conducted on non-banking sectors, the studies in the

chapter remarkably included the studies that included banking sector corporate into their investigation.

It could be referred from prior empirical disclosure studies reviewed that most of the studies adopt the implementation of disclosure index as a proper method to measure the relationship between the information disclosure level and the attributes of the research. Each studies constructed the disclosure index from the various information items that were selected specifically. The information items can be categorized into two types. Those that are mandatory information that is required to be present in the annual report, and those that are voluntary that was selected from prior studies or from financial analyst organizations.

These empirical studies on information disclosure employ the use of weighted indices and un-weighted indices, which was broadly used by the researchers in the same studies. Most of the reviewed studies were flawed on the fact that that the studies was only attempted on single fiscal year and on one country. While a small number of studies reviewed based their review upon various countries, both developing and developed.

Corporate characteristics such as age, company size, listing status, profitability, liquidity, author type, industry type, ownership structure, and board composition were used by researchers in their conduct to find the relationship that these attributes have in associate with the level of voluntary disclosure of information.

The review empirical studies revealed that these attributes that was previously mentioned usually has either a positive relationship or a negative relationship, and in another view, these relationships are either significant numerically or insignificant towards the level of voluntary disclosure of information. Each study conducts their studies on varied attributes.

The multiple linear regression method was used by the majority of these empirical studies on the level of information disclosure. The method was used to test the relationship between the fore mentioned attributes towards the level of information disclosure. However as studies were conducted in different countries, the finding varied accordingly.

A very small number of empirical studies conducted their research on the overall extent of voluntary disclosure in order to evaluate the level of effect certain banks attribute have upon the level of disclosure. However, the findings from these studies are not conclusive. As it was shown that some bank specific characteristic conducted in one study has a conflicted or inversely related result in another study. Such example is when an attribute found significant in one study and is insignificant in another study.

As an example in the study conducted by Hossain (2008), a significant relationship between profitability toward the level of information disclosure was found in Indian Banks, however, a similar study with the same sample size by Hossain and Taylor (2007) found that there are no significant relationship between profitability and the level of information disclosure. Additionally, there were other bank characteristic such as bank liquidity position, listing status, and government ownership structure that should be conducted due to its potential to have a significant relationship towards the level of information disclosure.

Sadly, the empirical evidence conducted to determine the overall of voluntary disclosure in annual reports of companies under banking sectors is a very limited when compared to those that falls under non-banking sector. As a conclusion, empirical evidence from different countries should be conducted more extensively. Especially in bank attributes that are potentially influential towards the level of banks information disclosure. This would benefit to enhance a better understanding of effect banks attributes have on information disclosure level.

Additionally, of the studies reviewed not one of the studies investigate the level of information disclosures in the annual reports of banks that are listed and unlisted longitudinally. The research conduct should also consider to conduct researches over a period of time comparing one fiscal year to next.

As a conclusion to the chapter, in order to attempts in filling the existing gap of current literature, the present research should contribute to address the voluntary disclosure information level through the longitudinal banks both listed and unlisted commercial banks, also to further investigate the influence of commercial bank characteristic upon the overall level of voluntary disclosure.



## 2.4 Voluntary Disclosures as Interesting Variable

On the opposite to mandatory disclosures, voluntary disclosures are information that an entity is not required to disclose, but it is an entity effort that provided valuable information to those who benefited from it. The study of voluntary disclosures was initially introduced by Spero (1979) in his doctoral dissertation. He attempted to indicate the factors for European financial markets' voluntary disclosures of financial information. Based on this study, Meek, Roberts & Gray (1995) edges had been carried out voluntary disclosure studies in wide range. One of the well-known papers by them initially classified voluntary disclosures in three main types: strategic, financial and nonfinancial information. The study introduced 85 checklist of voluntary disclosures and found that companies' characteristics including size, country/region, listed status and industry influenced voluntary disclosures (Meek, Roberts, & Gray, 1995). Many studies have been replicated Meek, et, al (1995) by introducing various voluntary checklist thereafter. For examples, Elfeky (2017) used a weighted relative disclosure index to measure voluntary disclosure, the study concluded that firm size, firm profitability, firm leverage, independent directors on board, and auditor type related to voluntary disclosure extent. Khlif, Hichem, Ahmed, Kamran & Souissi, Mohsen (2017) showed that state, foreign and institutional ownerships negatively affected voluntary disclosures. Previous studies attempted to extend voluntary disclosures in specific areas of voluntary disclosures. For examples, Elbannan & Elbannan (2015) presented voluntary risk disclosure in financial crisis environment. They found that balanced scorecard information positively associated to bank operating performance using market valuation. Birindelli, Ferretti, Chiappini, & Cosentino, Andrea (2020) pointed out that healthy banks were more likely to provide intellectual capital, non-qualitative and forward-looking information in high quality manner, while distressed banks generally disclosed the information in poor manner.

After researchers had carried out what were factors influencing voluntary disclosures for some time, the papers moved into the questions what were the consequences of voluntary disclosures. In measuring the information contents of voluntary disclosures, prior studies mostly used market volatility to observe informative value of voluntary disclosures. Dhaliwal, Li, Tsang, & Yang (2011) stated that the firms with greater cost of capital the past year were more likely to initiate disclosure of

corporate social responsibility activities in the latest year, and later the firms with greater social responsibility efficiency were more likely to decrease their equity capital costs. Bischof & Daske (2013) found out that one-time mandatory disclosures increased the likelihood of voluntary disclosures in subsequent years and voluntary disclosures increased companies market liquidity. Bhat (2013) suggested that market participants (i.e. stock returns) perceived the fair value gains and losses voluntary disclosures of the banks with greater disclosure and strong corporate governance are regarded as more relevant and trustworthy. This meant that investors observed the quality of the fair value gains and losses voluntary disclosures before invest.

Amer Alhazaimeh, Ravindran Palaniappan, Mahmoud Almsafir (2014) argue that in the new economy, companies try to emphasize their stakeholders that they are a good investment and highlight the good worth of the company through disclosure of pertinent information in the annual report. This study examines the impact of corporate governance and ownership structure on voluntary disclosure, with a particular emphasis on variables that influence voluntary disclosure of Amman Stock Exchange-listed companies (ASE). According to the use of dynamic panel system of GMM prediction for the period of 2002-2011, 72 Jordanian companies reveal that the listed firms at ASE in both 2002 and 2011 demonstrated a significant level of voluntary disclosure, consistent with increased corporate governance awareness and implementation in Jordan. Particularly, the studied discovered that board activity, foreign ownership, non-executive directors, and block holder ownership were all influential on voluntary disclosure. Eventually, this paper discovered that voluntary disclosure in annual reports has the potential to affect market capitalization.

Mamun and Kamardin (2014) examined the company voluntary disclosure of identified banking sector in Bangladesh, with attention on the emerging economy. The study found that the amount of voluntary disclosure dramatically increased from 2005 to 2008. However, the amount of disclosure items associated with corporate governance and risk management, conversely, is less than another disclosure classifications. The findings are discussed in reference to the accounting and economic literature by including empirical results of voluntary disclosure in an exceedingly highly regulated industry in

an emerging economy. Nonetheless, the implications have the limitation of being generalizable to those other businesses and banks from various countries.

According to Mostafa I. Elfeky (2017), the main purpose of the research is to carefully evaluate a conceptual framework that combines eight key corporate governance determinant factors to the extent of voluntary disclosure provided by listed firms on the Egyptian Stock Exchange (EGX). Firm size, firm profitability, firm leverage, board size, independent directors, and duality in position, block-holder ownership, and Auditor Type are the corporate governance determinants. To use a measured relative disclosure index to assess voluntary disclosure, the results indicate a strong significant correlation among firm size, firm profitability, firm leverage, independent directors on the board, auditor type, and overall corporate governance voluntary disclosure extent. This finding implies that these variables are the primary motivators of voluntary disclosure in Egypt. However, there was a negative significant relationship for both block-holder ownership and voluntary disclosure, while there was no strong correlation among board size, duality in position, and the overall corporate governance voluntary disclosure extent. The empirical evidence from this study supports the perspective of Egypt's voluntary corporate disclosure environment as among the Middle East's emerging economies.

Based on Rupjyoti Saha, K.C Kabra (2018), the voluntary disclosure has the potential to become a major method for management in order to communicate operating performance to the outside investors. In this study, we discuss the conceptual framework for voluntary disclosure and the various costs - benefit trade associated with it, with studies revealing that there is a trade-off between multiple expenses and related benefits when making a decision on the extent of such disclosure. The study also demonstrated several board category of voluntary disclosure in research, revealing that different kinds of voluntary disclosure by management are based on the significance of such data in terms of firm market price. Moreover, we analyze the studies on the effects of the voluntary information disclosure and its influence on firm market valuation in various market settings and sum up the significant findings. The study concluded that there is a significant and positive relationship among both voluntary disclosure and firm value in the mature markets, whereas the results from the emerging markets do not provide conclusive proof owing to the presence of some distinct features, for instance closed

corporations, an inadequate investor protection conditions, government ownership, shortage of independent directors, risky share prices, an intense bank-oriented economy, common state intervention, economic instabilities, and deficiency of disclosure necessarily require recalling this relation in the context of emerging economies.

Hussainey (2010) aimed to access and reconsider the role of corporate narrative monitoring in enhancing financial institutions' potential to predict future income change. The study also intended to strengthen a risk factor for disclosure quality (DQ) and see if it can explain the time-series variation of UK stock returns. The methodology of the study applied the return-future earnings regression model for updating and re-examining the value relevance of DQ for investors. Also, it provides DQ factors and integrates it into the Fama-French three-factor model. This is conducted to measure the utility of such factors to explain the time-series variation of UK portfolio returns in addition to the role of the initial Fama-French aspects. The findings indicated that it made three significant contributions to market-based accounting research. Firstly, it provides updated evidence on the utility of corporate narrative reporting to investment firms. Secondly, it demonstrates that the DQ factors are important risk factors in the United Kingdom. Finally, it discovers that the Fama-French factors may involve DQ-related information. The findings suggest that the narrative disclosure includes value-relevant information for the financial markets. As a result, policymakers should consider requiring companies to include mandatory narrative sections (i.e., operating and financial reviews) in the annual reports. Based on the authors' knowledge, this is the first study to establish and implement the DQ factors into the original Fama-French factors.

Alberti-Alhtaybat (2012) purposed to define theories of corporate disclosure as the first step to filling a theoretical gap in corporate disclosure studies. The map's goal is to support a variety of specific concepts regarding the corporate disclosure and to illustrate the complex relationships among different concepts of the financial disclosure occurrence. This assists the new researchers in understanding how specific corporate disclosure theories are related, and in teaching accounting theories at the undergraduate and postgraduate levels. The methodology constructs the theories; a deductive and inductive approach was used. The deductive approach recommends identifying the literature gaps, while the inductive approach recommends existing theory in 3 phases:

phenomenon observation, classification, and networking. This method is used to create the conceptual map that combines the corporate disclosure theories. The findings explain the existence of corporate reporting regulations and management incentive programs. Also the study describes theories that realize overall productivity of the financial markets – market failure, uncertainty, and market volatility, under these conditions, which regulate and specify the level of corporate information. It combines these theories into a map that attempts to explain corporate disclosure levels, both mandatory and voluntary, as well as financial and narrative. This framework proposes a combination of theoretical supplements the codification theory, Dye's theory of mandatory and voluntary disclosure, and disclosure transformation theory, in order to describe processes in mandatory and voluntary corporate disclosure in practice. Another advantage of mapping is that, it offers important ideas into existing disclosure theories, which could help explain why some empirical studies have been unpredictable with the theories' predictions. There have been no related efforts reported in the financial literature.

Du, Song, and Wu (2016) investigated how financial institutions' accounting disclosure policies affect input data in stock prices and the risk of a stock crash. The study was conducted in 1996-2013, with the sample of 10,045 observations in 37 countries. The information content of stock prices is evaluated using stock return synchronicity. The frequency difference with both extreme negative and positive stock returns is applied to analyze the risk of a stock crash. The study followed Nier and Baumann (2006) in developing an aggregate disclosure index based on the additions and errors of items series in the bank's annual accounting reports in order to assess the level of bank accounting disclosure. The findings revealed if the banks have higher levels of financial statement disclosure, their stocks possess lower stock return synchronicity and fewer extreme negative returns. It also implied that if information environment of the bank is more straightforward, their stocks would have higher information content and a lower crash risk. Overall, the study provides new idea on how to improve bank transparency and financial industry security, which is crucial for the economic growth. One way to regulate the banks is to boost their accounting disclosure in order to increase transparency and reduce the possibility of extremely negative stock returns. Moreover, the previous studies (Chen et al., 2006; Durnev et al., 2003, 2004; Wurgler,

2000) shows that the firms with reduced stock return synchronicity have more transparent information environments and greater investment effectiveness. Hence, this study discovered that the higher levels of financial accounting disclosure are related to the lower stock return synchronicity, further reducing bank opacity and increasing bank investment performance. Finally, when compared to the business firms, the stock crash risk has far-reaching impacts since the single bank's stock crash has a ripple effect on actual financial stability. As a result, it is critical for authorities to understand the effects of accounting disclosure on the risk of a bank stock crash.

Hooi and Boolaky (2015) examined the impact of the legal structure, national income, and financial governance quality on bank disclosure practices at the macro level. In 2004, 104 developed and developing countries were explored. According to the findings, in addition to investor protection and national income, the quality of financial governance (accounting and auditing) is highly related to bank disclosure practices internationally. In addition, the researchers investigated and applied La Porta et al (1998) that the findings were on the relationship of the national income and the efficiency of a country's accounting rules to the banking disclosure model.

Holgerdaske and Jannisbischof (2013) discovered a significant increase in stress test respondents' voluntary disclosure of free and independent risk exposures that is close to the withdrawal of the credit risk tables by the EBA. The researcher claimed that the transformation through stress test participants' disclosure behavior is a consequence of the mandatory stress test disclosure for these following 3 motives: (1) The disclosure behavior of stress test respondents varies from those of non listed banks and insurance firms. (2) The study noticed the greatest a gap in such groups' disclosure options in the time frames shortly following the stress test disclosures. (3) The duration of voluntary disclosure improvements depends greatly on the disclosure items. The voluntary disclosure change for each item corresponds to the pacing of its original mandatory disclosure. As a whole, the conclusions support the theory that one-time mandatory disclosure lowers a firm's limit for having committed to voluntary disclosures. The commitments of stress test participants to provide disclosures of sovereign risk exposure are preceded by a slight amount in investment bid-ask spreads when compared to those who chose to not disclose their risks when the crisis decreased. The analysis adds

to current researches on the short-term relevant information of stress test disclosures by highlighting the implications of stress test disclosures over a longer time span (Peristiani, Morgan, and Savino [2010], Ellahie [2013]). In a general context, the findings show that the paper of individual bank stress testing results could perhaps influence subsequent decisions of the manager. Although it is unlikely that the changes in bank risk-taking behavior can be attributed to supervisors' disclosures (Flannery [2001]), the risk disclosure analysis provides an advantage of measurable and observable structures that capture changes in disclosure alternatives. Therefore, a potential study design is able to control besides the regulators' unobservable, "behind the scenes" influences.

Ojuolape and Olaoye (2019) examined the impact of credit risk disclosure compliance on the bank performance in Nigeria. According to IFRS 7, entities must disclose credit risk in the financial reports. Credit risk probably has an impact on the viable business concept, but the audit report shows no evidence of it. The study's specific goal is to determine the impact of credit risk disclosure on the banks' profitability. The data was collected from financial reports was using linear regression analysis and the SPSS 20.0 version. According to the findings of the study, there is a favorable relationship between credit risk disclosure and bank profitability. As a result, the paper revealed that financial institution regulatory authorities require credit risk disclosure in their financial reports, since it would assist the stakeholders in making investment decision.

Elbannan and Elbannan (2015) conducted the study in order to see if bank risk disclosures are related to operating performance and economic valuation. Since banking operations are inherently ambiguous, the regulators require greater risk disclosures to support regular control. However, in emerging markets, the question of whether such enhanced disclosures reflect the performance and market value remains unsolved. The study used a balanced scorecard method to assess bank operating performance and discovered that increased risk disclosure is correlated with greater operating performance and market valuation in the sample of Egyptian banks. Moving from the smallest to the largest risk disclosure decile increases a bank's risk-adjusted cost of capital and market valuation by approximately 3.53 percent and 0.068 basis points, respectively. It is, the financial institutions that are used to provide high levels of risk disclosure "integrate" the performance lessons more thoroughly, and market participants value such improved

disclosures. The context is particularly relevant to the current study as it did involve an emerging market in which banks face high risk exposure as a result of domestic and global events that have increased business unknowns.

Furthermore, Khlif (2016) carried out a meta-analysis with 69 empirical studies that estimate the relationship of corporate voluntary disclosure and ownership concentration and forms, as well as how institutional features and design of the study affect these relationships. The overall analysis showed that state, foreign, and institutional ownership have a beneficial impact on voluntary disclosure, whereas managerial ownership and ownership concentration have a negative impact. Because the total impact could obscure the underlying reasons that influence diversity in the effect size distribution. The study chose two significant institutional factors to explain the mixed and contradictory findings: country-level investor protection and equity market development, and research design and journal quality. The findings highlighted the importance of taking into account legal and institutional features, as well as researcher-induced artifacts, when attempting to comprehend the responsibility of ownership structure and identity in corporate voluntary disclosure.

Sharma (2012) focused on researchers, policymakers, and regulatory authorities that have renewed their interest in corporate governance disclosure. Corporate governance disclosure has been the subject of many studies around the world, but it is still a new concept in Nepal. The ultimate focus of this non-experimental quantitative study was to determine the depth to which required corporate governance disclosure exists in Nepal. The supplementary aim was to investigate the relationships between the extent of disclosure and five firms specific. To assess the relationships between the variables, a correlation analysis was used. Given the significant associations in between test variables, the study went on to look for key factors to explain variations in disclosure. The sampling frame for the study was a collection of 125 finance and banking companies listed on the Nepal Stock Exchange of 16 July 2010, with a sample group of 59 companies by random sampling method. The companies reported 90.6 percent of the items in the required voluntary disclosure on average ( $SD=5.6$  percent). Simultaneously, the mean of voluntary disclosure score was at 47.5 percent ( $SD = 17$  percent) and the total disclosure score was at 73.9 percent ( $SD = 9.2$  percent). There was a positive and



significant relationship between governance disclosure and firm features of size as [ $r(57) = 0.68, 0.05$ ], flexibility as [ $r(57) = 0.41, /? 0.05$ ], and foreign ownership as [ $(\rho(57) = 0.29, p 0.05)$ ], but no significant relationship between governance disclosure and listing age or revenue growth. In terms of variables, bank size ( $t=4.92, />0.05$ ) was an important predictors of the governance disclosure. The design with three predictor variables of corporate size, leverage, and foreign ownership was substantial and explained nearly half of the variations in corporate governance disclosure in Nepal as [ $R^2 = 0.47; F(3,55) = 16.51; 0.05$ ]. The companies should provide more narratives about good corporate governance practices and communicate them more frequently. Nepalese regulators should implement the disclosure regulations more strictly. It is suggested that the study with additional factors be conducted to evaluate 53 percent of unspecified variations in disclosure discovered in this study. Other formats, such as web-based disclosure, may be evaluated in addition to annual reports.

This study, by Camfferman and Cooke (2002), adopted a comparative analysis to measure the comprehensiveness of disclosure in the 1996 annual reports of U.K. and Dutch corporate entities. Although there are some similarities between the two countries, there are substantial differences in their legal systems, financial markets, and corporate governance variables.

The developed disclosure model is considered as the primary classifications defined in the Fourth and Seventh Provisions. According to this method, disclosure by UK firms is more comprehensive than that of Dutch companies, and the variance is significant (5 percent with two-tailed test). The majority of crucial sectors of disclosure in UK are observed to be more comprehensive than in the Netherlands. This is because they are more adaptable. Using regression analysis, the model is used to determine whether disclosure is related to a number of firm-specific characteristics. Size also has the same impact in both countries, but other firm-specific characteristics have different impacts.

Granja (2013) examined how disclosure regulations affect the development and stability of commercial banks by analyzing spatial or temporal variation in the implementation of disclosure legislation along all state banking systems during the National Banking era. The study found evidence that the requirement to publish income

reports in national newspapers aided the sustainable growth and development of the state financial system, but very little evidence that periodic on-site tests attributed progressively to all these outcomes. Based on the findings, it is suggested that disclosure legislation reduces agency conflicts between banking institutions and depositors by allowing for private checking. The study was also examined the politics and economics of disclosure regulation using data from the 1888 Illinois and Michigan parliaments. Counties with a high concentration of huge farming landlords and private banks were less likely to support the passage of these laws. This study suggested that elected groups are opposed to laws that encourage disclosure and monitoring since their passage would endorse economic advancement while affecting their private interests.

Baumann and Nier (2004) investigated evidence of information reporting that could be beneficial to both investors and banks. The study focused on the cross-sectional correlation between banking system' long-run average stock return volatility and the long-run average voluntary disclosure presented in their annual reports. The study found that after trying to control a variety of other factors like the bank's size and risk, the banks that expose more information on key products of disclosure have lower measures of stock volatility than the banks that disclose less information. This finding implied that the disclosure could be beneficial to investors. However, it also implied that there could be advantages for the banks. Lower stock volatility, in particular, can sometimes result in a lower cost of capital and improve the value of stock-based wages. Ultimately, the data showed the supervisors who use economic indicators of bank activities in addition to supervision information benefit from disclosure. A lower volatility of equity returns, in particular, could reduce the possibility that the stock price sends the wrong signal about the bank's relative performance and risk.

Wang (2011) aimed to investigate if US financial institutions holding companies prefer wider adoption of accounting principles in order to gain better access to external financing. Both economic intuition and theories recommended that the banks are eager to take steps such as information disclosure in order to gain greater access to capital markets. Analyzing accounting standards that allowed for early adoption from January 1995 to March 2008, it is discovered that the banks with lower cash flow and higher risk are more probably to choose early adoption. This result was consistent with

the bank's opportunity to improve its access to financial resources. Furthermore, the findings indicated that early-adoption decisions include a counter-signaling effect. The study also discovered that the banks are more likely to choose early adoption in order to gain better access to financial resources when the earnings of accounting principles are undetermined or when only disclosures are needed. In addition, it is indicated that financial make different early-adoption decisions based on accounting standard characteristics such as income effects, standard type (financial versus non-financial), and standard difficulty. Eventually, during economic expansions, when banks are most motivated to attract more funds, early adopters typically outperform matched late adopters in terms of fund growth.

Bidhari, Salim, and Aisjah (2013) intended to investigate and discuss the effect of corporate social responsibility information disclosure on economic performance and firm value in financial system listed on the Indonesia Stock Exchange. The study employed quantitative methods in accordance with a positivist paradigm. Based on population criteria and the observation of 2008-2011, the goals of this research were 15 banking companies listed on the Indonesia Stock Exchange. Secondary sources of data derived from annual reports and financial statements are used in this study. Path Analysis was used to analyze the data. According to the findings of the study, corporate social responsibility information disclosure has an impact on all financial performance measures, including Return on Assets (ROA), Return on Equity (ROE), and Return on Sales (ROS) (ROS). The disclosure of corporate social responsibility information has an impact on firm value as measured by Tobin's Q. ROA and ROE financial performance have an effect on firm value, but ROS has no effect on firm value, as measured by Tobin's Q.

Hossain and Reaz (2007) conducted a study on the findings of an exploratory research into the extent of voluntary disclosure by 38 Indian listed banking companies. It is also reported the findings of the study on relationship between company particular qualities and voluntary disclosure of the sample companies. According to the study, Indian banks are revealing a significant amount of voluntary information. The findings also revealed the size and assets in place are important, while age, diversification, board composition, multiple exchange listing, and business complexity are statistically

insignificant. However, this paper has added to the academic literature by demonstrating that financial institutions offer voluntary corporate information, such as social information, as part of their social obligation and corporate citizenship.

Oklahoma, Roberts, and Gray (1995) examined the factors that influence voluntary disclosures of three sources of evidence (strategic, nonfinancial, and financial) stipulated in the annual reports of MNCs from the United States, the United Kingdom, and Continental Europe. While the most important factors explaining voluntary disclosures overall are company size, country/region, listing status, and, to a lesser extent, industry, the importance of the factors varies by data type.

Karim, Pinsker, and Robin (2013) purposed are to determine how firm size and public/private association (employment status) influence voluntary disclosure decisions involving quantitative immaterial non-financial information. Although the previous disclosure literature is extensive and has taken into account a variety of factors such as size, and to a lesser extent, employment status, this study provides a fresh viewpoint by evaluating both in the context of qualitative validity. The research methodology conducted 24 cues representing nonfinancial, realistic business events to 136 manager participants and solicits their disclosure judgments. The indicators are adjusted from Pinsker et al. and includes data that does not reach generally recognized quantitative thresholds for disclosure (e.g., 5% of net income), but was classified as more expected to be device by the Securities and Exchange Commission (SEC). To determine “large” and “small” firms, the paper uses a median split of total assets and total revenues. Managers' decisions are evaluated within the confines of their own company. The study results discovered the disclosure is related to firm size, but no employer status effect is discovered.

Additional, testing reveals that private company executives seem to be sensitive to SEC supervision and control and other external, competitive pressures, implying that they are under imitative pressure to behave similarly to their public firm peers. In summary, the findings make significant contributions to the disclosure, strategic management, institutional theory, and judgment-and-decision-making (JDM). Yet there is a growing literature on the voluntary disclosure behavior of public firm managers

(mainly regarding large firms), there is almost no research on the voluntary disclosure behavior of small or large private company managers involving non-financial data.

Sowerbutts and Zimmerman (2016) investigated how commercial banks' inadequate disclosure of information can perform as an amplification of economic pressure. In non-crisis times, it can also distort financing options and costs by making a contribution to information asymmetry between insiders (such as managers) and outsiders (market participants). According to theoretical and empirical evidence, shareholders do not show up to appropriately discipline banking institutions or demand that they disclose the information needed to assess the risks which they hold. This can be explained in part by the effect "too big to fail", which causes some of the risks to be shared with the authorities. However, there is evidence that the banks may be too complicated for outside investors to understand their risks. Mandatory disclosure mandated by regulators can help to address some of these asymmetry matters, particularly if it did help confront primary problems that prevent outside shareholders from achieving high levels of disclosure. However, it is critical to consider the impact could have on the behavior of banks and their investors. Obviously, publishing as much data as possible is unlikely to improve outsiders recognize a complicated system, and may even intensify problems during periods of crisis. Restriction on disclosure could indeed take various forms – for example in stance, information could be released by the firm on its own (e.g., developed reporting standards) or by the authorities (e.g., stress test disclosures), and these decisions can have important implications for how well the material is perceived by the outsiders at various points in the economic cycle. The study still didn't have a clear understanding of what regulations would better manage social welfare on a time-consistent "through the cycle" principle: this could be an area for further studies.

Birindelli, Ferretti, Chiappini, and Cosentino (2020) investigated the intellectual capital disclosure of Italian banks from 2016 to 2017 through the lens of healthy and distressed banks. The study used content analysis and encoding techniques to accomplish. The primary findings showed that IC disclosure is fairly low and that the frequency of disclosure varies slightly between healthy and distressed banks. In terms of disclosure quality, healthy banks have a higher, though somewhat, tendency to disclose non-qualitative and forward-looking data, possibly as they're more focused on methods

and relations with clients, as opposed to distressed banks' more short-term approach. This study repeated the analysis focusing on bank size and independent directors to supplement on balanced and depressed banks. In this case, the findings demonstrate no significant differences in terms of IC disclosure. Consequently, the findings suggest that the banks' IC disclosure should be considered as a strategic partner for increasing among transparency and reputation.

Cooke (1989) stated that Sweden seems to be of interest due to the rapid growth of the Stockholm stock exchange and the country's disproportionate number of multinational corporations. This paper examined the extent of disclosure in Swedish corporate annual reports. The extent of disclosure is evaluated to see whether there is a significant relationship among a number of independent variables.

Elamer, Ntim, Abdou, Zalata, and Elmagrhi (2019) explored the impact of multi-layer governance structures on bank risk disclosure. The study results consisted of three parts, based on an 8-year study of a large dataset from 14 countries in Middle East and North Africa (MENA). Firstly, the findings indicated that the presence of a Sharia management board is related to higher level of risk disclosure. Secondly, it is found that ownership structures have a positive effect on the level of risk disclosure at the bank level. The evidence suggested that controlling corruption has a positive impact on the level of bank risk disclosure at the country level. As a result, the study differs significantly from much of the existing accounting research in that it provides new critical insights showing the firms' disclosure alternatives are influenced not only by firm-level (internal) governance arrangements, but also by country-level (external) governance and religious factors. Moreover, the findings have significant implications for corporate boards, investors, regulatory authorities, requirements, and governments in terms of improving, implementing, and enforcing corporate and national governance standards.

According to Hawashe (2014), the purpose of the research was to contribute to the development of the disclosure literature relating to the financial sector, which is obviously missing due to a lack of empirical studies on the extent of banking disclosure and its relationship with corporate-specific attributes. This research aims to achieve four main goals. One of the main goals was to assess the level of voluntary disclosure in Libyan commercial banks' annual reports from 2006 to 2011. The second goal was to

determine whether there is a considerable improvement in the levels of voluntary information disclosure that is provided in annual reports. Third, the study aimed into if there is a relation between seven commercial bank-specific features (such as age of the bank, size of the bank, bank cash flows, profitability, state ownership, foreign ownership, and listing status) and the voluntary disclosure. Finally, this study investigated the perspectives and perceptions of Libyan commercial bank annual report accountants regarding current mandatory financial reporting and voluntary disclosure practice issues.

Over a six-year reporting period, the study used a self-constructed, unadjusted disclosure index comprised of 63 information items to measure the extent of voluntary disclosure in 54 annual reports of listed and unlisted commercial banks. Content, descriptive, and multiple regression analyses were used to analyze the research data.

On the whole, the findings showed that the extent of voluntary disclosure in Libyan commercial banks' annual reports is at a low level, with 38%, but there was a progress in the basic level of voluntary disclosure and its categories over six years. According to the multiple regression outcomes, commercial bank size and listing status are considerable independent variables in explaining variation in annual voluntary disclosure, whereas other independent variables are considered to be involved with the extent of voluntary disclosure.

Dhaliwal, Li, and Yang (2011) explored a significant benefit related to the start of voluntary disclosure of corporate social responsibility CSR activities: a decrease of the cost of equity capital for firms. The study discovered that the firms with a greater cost of capital in the previous year are more likely to pursue CSR disclosure in the recent year, and that firms that initiate with outstanding social responsibility performance benefit from a subsequent reduction in the cost of equity capital. Furthermore, start-ups with strong social responsibility performance encourage investment firms and analyst attention. Besides, the analysts have reduced forecast errors and variation. At last, it is found that firms take advantage of the lower cost of equity capital related to the start of CSR disclosure. Following the initiations, initiating firms are more expected than non-initiating firms to raise equity capital; among firms raising equity capital, initiating firms more noticeably raise than non-initiating firms.

According to Kumar (2006), the majority of global companies obtaining the public securities markets in the United States has dramatically increased for the last ten years. Over 600 international firms have required registering securities for the first time with the Securities and Exchange Commission (SEC) since 1997. As of December 31, 2004, the SEC had received periodic reports from over 1200 companies from 57 countries. Securities regulation for these companies has always been a matter of debate and a stream of research has examined the disclosure practices of foreign companies listed in the U.S. However, none of those studies have looked at the voluntary disclosure practices of U.S.- listed Asian companies in the U.S. There have been some studies which have examined the disclosure practices of companies in the individual Asian countries, but none of them have comprehensively investigated the disclosure practices of all U.S.- listed Asian companies. The study at hand contributes to the international accounting literature by specifically examining the voluntary disclosures provided by U.S.-listed Asian companies in the U.S. This study examined three research objectives.

1. The first research objective of this study was to test the Einhorn (2005) theory on U.S.-listed Asian companies. This theory indicates that the voluntary disclosures (measured by Botosan, 1997) of companies will be positively related to the strictness of their mandatory disclosure environment (measured by a survey of experts).

2. Secondly, the study examined the extent to which voluntary disclosures provided by U.S.-listed Asian companies in the U.S. are convergent, and determined the effect of culture on those disclosures [Warner (2003), Gray (1988) and Zarzeski (1996)].

3. Lastly, the current research investigated the voluntary use of “international” standards instead of national standards by U.S.-listed Asian companies in preparation of their consolidated financial statements. This aspect of the study has extended the evidence in Tarca (2004).

Results of this study provide perhaps the first empirical evidence on the voluntary disclosures provided by U.S.-listed Asian companies in the U.S. A total of seven hypotheses were developed and statistically tested to accomplish the research objectives. The evidence produced in this study indicates that U.S.-listed Asian companies (from countries which have a stricter mandatory disclosure regime in their home country) provided significantly fewer voluntary disclosures than the U.S.-listed



Asian companies. The finding contradicts the theory proposed by Einhorn (2005). Besides, the study found that over 80% of U.S.-listed Asian companies voluntarily use “international” standards in the preparation of their financial statements, contributing to international accounting convergence. Their decision to use “international” standards, however, is unaffected by their proportion of foreign sales or size. The study made an important contribution by developing a measure for the rigidity of emerging markets' mandatory disclosure regimes using two alternative methods: expert rankings and the findings of Adhikari and Tondkar (1992). The results of this study complement Cahan et al. (2005) who examine the effect of global operations and global financing on voluntary disclosures of companies from the Fortune 500 list. They report a significant association between globalized operations and voluntary disclosures of companies. However, their study does not include the strictness of mandatory disclosure regime which, according to Einhorn (2005) is a significant determinant of voluntary disclosures. The results of the current research regarding culture variables, however, are not completely consistent with Zarzeski (1996). Zarzeski proved that the domestic culture is a significant determinant of voluntary disclosures. However, the current research results remain inconclusive in this aspect. This study does not find strong evidence of a relation between domestic culture and the voluntary disclosures provided by U.S.-listed Asian companies in the U.S. Nonetheless, there appears to be clear consensus from this dissertation that provides evidence to reject the Einhorn (2005) theory and the results also provide support for the argument that U.S.-listed Asian companies are contributing towards International accounting convergence

The study focusing on measuring the informative value of voluntary disclosures on stock returns quite limited. Therefore, this present study aimed to explore the issue by developing voluntary disclosure checklists. Starting with the study of Meek, et, al. (1995), the checklists were gathered from similar subsequent studies introduced by researchers. Initially, the checklists combined 572 criteria. Then, using the RapidMiner techniques together with the authors' previous experience in Thai banking industry, the 185 checklists were concluded with the three classifications introduced by Meek, et, al (1995) including strategic, financial and non-financial dimensions. Also, the study further classified voluntary disclosure checklists into three layers: 1) total voluntary disclosures,

2) extra voluntary disclosures, top 25% of total voluntary disclosure and 3) non-extra voluntary disclosures less than top 25% of total voluntary disclosure. This was to explore more details of voluntary disclosures.

## **2.5 Fundamental and CAMEL as Control Variables**

A performance evaluation is a selected performance representation of a capacity, procedure, or results that is primarily related to performance evaluation. The process by which an organization establishes the parameters within which programs, investments, and acquisitions achieve the desired results is known as performance measurement. (Wikikipedia, 2010).

CAMEL is a scoring system which is commonly used by the government policy circle, trying to regulate bodies that restrict commercial banks, such as central banks, and non-governmental policy research centers to assess the soundness of a savings association or a bank. In terms of the history of CAMEL, it was originally adopted by North American commercial bank regulators and covers five areas of performance, namely, Capital Adequacy, Asset quality, Management quality, Earning ability, and Liquidity. As in early 1970s, federal authorities in the United States developed the CAMEL rating system to evaluate the performance of commercial banks. Afterward in 1979, the uniform financial institution rating system was implemented to provide federal authority with a framework for evaluating financial status and individual banks (Siems and Barr, 1998).

Since, the use of CAMEL in examining the financial strengths of one of the basic constituents of the money market, such as commercial banks, has grown dramatically. Piyu correctly observed in this regard: “Currently, accounting measures are frequently used to assess a bank's overall truthfulness and the quality of its management. Consequently, as part of the CAMEL rating system, bank regulators may use financial ratios to help evaluate a bank's performance” (Piyu, 1992).

Based on the CAMEL analysis concepts, the standards for all commercial banks' performance under CAMEL Ratings involve capital adequacy, asset quality, management standard, earnings, and cash flow maintenance (CAMEL). In some countries, it is referred to as CAMELS, in addition to the five areas mentioned above; system and sensibility are regarded as barometers for determining a bank's success or failure. Concisely, the table

below shows various areas as well as relevant financial ratios used for indicating a banking company's strengths and weak points under CAMEL ratings.

In addition, CAMEL ratios were employed in this study. CAMEL has been introduced by the Federal Financial Institutions Examination Board in 1979 to evaluate the sustainability of individual banks in the USA. Many academic studies have examined whether CAMEL was useful information or not. These studies found out that CAMEL ratings were publicly available information that showed condition and performance of banks and they were a better indicator of bank failure. Moreover, CAMEL was clearly beneficial in the supervisory oversight of bank conditions (Barker and Holdsworth, 1993, Cole and Gunther, 1998 and Hirtle and Lopez, 1999). Taherinia & Baqeri (2018) found a direct relationship among capital adequacy ratio, bank reserves and growth opportunities and profit volatility. Sangmi & Nazir (2010) and Nguyen, Nguyen, & Pham (2020) inserted that capital adequacy, asset quality, liquidity and management competence affected commercial bank performance in emerging markets.

Chaua and Gray (2002) conducted research on ownership structure and corporate voluntary disclosure in Hong Kong and Singapore. The findings on voluntary disclosure actions by Hong Kong and Singapore-listed companies support the organization theory-based assumption that there can be a strong relationship between wider ownership and the extent of voluntary disclosure. The evidence based findings emphasize the importance of Hong Kong and Singapore's contextual factors. Lower levels of disclosure are likely to be correlated with the high prevalence of "insider" and family-controlled businesses. In the case of Hong Kong, this hypothesis is strongly supported. However, due to a lack of data in Singapore, it was not possible to check for this effectively, even though the findings on ownership in general provide indirect support. Because the demand for public information disclosure is relatively weak in comparison to that of companies with broader share ownership, insider and family-controlled companies have little incentive to disclose information in excess of mandatory requirements. The structural characteristics of the Hong Kong and Singapore stock exchanges functions as a counterweight to the increasing pressures for internationalization and global transparency. This is a critical issue that must be

considered by investors and accounting standards-setting policymakers at both the national and international levels.

Arcay and Vazquez (2005) explored the relation among corporate characteristics, the firm's governance structure, and disclosure regulation. A sample of Spanish firms listed on the Madrid Stock Exchange provided empirical evidence to support this investigation. This environment is appealing due to the low level of investor protection, high concentration of ownership, and underdeveloped capital market. The findings showed that a firm's size, as well as some corporate governance variables, like the proportion of independent directors on the board, the consultation of an audit committee, and executives' stock holdings and stock option planning processes, is positively related to voluntary disclosure. The study also discovered the cross-listings and the firm's ownership structure have a significant impact on these governance practices.

Chen (2014) investigated the impact of voluntary disclosure of information about new investment projects on firm value in China's institutional setting. For firms that rely heavily on value creation, the study found out a negative relationship between firm value and voluntary disclosure. In contrast, it is found that a positive relationship between firm value and voluntary disclosure for firms that rely less heavily on guanxi and more on other sources of key competencies (e.g., high-tech firms and firms in high-marketisation regions). The moderating effects of guanxi in the relationship between firm value and voluntary disclosure is explained by firms carefully weighing the costs and benefits of voluntary disclosure in comparison to guanxi. High guanxi-dependence firms, in particular, avoid detailed voluntary disclosures for fear of revealing sensitive information that could jeopardize their guanxi. Low guanxi-dependence firms, on the other hand, rely almost entirely on voluntary disclosures to reduce information asymmetry and financing costs, with such benefits being especially strong for high-value firms. The findings have implications for the study on the motivations for disclosure and financial reporting regulation.

Chung, Judge, and Li (2015) conducted a study that refines and extends Anglo-American research on excess executive compensation and its effects on firm value using data from Taiwan, a country where board members and executives of a firm frequently

have friendly relations with one another. Excess executive compensation is found to be negatively related to firm value, but voluntary disclosure practices moderate this relationship. Excess executive compensation has a positive effect on firm value when firms disclose comprehensive information voluntarily, and this effect is more pronounced in group-affiliated firms, according to the findings. Furthermore, firms providing comprehensive voluntary disclosure appear to help relieve agency problems more easily when their shareholders have higher private profit incentives or when these firms have better corporate governance.

Kumar, Harsha, Anand, and Dhruva (2012) examined the study in order to analyze the performance of 12 Indian banks for eleven years (2000-2011). The CAMEL approach was used for this purpose, and it has been established that private banks are at the top of the list, with the best performance in terms of validity. In comparison, public sector banks such as Union Bank and SBI have taken a back seat and demonstrated poor economic soundness. The CAMEL approach, as well as public and private sector banks, are key terms.

Aspal and Dhawan (2016) conducted research on the function and importance of the financial sector in the growth of economy. The strength of any country's economy is fundamentally dependent on the strength and efficiency of its financial system, which is dependent on a sound banking system. The Reserve Bank of India suggested two supervisory rating designs for Indian commercial, private, and foreign banks operating in India: CAMELS (Capital Adequacy, Assets Quality, Management, Earnings, Liquidity, Systems and Controls) and CACS (Capital Adequacy, Assets Quality, Compliance, Systems and Controls). The current study explains the major financial ratios used in the models mentioned above to examine the financial performance of the banking sector. Through a review of the literature and empirical studies, the study examined each parameter of the CAMELS system.

According to Holland (1998), private corporate voluntary disclosure in the large FTSE companies was driven by corporate financing and corporate control decisions, a related desire to create favorable institutional and market states, and external benchmarks and pressures on companies to provide high-quality communications. The corporate investment and control requirements are consistent with the broad findings of disclosure

indices research, indicating that similar factors drive both public and private voluntary disclosure. The advanced state and market objectives, on the other hand, revealed more complicated and dynamic motivations for corporate disclosure, particularly its private component. Use of a complicated private policy, disclosure boundaries, cost benefit analysis, preferences for private over public disclosure, and private-public disclosure interactions all suggest that traditional finance theory and research methods, such as disclosure indices and event studies, are incapable of capturing the dynamic components of corporate disclosure activity.

According to Gawde (2018), the banking sector plays an important role in the country's economy by acting as an intermediary between all industries because the banking sector has a significant impact on the economy as a whole. The banking sector's performance evaluation is an effective measure and indicator for assessing the soundness of an economy's economic activities.

Numerous methods are used to determine the performance of banks. The CAMELS framework, developed in the early 1970s by federal regulators in the United States, is one of the popular methods. The CAMELS rating is based on an assessment of six important aspects of a financial institution's functions: capital adequacy, asset quality, management soundness, earnings and profitability, liquidity, and market risk sensitivity. This bank is required to improve capital adequacy, asset quality, management, earnings, liquidity, and sensitivity to various financial risks. Using the CAMEL approach, the current study attempted to evaluate the performance and financial soundness of Nepal Bangladesh Bank. The quantitative parameters are calculated and updated on a quarterly basis, whereas the qualitative parameters are based on the ratings / marks given during the previous on-site examination.

Taherinia and Baqeri (2018) sought to examine the effect of bank profitability on the ratio of bank reserves recognized in the Tehran stock exchange, as well as the Kashyap and Stein pattern (2004) and modified variables of Levintal (2005) research. From 2009 to 2013, the required data from the statistical population, which included 16 Iranian exchange banks, was obtained. As the dependent variable, the research findings that indicated a direct relationship between bank profitability and reserve requirements as an absorption rate of different deposits of customers in banks

were considered. Furthermore, the interpretation of the slope of the control variables in the estimated relationship revealed that there was an inverse relationship between the rate of granted facilities and the size of the bank with bank reserves; there was also a direct relationship between growth opportunities and profit volatility. At the 95% variable level, the student t-test for estimated coefficients and the Fisher test for total estimated relationship supported the ability to generalize relationships between variables. The coefficient of determination revealed that changes between independent and control variables with bank reserves through expressed estimated relationship and estimated relationship between variables had a fairly complete explanatory power ranging from 83.5 percent to 87.5 percent.

Hirtle and Lopez (1999) assessed the decay rate of private supervisory information gathered during full-scope examinations to determine the frequency with which supervisors should examine banks. Such information is expensive to obtain because it can only be obtained during on-site examinations. As a result, the question of how quickly the value of information erodes has significant implications for both supervisors and banks. The faster this information decays, the more frequently examinations must be performed in order for supervisors to have accurate information about the current state of banks. The findings indicated that CAMEL ratings no longer provide useful information about a bank's current state after six to twelve quarters. Thus, the examinations should occur at least at this frequency, because supervisors are likely to want to examine a bank while the information from the previous examination is still useful. The findings showed that supervisory information decays more quickly for banks with lower CAMEL ratings (3, 4, or 5). As a result, a slightly shorter examination cycle may be justified for these institutions. In this light, FDICIA's criterion for annual full-scope examinations appears reasonable, notably for banks with troubled initial financial conditions or when the banking system as a whole is under financial stress. Of course, the optimal investigation frequency for any given bank will differ from the average results presented here.

Panrod (2018) sought to 1) analyze the financial position and performance of Thai commercial banks using the CAMEL model; and 2) compare the performance of commercial banks to that of the industry as a whole. The samples consisted of seven

commercial banks in Thailand. The data was gathered from secondary sources and analyzed using the CAMEL model. According to the findings of the study, the top seven commercial banks in Thailand attempted to maintain their financial performance, and nearly all firms met their targets. In addition, when comparing to the industrial average standard, the research findings must be combined with the findings of each bank's financial performance study. This study used the CAMEL model financial ratio to evaluate commercial banks' overall performance and each bank's performance in detail, but it must use multiple sources of information to explain the occurrence data results.

Rauf (2016) was made responsible with assessing the comparative ability of Sri Lankan banks' financial performance. A sample of banks, both private and public, has been selected for the survey. Data were collected over a ten-year period beginning in 2005. The well-known CAMEL model was used to evaluate and compare financial performance. All CAMEL model parameters (capital adequacy, asset quality, management quality, earning quality, liquidity) were used as independent variables, and return on equity (ROE) and return on assets (ROA) were used as financial performance indicators. To examine the hypotheses, descriptive, correlation, and regression analysis were used. According to the study, private banks outperform public banks in all CAMEL and financial performance parameters. Nevertheless, public bank performance lagged behind that of private banks. In accordance with the findings, capital adequacy, asset quality, and earning quality were significantly correlated with bank financial performance, whereas management efficiency and liquidity were not significantly correlated with bank financial performance. The implications of the findings, as well as future research directions, were also discussed.

Risal and Panta (2019) evaluated the influence of CAMELS (Capital Adequacy, Asset Quality, Management Efficiency, Earning Efficiency, Liquidity, and Sensitivity to Market Risk) based supervision in commercial bank risk management. Downside Deviation (i.e., volatility of returns below the minimum average return) and Standard Deviation of ROA and ROE are used to assess riskiness. Using the Generalized Method of Moments (GMM) in secondary balanced panel data from all 28 commercial banks in Nepal from 2004 to 2018 (BASEL-I-II-III), the causal relationship between supervision and risk management was investigated. The findings indicated that commercial banks in



Nepal can reduce their downside deviation as well as standard deviation of ROA and ROE by reducing non-performing loans (NPLs), maintaining adequate liquidity, and increasing operational effectiveness. Furthermore, the results support the relevance of the central bank's risk-based supervision and the interest spread set. However, increased capital base has not aided in reducing bank riskiness. All in all, the study concludes that, of the six supervision parameters (i. e., CAMELS), five parameters (i. e., AMELS in the priority order of AMLSE) are capable of reducing the riskiness of commercial banks if strictly adhered to as directed by the central bank.

Kandel (2019) aims to examine the performance of the commercial banks using CAMEL framework and analyze their performance on average basis with selected samples. The financial sectors have always been the economic drive of Nepal holding large share market of the country. The good performance of the financial institutions must for the strong and growing economy. Therefore, this research paper makes analysis of the variables of the CAMEL framework to find the important factors influence the performance of commercial bank. According to the data analysis, the major factors influencing both ROA and ROE are earning quality and rest capital adequacy, while asset quality and liquidity have a moderating effect on bank performance. The management efficiency show minimal impact on the ROA and ROE as per the findings. The factors that were selected for this research paper may have minimal influence but other factors of the management may have direct influence on performance of the banks.

Kahl and Belkaoui (1981) conducted the very first empirical study determining the level of disclosure of commercial banking. Dataset composed 70 commercial banks across 18 countries. The total of 30 disclosure items that were evaluated in the disclosure index. These items were selected based on investment perspective, financial and accounting literature, and stock investment decision, and were given from knowledgeable entity in the international financial report. Each information items that were disclosed in a scale of zero to four, the higher the scores the higher the value of information. The study found a positive relationship between the level of disclosures and the size of the commercial banks. However, the level of information disclosures from commercial bank was different in each country.

Hamid (2004) carried on the study to find the relationship of corporate characteristic and the level disclosures on social information. The dataset was drawn from Malaysia Central Bank, Kuala Lumpur Stock Exchange, and Banking Institute of Malaysia. The study explored corporate characteristics including firm size, financial performance (return on equity and return on assets), listing status, business aging, and company profile. The results showed a significant positive relationship between the firm size, listing status, and business aging to the level of social information disclose. However, the company profile and profitability were no significant correlation towards the social information disclosures.

Hossain and Taylor (2007) also conducted another empirical study upon the 38 listed banks in India. The study investigated whether the six attributes including bank size, bank aging, multiple listing, business complexity, composition of the board and assets-in-place and influenced the level of voluntary disclosures. A total of 65 items disclosure index were developed. The measurement method utilized a dichotomous approach or the un-weighted approach, where if the information were disclosed, it would be scored as one, but if not, it was scored as zero. The results showed that the great correlation between bank size and assets-in-place related to the level of voluntary disclosures. In contrast attributes such as bank aging, board composition, business complexity, and the composition of the board had no any significant effect on the information disclosures.

Hossain (2008) conducted another empirical study of the 38 listed banks in India to observe whether various attributes including bank size, bank aging, multiple listing, business complexity, board composition, profitability, market discipline and assets-in-place influenced the level of information disclosure. The study constructed a total of 184 disclosure indexes, consisting of 101 mandatory items selected with the following criterion: 1) Banking companies Act, 1949 (2) Company Act, 1956, (3) Listing rules-clause 49, (4) Company Act, 1956, (5) RBI guidelines and 83 voluntary items that may disclosed in bank annual report. The measurement method utilized a dichotomous approach or the un-weighted approach, where if the information is disclosed, it was scored as one, but if it did not, it was scored as zero. The results indicate a significant correlation

between the disclosure information levels and bank size in a positive manner. This was also true for profitability, board composition and market discipline. However, bank age, assets-in-place and the business complexity resulted in a negative correlation.

Maingot and Zeghal (2008) investigated the conduct of eight Canadian banks on their level of information disclosure. The disclosure index included 54 items. These items were selected base upon previous literatures and Toronto Stock Exchange Corporate Guidelines. The evaluation was conducted using coding mechanism, where if the information was disclosed, it was scored as one but if it did not, it was scored as zero. The research was conducted on attribution of the bank size in finding its relationship towards the level of information disclosure. The results indicated that larger banks trended to disclose more information in their websites, while smaller banks utilized the annual reports and the proxy circulars to inform the disclosed information to the public. Additionally, this research indicated that a positive relationship between bank size and the amount of information disclosed were found.

Kribat (2009) conducted their research in Libyan context. This research was conducted to evaluate the level of both mandatory and overall information disclosure made by Libyan Banks. The research was conducted to evaluate the relationship of four bank characteristic towards the information disclosure. Bank characteristics included bank size, bank age, ownership structure and profitability. The disclosure index was made upon 126 information items, while the sample size of 11 government and private sector banks. According to Kribat (2009), the mandatory disclosure checklist was developed in accordance with relevant Libyan laws, specifically the Commercial Law, Income Tax Law, and Banking Law. The study concluded that the Libyan banks failed to comply with the disclosure requirement. The results indicated a positive relationship between both the profitability and the bank age towards the information disclosure. However, the bank size in contrast had a negative relationship.

Hossain and Hammami (2009) investigated the determinants of voluntary disclosures in 25 Doha Securities Market listed firms. A voluntary disclosure checklist included 44 items. The findings revealed that age, size, complexity, and assets-in-place were significant in explaining the level of voluntary disclosure, while other variables of profitability were insignificant.

Bhasin, Makarov, and Orazalin (2012) examined the factors of voluntary disclosure and disclosure classifications in financial and non-financial reports of Kazakhstan Stock Exchange-listed banking companies. The study developed 65 items measuring voluntary disclosure using we used non-weighted approach for computing total disclosure score. The study also analyzed the relationship between voluntary disclosure and governance factors including board size and composition. According to the empirical findings, the number of outside directors had the most significant positive effect on disclosure score. As the size of a bank grows, so does the level of voluntary reporting.

Soliman (2013) investigated the relationship between voluntary disclosure level and firm characteristics of more than 50 Egyptian non-financial companies listed on the Egyptian Stock Exchange. Firm size, auditor size, profitability, and firm age were among the firm characteristics. A disclosure checklist of 60 voluntary items of information was created, and statistical analysis was carried out using multiple regression analysis. According to the findings, firm size and profitability had a significant positive relationship with the level of voluntary disclosure in annual reports. The size of the auditor and the age of the firm, on the other hand, had no significant relationship with the level of voluntary disclosure.

Abeywardana and Panditharathna (2016) aimed at creating an 83-item voluntary disclosure index and use panel data approach to determine the determinants of voluntary disclosure level. According to the findings of the study, banks preferred to disclose general information, corporate environment, financial performance, and risk management. Moreover, the study discovered that firm size, profitability, firm age, leverage, and board independence were all determinants of voluntary disclosure level, with firm size, profitability, and firm age having a positive relationship while leverage and board independence had a negative relationship.

To reduce the likelihood of omitted variable bias, the study includes significant control variables. Bartov, Gul, and Tsuib (2000) stated that omitting control variables caused failure rejecting a hypothesis, when actually it should be accepted. Therefore, the study introduced two control variables which have been well-known in similarly to this present study including firm size (total assets) and government shareholders. Banz (1981)

initially stated that size positively affected to stock price and market expectation. Similar findings have been supported Banz's study. However, Vanden (2015) opposed that size was just noisy information. Also, Duy & Phuoc (2015) researched the controversial issues in an emerging market and found that firm sizes and returns negatively related, particularly in weak market efficiency. For government shareholders, Kole & Mulherin (1997) found out that government-owned firms were not significantly different from private-sector firms and had no effect on stock returns in US corporations.

## **2.6 Brief Discussion of Stock Return Predictors**

There is a significant amount of literature on the relationship between firm-specific variables and the cross-section of expected stock returns. The study attempts to identify the most important firm-specific return predictor variables in this literature. It ends up with 18 such variables, which we categorize as follows: (i) the three most extensively studied return predictors in the US literature: market capitalization, the book-to-market ratio, and momentum; (ii) three traditional value indicators: the earnings-to-price ratio, the cash flow-to-price ratio, and sales growth; (iii) two earnings quality measures: accounting retained earnings and net operating assets; (iv) evaluating a firm's tangible and intangible investments, such as capital expenditure, R&D expenditure, and advertising expenditure; (v) asset growth and modify in gross profit, which summarize the firms' size and profit margin growth; (vi) equity and debt financing for a company's external financing activities; and lastly (vii) variables relating to information asymmetry or stock liquidity, such as idiosyncratic return volatility, trading turnover, and Amihud's (2002) illiquidity ratio. In this section, the study provides a brief review of the literature on these variables.

## **2.7 Overview of Banks Industrial in Thailand**

The Bank of Thailand was first operated on the December 10, 1942. It was first set up as Thai National Banking Bureau, which then after being vested upon the responsibilities of all central banking function on April 28, 1942, by the Bank of Thailand Act, changed their organizations to the Bank of Thailand (BOT).

To further signify the Bank of Thailand's social responsibilities, the Bank of Thailand Act was further amended. This act came into effect on March 4, 2008, as a proof of conduct. It acts to provide the economic with a safe guarding mechanism for any crisis that may occurs. It also set up a working procedure for BOT as well as the giving the rights for any public organization to be able to audit the Bank of Thailand which will ensure that there's transparency in governance or any development within the organization.

### **History of the Bank of Thailand**

During the reign of King Rama 4 of Siam, the country emphasize the commercial relationship between Siam and foreign countries. At the time King Rama IV agree to a treaty on diplomatic and commercial between Siam and England. That treat was known to be as the "Bowring Treaty" which has a highly significance roll in broadening Siam to the world, and marked the beginning of many other treaties between Siam and Western countries.

Having more trades and commercialization with the western continents, King Rama V and King Rama VI had been continuously attempting to set up a central bank for Thailand, which would be beneficial from the rights to print bank notes. By setting up a central bank responsible as a medium for trade and economy of Siam. However, it could not be succeeded, because Thai's party believes that the Western's party was not being fair and is intending to gain more than giving. The project was later put on hold due to the lack of experience at the time.

After the change of Governance in 1932, due to the Revolution that established Siam's constitutional rule, the ides of establishing a central bank was brought back into consideration. Pridi Banomyong of the People's Party, later known as Luang Pradit Manudham, propose the establishment of central bank which would be crucial for pursuing of economic policy of Siam. To establish the central bank, People's Party would require the consent of a number of Ministers and Prime Minister himself. However they did not get the consents. Consequently the House of Reporesentatives was dissolved by Prime Minister Phraya Manopakorn Nitithada.

On June 20, 1933 Phraya Phahon Phon Phayuhasena seized the government power, and the plan to establish the central bank was again revived. The government's

ministry of finance consulted on this matter with James Bexter, who was then the adviser to the government. However, due to Siam's lack of banking experts, lack of capital, and lack of commercial banking system, James Bexter felt that it was too soon to establish a central bank. Resulting in again the plan being shoved back.

On 1935 the Government brought out the project to establish a central bank again. The Ministry of Finance being charged by the Cabinet was responsible to propose a bill on the Establishment of the National Bank in 1935. Luang Voranitipricha drafted the bill, which proposed that the Siam Commercial Bank Ltd should be incorporate as the national bank. The bill contain only mere eight articles, which was extremely lacking in details by the Comptroller-General. Therefore the bill was not publicized at the time.

Lieutenant General Luang Pibulsonggram was appointed on December 16, 1938. He then later appointed Pridi Banomyong as the Minister of Finance. As a Minister of Finance, Pridi Banomyong once again brought back the establishment of Central Bank. His first act was to appoint Prince Vivat as the Director General of the Customs Department, who was also named as the advisor to the Ministry of Finance. Pridi Banomyong then was able to explain and convince the Advisors the intentions of the government and why it is important that a central bank should be established. With the great cooperation from the advisors whom assist in drafting up the bill, the act was successfully drafted. This marked the beginning of the central banking of Siam.

Prince Viwat, the advisor to the Ministry of Finance, was charged by Pridi Banomyong, the Finance Minister, to finalise the bill drafted by the foreign advisors. The bill was then proposed to the Prime Minister at the time, and the cabinets named the bill as "Act on the Establishment of the Thai National Banking Bureau". The bill was passed and was publicized at the Royal Gazette on October 26, 1935. This establishment would lay the foundation for central banking and manage government's debts.

Later on May 13, 1940, Thai National Banking Bureau first started its operations, operation starting date where its official opening ceremony was on the National Day of Siam at the time June 24, 1940. On December 8, 1942, the Asia-Pacific side of the World War II erupted, and the Japanese troops landed on the beach of Thailand, which has only been a year since the National Banking Bureau operated. After the Japanese Invasion, they demanded that the central bank has to be comprise of Japanese

advisors and department heads. This demand was impossible to be followed through, the Thai government then would have to avoid this as soon as possible. Prince Viwat was appointed to draft a bill, changing the status of Thai National Banking Bureau to a central bank. On the Constitution Day which was December 10, 1942 the Bank of Thailand Act was announced. On December 11, 1942, the day following the ceremony, the Bank of Thailand started their operation on Siphraya Road, with the first Governor position given to Prince Viwat.

Later on March 3, 1945, the Bank of Thailand was moved to be operated on Bangkhunprom Palace, which is where it is presently operating. From then until today, the head office building had undergo several changes. In 2007 the headquarters was moved to the new building placed between Bangkhunpom and Devavesm Palaces.

#### BOT Roles (Financial Institutions)

- 1) Objective of Subversion
- 2) Financial Institution Regulation and Supervision Policy

The BOT regulates financial firms founded in accordance with the laws listed below:

- The Financial Institutions Businesses Act of B.E. 2551, which governs commercial banks, finance companies, and credit financiers, and
  - Other laws, for example Declaration No. 58 of the Revolutionary Council on the supervision of financial businesses with a broad impact on people (i.e. Credit card business and personal loans etc.)
- Financial Institutions Policy Group and Supervision Group are responsible for supervising Financial Institution

Rivers and Middleton (2009), commercial banks in Thailand are increasingly providing financial to neighboring Mekong nations, including hydropower projects in Laos. Bangkok Bank, Bank of Ayudhya, Kasikorn Bank, Krung Thai Bank, Siam City Bank, Siam Commercial Bank, Thai Military Bank, and Thanachart Bank are among Thai banks that have lent to hydropower developers in Laos. To date, the dams they have funded, that is Nam Theun 2, Nam Ngum 2, and the Theun-Hinboun Expansion Project, have all failed to adequately address social and environmental costs. In Laos, where the number of rural population is dependent on the natural resources provided by rivers, the



environment, communities, project developers, financiers, and the Lao government are all at risk from these and other proposed dams. On paper, all of the major Thai commercial banks listed above have some form of Corporate Governance and Corporate Social Responsibility (CSR). The obligations vary by bank, but they all include fair treatment of stakeholders such as customers, investors, business partners, and the wider society and environment, compliance with applicable laws, and information disclosure, as well as environmental conservation and community support. Despite the admirable pledges, fundamental changes in the bank's core business practices have not occurred, and thus these policies have yet to be meaningfully implemented. Many international banks have adopted some form of policy on environmentally sensitive sectors, sustainability issues, and transparency and accountability as a general trend in the global banking sector, though the overall quality of these policies remains fairly poor. The Equator Principles are a world standard that has been adopted by 67 financial institutions around the world. An examination of Thai banks' policy performance in comparison to 45 influential international banks reveals that Thai banks lag far behind these international banks. However, as China's notable progress toward sustainable banking practices demonstrates, Thai banks could, with the right commitment, achieve – if not reach – the international banks' existing standards. Three banks in Thailand lending to hydropower projects in Laos have international strategic investors: GE Money owns 33% of the Bank of Ayudhya, ING Bank owns 26% of the Thai Military Bank, and the Bank of Nova Scotia owns 50% of Thanachart Bank. The strategic investors have agreed to adhere to a variety of world standards that Thai banks have yet to adopt. As a result, these strategic investors must affirm a substantial responsibility to improve the social and environmental performance of their Thai bank partners. Many more international banks with existing international standards commitments are minority shareholders in Thai banks and could also play a positive role. Commercial banks play an important role in allocating resources from savers to investors across economic sectors. Thailand's commercial banks could make a significant contribution to a prosperous, sustainable, and peaceful Thailand and Mekong Region for current and future generations by adopting more sustainable banking policies and practices. This would have the additional advantage of lowering their lending risk and increasing their profits from lending to emerging profitable "green"

businesses (The Role of Thailand's Commercial Banks in Financing Dams in Laos and the Case for Sustainable Banking).

Uedai(1994) discussed the development of financial businesses and the emergence of financial entrepreneurs in the provinces. Several financial entrepreneurs in the provinces, including one in Nakhon Ratchasima, appear to be ready to enter the commercial banking sector, according to one case. The study argued that these local businessmen appeared to have an advantage over their Bangkok counterparts. These benefits stem primarily from their personal knowledge of local business circles, which they obtained through business and social activities in local Chinese societies. It was a rational decision for Chinese entrepreneurs having difficulties to grasp business opportunities and unleash their entrepreneurial skills to manage financial businesses in the provinces, formally or informally.

Nevertheless, the monetary authorities' strong opposition prevented these entrepreneurs from establishing local banks. The commercial banking policy was deemed appropriate in order to boost confidence in the sector and mobilize capital in Thailand as a whole. Conversely, the government's strict and cautious approach to commercial banks limited competition and eliminated the possibility of establishing local banks.

As a result, branch offices of Bangkok-based banks did not provide enough credit to meet demand in the provinces, as they were uninterested in lending capital to small-scale local businessmen due to the high cost of gathering information in the provinces. This, without a doubt, dampened business activity in the provinces. On the other hand, allowing the establishment of local banks would have aided in the advancement of economic development in the provinces and the decentralization of the Thai economy.

Another cause underlying Thailand's Bangkok-concentrated financial system was political patronage, which Bangkok-based banks sought from the government during the 1950s and 1960s. These banks appeared to have won the approval of their political backers to effectively prohibit the establishment of new banks and to limit competition in the banking sector. Several Bangkok-based banks have reaped enough benefits to allow them to expand their operations to such an extent that small-scale local banks would find

it extremely difficult to compete with them today. The study came to the conclusion that the government's control over the establishment of new banks has distorted resource allocation and reduced the efficiency of economic activity in the provinces.

According to Leightner (2007), Asia's growth trend from 1985 to 1996 reached the rank "Asian Miracle" and was lauded by the IMF and world leaders. Economists and political scientists scoured successful Asian countries for clues on how to replicate this miracle elsewhere. In the small country of Thailand, this miracle turned into a disaster in 1997. By 1998, South Korea and Indonesia, both Asian miracle economies, had joined Thailand in its state of disarray. Economic collapse can occur almost anywhere in our globally connected world due to a rapid withdrawal of foreign investors. All that is required is enough bad news to send foreign investors into frenzy. Countries can reduce their risk of a financial crisis by: (1) exporting more than they import; (2) not using foreign capital inflows that can be quickly stopped to fund projects that require long time periods to be profitable; and (3) maintaining flexible exchange rates or, at the very least, frequently adjusting their fixed exchange rates. (4) Retaining government budgets balanced; and (5) Keeping large amounts of stable foreign currency. These "risk-reduction" objectives are difficult to achieve and maintain. Even if these objectives are met, there is no guarantee that a financial crisis will not occur. All it requires is enough bad news (of any kind) for someone like George to spark a financial crisis.

Nakonhab (2007) made an attempt to assess the vulnerability of Thailand's banking system. Our investigation is divided into three parts. First, the study constructs a few basic financial ratios using publicly available data. The study concludes from a conventional analysis that the industry is in reasonably good health and stability. Because the corporate loan amount is the financial services sector's largest exposure, it emphasizes the second part of our analysis on the structural risk profiles of these corporate loans. The researcher documents default rates and default correlation matrices at both the aggregate (country portfolio) and disaggregate levels with respect to size and industry using the Bank of Thailand's system-wide database. The two most basic, but crucial, credit risk drivers in a corporate loan portfolio. Finally, the study conducts an analysis of loan pricing and estimates economic profits earned by various banks over the last four years.

In the late 1990s, the International Monetary Fund (IMF) launched an ambitious data collection effort—the Financial Soundness Indicators (FSIs)—to monitor the soundness of the system-wide financial sector from a macro prudential standpoint. The FSIs included capital adequacy, asset quality, profitability, liquidity, and market risk sensitivity indicators. The 2006 Financial Soundness Indicators Compilation Guide (2006 Guide) provided guidance on the source supervisory statistics, consolidation options, and compilation and dissemination advice, all with the goal of cross-country comparability in mind. The initiative was successful in convincing policymakers of the importance of FSIs for tracking financial soundness trends that could inform financial stability analysis and policies, resulting in an increase in the number of economies compiling and reporting these indicators. However, the international financial crisis that began in 2007–2008 highlighted to the international community the need to improve this and other financial sector data collections, as well as bridge necessary data gaps, along with complementing them with tail and macroeconomic measures, to strengthen macro-financial surveillance. The response included IMF adjustments to the original list of FSIs, as well as the IMF/Financial Stability Board G-20 Data Gaps Initiative (DGI), which was endorsed by G-20 finance ministers and Central Bank governors, as well as the IMF's International Monetary and Financial Committee. These initiatives, among other things, have resulted in a revised list of FSIs that includes new international standards, operationalizing the measurement of concentration and tail risk in the financial system, and expanding FSI coverage. These investigations have been carried out in consultation and close cooperation with a diverse group of national and international experts, international standard-setting bodies, the IMF's relevant departments and all FSI-reporting countries, as well as concerned international agencies. This 2019 Financial Soundness Indicators Compilation Guide (Guide) contains new indicators to help expand the financial sector's coverage to include other financial institutions, money market funds, insurance corporations, pension funds, non-financial corporate entities, and households. In total, the Guide suggests compiling 50 FSIs, 13 of which are innovative. New capital, liquidity, and asset quality metrics, as well as concentration and distribution measures, will improve the forward-looking aspect of FSIs and contribute to a greater policy focus on financial system stability.

## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

The research methodology is discussed in this chapter, as follows: First, a literature review instructed the conceptual framework. Second, the population and samples were included in the research design. Third, data collection includes dependent variables measurement. Fourth, it is a section discussing on hypotheses and model testing. Consequently, data analysis including descriptive statistics and multiple regression analysis was explained as well. The following figure is indicated the overall of the study process.

#### **3.2 Conceptual Framework**

As stated in Chapter 1, the objective of this study is 1) to measure the extent of voluntary disclosure provided in the annual reports of Thai banks over the period from 2016 to 2019, 2) to examine whether there has been any significant improvement in the levels of voluntary disclosure provided in the annual reports of Thai banks throughout the study period, 3) to investigate whether there is any significant association between bank fundamentals (government ownership, foreign ownership, and bank type) and CAMEL (capital adequacy reserve, management efficiency ratio, non-performing loans, return on equity and liquidity ratio) with the extent of total voluntary disclosure, extra voluntary disclosure and non-extra voluntary disclosure in the annual reports throughout the study period, 4) to investigate whether there is any significant association between bank fundamentals (government ownership, foreign ownership, and bank type), and CAMEL (capital adequacy reserve, management efficiency ratio, non-performing loans, return on equity and liquidity ratio) with the extent of strategic information, financial information and non-financial information in the annual reports over the period of the study, 5) to evaluate whether bank fundamentals (government ownership, foreign ownership, and bank type), CAMEL (capital adequacy reserve, management efficiency ratio, non-performing loans, return on equity and liquidity ratio), and voluntary disclosure information (total voluntary disclosures, extra voluntary disclosures and non-extra

voluntary disclosures) significantly affecting the stock returns. The first objective is to identify voluntary disclosures of the banks. The rest objectives are divided into two phases. First, the study intended to examine which banking fundamentals and CAMEL affected on voluntary disclosures introduced by this study (Phase I-1) and which banking fundamentals and CAMEL affected on voluntary disclosures introduced Meek, Roberts and Gray (1995) (Phase I-2). Secondly, the study intended to observe the informative value of voluntary disclosures over stock returns (Phase II). The following figures are shown the conceptual framework of this study.

### Conceptual Framework Phase I - 1

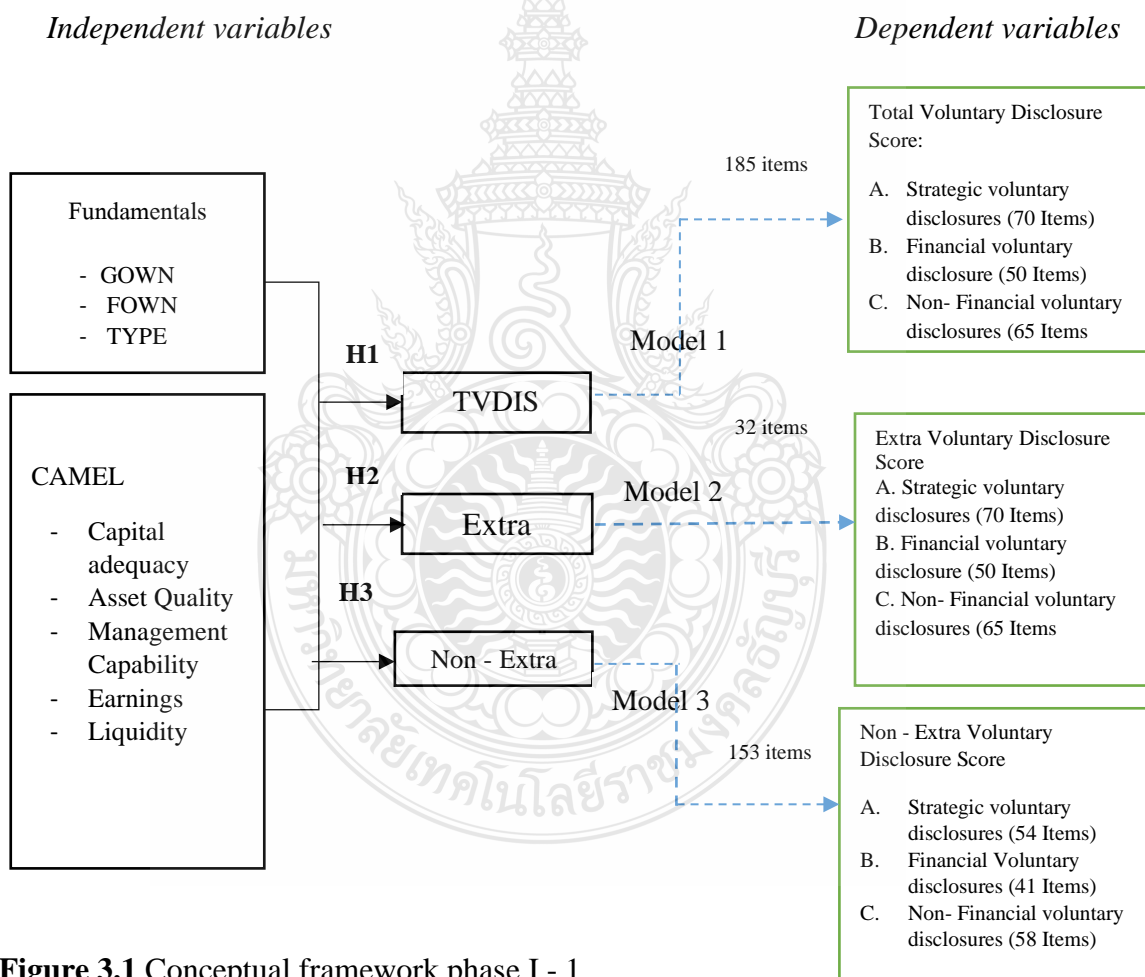
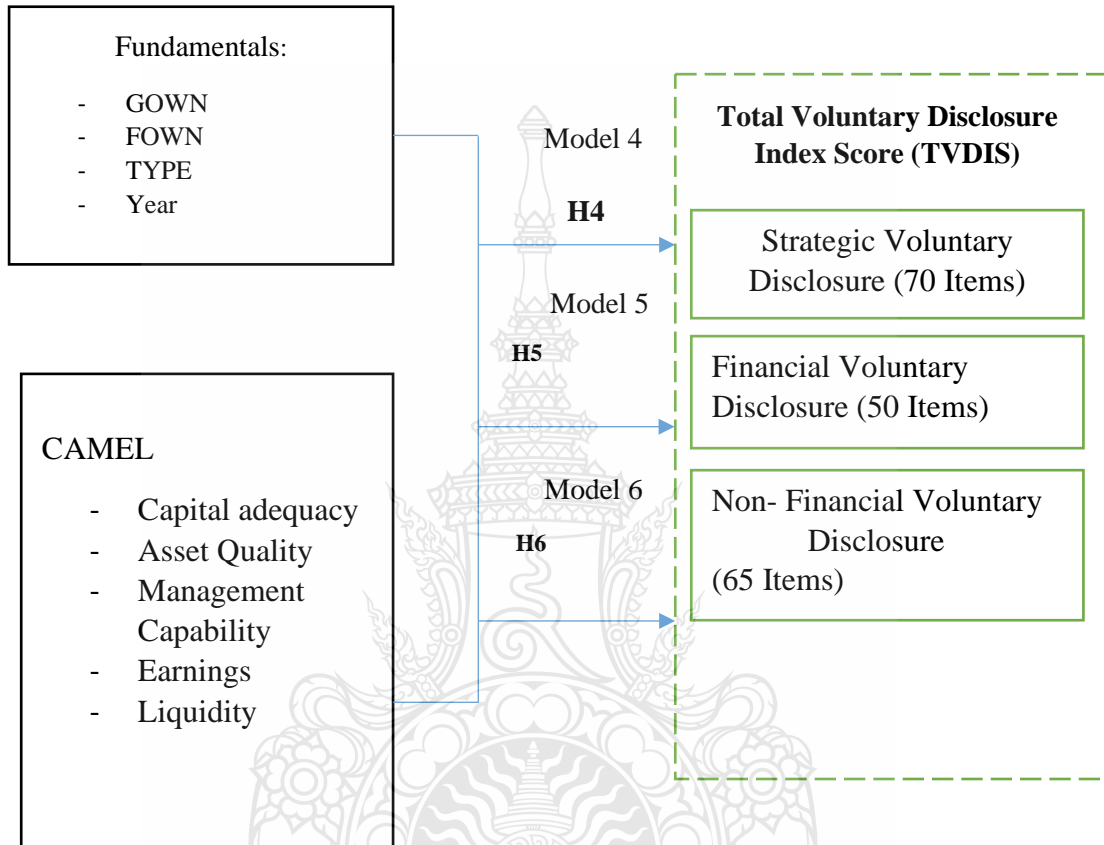


Figure 3.1 Conceptual framework phase I - 1

## Conceptual Framework Phase I - 2

*Independent variables*

*Dependent variables*

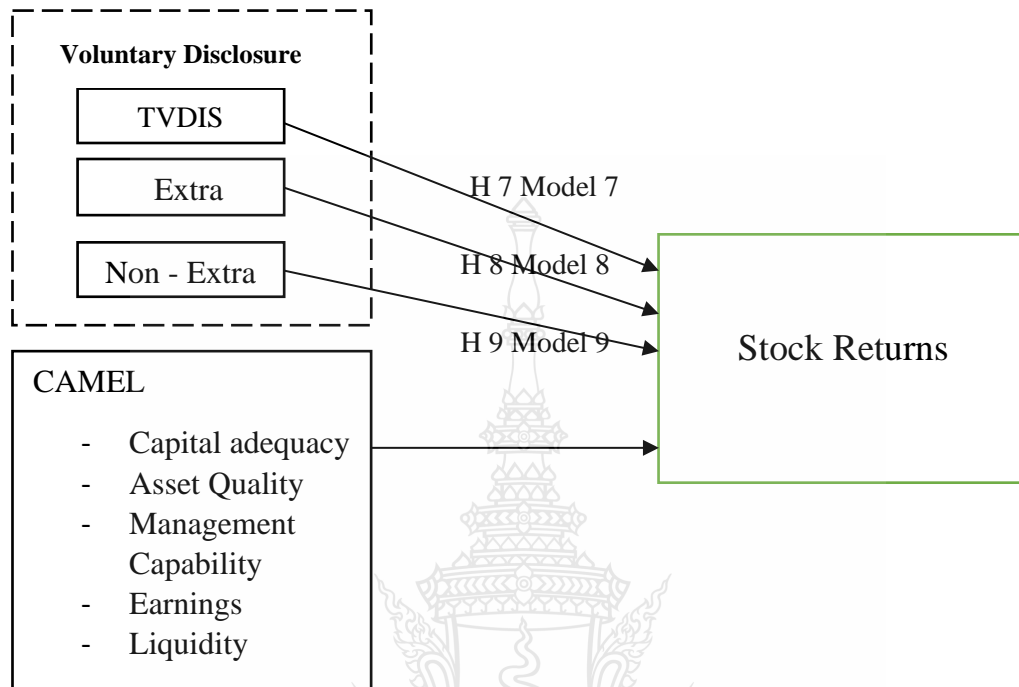


**Figure 3.2** Conceptual framework phase I - 2

## Conceptual Framework Phase II

*Independent variables*

*Dependent variables*



**Figure 3.3** Conceptual framework phase II

### 3.3 Population and Samples

This research was considered as an empirical study using cross-sectional observed from population at one specific point of time. Data collection based on all banks located in Thailand including commercial and non-commercial banks. All commercial banks are required to be listed in the Stock Exchange of Thailand totally 20 banks: listed banks, government policy banks and foreign banks.

**Listed banks** included as follows:

1. Bank of Ayudhya (BAY)
2. Bangkok Bank (BBL)
3. CIMB Thai Bank (CIMBT)
4. Kasikorn Bank (KBANK)
5. Kiatnakin Bank (KKP)
6. Krung Thai Bank (KTB)



7. LH Financial Group Bank (LHBANK)
8. Siam Commercial Bank (SCB)
9. Thanachart Capital Bank (TCAP)
10. Tisco Financial Group Bank (TISCO) and
11. TMB Bank (TMB),

**Government policy banks** included as follows:

1. Bank for Agriculture and Agricultural Cooperatives (BAAC)
2. Export-Import Bank of Thailand (EXIM)
3. Government Housing Bank (GHB)
4. Government Saving Bank (GSB)
5. Islamic Bank of Thailand (IBANK) and
6. Small and Medium Enterprise Development Bank of Thailand (SME)

**Foreign banks** included as follows:

1. Industrial and Commercial Bank of China (ICBC)
2. Standard Chartered Bank (Thai) (SC) and
3. United Overseas Bank (UOB).

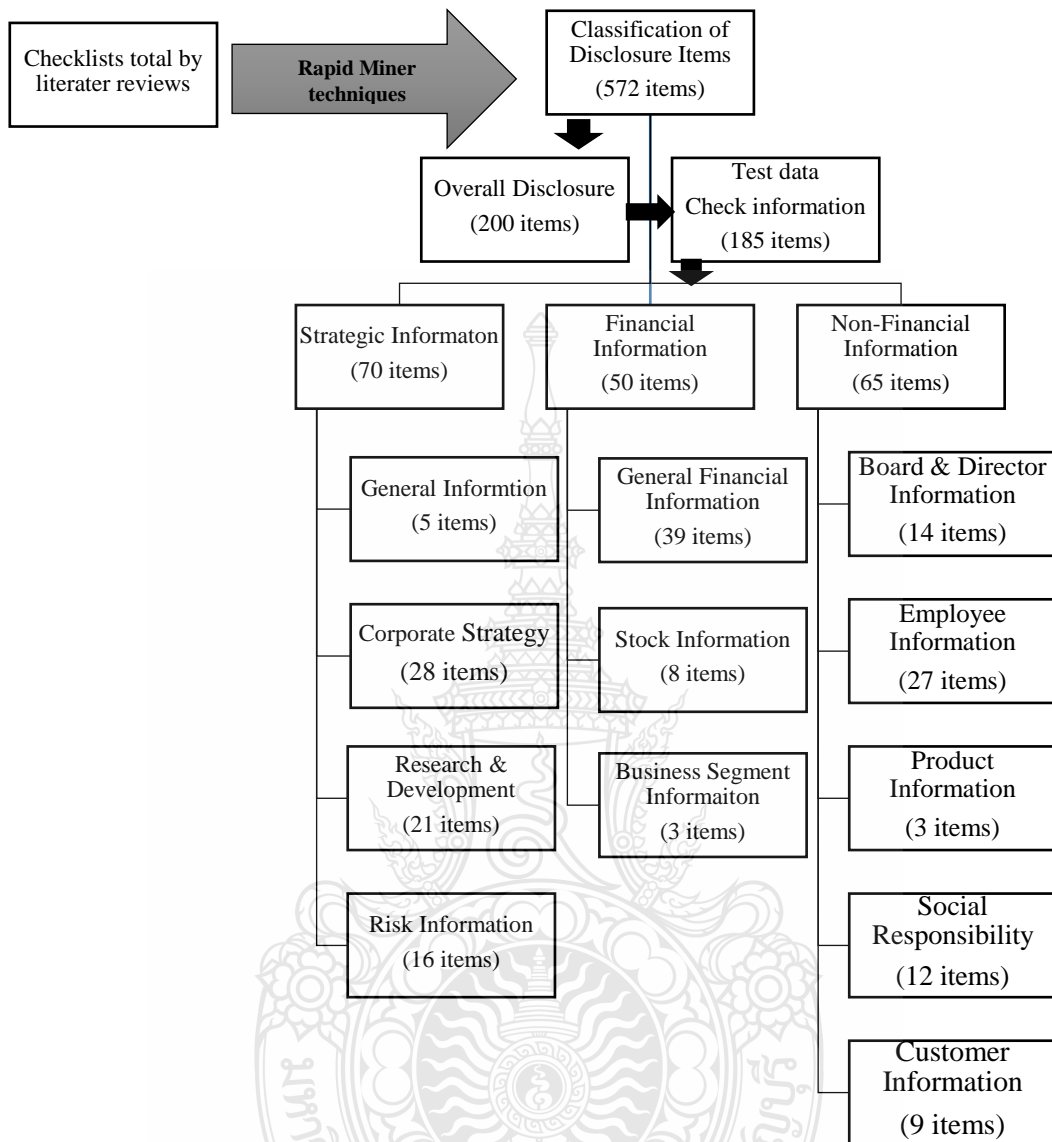
However, some banks located in Thailand were not included in the dataset because they are not authorized as a full branch by Bank of Thailand and their voluntary disclosures were limited. They are included the followings

1. Thai Credit Retail Bank Public Company Limited
2. ANZ (Thai) Public Company Limited
3. Bank of China (Thai) Public Company Limited
4. Mega International Commercial Bank Public Company Limited
5. Sumitomo Mitsui Trust Bank (Thai) Public Company Limited
6. Bank of America National Association
7. BNP Paribas
8. Deutsche Bank AG
9. Indian Oversea Bank
10. JPMorgan Chase Bank National Association
11. Mizuho Bank Limited, Bangkok Branch
12. Oversea Chinese Banking Corporation Limited

13. RHB Bank Berhad
14. Sumitomo Mitsui Banking Corporation
15. Hong Kong and Shanghai Banking Corporation Limited

### **3.4 Data Collections**

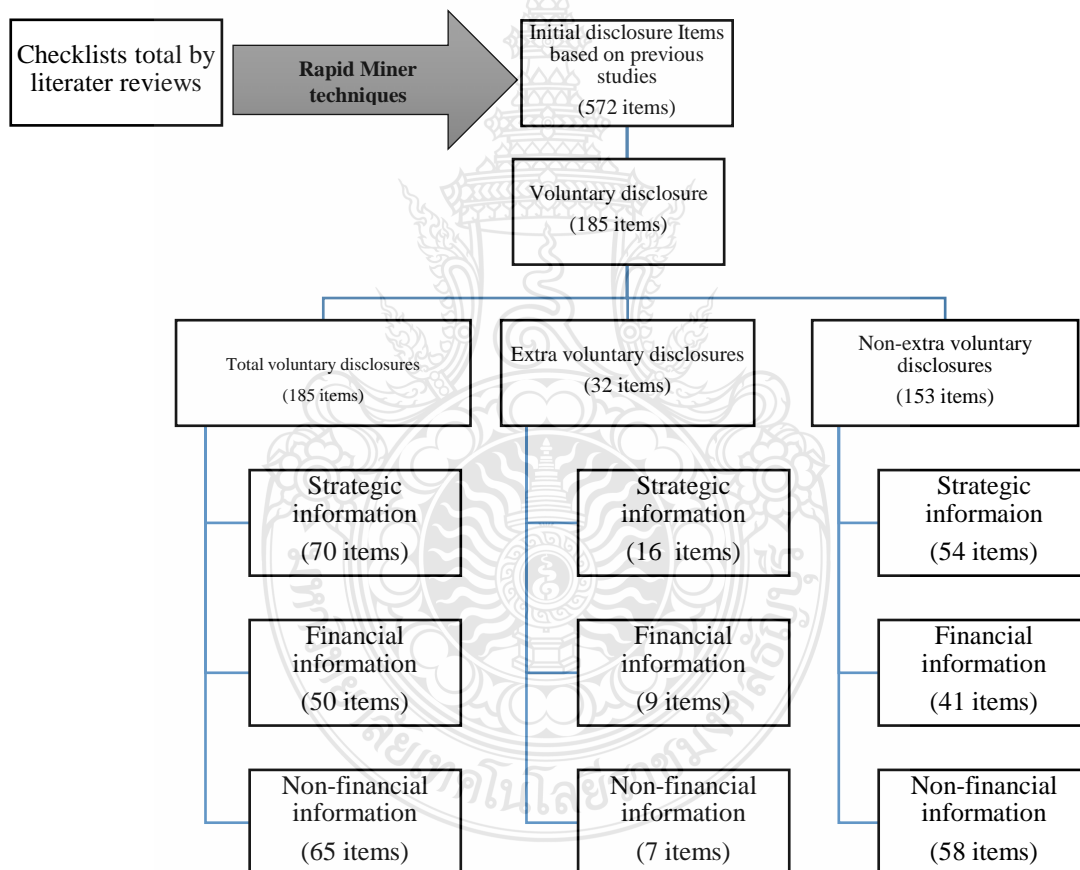
Inclusive data on voluntary disclosure, banking fundamentals and CAMEL information were extracted from the annual report during 2016 - 2019 from SET Market Analysis and Reporting Tool (SETSMART) and other sources which were the most recent year for which data were publicly available. For voluntary disclosures, initially, the study replicated work of Meek, Roberts and Gray (1995) in order to get the overall theme of voluntary disclosures. Later, the study developed voluntary index using Thai economy and business practices and classified the voluntary disclosures recommended by Meek, Roberts and Gray (1995) as strategic, financial and non-financial voluntary disclosures as interesting variables, while stock returns were used as the dependent variable. The checklists were gathered from similar subsequent studies introduced by researchers. Initially, the checklists combined 572 criteria. Then, using the RapidMiner techniques together with the authors' previous experience in Thai banking industry, the 185 checklists were concluded with the three classifications introduced by Meek, et, al (1995) including strategic, financial and non-financial dimensions. The checklist process is shown in Figure 3.5.



**Figure 3.4** Voluntary disclosures of this study

This present study developed the checklists based on Meek et al. (1995) and gathered voluntary disclosures from similar subsequent studies. Initially, the checklists combined 572 criteria. Then, using the RapidMiner techniques together with the authors' previous experience in the Thai banking industry, the 185 unweighted checklists were concluded and classified the voluntary disclosure checklists into three layers: 1) the total voluntary disclosures, 2) the extra voluntary disclosures, top 25% of total voluntary disclosures and 3) non-extra voluntary disclosures, less than top 25% of total voluntary

disclosures. The extra voluntary disclosures were classified as the top 25% of total voluntary disclosures as recommended by the study by Borghei, Leung, Philomena & Guthrie (2018)). Within each layer, the three classifications introduced by Meek, et al. (1995) including strategic, financial and non-financial dimensions were prepared. The flowchart of work procedures to identify the voluntary disclosures of this study is shown in Figure 1. Appendix shows the extra voluntary disclosures and non-extra voluntary disclosures of this study. It is notices that the total voluntary disclosures are the combination of those two lists which are not shown in the checklist process is shown in Figure 3.6



**Figure 3.5** Development of the voluntary disclosures in this study

For Phase I, the dataset included 20 banks during 2016 – 2019, 80 observations, while Phase II, the dataset included 11 banks during 2016 – 2019. This is because these banks are listed banks and provide stock return information. The control variables included well-known variables: banking fundamentals including government shareholders, foreign shareholders, types of banks, year of disclosure and CAMEL.

### 3.5 Hypotheses and Model Testing

#### Model 1

H1: There is a significant association between banking fundamentals and CAMEL analysis to extent of total voluntary disclosure score in the annual report.

Model test is the relationship association between banking fundamentals, CAMEL and Total voluntary disclosure Score (TVDIS). Based on the objective of this study, the regression model is shown as follows:

$$TVDIS = \alpha + \beta_1 (GOVER) + \beta_2 (FOWN) + \beta_3 (Type) + \beta_4 (Year) + \beta_5 (CAR) + \beta_6 (NPL) + \beta_7 (CML) + \beta_8 (MER) + \beta_{19} (ROE) + \beta_{10} (LQ1) + \beta_{11} (LQ2) + \varepsilon$$

#### Model 2

H2: There is a significant association between banking fundamentals and CAMEL analysis to extent of extra voluntary disclosure score in the annual report.

Model test is the relationship association between banking fundamentals, CAMEL and Extra voluntary disclosure Score (Extra). Based on the objective of this study, the regression model is shown as follows:

$$EXTRA = \alpha + \beta_1 (GOVER) + \beta_2 (FOWN) + \beta_3 (Type) + \beta_4 (Year) + \beta_5 (CAR) + \beta_6 (NPL) + \beta_7 (CML) + \beta_8 (MER) + \beta_{19} (ROE) + \beta_{10} (LQ1) + \beta_{11} (LQ2) + \varepsilon$$

#### Model 3

H3: There is a significant association between banking fundamentals and CAMEL analysis to extent of Non Extra voluntary disclosure score in the annual report.

Model test is the relationship association between banking fundamentals, CAMEL and Non Extra voluntary disclosure Score (NonEtra). Based on the objective of this study, the regression model is shown as follows

$$Non-Extra = \alpha + \beta_1 (GOVER) + \beta_2 (FOWN) + \beta_3 (Type) + \beta_4 (Year) + \beta_5 (CAR) + \beta_6 (NPL) + \beta_7 (CML) + \beta_8 (MER) + \beta_{19} (ROE) + \beta_{10} (LQ1) + \beta_{11} (LQ2) + \varepsilon$$

#### **Model 4**

H4: There is a significant association between banking fundamentals and CAMEL analysis to extent of strategic information disclosure score in the annual reports.

Model test is the relationship association between banking fundamentals, CAMEL and Strategic Information Voluntary disclosure (A). Based on the objective of this study, the regression model is shown as follows

$$A = \alpha + \beta_1 (\text{GOVER}) + \beta_2 (\text{FOWN}) + \beta_3 (\text{Type}) + \beta_4 (\text{Year}) + \beta_5 (\text{CAR}) + \beta_6 (\text{NPL}) + \beta_7 (\text{CML}) + \beta_8 (\text{MER}) + \beta_{19} (\text{ROE}) + \beta_{10} (\text{LQ1}) + \beta_{11} (\text{LQ2}) + \varepsilon$$

#### **Model 5**

H5: There is a significant association between banking fundamentals and CAMEL analysis to extent of financial information disclosure score in the annual report.

Model test is relationship association between banking fundamentals, CAMEL and Financial Information Voluntary disclosure (B). Based on the objective of this study, the regression model is shown as follows

$$B = \alpha + \beta_1 (\text{GOVER}) + \beta_2 (\text{FOWN}) + \beta_3 (\text{Type}) + \beta_4 (\text{Year}) + \beta_5 (\text{CAR}) + \beta_6 (\text{NPL}) + \beta_7 (\text{CML}) + \beta_8 (\text{MER}) + \beta_{19} (\text{ROE}) + \beta_{10} (\text{LQ1}) + \beta_{11} (\text{LQ2}) + \varepsilon$$

#### **Model 6**

H6: There is a significant association between banking fundamentals and CAMEL analysis to extent of non-financial information disclosure score in the annual report.

Model test is the relationship association between banking fundamentals, CAMEL and Non-Financial Information Voluntary disclosure (C). Based on the objective of this study, the regression model is shown as follows

$$C = \alpha + \beta_1 (\text{GOVER}) + \beta_2 (\text{FOWN}) + \beta_3 (\text{Type}) + \beta_4 (\text{Year}) + \beta_5 (\text{CAR}) + \beta_6 (\text{NPL}) + \beta_7 (\text{CML}) + \beta_8 (\text{MER}) + \beta_{19} (\text{ROE}) + \beta_{10} (\text{LQ1}) + \beta_{11} (\text{LQ2}) + \varepsilon$$

#### **Model 7**

H7: There is a significant association between the total voluntary disclosure index score and CAMEL analysis to stock returns.

Model test is the relationship association between Total Voluntary Disclosure Score (TVDIS) and CAMEL and Stock Return. Based on the objective of this study, the regression model is shown as follows

$$SR = \alpha + \beta_1 (TVDIS) + \beta_2 (CAR) + \beta_3 (NPL) + \beta_4 (LQ3) + \varepsilon$$

#### **Model 8**

H8: There is a significant association between the Extra voluntary disclosure index score and CAMEL analysis to stock returns.

Model test is the relationship association between Extra Voluntary Disclosure Score (Extra) and CAMEL and Stock Return. Based on the objective of this study, the regression model is shown as follows

$$SR = \alpha + \beta_1 (EXTRA) + \beta_2 (CAR) + \beta_3 (NPL) + \beta_4 (LQ3) + \varepsilon$$

#### **Model 9**

H9: There is a significant association between the Non Extra voluntary disclosure index score and CAMEL analysis to stock returns.

Model test is the relationship association between Non Extra Voluntary Disclosure Score (Extra), banking fundamentals, CAMEL and Stock Return. Based on the objective of this study, the regression model is shown as follows

$$SR = \alpha + \beta_1 (\text{Non Extra}) + \beta_2 (CAR) + \beta_3 (NPL) + \beta_4 (LQ3) + \varepsilon$$

### **3.6 Data Analysis**

#### **3.6.1 Descriptive Statistics**

Descriptive statistics accurately measure the main characteristics of a set of data. Descriptive statistics differ from inferential statistics, or inductive statistics, which purpose to sum up a data set without using a probabilistic formulation, whereas the inductive statistics use the data to define the population that the data are required to prove. Despite the inferential statistics are applied to show the major findings of the data analysis, the descriptive statistics are however generally described. Specific descriptive statistics usually involve percentage, mean, min, max, and standard deviation.

Descriptive statistics analyze the primary characteristics of a set of data. It differ from the inferential statistics, or inductive statistics that purpose to sum up the set of data without using a probabilistic formulation, instead of using the data to define the

population. While the key findings of the data analysis are drawn using the inferential statistics, the descriptive statistics are introduced as well. Here are some examples of the descriptive statistics:

1. A percentage is a quantity or proportion demonstrated as a part of 100.
2. The mean or average is likely the most common used method for explaining the central tendency. To find the average, simply add all of the values and divide it by the values numbers
3. The minimum refers to the lowest scores of the set of values.
4. The maximum refers to the highest scores of the set of values.
5. Because the exceptional cases are able to significantly overstate the range, standard deviation is a more accurate and reliable assessment of distribution. The standard deviation (SD) in statistics and probability theory measures the amount of variability or distribution from the average. Low standard deviation indicates that the data data points are very close to the mean (known as expected value); a high standard deviation indicates that the data points are expand over a wide range of values. The standard deviation of random variance is mathematically simpler than the average absolute deviation, but it is less reliable in practice. In addition, the standard deviation has the advantage of being explained in the same units as the data, as opposed to the variance. However, it should be remarked that for measurement methods, the standard deviation would be demonstrated in percentage. The standard deviation is widely used to determine reliability in addition to expressing population variability.

### **3.6.2 Inferential Statistics**

Inferential statistics make claims about the population based on the data taken from the population through some sampling. Statistics inference includes selecting a process model that helps generate the data and inferring propositions from the given assumption regarding the population, which the researcher wishes to make inferences. There are various types of inferential statistics that are examined. Additionally, the study also used multiple regressions for data analysis since the aimed of this study was to measure the degree of the effect more ration variables.

The initial analysis found the independent variables were potentially against multiple regression assumptions. Therefore, the study employed M Estimations to



transform the data. Yulianna, Hasih, Sulistijowti & Twenty (2014) stated that M Estimations helped and extension of the maximum likelihood method; it was a robust estimation, and this method was significantly affected by small changes in the data. Also, natural log was used to alter the data after using M Estimation and natural log.

### **Multiple Regressions**

After testing the relationship between variables and finding no multicollinearity problem, then the researcher tested the data appropriateness in the analysis as follows;

1. Checking the data outliers is examined if there is a linear correlation between dependent and independent variables. The method normally used in data checking is the Scatter Plots which is graph that shows the relationship between two variables. The researcher later on checked on the dependent variables and deviation values as the Normality viable, setting for the dependent variable and the deviation must come from the Normality variable suing, skewness, and Kurtosis.

2. The variation value of deviation is Homoscedasticity. In order to test whether it is Homoscedasticity, the chart of Scatter Plot distribution is considered, an if the deviation value changes near to zero or change in the narrow zone, this means the variation value of deviation from the prediction is Homoscedasticity. From the consideration of Scatter Plot distributions, it was found that most of the deviation values spread above and under level of 0. From the narrow distribution, no matter how Y changes in which direction, it can be concluded that the variation values of deviation are Homoscedasticity.

From the liner regress assumption, the assumption may be violated on most accounting information due to the indigeneity where the error is related to the independent variables (testing with the robustness determination) (Becketti, 2013; Mitchell, 2012). Multicollinearity in the multiple regression solution is detected by examining the standard error of beta coefficients like the multicollinearity among the independent variables, and dummy-coded independent variables zero cell sine every subject has the similar variable value sand completely separated into two groups of dependent event variables which can be perfectly differentiated from the scores on one of the independent variables. The analysis by Hosmer and Lemeshow (2004) indicated the numerical problems that shod be left without interpretation. Variables were tested for linearity and constant variance

and dependence of the error term (residual plots), normality (histograms, skewness, and kurtosis), and multicollinearity (tolerance and VIF) to ensure that the assumptions of multiples regress were met. All assumption test were adequate based on standard rules of thumb (visual examination of residual plots and histograms, skewness -3 to 3, kurtosis -1 to 1, and tolerance  $< 1$ , VIF  $< 10$ ).

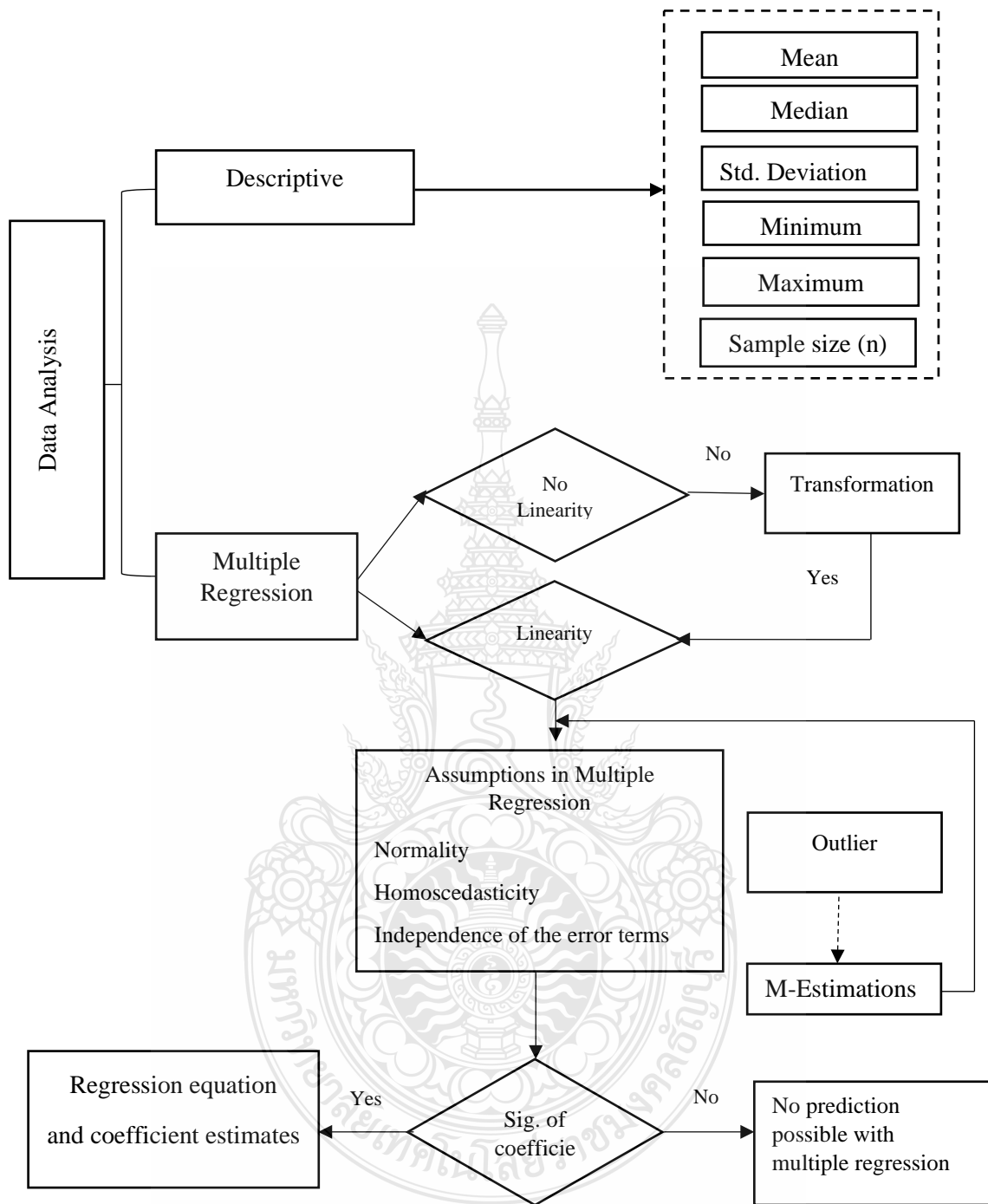
This method is normally used in cast is needed to know whether each variable of the study can predict criteria variables, more or less which can be benefited for other statistical method such as part analysis. Analysis results from enter regression included;

1. Descriptive statistics, the result of basis statistical values of the criteria variables and the predict variables like Forward Selection.

2. Correlation, the result of the simple coefficient correlation analysis between the criteria variable and predict variable and among the predict variable just like Forward Selection and

3. Model summary, the result in this part presents about the coefficient Multiple Correlation, R value in on form by the analysis process is to bring the predict variable s into all equations.

The result form the analysis in this part tested on the effect of the criteria variables and the set of predict variable and get on form of analysis. It can be explained that the level of statistical significance is 0.05% referring to multiple regression of the population which is not equal to 0. That means the criterial variables have the significance effect, or it can be said that the criteria dependent variables can be explained by the set of variable with the statistical significance level. Figure 3 below presents the flow of data testing required by multiple regression assumptions.



**Figure 3.6** Flow of data testing required by multiple regression assumptions

This present study used M estimations recommended by Yuliana, Hasih, Sulistijowati & Twenty (2014). This is because after testing multiple regression assumption, the analysis found concerns about outlier, then the analysis adopted M estimation to transform the dataset. Yuliana, Hasih, Sulistijowati & Twenty (2014) stated that their M estimation helped an extension of the maximum likelihood method and is a robust estimation and this method was not much affected by small changes in the data.

### 3.7 Summary of Variables

The definitions and operationalization of variables are shown in Table 3.1.

**Table 3.1** Summary of definitions and operationalization of variables

Variables	Acronym	Measurement
<b><i>Dependent variables</i></b>		
Stock returns	SR	Dividend yield plus capital gain yield, whereas capital gain yield = $(\text{closed price}_t - \text{closed price}_{t-1}) / \text{closed price}_{t-1}$
<b><i>Dependent and independent variables</i></b>		
Strategic voluntary disclosure	A	Initially replicated the work of Meek, Roberts & Gray (1995) and developed by this study using Thai economy and business practice criteria
Financial voluntary disclosure	B	
Non-financial voluntary disclosure	C	
Total voluntary disclosures	TVDIS	Total voluntary disclosure index score (%)
Extra voluntary disclosures	ExtraVol	Voluntary disclosure score of top 25% of total voluntary disclosure
Non-extra voluntary disclosures	NonExtra	Voluntary disclosure score of less than top 25% of total voluntary disclosure
<b><i>Independent variables</i></b>		
<b><i>Banking Fundamentals</i></b>		
Government shareholders	GOVERN	Percentage of common shares held by government
Foreign shareholders	FOWN	Percentage of foreign common shareholding
Types of banks	TYPE	1 = listed bank; otherwise 0
Year	D	D1 = 2016 D2 = 2017 D3 = 2018

**Table 3.1** Summary of definitions and operationalization of variables (Cont.)

<b>Variables</b>	<b>Acronym</b>	<b>Measurement</b>
<b>CAMEL</b>		
<b>Capital adequacy</b>		
Capital adequacy reserve	CAR	Capital reserve to total risk weighted assets
<b>Asset Quality</b>		
Non-performing Loan	NPL	Non-performing loans to total loans
<b>Management efficiency</b>		
Management efficiency ratio	MER	Net profit after tax to total number of staff
	CML	Cost per unit of money lent (Operating costs to total amount disbursed)
<b>Earnings</b>		
Return on equity	ROE	Net profit to total equity
<b>Liquidity</b>		
	LQ1	Loans to deposit ratio
	LQ2	Liquidity assets to total asset ratio
	LQ3	Liquidity assets to total deposit ratio

### 3.8 Conclusion

This chapter was to discuss the research methodology approaches, which was designed and developed. Initially, the conceptual framework was presented. The population and samples were also identified. The population used in this study comprised Thai local banks. The data collection on the voluntary disclosures and other variables were collected from publicly available data. Multiple regressions were used to test the statistical significance of the relationship of the dependent and independent variables.

## **CHAPTER 4**

### **RESEARCH RESULTS**

This chapter specifically presents the research findings which were clearly mentioned in Chapter 1. The objective of this study are restated here again:

Objective 1: To measure the extent of voluntary disclosure provided in the annual reports of Thai banks over the period from 2016 to 2019.

Objective 2: To examine whether there has been any significant improvement in the levels of voluntary disclosure provided in the annual reports of Thai banks throughout the study period.

Objective 3: To investigate whether there is any significant association between bank fundamentals (government ownership, foreign ownership, and bank type) and CAMEL (capital adequacy reserve, management efficiency ratio, non-performing loans, return on equity and liquidity ratio) with the extent of total voluntary disclosure, extra voluntary disclosure and non-extra voluntary disclosure in the annual reports throughout the study period. (Phase I).

Objective 4: To investigate whether there is any significant association between bank fundamentals (government ownership, foreign ownership, and bank type), and CAMEL (capital adequacy reserve, management efficiency ratio, non-performing loans, return on equity and liquidity ratio) with the extent of strategic information, financial information and non-financial information in the annual reports over the period of the study. (Phase I).

Objective 5: To evaluate whether CAMEL (capital adequacy reserve, management efficiency ratio, non-performing loans, return on equity and liquidity ratio), and voluntary disclosure information (total voluntary disclosures, extra voluntary disclosures and non-extra voluntary disclosures) significantly affecting the stock returns. (Phase II).

The remainder of the chapter has been divided into four main sections. The first section covers the results from descriptive statistics of the extent of voluntary disclosure and significant improvement in the levels of voluntary disclosure. Section 2 shows the

five assumption of multiple regression testing. Section 3 shows the multiple regression results. Finally, the final section is summary of the findings.

#### **4.1 Descriptive Statistics**

The descriptive statistics of this study presented in this section initially indicates the voluntary disclosures. Initially, the study replicated Meek et al. (1995) to get an impression from the study. Then, the study developed voluntary disclosure scores based on Meek et al. (1995) classification, including strategic voluntary disclosures, financial voluntary disclosures, and non-financial voluntary disclosures. Also, the study developed the voluntary disclosures classified as the total voluntary disclosures, the extra voluntary disclosures and non-extra voluntary disclosures to extend previous studies. Together the study of Meek et al. (1995) with the Thai economy and the business practice environment, the study successfully contributed self-constructed and un-weighted voluntary disclosure scores to literature. The descriptive statistics begin with the total voluntary disclosure scores of banks located in Thailand (Table 4.1), while the extra voluntary disclosures of the banks are shown in Table 4.2. The non-extra voluntary disclosure scores are presented in Table 4.3. Table 4.4, 4.5, 4.6 and 4.7 show the voluntary disclosures introduced by Meek et al. (1995): strategic voluntary disclosures, financial voluntary disclosures and non-financial voluntary disclosures, respectively. Table 4.8 shows the frequency distribution of voluntary disclosure scores among the banks located in Thailand. Table 4.9 shows the development of the extent of the total voluntary disclosures over the period of the study. Table 4.10 shows the summary of the voluntary disclosure by the information scores introduced by Meek et al. (1995). Table 4.11 presents the descriptive statistics of the variables of Phase I (the determinant of voluntary disclosures), while Table 4.12 indicates the descriptive statistics of independent variables of Phase II (the informative value of voluntary disclosures on stock returns).

Table 4.1 reveals that Bank of Ayudhya achieved the highest mean disclosure index score over four years at 90.14%, followed by Krung Thai Bank, also a listed commercial bank, at 84.05%. On the other hand, Commercial Bank of China (unlisted) achieved the lowest mean voluntary disclosure index score at 21.89%. Overall, the voluntary disclosure of the 20 banking institutions stood at 59.33% on average.

**Table 4.1** Total voluntary disclosure scores of the banks located in Thailand

Bank	Total Voluntary Disclosure Score (%)				
	2016	2017	2018	2019	Average
1. BAAC	76.22	76.22	76.22	76.22	76.22
2. BAY	85.41	89.73	92.43	92.97	<b>90.14</b>
3. BBL	54.59	67.57	68.11	68.11	64.59
4. CIMBT	52.43	52.43	52.43	52.43	52.43
5. EXIM	59.46	60.00	60.00	60.00	59.86
6. GHB	54.05	54.05	54.59	54.59	54.32
7. GSC	32.43	32.43	36.22	36.22	34.32
8. IBANK	37.84	41.62	57.30	57.30	48.51
9. ICBC	21.62	21.62	22.16	22.16	<b>21.89</b>
10. KBANK	71.35	72.43	72.97	72.97	72.43
11. KKP	65.41	66.49	65.41	65.41	65.68
12. KTB	80.00	84.32	85.95	85.95	<b>84.05</b>
13. LHFG	70.27	70.27	70.27	71.50	70.58
14. SC	32.97	44.32	44.32	43.50	41.28
15. SCB	65.41	68.11	85.41	85.41	76.08
16. SME	59.46	60.54	60.54	60.54	60.27
17. TCAP	63.24	63.24	74.59	78.92	70.00
18. TISCO	51.35	51.35	51.35	51.35	51.35
19. TMB	62.70	63.24	64.86	64.86	63.92
20. UOB	28.11	28.11	29.19	29.19	28.65
<b>Average</b>	<b>56.22</b>	<b>58.41</b>	<b>61.22</b>	<b>61.48</b>	<b>59.33</b>



Table 4.2 reveals that Bank of Ayudhya (listed) achieved the highest mean of extra disclosure index score over four years at 53.91%, followed by Krung Thai Bank, a listed commercial bank, at 28.91%. On the other hand, Industrial and Commercial Bank of China (unlisted) and Islamic bank of Thailand (unlisted) achieved the lowest scores, each at 0%. Overall, the extra voluntary disclosure of the 20 banking institutions averaged at 14.30%.

**Table 4.2** Extra voluntary disclosure scores of the banks located in Thailand

Bank	Total Voluntary Disclosure Score (%)				
	2016	2017	2018	2019	Average
1. BAAC	34.38	34.38	34.38	34.38	<b>34.38</b>
2. BAY	43.75	56.25	56.25	59.38	<b>53.91</b>
3. BBL	3.13	12.50	15.63	15.63	11.72
4. CIMBT	12.50	12.50	12.50	12.50	12.50
5. EXIM	6.25	6.25	6.25	6.25	6.25
6. GHB	0.00	0.00	0.00	0.00	0.00
7. GSC	12.50	12.50	21.88	21.88	17.19
8. IBANK	0.00	0.00	0.00	0.00	<b>0.00</b>
9. ICBC	0.00	0.00	0.00	0.00	<b>0.00</b>
10. KBANK	9.38	12.50	12.50	12.50	11.72
11. KKP	28.13	28.13	28.13	28.13	28.13
12. KTB	21.88	25.00	34.38	34.38	28.91
13. LHFG	9.38	9.38	9.38	9.38	9.38
14. SC	0.00	0.00	0.00	0.00	0.00
15. SCB	3.13	6.25	46.88	43.75	25.00
16. SME	6.25	6.25	6.25	6.25	6.25
17. TCAP	15.63	15.63	21.88	28.13	20.31

**Table 4.2** Extra voluntary disclosure scores of the banks located in Thailand (Cont.)

Bank	Total Voluntary Disclosure Score (%)				
	2016	2017	2018	2019	Average
18. TISCO	3.13	3.13	3.13	3.13	3.13
19. TMB	9.38	9.38	15.63	15.63	12.50
20. UOB	3.13	3.13	6.25	6.25	4.69
<b>Average</b>	<b>11.09</b>	<b>12.66</b>	<b>16.56</b>	<b>16.88</b>	<b>14.30</b>

Table 4.3 reveals that Bank of Ayudhya achieved the highest mean of the non-extra disclosure index score over four years at 97.71%, followed by Krung Thai Bank, a listed commercial bank, at 95.59%. On the other hand, Industrial and Commercial Bank of China (unlisted) achieved the lowest mean of the non-extra voluntary disclosure index score at 26.47%. In overall, the non-extra voluntary disclosure of the 20 banking institutions averaged at 68.74%.

**Table 4.3** Non-extra voluntary disclosure scores of the banks located in Thailand

Bank	Non-Extra Voluntary Disclosure Score (%)				
	2016	2017	2018	2019	Average
1. BAAC	84.97	84.97	84.97	84.97	84.97
2. BAY	94.12	96.73	100.00	100.00	<b>97.71</b>
3. BBL	65.36	79.08	79.08	79.08	75.65
4. CIMBT	60.78	60.78	60.78	60.78	60.78
5. EXIM	70.59	71.24	71.24	71.24	71.08
6. GHB	65.36	65.36	66.01	66.01	65.69
7. GSC	36.60	36.60	39.22	39.22	37.91
8. IBANK	45.75	50.33	69.28	69.28	58.66
9. ICBC	26.14	26.14	26.80	26.80	<b>26.47</b>

**Table 4.3** Non-extra voluntary disclosure scores of the banks located in Thailand (Cont.)

Bank	Non-Extra Voluntary Disclosure Score (%)				
	2016	2017	2018	2019	Average
10. KBANK	84.31	84.97	85.62	85.62	85.13
11. KKP	73.20	74.51	73.20	73.20	73.53
12. KTB	92.16	96.73	96.73	96.73	<b>95.59</b>
13. LHFG	83.01	83.01	83.01	83.01	83.01
14. SC	39.87	53.59	53.59	53.59	50.16
15. SCB	78.43	81.05	93.46	94.12	86.76
16. SME	70.59	71.90	71.90	71.90	71.57
17. TCAP	73.20	73.20	85.62	89.54	80.39
18. TISCO	61.44	61.44	61.44	61.44	61.44
19. TMB	73.86	74.51	75.16	75.16	74.67
20. UOB	33.33	33.33	33.99	33.99	33.66
<b>Average</b>	<b>65.65</b>	<b>67.97</b>	<b>70.56</b>	<b>70.78</b>	<b>68.74</b>

Table 4.4 reveals a descriptive statistic of different types of voluntary disclosures of banks in Thailand. It is demonstrated that listed banks were the likeliest to disclose information voluntarily, with the highest score at 69.25%, followed by government-sponsored banks at 54.85% and foreign banks at 30.02%. BAY (Bank of Ayudhya) achieved the highest score among listed banks, followed by KTB (Krung Thai Banks) and SCB (Siam Commercial Bank). In contrast, BACC (Bank for Agriculture and Agricultural Cooperatives) achieved the highest score among government-sponsored banks, followed by SME (Small and Medium Enterprise Development Bank of Thailand) and EXIM (Export-Import Bank of Thailand). However, foreign banks had no motivation to disclose information voluntarily. Banks in Thailand disclosed non-financial information voluntarily on an average of 56.68%. BAY, a listed bank, also achieved the highest non-financial information voluntary disclosures score at 93.46%, while BAAC, a government-sponsored bank, got the highest score of 92.31%. Overall, the total voluntary

disclosures of banks in Thailand stood at 51.38%. Individually, BAY, KTB, and BAAC, respectively, also disclosed the extra information voluntarily to stakeholders.

**Table 4.4** Types of voluntary disclosures of the banks located in Thailand

No.	Banks	A. Strategic voluntary disclosures (70 items)		B. Financial Information (50 items)		C. Non-Financial information (65 items)		Total voluntary disclosures (185 items)	
		Average of number items disclosed	Average disclosure score(%)	Average of number items disclosed	Average disclosure score(%)	Average of number items disclosed	Average disclosure score(%)	Average of number items disclosed	Average disclosure score(%)
<b>Listed banks</b>									
1	BAY	63.75	91.07	42.25	84.50	60.75	93.46	166.75	90.14
2	BBL	49.50	70.71	28.00	56.00	42.00	64.62	119.50	64.59
3	CIMBT	35.00	50.00	21.00	42.00	41.00	63.08	97.00	52.43
4	KBANK	46.50	66.43	34.25	68.50	53.25	81.92	134.00	72.43
5	KKP	51.00	72.86	41.00	82.00	29.50	45.38	121.50	65.68
6	KTB	57.00	81.43	40.75	81.50	57.75	88.85	155.50	84.05
7	LHFG	43.00	61.43	39.25	78.50	51.00	78.46	133.25	72.03
8	SCB	51.25	73.21	41.00	82.00	48.50	74.62	140.75	76.08
9	TCAP	46.00	65.71	29.00	58.00	54.50	83.85	129.50	70.00
10	TISCO	31.00	44.29	23.00	46.00	41.00	63.08	95.00	51.35
11	TMB	44.00	62.86	32.00	64.00	42.25	65.00	118.25	63.92
	<b>Average</b>	<b>47.09</b>	<b>67.27</b>	<b>33.77</b>	<b>67.55</b>	<b>47.41</b>	<b>72.94</b>	<b>128.27</b>	<b>69.34</b>
<b>Government Policy</b>									
<b>Banks</b>									
12	BAAC	53.00	75.71	28.00	56.00	60.00	92.31	141.00	76.22
13	EXIM	43.25	61.79	21.50	43.00	46.00	70.77	110.75	59.86
14	GHB	31.50	45.00	27.00	54.00	42.00	64.62	100.50	54.32
15	GSC	20.50	29.29	18.00	36.00	25.00	38.46	63.50	34.32
16	IBANK	35.25	50.36	20.75	41.50	33.75	51.92	89.75	48.51
17	SME	44.00	62.86	21.50	43.00	46.00	70.77	111.50	60.27
	<b>Average</b>	<b>37.92</b>	<b>54.17</b>	<b>22.79</b>	<b>45.58</b>	<b>42.13</b>	<b>64.81</b>	<b>102.83</b>	<b>55.59</b>
<b>Foreign Bank</b>									
18	ICBC	10.50	15.00	8.00	16.00	22.00	33.85	40.50	21.89
19	SC	34.50	49.29	12.50	25.00	31.00	47.69	78.00	42.16
20	UOB	31.50	45.00	11.50	23.00	10.00	15.38	53.00	28.65
	<b>Average</b>	<b>25.50</b>	<b>36.43</b>	<b>10.67</b>	<b>21.33</b>	<b>21.00</b>	<b>32.31</b>	<b>57.17</b>	<b>30.90</b>
<b>Average (whole)</b>		<b>41.10</b>	<b>58.71</b>	<b>27.01</b>	<b>54.03</b>	<b>41.86</b>	<b>64.40</b>	<b>109.98</b>	<b>59.45</b>

In Table 4.5 there are 70 voluntary disclosure items expected to be included in annual reports of banks in the first information category (A), and these are used to construct a voluntary disclosure index. According to Table 5, the average disclosure score for banks over four years was 58.71%, whereby the average disclosure score ranged from

15.00% (Industrial and Commercial Bank of China) to 91.07% (Bank of Ayudhya). Moreover, Table 4.5 indicates that the average items disclosed by banks were about 41 out of 70 items, which is considered acceptable. More specifically, Bank of Ayudhya (listed bank) disclosed the highest number of information at around 63 items, followed by Krung Thai Bank (listed bank) at 57 items. In contrast, the lowest disclosure of information was 10 items by Industrial and Commercial Bank of China (Unlisted), followed by Government Saving Bank (Unlisted) at 20 items. Overall, the average disclosure score increased slightly from 55.86% in 2016 to 60.90% in 2019. In addition, over four years, the average voluntary disclosure score for all banks had increased, except for one bank, i.e. Bank for Agriculture and Agricultural Cooperatives (Unlisted), whose voluntary disclosure score remained at the same value 75.71% throughout the four periods studied. In general, most banks provided information on strategic voluntary disclosure to external users in their annual reports. However, there is much variation in the level of disclosures of each bank regarding strategic information.

**Table 4.5** Strategic voluntary disclosure scores of the banks located in Thailand

Bank	2016		2017		2018		2019		2016-2019	
	Number of Items Disclosed	Disclosure Score (%)	Number of Items Disclosed	Disclosure Score (%)	Number of Items Disclosed	Disclosure Score (%)	Number of items disclosed	Disclosure Score (%)	Average of number of items disclosed	Average of disclosure score (%)
<b>Listed Banks</b>										
1. BAY	63.00	90.00	64.00	91.43	64.00	91.43	64.00	91.43	63.75	91.07
2. BBL	45.00	64.29	51.00	72.86	51.00	72.86	51.00	72.86	49.50	70.71
3. CIMBT	35.00	50.00	35.00	50.00	35.00	50.00	35.00	50.00	35.00	50.00
4. KBANK	46.00	65.71	46.00	65.71	47.00	67.14	47.00	67.14	46.50	66.43
5. KKP	51.00	72.86	51.00	72.86	51.00	72.86	51.00	72.86	51.00	72.86
6. KTB	51.00	72.86	57.00	81.43	60.00	85.71	60.00	85.71	57.00	81.43
7. LHFG	43.00	61.43	43.00	61.43	43.00	61.43	43.00	61.43	43.00	61.43
8. SCB	44.00	62.86	44.00	62.86	58.00	82.86	59.00	84.29	51.25	73.21
9. TCAP	41.00	58.57	41.00	58.57	49.00	70.00	53.00	75.71	46.00	65.71
10. TISCO	31.00	44.29	31.00	44.29	31.00	44.29	31.00	44.29	31.00	44.29
11. TMB	44.00	62.86	44.00	62.86	44.00	62.86	44.00	62.86	44.00	62.86
<b>Average</b>	<b>44.91</b>	<b>64.16</b>	<b>46.09</b>	<b>65.84</b>	<b>48.45</b>	<b>69.22</b>	<b>48.91</b>	<b>69.87</b>	<b>47.09</b>	<b>67.27</b>

**Table 4.5** Strategic voluntary disclosure scores of the banks located in Thailand (Cont.)

Bank	2016		2017		2018		2019		2016-2019	
	Number of Items Disclosed	Disclosure Score (%)	Number of Items Disclosed	Disclosure Score (%)	Number of Items Disclosed	Disclosure Score (%)	Number of items disclosed	Disclosure Score (%)	Average of number of items disclosed	Average of disclosure score (%)
<b>Government Policy Banks</b>										
12. BAAC	53.00	75.71	53.00	75.71	53.00	75.71	53.00	75.71	53.00	75.71
13. EXIM	44.00	62.86	43.00	61.43	43.00	61.43	43.00	61.43	43.25	61.79
14. GHB	31.00	44.29	31.00	44.29	32.00	45.71	32.00	45.71	31.50	45.00
15. GSC	17.00	24.29	17.00	24.29	24.00	34.29	24.00	34.29	20.50	29.29
16. IBANK	31.00	44.29	32.00	45.71	39.00	55.71	39.00	55.71	35.25	50.36
17. SME	44.00	62.86	44.00	62.86	44.00	62.86	44.00	62.86	44.00	62.86
<b>Average</b>	<b>36.67</b>	<b>52.38</b>	<b>36.67</b>	<b>52.38</b>	<b>39.17</b>	<b>55.95</b>	<b>39.17</b>	<b>55.95</b>	<b>37.92</b>	<b>54.17</b>
<b>Foreign Banks</b>										
18. ICBC	10.00	14.29	10.00	14.29	11.00	15.71	11.00	15.71	10.50	15.00
19. SC	27.00	38.57	37.00	52.86	37.00	52.86	37.00	52.86	34.50	49.29
20. UOB	31.00	44.29	31.00	44.29	32.00	45.71	32.00	45.71	31.50	45.00
<b>Average</b>	<b>22.67</b>	<b>32.38</b>	<b>26.00</b>	<b>37.14</b>	<b>26.67</b>	<b>38.10</b>	<b>26.67</b>	<b>38.10</b>	<b>25.50</b>	<b>36.43</b>
<b>Average (Overall)</b>	<b>39.10</b>	<b>55.86</b>	<b>40.25</b>	<b>57.50</b>	<b>42.40</b>	<b>60.57</b>	<b>42.65</b>	<b>60.9</b>	<b>41.10</b>	<b>58.71</b>

As shown in Table 4.6, the total average disclosure score for this information category over the four years was 54.03%. The average disclosure score ranged from 16% (Industrial and Commercial Bank of China, ICBC) to 84.50% (Bank of Ayudhya). Moreover, Table 4.6 indicates that the average number of items disclosed by all banks in the sample was about 27 disclosure items out of 50 items in the informational category, which is considered reasonably acceptable. More specifically, Bank of Ayudhya (listed bank) disclosed the highest number of information items at around 42 items, followed by Kiatnakin Bank (listed bank) at 41 items. In contrast, Industrial and Commercial Bank of China (Unlisted) disclosed the lowest number of items at 8 items, followed by United Overseas Bank (Unlisted) at 11 items. Also, Table 4.6 showed the slight improvement in the overall average disclosure scores during the four years from 50.70% in 2016 to 57.50% in 2019. In addition, over four years, the average voluntary disclosure score for all banks had increased, except for one bank, for example, Bank for Agriculture and Agricultural Cooperatives (Unlisted), whose voluntary disclosure score remained at the same value (75.71%) during the four periods studied. In general, the majority of the bank

provided information on strategic voluntary disclosure to external users in their published annual reports. However, there are many variances among the bank's disclosure levels relating to the strategic information.

**Table 4.6** Financial voluntary disclosure scores of the banks located in Thailand

Bank	2016		2017		2018		2019		2016-2019	
	Number Items Disclosed	Disclosure Score (%)	Number Items Disclosed	Disclosure Score (%)	Number Items Disclosed	Disclosure Score (%)	Number Items Disclosed	Disclosure Score (%)	Average of Number Items Disclosed	Average of Disclosure Score (%)
<b>Listed Banks</b>										
1. BAY	35.00	70.00	41.00	82.00	46.00	92.00	47.00	94.00	42.25	84.50
2. BBL	26.00	52.00	29.00	58.00	29.00	58.00	28.00	56.00	28.00	56.00
3. CIMBT	21.00	42.00	21.00	42.00	21.00	42.00	21.00	42.00	21.00	42.00
4. KBANK	33.00	66.00	34.00	68.00	35.00	70.00	35.00	70.00	34.25	68.50
5. KKP	41.00	82.00	41.00	82.00	41.00	82.00	41.00	82.00	41.00	82.00
6. KTB	40.00	80.00	41.00	82.00	41.00	82.00	41.00	82.00	40.75	81.50
7. LHFG	36.00	72.00	36.00	72.00	36.00	72.00	49.00	98.00	39.25	78.50
8. SCB	37.00	74.00	38.00	76.00	45.00	90.00	44.00	88.00	41.00	82.00
9. TCAP	22.00	44.00	22.00	44.00	34.00	68.00	38.00	76.00	29.00	58.00
10. TISCO	23.00	46.00	23.00	46.00	23.00	46.00	23.00	46.00	23.00	46.00
11. TMB	32.00	64.00	32.00	64.00	32.00	64.00	32.00	64.00	32.00	64.00
<b>Average</b>	31.45	62.91	32.55	65.09	34.82	69.64	36.27	72.55	33.77	67.55
<b>Government Policy Banks</b>										
12. BAAC	28.00	56.00	28.00	56.00	28.00	56.00	28.00	56.00	28.00	56.00
13. EXIM	20.00	40.00	22.00	44.00	22.00	44.00	22.00	44.00	21.50	43.00
14. GHB	27.00	54.00	27.00	54.00	27.00	54.00	27.00	54.00	27.00	54.00
15. GSC	18.00	36.00	18.00	36.00	18.00	36.00	18.00	36.00	18.00	36.00
16. IBANK	17.00	34.00	20.00	40.00	23.00	46.00	23.00	46.00	20.75	41.50
17. SME	20.00	40.00	22.00	44.00	22.00	44.00	22.00	44.00	21.50	43.00
<b>Average</b>	21.67	43.33	22.83	45.67	23.33	46.67	23.33	46.67	22.79	45.58
<b>Foreign Banks</b>										
18. ICBC	8.00	16.00	8.00	16.00	8.00	16.00	8.00	16.00	8.00	16.00
19. SC	12.00	24.00	11.00	22.00	11.00	22.00	16.00	32.00	12.50	25.00
20. UOB	11.00	22.00	11.00	22.00	12.00	24.00	12.00	24.00	11.50	23.00
<b>Average</b>	10.33	20.67	10.00	20.00	10.33	20.67	12.00	24.00	10.67	21.33
<b>Average (overall)</b>	25.35	50.70	26.25	52.50	27.70	55.40	28.75	57.50	27.01	54.03

Table 4.7 displays descriptive statistics regarding the disclosure of the non-financial information of banks in Thailand. It can be seen that the average disclosure score throughout this study (2016-2019) for the entire sample as a whole was 64.40%, whereby around 41 items out of the 65 items are disclosed on average. In particular, the average stood at 60.85% in 2016, 63.92% in 2017, 66.38% in 2018 and 66.43% in 2019,

while Bank of Ayudhya achieved the highest disclosure score at 93.46%, followed by Bank for Agriculture and Agricultural Cooperatives (92.31%), and Krung Thai Bank (88.85%).

**Table 4.7** Non-financial voluntary disclosure scores of the banks located in Thailand

Banks	2016		2017		2018		2019		2016-2019	
	Number Items Disclosed	Disclosure Score (%)	Number Items Disclosed	Disclosure Score (%)	Number Items Disclosed	Disclosure Score (%)	Number Items Disclosed	Disclosure Score (%)	Average of Number Items Disclosed	Average of Disclosure Score (%)
<b>Listed Banks</b>										
1. BAY	60.00	92.31	61.00	93.85	61.00	93.85	61.00	93.85	60.75	93.46
2. BBL	30.00	46.15	45.00	69.23	46.00	70.77	47.00	72.31	42.00	64.62
3. CIMBT	41.00	63.08	41.00	63.08	41.00	63.08	41.00	63.08	41.00	63.08
4. KBANK	53.00	81.54	54.00	83.08	53.00	81.54	53.00	81.54	53.25	81.92
5. KKP	29.00	44.62	31.00	47.69	29.00	44.62	29.00	44.62	29.50	45.38
6. KTB	57.00	87.69	58.00	89.23	58.00	89.23	58.00	89.23	57.75	88.85
7. LHFG	51.00	78.46	51.00	78.46	51.00	78.46	51.00	78.46	51.00	78.46
8. SCB	40.00	61.54	44.00	67.69	55.00	84.62	55.00	84.62	48.50	74.62
9. TCAP	54.00	83.08	54.00	83.08	55.00	84.62	55.00	84.62	54.50	83.85
10. TISCO	41.00	63.08	41.00	63.08	41.00	63.08	41.00	63.08	41.00	63.08
11. TMB	40.00	61.54	41.00	63.08	44.00	67.69	44.00	67.69	42.25	65.00
<b>Average</b>	45.09	69.37	47.36	72.87	48.55	74.69	48.64	74.83	47.41	72.94
<b>Government Policy Banks</b>										
12. BAAC	60.00	92.31	60.00	92.31	60.00	92.31	60.00	92.31	60.00	92.31
13. EXIM	46.00	70.77	46.00	70.77	46.00	70.77	46.00	70.77	46.00	70.77
14. GHB	42.00	64.62	42.00	64.62	42.00	64.62	42.00	64.62	42.00	64.62
15. GSC	25.00	38.46	25.00	38.46	25.00	38.46	25.00	38.46	25.00	38.46
16. IBANK	22.00	33.85	25.00	38.46	44.00	67.69	44.00	67.69	33.75	51.92
17. SME	46.00	70.77	46.00	70.77	46.00	70.77	46.00	70.77	46.00	70.77
<b>Average</b>	40.17	61.79	40.67	62.56	43.83	67.44	43.83	67.44	42.13	64.81
<b>Foreign Banks</b>										
18. ICBC	22.00	33.85	22.00	33.85	22.00	33.85	22.00	33.85	22.00	33.85
19. SC	22.00	33.85	34.00	52.31	34.00	52.31	34.00	52.31	31.00	47.69
20. UOB	10.00	15.38	10.00	15.38	10.00	15.38	10.00	15.38	10.00	15.38
<b>Average</b>	18.00	27.69	22.00	33.85	22.00	33.85	22.00	33.85	21.00	32.31
<b>Average (overall)</b>	39.55	60.85	41.55	63.92	43.15	66.38	43.20	66.43	41.86	64.40

Table 4.8 shows the total voluntary disclosure. In the first year of the Year 2016, 75% out of 20 banks have their total voluntary disclosure information score over 50%. However, when we observe the following year, there is very little change from 2016 to 2017 in the number of banks that achieved the total voluntary disclosure information score over 50% since the number of banks that achieve the value does not differ. In 2018,



however, the number moved from 15 banks to 16 banks. Although, there are changes in the number, the addition is very low, and that amount did not change from 2018 to 2019. From this information, it could summarize that from 2016 to 2019, there are minimal changes in the level of voluntarily disclosing information. However, the 75% are receiving the score of the total voluntary disclosure, which is relatively high.

**Table 4.8** The total voluntary disclosure scores among the banks located in Thailand

Year	TVDIS				Total of banks
	21%-30%	31%-40%	41%-50%	>50%	
2016	2	3	0	15	20
2017	2	1	2	15	20
2018	2	1	1	16	20
2019	2	1	1	16	20

Table 4.9 shows the total voluntary disclosure mean score of each year that increased from 57.4% in 2016 to 62.5% in 2019. In other words, the total voluntary disclosure improved over the four years by approximately 5.1%, which seems to be less satisfactory. However, it was observed that the mean change in the total voluntary disclosure was only 2.1% (2016-2017), 2.7% (2017-2018), and 0.3% (2018-2019), of the observed 5.1% total mean changes in the TVDIS over the period under study 2016-2019. Moreover, as Table 4.10 shows, the mean score of the total voluntary disclosure was less than 60% in 2016, 2017, and 2008, then just over 60% in the final two years (2018-2019).

**Table 4.9** Developments in the extent of the voluntary disclosures

Years	TVDIS	Changes in TVDIS%
	(Mean scores %)	(Yt-Yt-1)*
2016	56.22	2.2 (2017-2016)
2017	58.41	2.8 (2018-2017)
2018	61.22	0.3 (2019-2018)
2019	61.48	5.3 (2019-2016)

\*Yt: Mean total voluntary disclosure score (TVDIS) in the following year, whereas

\*Yt-1: Mean total voluntary disclosure score (TVDIS) in the previous year.

The above analysis revealed that the quantity of voluntary information provided by banks located in Thailand in their annual reports to the public had increased progressively over the four years studied. In other words, according to figures displayed in Table 4.9, the positive increase in the total voluntary disclosure occurs during the whole year of the study. Throughout the four years (2016-2019), changes in mean scores of the total voluntary disclosure are within a range of 2.2% to 5.3%. Possible explanations for the evolving upward trend in the total voluntary disclosure include the economic liberalization and reforms undertaken by the Thai government, which influenced the voluntary disclosure practices by banks.

**Table 4.10** Summary of the voluntary disclosure scores classified by information categories

Information Categories	Mean percentage score				Pooled	Minimum Score%	Maximum Score%
	2016	2017	2018	2019			
A. Strategic information	55.9	57.5	60.6	60.9	58.7	15.0	91.1
B. Financial information	50.7	52.5	55.4	57.5	54.0	16.0	84.5
C. Non-financial information	60.9	63.9	66.4	66.5	64.4	15.4	93.5

Table 4.10 summarizes the descriptive statistics of voluntary disclosure scores of the three information categories over the four years of the study. It can be noted that there is a various dissimilarity in the range of the voluntary mean disclosure scores in each of the three information categories over the four years. Among the three categories of voluntary disclosure, non-Financial information (Category C) has the highest overall mean disclosure score, which was approximately 64.4%; it was followed by strategic information (Category A, 58.7%) and financial information (Category B, 54.0%). More specifically, strategic information (category A) has a minimum disclosure score of 15.0 and a maximum disclosure score of 91.1%. In comparison, financial information (category B) has a minimum disclosure score of 16.0% and a maximum disclosure score of 84.5%. In comparison, non - financial information (category C) has a minimum disclosure score of 15.4 % and a maximum disclosure score of 93.5 %. In general, the disclosure of the three information categories has improved over the four years of the study; however, the variances between them were relatively much more significant.

As can be seen from Table 4.10, there is a slight improvement in the extent of non-financial information disclosure (Category C) over the four years; the mean disclosure score value is 60.9 %, 63.9%, 66.4%, and 66.5% for the four years from 2016 to 2019, respectively. On the other hand, the extent of the financial information disclosure has shown no improvement during the four years and remained the lowest disclosed category in the current study. In addition, the extent of voluntary disclosure related to strategic information has improved over the four years; the mean disclosure score was 55.9% in 2016, but in 2019, the disclosure score value reached 60.9%.

Table 4.11 shows the descriptive statistics of the dependent variables in Phase I. The interesting information of banks in Thailand was found as follows. Thai Government still owned 100% of the common shareholders of some banks, while foreign parties were some parts of shareholders at an average of 30.99% of total shareholders. Three-fourths of banks were listed in the Stock Exchange of Thailand (55%). Also, CAMEL information which Bank required of Thailand is showed in Table 4.11.

**Table 4.11** Descriptive statistics of the independent variables of Phase I

<b>Variables</b>	<b>Mean</b>	<b>S.D.</b>	<b>Max</b>	<b>Min</b>
GOVERN (%)	34.32	44.83	100.00	0
FOWN (%)	30.99	38.47	100.00	0
TYPE	0.75	0.44	1.00	0
CAR (%)	15.88	11.17	43.69	52.83
NPL (%)	31.00	30.21	50.37	1.00
CML (%)	3.40	5.61	50.58	0.00
MER (Million Baht per person)	1,796.95	12,363.52	104,335.15	- 23,324.38
ROE (%)	7.62	9.57	19.30	-49.66
LQ1 (%)	117.67	71.84	498.80	45.51
LQ2 (%)	63.92	20.51	114.46	16.97
TVDIS (%)	59.33	18.10	92.97	21.62
ExtraVol (%)	14.30	14.78	59.38	0
NonExtra (%)	68.74	19.77	100.00	26.14
A (%)	58.71	18.09	91.43	14.29
B (%)	54.03	21.22	98.00	16.00
C (%)	64.40	20.92	93.85	15.38

Note: Variables are defined as follows: GOVERN is a percentage of common shares held by government; FOWN is a percentage of common shares held by foreigners; TYPE refers to types of banks (listed or non-listed); CAR refers to capital adequacy ratio; NPL stands for non-performing loans/total loans; CML refers to Operating cost/Total Amount disbursed; MER refers to management efficiency ratio; ROE is a return on equity, and LQ1 is loans/total deposits; LQ2 is liquid assets/total assets.

Table 4.12 indicates the descriptive statistics of the dependent variables in Phase II. The interesting information of banks in Thailand was found as follows. Thai Government still highest owned 55.05% of common shareholders of some banks, while foreign parties were some parts of shareholders at the average of 97.01% of total

shareholders. Also, CAMEL information which Bank required of Thailand is showed in Table 4.12.

**Table 4.12** Descriptive statistics of independent variables of Phase II

<b>Variables</b>	<b>MEAN</b>	<b>SD</b>	<b>MAX</b>	<b>MIN</b>
CAR (%)	17.94	1.94	22.91	13.71
NPL (Times)	39.39	34.07	50.37	2.76
LQ3 (%)	103.32	17.06	150.90	79.76
TVDIS (%)	69.20	12.07	92.97	51.35
ExtraVol (%)	19.74	15.29	59.38	3.13
NonExtra (%)	79.52	12.16	100.00	60.78
Stock Return (Baht per share)	7.51	23.66	67.84	-31.17

Note: Note: Variables are defined as follows: CAR refers to capital adequacy ratio; NPL stands for non-performing loans/total loans and LQ3 is liquid assets/total deposits.

#### **4.2 Five Assumptions of Multiple Regression Testing**

The study tested the dataset to determine whether assumptions underlying multiple regression are held and if concerns are warranted to ensure that the dataset is ready for analysis. Initially, before multiple regressions analyses were performed, the analysis showed some problems against multiple regression assumptions. The study solved the problems by adopting the data transformation concept, the techniques included natural logarithm and M estimations recommended by Yuliana, Hasih, Sulistijowati & Twenty (2014), and a Natural log to transform variables creates asymmetric distribution. It reduces the effect of outliers, which was necessary for this study since regression analysis does rely on an assumption of normal distribution (Kline, 2016). After applying natural logarithm (Ln) and M estimations (M), no longer severe concerns against multiple regressions were found. The Pearson correlation of independent variables is shown in Table 4.13 – 4.21. Also, other assumptions were tested, and the results are shown in Table 4.14. It was noted that if variables begin with M, M estimations were used to transform

the data. In contrast, if variables begin with Ln, a natural logarithm was employed to transform the independent variables.

It is noticed in Table 4.13 - Table 4.21 showed the Pearson correlations are under 0.75, while VIF is less than 10. The dataset contained no serious problems against multiple regression assumptions.



**Table 4.13** Pearson's correlations among all variables in Phase 1 - Model 1 (a)

	LnMTVDIS	D1	D2	D3	TYPE	MGOWN	MFOWN	MCAR	MNPL	MMER	MROE	MLQ1	MLQ2
LnMTVDIS	1.000												
D1	-0.004	1.000											
D2	0.021	-0.333**	1.000										
D3	-0.022	-0.333**	-0.333**	1.000									
TYPE	0.148	0.000	0.000	0.000	1.000								
MGOWN	0.331**	0.001	0.000	-0.001	0.848***	1.000							
MFOWN	-0.446***	-0.008	0.012	0.006	-0.467***	-0.596***	1.000						
MCAR	0.025	-0.051	-0.086	0.069	0.460***	0.441***	-0.338**	1.000					
MNPL	-0.244*	0.041	0.031	-0.028	-0.005	0.093	-0.409***	0.086	1.000				
MMER	0.134	-0.119	-0.023	0.071	-0.080	0.187*	-0.098	-0.069	-0.067	1.000			
MROE	0.136	0.031	0.020	0.058	0.209*	0.262**	0.095	0.473***	-0.094	0.098	1.000		
MLQ1	0.474***	-0.060	-0.001	0.037	0.284**	0.271**	-0.195*	-0.070	-0.272*	0.009	-0.056	1.000	
MLQ2	-0.161	0.047	-0.025	-0.018	-0.200*	-0.049	0.169	-0.233*	0.095	0.265**	0.026	-0.377***	1.000

Note: \*\*\*, \*\*, \* significant at .01, .05, .10 level. Variables are defined as follows: TVDIS refers to total voluntary disclosure; GOVERN is a percentage of common shares held by government; FOWN is a percentage of common shares held by foreigners; TYPE refers to types of banks (listed or non-listed); CAR refers to capital adequacy ratio; NPL stands for non-performing loans/total loans; MER refers to management efficiency ratio; ROE is a return on equity, and LQ1 is loans/total deposits; LQ2 is liquid assets/total assets.

**Table 4.14** Pearson's correlations among all variables in Phase 1 - Model 2 (b)

	MExtraVol	D1	D2	D3	MGOWN	MFOWN	TYPE	MCAR	MNPL	MMER	MROE	MLQ1	MLQ2
MExtraVol	1.000												
D1	.000	1.000											
D2	.000	-0.333**	1.000										
D3	0.000	-0.333**	-0.333**	1.000									
MGOWN	-.109	.001	.000	-.001	1.000								
MFOWN	-.104	-.008	.012	.006	-0.596***	1.000							
TYPE	-.109	0.000	0.000	0.000	0.848***	-0.467***	1.000						
MCAR	-.029	-.051	-.086	.069	0.441***	-0.338**	0.460***	1.000					
MNPL	0.455***	.041	.031	-.028	.093	-0.409***	-.005	.086	1.000				
MMER	-.062	-.119	-.023	.071	.187	-.098	-.080	-.069	-.067	1.000			
MROE	-0.270**	.031	.020	.058	.262	.095	0.209*	0.473***	-.094	.098	1.000		
MLQ1	-.053	-.060	-.001	.037	.272	-0.195*	0.284**	-.070	-0.272**	.009	-.056	1.000	
MLQ2	.106	.047	-.025	-.018	-.049	.169	-0.200*	-0.233**	.095	0.265**	.026	-0.377***	1.000

Note: \*\*\*, \*\*, \* significant at .01, .05, .10 level. Variables are defined as follows: TVDIS refers to total voluntary disclosure; GOVERN is a percentage of common shares held by government; FOWN is a percentage of common shares held by foreigners; TYPE refers to types of banks (listed or non-listed); CAR refers to capital adequacy ratio; NPL stands for non-performing loans/total loans; MER refers to management efficiency ratio; ROE is a return on equity, and LQ1 is loans/total deposits; LQ2 is liquid assets/total assets.



**Table 4.15** Pearson's correlations among all variables in Phase 1 - Model 3 (c)

	MNonExtra	D1	D2	D3	MFOWN	TYPE	MCAR	MNPL	MMER	MROE	MLQ1	MLQ2	MGOWN
MNonExtra	1.000												
D1	.000	1.000											
D2	.000	-0.333***	1.000										
D3	.000	-0.333***	-0.333***	1.000									
MFOWN	0.448***	-.008	.012	.006	1.000								
TYPE	.150	0.000	0.000	0.000	-0.467***	1.000							
MCAR	.050	-.051	-.086	.069	-0.338***	0.460***	1.000						
MNPL	-0.491***	.041	.031	-.028	-0.409***	-.005	.086	1.000					
MMER	-.013	-.119	-.023	.071	-.098	-.080	-.069	-.067	1.000				
MROE	.165	.031	.020	.058	.095	0.209*	0.473***	-.094	.098	1.000			
MLQ1	-.088	-.060	-.001	.037	-0.195*	0.284**	-.070	-0.272**	.009	-.056	1.000		
MLQ2	-.058	.047	-.025	-.018	.169	-.200*	-0.233**	.095	0.265**	.026	-0.377***	1.000	
MGOWN	.032	.001	.000	-.001	-0.596***	0.848***	0.441***	.093	0.187*	0.262**	0.271**	-.049	1.000

Note: \*\*\*, \*\*, \* significant at .01, .05, .10 level. Variables are defined as follows: NonExtra refers to non-extra voluntary disclosure; GOVERN is a percentage of common shares held by government; FOWN is a percentage of common shares held by foreigners; TYPE refers to types of banks (listed or non-listed); CAR refers to capital adequacy ratio; NPL stands for non-performing loans/total loans; MER refers to management efficiency ratio; ROE is a return on equity, and LQ1 is loans/total deposits; LQ2 is liquid assets/total assets.

**Table 4.16** Pearson's correlations among all variables in Phase 1 - Model 4 (d)

	ln_A	D1	D2	D3	MGOWN	MFOWN	TYPE	MCAR	MNPL	MMER	MROE	MLQ1	MLQ2
ln_A	1.000												
D1	.090	1.000											
D2	.013	-0.333***	1.000										
D3	-.040	-0.333***	-0.333***	1.000									
MGOWN	.073	.001	.000	-.001	1.000								
MFOWN	-0.211*	-.008	.012	.006	-0.596***	1.000							
TYPE	-.009	0.000	0.000	0.000	0.848***	-0.467***	1.000						
MCAR	-.031	-.051	-.086	.069	0.441***	-0.338***	.460	1.000					
MNPL	-0.270**	.041	.031	-.028	.093	-0.409***	-.005	.086	1.000				
MMER	.033	-.119	-.023	.071	0.187*	-.098	-.080	-.069	-.067	1.000			
MROE	0.204*	.031	.020	.058	0.262**	.095	.210	0.473***	-.094	.098	1.000		
MLQ1	0.332***	-.060	-.001	.037	0.271**	-0.195*	.284	-.070	-0.272**	.009	-.056	1.000	
MLQ2	-.059	.047	-.025	-.018	-.049	.169	-.201	-0.233**	.095	.266	.026	-0.377***	1.000

Note: \*\*\*, \*\*, \* significant at .01, .05, .10 level. Variables are defined as follows: A refers to strategic information disclosure; GOVERN is a percentage of common shares held by government; FOWN is a percentage of common shares held by foreigners; TYPE refers to types of banks (listed or non-listed); CAR refers to capital adequacy ratio; NPL stands for non-performing loans/total loans; MER refers to management efficiency ratio; ROE is a return on equity, and LQ1 is loans/total deposits; LQ2 is liquid assets/total assets.

**Table 4.17** Pearson's correlations among all variables in Phase 1 - Model 5 (e)

	INV_B	D1	D2	D3	TYPE	MGOWN	MFOWN	MCAR	MNPL	MMER	MROE	MLQ1	MLQ2
INV_B	1.000												
D1	-.016	1.000											
D2	.047	-.333***	1.000										
D3	-.039	-.333***	-.333***	1.000									
TYPE	-.413***	.000	.000	.000	1.000								
MGOWN	-.436***	-.001	-.002	-.004	0.791***	1.000							
MFOWN	-.044	-.008	.013	.008	-.426***	-.591***	1.000						
MCAR	-.178	-.056	-.092	.079	0.509***	0.463***	-.347***	1.000					
MNPL	0.444***	.032	.050	-.034	.009	.152	-.394***	.105	1.000				
MMER	-.160	-.129	-.025	.077	-.070	.238	-.123	-.068	-.058	1.000			
MROE	-.366***	.037	.019	.064	0.364***	0.388***	.054	0.490***	-.125	.093	1.000		
MLQ1	-.282**	-.065	-.002	.040	0.398***	0.349***	-.250**	-.069	-.248***	.002	-.066	1.000	
MLQ2	.011	.062	-.033	-.025	-.431***	-.170	0.283***	-.324***	-.083	0.338***	-.032	-.411***	1.000

Note: \*\*\*, \*\*, \* significant at .01, .05, .10 level. Variables are defined as follows: B refers to financial information disclosure; GOVERN is a percentage of common shares held by government; FOWN is a percentage of common shares held by foreigners; TYPE refers to types of banks (listed or non-listed); CAR refers to capital adequacy ratio; NPL stands for non-performing loans/total loans; MER refers to management efficiency ratio; ROE is a return on equity, and LQ1 is loans/total deposits; LQ2 is liquid assets/total assets.

**Table 4.18** Pearson's correlations among all variables in Phase 1 - Model 6 (f)

	MC	D1	D2	D3	MGOWN	MFOWN	TYPE	MCAR	MNPL	MMER	MROE	MLQ2	MLQ3
MC	1.000												
D1	0.265**	1.000											
D2	0.265**	-0.333***	1.000										
D3	-0.795***	-0.333***	-0.333***	1.000									
MGOWN	.074	.001	.000	-.001	1.000								
MFOWN	-0.275**	-.008	.012	.006	-0.596***	1.000							
TYPE	.001	0.000	0.000	0.000	0.848***	-0.467***	1.000						
MCAR	-.099	-.051	-.086	.069	0.441***	-0.338***	0.460***	1.000					
MNPL	0.273**	.041	.031	-.028	.093	-0.409***	-.005	.086	1.000				
MMER	-.031	-.119	-.023	.071	0.187*	-.098	-.080	-.069	-.067	1.000			
MROE	-.117	.031	.020	.058	0.262**	.095	0.209*	0.473***	-.094	.098	1.000		
MLQ2	.113	.047	-.025	-.018	-.049	.169	-0.200*	-0.233*	.095	0.265**	.026	1.000	
MLQ3	-.043	-.054	.005	.034	.114	-.065	0.230*	-.081	-0.300***	-.141	-.061	-0.572***	1.000

Note: \*\*\*, \*\*, \* significant at .01, .05, .10 level. Variables are defined as follows: C refers to non-financial information disclosure; GOVERN is a percentage of common shares held by government; FOWN is a percentage of common shares held by foreigners; TYPE refers to types of banks (listed or non-listed); CAR refers to capital adequacy ratio; NPL stands for non-performing loans/total loans; MER refers to management efficiency ratio; ROE is a return on equity, and LQ1 is loans/total deposits; LQ2 is liquid assets/total assets.

**Table 4.19** Pearson's correlations among all variables in Phase 2 - Model 7 (g)

	<b>Ln_SR</b>	<b>Ln_TVDIS2</b>	<b>MCAR</b>	<b>MNPL</b>	<b>Ln_LQ3</b>
Ln_SR	1.000				
Ln_TVDIS	-.252**	1.000			
MCAR	.139	-.091	1.000		
MNPL	-.110	.050	.107	1.000	
Ln_LQ3	.576***	.203*	.062	.0533	1.000

Note: \*\*\*, \*\*, \* significant at .01, .05, .10 level. Variables are defined as follows: SR refers to stock returns; TVDIS is total voluntary disclosure; CAR refers to capital adequacy ratio; NPL stands for non-performing loans/total loans; and LQ3 is liquid assets to total deposits.

**Table 4.20** Pearson's correlations among all variables in Phase 2 - Model 8 (h)

	<b>Ln_SR</b>	<b>MExtraVol</b>	<b>MCAR</b>	<b>MNPL</b>	<b>Ln_LQ3</b>
Ln_SR	1.000				
MExtraVol	.353**	1.000			
MCAR	.139	.546**	1.000		
NPL	-.110	-.223*	.107	1.000	
Ln_LQ3	.576***	-.221*	.062	-.653*	1.000

Note: \*\*\*, \*\*, \* significant at .01, .05, .10 level. Variables are defined as follows: SR refers to stock returns; ExtraVol is extra voluntary disclosure; CAR refers to capital adequacy ratio; NPL stands for non-performing loans/total loans; and LQ3 is liquid assets to total deposits.

**Table 4.21** Pearson's correlations among all variables in Phase 2 - Model 9 (i)

	Ln_SR	MNonExtra	MCAR	MNPL	Ln_LQ3
Ln_SR	1.000				
MNonExtra	0.453**	1.000			
MCAR	.139	0.246**	1.000		
MNPL	-.110	-.223*	.107	1.000	
Ln_LQ3	0.576***	-.221*	.062	-.653*	1.000

Note: \*\*\*, \*\*, \* significant at .01, .05, .10 level. Variables are defined as follows: SR refers to stock returns; NonExtra is non-extra voluntary disclosure; CAR refers to capital adequacy ratio; NPL stands for non-performing loans/total loans; and LQ3 is liquid assets to total deposits.

### 4.3 Multiple Regression Results

As stated in the study objective, this study intended to observe the information value of banking fundamentals and CAMEL on voluntary disclosures and whether voluntary disclosures influenced stock returns. The voluntary disclosures in this study were classified into three levels: total voluntary disclosures, the extra voluntary disclosures and non-extra voluntary disclosures and classified by the study of Meek et al. (1995), strategic voluntary disclosures, financial voluntary disclosures and non-financial voluntary disclosures. The regression results of the objectives are shown in Table 4.22, 4.23 and 4.24.

#### 4.3.1 Phase 1 - Model 1

Table 4.22 shows that when analyzing banking fundamentals and CAMEL as independent variables on total voluntary disclosures, it was found that the model showed a goodness of fit, indicating by coefficient of determination adjusted  $R^2$  with a value of 0.583. This implies that independent variables can explain 58.3% of the variations as results of the factors affecting the total voluntary disclosures. The outcomes of the multiple regression revealed that variables, which are statistically significant, influencing the total voluntary disclosures included percentage of common shares held by government of banks (MGOVERN) ( $\beta = 0.433$ ,  $p = .021$ ), the percentage of common shares held by foreigners of banks (MFOWN) ( $\beta = -.753$ ,  $p = .000$ ), type of banks (TYPE) ( $\beta = -.613$ ,  $p = .000$ ), capital adequacy ratio (MCAR) ( $\beta = -.251$ ,  $p = .020$ ), proportion of

non-performing loans (MNPL) ( $\beta = -.484, p = .000$ ), return on equity (MROE) ( $\beta = .329, p = .001$ ) and proportion of loans to total deposits (MLQ1) ( $\beta = .244, p = .010$ ). This means that banks with a higher percentage of common shares held by government shareholders are more likely to provide the total voluntary disclosures. In contrast, banks with fewer foreign shareholders and non-listed banks are more likely to provide total voluntary disclosures. Banks with fewer capital adequacy ratios and fewer non-performing loans to total assets are more likely to provide the total voluntary disclosure. In addition, banks with a higher return on equity and a higher proportion of loans to total deposits are more likely to provide voluntary disclosures.

#### **4.3.2 Phase 1 - Model 2**

Table 4.22 indicates that when analyzing whether banking fundamentals and CAMEL as independent variables are related to the extra voluntary disclosures, it was found that the model showed the goodness of fit as indicated by the coefficient of determination adjusted  $R^2$  with a value of 0.405. It can be implied that independent variables all explain 40.5% of the variations due to the factors affecting the extra voluntary disclosures. The outcomes of the multiple regression test indicated significant variables influencing the extra voluntary disclosures included proportion of non-performing loans (MNPL) ( $\beta = .533, p = .000$ ) and return on equity (MROE) ( $\beta = -.307, p = .021$ ). Thus, the proportion of non-performing loans are more likely to disclose the extra voluntary information.

#### **4.3.3 Phase 1 - Model 3**

Lastly, Table 4.22 points out that when analyzing whether banking fundamentals and CAMEL as independent variables are related to non-extra voluntary disclosures, it was found that the model showed a goodness of fit as indicated by coefficient of determination adjusted  $R^2$  with a value of 0.453. This implies that independent variables can explain 45.3% of the variations as results of the factors affecting the non-extra voluntary disclosures. The results of the multiple regression test indicate that major variables that cast influences upon voluntary disclosure includes the percentage of common shares held by foreigners of banks (MFOWN) ( $\beta = -.573, p = .000$ ), proportion of non-performing loans (MNPL) ( $\beta = -.347, p = .002$ ) and proportion of loans to total deposits (MLQ1) ( $\beta = -.278, p = .014$ ). This means that banks with a

higher percentage of common shares held by foreign shareholders are more likely to provide the non-extra voluntary disclosures. In contrast, banks with fewer proportion of non-performing loans and proportion of loans to total deposits are more likely to provide the non-extra voluntary disclosures.





**Table 4.22** Multiple regression results of the factors influencing total voluntary disclosures, extra voluntary disclosures and non-extra voluntary disclosures

Variables	Model 1				Model 2				Model 3			
	Total voluntary disclosure				Extra voluntary disclosure				Non-extra voluntary disclosure			
	B	$\beta$	t-stat	p-value	B	$\beta$	t-stat	p-value	B	$\beta$	t-stat	p-value
(Constant)	-2.880***		-4.688	.000	-.069		-.450	.654	-.115		-1.192	.237
D1	-.158	-.036	-.386	.701	.026	.033	.258	.797	.016	.027	.249	.804
D2	-.067	-.015	-.164	.871	.028	.035	.281	.780	.009	.016	.142	.887
D3	-.214	-.048	-.536	.594	.023	.029	.237	.814	.004	.008	.072	.943
TYPE	-2.730***	-0.613***	-3.764	.000	-.107	-.230	-.909	.367	.144	.245	1.260	.212
MGOWN	1.116**	0.433**	2.357	.021	.085	.145	.916	.363	.090	.264	1.205	.233
MFOWN	-2.443***	-0.753***	-6.554	.000	.066	.082	.364	.717	0.245***	.573***	4.183	.000
MCAR	-4.222**	-0.251**	-2.375	.020	.745*	.246*	1.685	.097	.057	.026	.205	.838
MNPL	-2.108***	-0.484***	-5.378	.000	0.417***	.533***	4.284	.000	-0.198***	-.347***	-3.225	.002
MMER	-2.139*	-0.148*	-1.684	.097	.098	.038	.310	.758	.096	.051	.482	.632
MROE	2.916**	0.329**	3.493	.001	-0.489**	-.307**	-2.357	.021	-.085	-.073	-.650	.518
MLQ1	2.015**	0.244**	2.642	.010	.339*	.228*	1.785	.079	-0.302**	-.278**	-2.523	.014
MLQ2	-.228	-.024	-.274	.785	.297	.177	1.439	.155	-.210	-.171	-1.611	.112
F-stat,		10.192**				3.679***				5.489***		
(F-stat Sig)		(.000)				(.005)				(.000)		
Durbin Watson		1.814				1.706				1.875		
Adj R <sup>2</sup>		0.583				0.405				0.453		

Note: \*\*\*, \*\*, \* significant at .01, .05, .10 level. Variables are defined as follows: TYPE refers to types of banks (listed or non-listed); GOWN is a percentage of common shares held by government; FOWN is a percentage of common shares held by foreigners; CAR refers to capital adequacy ratio; NPL stands for non-performing loans/total loans; MER refers to management efficiency ratio; ROE is a return on equity, and LQ1 is loans/total deposits; LQ2 is liquid assets/total assets.

#### **4.3.4 Phase 1 - Model 4**

Table 4.23 states that when analyzing whether banking fundamentals and CAMEL as independent variables are related to strategic voluntary disclosures, it was found that the model showed a goodness of fit as indicated by coefficient of determination adjusted  $R^2$  with a value of 0.538. This implies that independent variables can explain 53.8% of the variations as a result of the factors affecting the strategic voluntary disclosures. The outcomes of the multiple regression test indicated significant variables influencing the strategic voluntary disclosures included percentage of common shares held by foreigners (MFOWN) ( $\beta = -.689$ ,  $p = .000$ ), the proportion of non-performing loans (MNPL) ( $\beta = -.443$ ,  $p = .000$ ), return on equity (MROE) ( $\beta = .443$ ,  $p = .000$ ) and the loans to total deposits (LQ1) ( $\beta = .242$ ,  $p = .042$ ). This means that banks with a lower percentage of foreign shareholders and a lower non-performing loans were more likely to provide the strategic voluntary disclosures. On the other hand, banks with a higher return on equity and a higher loans to total deposit were more likely to provide the strategic voluntary disclosures.

#### **4.3.5 Phase 1 - Model 5**

Table 4.23 states that when analyzing whether banking fundamentals and CAMEL as independent variables are related to financial voluntary disclosures, it was found that the model showed a goodness of fit as indicated by coefficient of determination adjusted  $R^2$  with a value of 0.486. This implies that independent variables can explain 48.6% of the variations as a result of the factors affecting the financial voluntary disclosures. The outcomes of the multiple regression test indicated significant variables influencing the financial voluntary disclosures included percentage of common shares held by foreigners of banks (MFOWN) ( $\beta = -.543$ ,  $p = .000$ ). This means that banks with a lower percentage of foreign shareholders were more likely to provide the financial voluntary disclosures.

#### **4.3.6 Phase 1 - Model 6**

Lastly, Table 23 states that when analyzing whether banking fundamentals and CAMEL as independent variables are related to the non-financial voluntary disclosures, it was found that the model showed the goodness of fit as indicated by the coefficient of determination adjusted  $R^2$  with a value of 0.733. It can be implied that independent

variables can explain 70.3% of the variations due to the factors affecting the non-financial voluntary disclosures. The outcomes of the multiple regression test indicated significant variables influencing the non-financial voluntary disclosures included the percentage of common shares held by foreigners (MFOWN) ( $\beta = -.339$ ,  $p = .000$ ), the proportion of non-performing loans (MNPL) ( $\beta = -.148$ ,  $p = .042$ ) and liquid assets to total assets (MLQ2) ( $\beta = .125$ ,  $p = .026$ ). This means that This means that banks with a lower percentage of foreign shareholders and a lower non-performing loans were more likely to provide the strategic voluntary disclosures. On the other hand, banks with higher liquid assets to total assets were more likely to provide the non-financial voluntary disclosures.



**Table 4.23** Multiple regression results of the factors influencing Strategic voluntary disclosures, Financial voluntary disclosures and Non-financial voluntary disclosures

Variables	Model 4				Model 5				Model 6			
	A. Strategic voluntary disclosure				B. Financial voluntary disclosure				C. Non-financial voluntary disclosure			
	B	$\beta$	t-stat	p-value	B	$\beta$	t-stat	p-value	B	$\beta$	t-stat	p-value
(Constant)	-4.821***		-6.017	.000	.005		.706	.482	0.1406**		2.532	.014
D1	.320	.069	.599	.551	.007	.148	1.328	.189	-.015	-.030	-.411	.682
D2	.101	.022	.191	.849	.005	.111	1.005	.318	-.009	-.018	-.250	.804
D3	-.114	-.025	-.219	.827	.003	.075	.687	.494	-0.401***	-.800***	-11.138	.000
MGOWN	-.196	-.073	-.317	.752	-.009	-.344	-1.546	.127	-.011	-.036	-.250	.803
MFOWN	-2.315***	-0.689***	-4.762	.000	-.018***	-.543***	-3.896	.000	-0.124***	-.339***	-3.723	.000
TYPE	-1.499	-0.325	-1.585	.118	-.012	-.266	-1.343	.184	-.046	-.091	-.692	.491
MCAR	-3.792	-0.218	-1.636	.107	.021	.120	.932	.355	-.177	-.093	-1.089	.280
MNPL	-2.005***	-0.445***	-3.923	.000	.009*	.210*	1.918	.059	0.072**	-.148**	-2.072	.042
MMER	-2.275	-0.152	-1.373	.174	-.004	-.026	-.241	.811	-.073	-.045	-.639	.525
MROE	4.067***	0.443***	3.736	.000	-.013	-.143	-1.255	.214	.057	.057	.752	.455
MLQ1	2.067**	0.242**	2.077	.042	.007	.083	.736	.464	.193	.184	1.535	.130
MLQ2	.937	.097	.866	.390	-.005	-.049	-.449	.655	0.233**	.125**	2.282	.026
F-stat		4.354***				5.132***				19.064***		
(F-stat Sig)		(.000)				(.000)				(.000)		
Durbin Watson		1.789				1.703				1.773		
Adj R <sup>2</sup>		0.538				0.486				0.733		

Note: \*\*\*, \*\*, \* significant at .01, .05, .10 level. Variables are defined as follows: GOWN is a percentage of common shares held by government; FOWN is a percentage of common shares held by foreigners; TYPE refers to types of banks (listed or non-listed); CAR refers to capital adequacy ratio; NPL stands for non-performing loans/total loans; MER refers to management efficiency ratio; ROE is a return on equity, and LQ1 is loans/total deposits; LQ2 is liquid assets/total assets.

#### **4.3.7 Phase 2 - Model 7**

Table 4.24 indicates that when analyzing whether banking fundamentals, CAMEL and total voluntary disclosures as independent variables are related to stock returns. As a result, the model showed a fit's goodness indicated by the determination coefficient adjusting  $R^2$  with a value of 0.565, implying that independent variables all explain 56.5% of the variations due to the factors affecting stock returns. The outcomes of the multiple regression test indicated statistically significant variables influencing the stock returns included only the total voluntary disclosures (Ln\_MTVDIS) ( $\beta = 0.427$ ,  $p = 0.001$ ) and liquid assets to total deposits significantly related to stock returns ( $\beta = 0.829$ ,  $p = 0.000$ ). This means that banks with total voluntary disclosures and liquid assets to total deposits ratio are more likely to have higher stock returns.

#### **4.3.8 Phase 2 - Model 8**

Table 4.24 indicates that when analyzing whether banking fundamentals, CAMEL and extra voluntary disclosures as independent variables are related to stock returns. The model showed the goodness of fit as indicated by the coefficient of determination adjusted  $R^2$  with a value of 0.453. The independent variables all explain 45.3% of the variations due to the factors affecting stock returns. The outcomes of the multiple regression test indicated statistically significant variables influencing the stock returns included the total voluntary disclosures (Ln\_MEXTRAVOL) ( $\beta = .371$ ,  $p = 0.046$ ) and liquid assets to total deposits significantly related to stock returns ( $\beta = 0.888$ ,  $p = 0.000$ ). This means that banks with the extra voluntary disclosures and liquid assets to total deposits ratio are more likely to have higher stock returns.

#### **4.3.9 Phase 2 - Model 9**

Lastly, Table 24 indicates that when analyzing whether banking fundamentals, CAMEL and the extra voluntary disclosures as independent variables are related to stock returns. The model showed the goodness of fit as indicated by the coefficient of determination adjusted  $R^2$  with a value of 0.409. The independent variables all explain 40.9% of the variations due to the factors affecting stock returns. The outcomes of the multiple regression test indicated statistically significant variables influencing the stock returns included only the total voluntary disclosures (Ln\_MNONTRA) ( $\beta = 0.400$ ,  $p = 0.024$ ). liquid assets to total deposits significantly related to stock returns ( $\beta = 0.662$ ,  $p =$

0.000). This means that banks with the non-extra voluntary disclosures and liquid assets to total deposits ratio are more likely to have higher stock returns.



**Table 4.24** Multiple regression results of the factors influencing stock returns

Variables	Model 7 Stock Returns				Model 8 Stock Returns				Model 9 Stock Returns			
	B	$\beta$	t-stat	p-value	B	$\beta$	t-stat	p-value	B	$\beta$	t-stat	p-value
(Constant)	-1077477.38***		-5.241	.000	-1136925.75***		-4.457	.000	864593.815***		3.859	.000
Ln_LQ3_2	62432.660***	.829***	5.344	.000	66892.496***	.888***	4.449	.000	49873.263***	.662***	3.950	.000
MCAR	52.30	.077	.685	.497	-55.348	-.082	-.521	.605	25.493	.038	0.262	.794
MNPL	0.00001*	.261*	1.715	.094	0.00001*	.344*	1.769	.085	0.00001	.241	1.240	.222
Ln_MTVDIS	3994.901***	.427***	3.618	.001								
MExtraVol					106.336**	.371**	2.014	.046				
Ln_MNonExtra									701.620**	.400**	2.558	.024
F-stat		10.346***				6.861***				5.803***		
(F-stat Sig)		(.000)				(.000)				(.001)		
		1.977				1.987				1.875		
Adj R <sup>2</sup>		0.565				0.453				0.409		

Note: \*\*\*, \*\*, \* significant at .01, .05, .10 level. Variables are defined as follows: LQ3 is liquid assets/total deposits; CAR refers to capital adequacy ratio; NPL stands for non-performing loans/total loans; TVDIS refers to total voluntary disclosure; ExtraVol is extra voluntary disclosure and NonExtra is non-extra voluntary disclosure.

#### 4.4 Conclusion

The purpose of this chapter to empirically explore the extent of overall voluntary disclosures of banks located in Thailand during the period 2019 – 2019 (the first objective) and the determinant of the voluntary disclosures. The voluntary disclosures were developed based on Meek et al (1995) classified as the strategic voluntary disclosures, financial voluntary disclosures and non-financial voluntary disclosures (the second objective). The study also developed the voluntary disclosures in a different dimension classified as the total voluntary disclosures, extra voluntary disclosures and non-extra voluntary disclosures (the third objective). Lastly, the study intended to explore the informative value of the voluntary disclosures developed by this study on stock returns (the fourth objective).

The study successfully contributed a self-constructed and un-weighted voluntary disclosure index to the literature. Banks in Thailand voluntarily disclosed is useful information to the public. The listed banks tended to provide the voluntary disclosure information in the highest manner, while the foreign banks were less likely to provide the voluntary disclosure information. In addition, the listed banks tended to provide the strategic, financial and non-financial disclosure information in the highest manner, while the government policy banks were less likely to provide the strategic disclosure information. The voluntary disclosures in the banks located in Thailand have been gradually developed in a positive way. The banking fundamental information namely CAMEL of the banks located in Thailand in the reasonable level of assurance. No bad signaling of financial difficulty had been found in the period of 2016 – 2019.

The empirical findings of the study found that the overall determinant of the voluntary disclosures was non-performing loans. More details, in the total voluntary disclosures, banks with a higher percentage of common shares held by government shareholders are more likely to provide the total voluntary disclosures. In contrast, banks with fewer foreign shareholders and non-listed banks are more likely to provide total voluntary disclosures. Banks with fewer capital adequacy ratios and fewer non-performing loans to total assets are more likely to provide the total voluntary disclosure. In addition, banks with a higher return on equity and a higher proportion of loans to total deposits are more likely to provide voluntary disclosures. In the extra voluntary



disclosures, the proportion of non-performing loans are more likely to disclose the extra voluntary information. In the non-extra voluntary disclosures, the banks with a higher percentage of common shares held by foreign shareholders are more likely to provide the non-extra voluntary disclosures. In contrast, banks with fewer proportion of non-performing loans and proportion of loans to total deposits are more likely to provide the non-extra voluntary disclosures.

In the strategic voluntary disclosures, the banks with a lower percentage of foreign shareholders and a lower non-performing loans were more likely to provide the strategic voluntary disclosures. On the other hand, banks with a higher return on equity and a higher loan to total deposit were more likely to provide the strategic voluntary disclosures. In financial voluntary disclosures, the banks with a lower percentage of foreign shareholders were more likely to provide the financial voluntary disclosures. In non-financial voluntary disclosures, the banks with a lower percentage of foreign shareholders and a lower non-performing loans were more likely to provide the strategic voluntary disclosures. On the other hand, banks with higher liquid assets to total assets were more likely to provide the non-financial voluntary disclosures.

Finally, the study significantly found that there was informative value of the voluntary disclosures on stock returns. More details, the banks with higher total voluntary disclosures, extra voluntary disclosures and non-extra voluntary disclosures and higher liquid assets to total deposits ratio are more likely to have higher stock returns. Surprisingly, the bank fundamental information (i.e. CAMEL) were less likely to provide incremental value to stock returns.

## **CHAPTER 5**

### **CONCLUSION AND RECOMMENDATIONS**

The last chapter of this dissertation is concerned with a summary of the study, including the research methodology and the main conclusion, a discussion of the findings, and their practical contributions and implications. In addition, study limitations and suggestions for further research are also provided in this chapter. This chapter has been organized into four sections. Section 5.1 presents the conclusion. Section 5.2 provides the interpretations and discussion of the study. Section 5.3 presents the contributions and implications of the study. Section 5.4 highlights the limitations of the study and provides suggestions for further research.

#### **5.1 Conclusion**

This dissertation aimed to investigate the factors influencing voluntary disclosures and their impacts on stock returns of banks operating in the Thai banking industry, including listed and commercial banks, government policy banks and foreign commercial banks. Inclusive data on voluntary disclosure, bank fundamentals (government ownership, foreign ownership, and bank type), CAMEL (capital adequacy, asset quality, management efficiency, earning and profitability, and liquidity) and stock returns information were extracted from annual reports (Form 56-1 and 56-2) filed during 2016 -2019 using the SET Market Analysis and Reporting Tool (SETSMART) and other sources, which were the most recent year for which data were available at the time. The voluntary disclosure indices were developed from the total 572 initial disclosure items including both mandatory and voluntary disclosures. By carefully excluding all the mandatory disclosure items based on the regulations of the Bank of Thailand, the Securities and Exchange Commission, the Thai Accounting Standards, and the Thai Financial Reporting Standards, the 185 items were finalized as the total voluntary information disclosures. Then, the study developed a series of self-constructed and un-weighted voluntary disclosure indices together with the RapidMiner techniques. The voluntary disclosure indices were categorized either as: (1) total voluntary disclosure, extra voluntary disclosure, and non-extra voluntary disclosure; or (2) strategic

information disclosure, financial information disclosure, and non-financial information disclosure. The data were analyzed using content analysis, descriptive and multiple regression analyses.

This study aimed to answer the following research questions:

Research Question 1: To what extent have Thai banks voluntarily disclosed information in their annual reports during the period between 2016 and 2019?

Research Question 2: Is there any significant improvement in the extent of overall voluntary disclosures in the published annual reports of Thai banks throughout the study period?

Research Question 3: Is there any association between bank fundamentals and CAMEL with the voluntary disclosures (total voluntary disclosures, extra voluntary disclosures and non-extra voluntary disclosures)?

Research Question 4: Is there any association between bank fundamentals and CAMEL with the voluntary disclosures (strategic information, financial information and non-financial information)?

Research Question 5: Do voluntary disclosures (total voluntary disclosures, extra voluntary disclosures and non-extra voluntary disclosures) and CAMEL have effects on stock returns?

## **5.2 Research Results and Discussion**

For each research question, a summary and discussion of the research results pertinent to the question are given as follows.

### **5.2.1 Research question 1: To what extent have Thai banks voluntarily disclosed information in their annual reports during the period between 2016 and 2019?**

The extent of voluntary disclosures in the annual reports of banks in Thailand were measured over four years from 2016-2019 by developing a self-constructed, un-weighted disclosure index comprising 185 voluntary information items refined from prior studies. The index items were classified into three information categories, namely strategic information, financial information, and non-financial information.

The scoring tool was designed to measure the extent of overall voluntary disclosures. It included an index of all voluntary disclosures, a total of 185 items, and used a polarized guideline score, rating 1 if disclosed and 0 if not disclosed. The main reason for applying this approach to the study was to avoid weighted scoring. The total voluntary disclosure score (TVDIS) was extracted from 80 annual reports of 3 unlisted banks, 11 listed commercial banks, and 6 government-controlled specialized banks, giving a total of 20 banks, over four years from 2016 to 2019. TVDIS was calculated as the percentage of the actual voluntary disclosure score for each bank divided by the total voluntary disclosure items. The main reason for adopting this approach in the study was to avoid the inherent subjectivity in weighted scoring. Also, the study categorized the total voluntary disclosure scores into 2 sub-categories: extra voluntary disclosure and non-extra voluntary disclosure, to determine, in detail, the power of voluntary disclosure.

The findings showed that the average overall voluntary disclosure score of Thai banks over the four years studied was 59.33 %, with a range between 21.89% and 90.14%. In 2016, the extent of the voluntary score was 56.22%, but in 2019 the average score of voluntary disclosure increased to 61.48%. The voluntary disclosure of Thai commercial banks tended to increase markedly over the four years of the study. In addition, the results of this study revealed a significant variation in the voluntary disclosure scores obtained by Thai banks over the four years. The highest disclosure score was 90.14 %, achieved by Bank of Ayudhya (listed), while the lowest disclosure score was 21.89%, reported by Industrial and Commercial Bank of China (unlisted).

Moreover, the study found a variation in the type of information given in the voluntary disclosures of banks located in Thailand with non-financial information (64.4%) being the highest, followed by strategic information (58.7%) and financial information (54.0%). Within non-financial information, the board and directors section provided the highest score (95.0%), followed by sections dealing with employee information (87.5%) and social responsibility (86.25%). Within strategic information, the general information section provided the highest score (97.5%), followed by sections dealing with risk information (90.0%) and research and development (88.75%). Within financial information, the general financial information section provided the highest score (95.0%), followed by sections dealing with stock information (56.25%) and business

segment information (45.0%). The overall findings of this present study agree with those of Meek, Robert and Gray (1995) that found UK banks provided the highest information disclosure in non-financial information followed by strategic and financial information. However, US and European banks preferred to offer strategic information. These separate findings could be explained by the tendency of banks to disclose non-financial information in preference to financial information since financial numbers are easy to scrutinize in various analyses. Banks prefer not to disclose financial information to avoid in-depth criticism by analysts. When analysing only Thai Banks, it was found that the board and directors section provided the highest score. Based on local perception, the board and directors of the top four Thai banks are composed of well-known individuals with high standing in their various fields of expertise. Such information would emphasize the stability, wealth and sustainability of the banks. Also, information relating to social responsibility has consistently been shown to earn a privileged image. Furthermore, the disclosures of non-financial information or qualitative information, such as strategic information, are preferred to avoid public scrutiny.

**5.2.2 Research Question 2: Is there any significant improvement in the extent of overall voluntary disclosures in the published annual reports of Thai banks throughout the study period?**

According to the analysis, the mean score of the TVDIS for each year has increased from 56.22% in 2016 to 61.48% in 2019. The TVDIS increased over the four years by approximately 5.3%. However, it was observed that the mean change in the TVDIS was 2.2% in 2017, 2.8% in 2018, and 0.3% in 2019. Moreover, the mean score of the TVDIS was less than 60% in 2016 and 2017, then just over 60% in the final two years (2018-2019). The analysis revealed that the quantity of voluntary information provided by Thai banks, in their annual reports to the public, had increased progressively over the four years studied. In other words, the positive increase in TVDIS occurred during the time period studied. Possible explanations for the evolving upward trend in the TVDIS include the economic liberalization and reforms undertaken by the Thai government at that time, which influenced the voluntary disclosure practices by banks.

### **5.2.3 Research Question 3: Is there any association between bank fundamentals and CAMEL with the voluntary disclosures (total voluntary disclosures, extra voluntary disclosures and non-extra voluntary disclosures)?**

The findings revealed that bank fundamentals and CAMEL all explain 58.3%, 45.3% and 40.5% of the variations due to the factors affecting the total voluntary disclosure, non-extra voluntary disclosure and extra voluntary disclosure, respectively. Specifically, the percentage of common shares held by government shareholders, return on equity and loan to deposit ratio demonstrated statistically positive effects on total voluntary disclosure. In contrast, the percentage of common shares held by foreign shareholders, listed banks, capital adequacy ratio and non-performing loans had negative effects on total voluntary disclosures. Banks with larger non-performing loans disclose less information voluntarily. Furthermore, listed banks tended to reduce the level of their total voluntary disclosures. Surprisingly, for banks that voluntarily disclosed extra information, higher non-performing loans tend to reveal more extra voluntary disclosure and less extra voluntary disclosure when the return on equity is higher. For banks that voluntarily disclosed non-extra information, there is a tendency to disclose more the higher the percentage of common shares held by foreign shareholders whereas less non-extra voluntary disclosure occurs when the loan to deposit ratio is higher.

In conclusion, the findings indicated that the banks with a greater percentage of common shares held by government shareholders, such as government policy banks, banks with a higher return on equity or better profitability, and banks with a higher loan to deposit ratio or have the tendency to obtain better performance, prefer to voluntarily disclose more voluntary information. The results are consistent with those of two previous studies: Lan, Wang and Zhang (2013) found the percentage of common shares held by government and return on equity had positive effects on voluntary disclosure; and Zelenyuk, Faff & Pathan (2020) found loans to total deposits positively related to voluntary disclosure. Additionally, it is considered that a bank is more likely to voluntarily disclose information if it benefits the bank. Good banks are more likely to voluntarily disclose more voluntary information.

The finding also supports the study of Spiegel & Yamori (2003) that found non-performing loans negatively related to voluntary disclosure. Since the non-performing

loans reflect management efficiency and shareholder monitoring, this finding supports the idea that a bank is more likely to voluntarily disclose information if it benefits the bank. Surprisingly, the percentage of common shares held by foreign investors, listed banks and capital adequacy ratio all had negative effects on voluntary disclosure. The interpretation of these negative findings should be made as follows.

(1) Typically, previous studies found that foreign investors are more likely to invest in companies which voluntarily disclose more information (Tsang, Xie & Xin, 2018). However, the findings in this study were the opposite. This may be because foreign investors have no concern about voluntary disclosures, and that high returns are preferable. It was evident that some foreign banks like ABN, AMRO, and ING Bank had agreements with the Thai Government and Bank of Thailand to invest in Thai banks, which needed capital injection, provided the requirement of a minimum guaranteed rate of return was met (ING, 2007). Therefore, such voluntary disclosures may not be the first priority.

(2) Listed banks are required to disclose all mandatory information required by regulators such as the Bank of Thailand and the Securities Exchange Commission, while unlisted banks are not required to disclose information to the same standard. However, in Thailand, many banks are established by the Thai government and are considered equivalent to government policy banks. Therefore, those banks are required to disclose information not only in accordance with the regulations of the Bank of Thailand and the Office of the Securities and Exchange Commission but also to many parties such as the Fiscal Policy Office, the Ministry of Finance, and the Ministry of Agriculture and Cooperatives. Consequently, voluntary disclosures were found in publicly listed banks at lower levels than those of non-listed banks; and

(3) Normally, banks with a higher capital adequacy ratio provide a higher level of voluntary disclosure (Estrella, 2004). However, the results of this study showed that banks with a higher capital adequacy ratio are less likely to disclose voluntary information. This may be due to the perception that higher capital adequacy ratio reflects a lower ability to manage invested capital that leads to lower bank profits. Hence, banks voluntarily disclose less of this information. The results support the idea that a bank

voluntarily disclose more information only when the disclosed information benefits its business.

#### **5.2.4 Research Question 4: Is there any association between bank fundamentals and CAMEL with the voluntary disclosures (strategic information, financial information and non-financial information)?**

The study results showed that bank fundamentals and CAMEL all explain 53.8%, 48.6% and 73.3% of the variations due to the factors affecting the strategic information disclosure, financial information disclosure and non-financial information disclosure, respectively. Specifically, the percentage of common shares held by foreign shareholders negatively affected the strategic information disclosure, financial information disclosure, and non-financial information disclosure. Moreover, return on equity and loans to deposits ratio had positive effects on the strategic information disclosure whereas non-performing loans demonstrated negative effects on the strategic information disclosure. Additionally, liquid assets to total assets and non-performing loans had positive effects on the non-financial information disclosure.

In conclusion, the findings indicated that banks with a higher percentage of common shares held by foreign shareholders tend to disclose less for all their disclosures of strategic information, financial information, and non-financial information. Banks with higher non-performing loans are less likely to voluntarily disclose their strategic information and more likely to disclose non-financial information. Banks with a higher return on equity and a greater loans to total deposits ratio are more likely to disclose strategic information while banks with higher liquid assets to total assets tend to be more likely to disclose non-financial information.

The findings of this study indicate that banks with a higher percentage of common shares held by foreign shareholders are less likely to voluntarily disclose all their strategic information, financial information, and non-financial information. Both individual investors and value investors should take this finding into consideration. The findings may be explained by a belief of a bank that all information is commercially sensitive and public reactions can cause stock price fluctuations. Therefore, they strictly comply with mandatory disclosures and prefer to disclose less voluntary information. Moreover, banks with a higher percentage of shares held by foreign shareholders prefer



not to disclose information that is not required to be disclosed so the bank's internal information is not made available to competitors and the bank can remain competitive. Additionally, banks in Thailand with a higher return on equity and a higher loans to total deposits ratio are more likely to disclose strategic information. Finally, when banks in Thailand face higher non-performing loans., they tend to disclose more non-financial information and disclose less strategic information.

#### **5.2.5 Research Question 5: Do voluntary disclosures (total voluntary disclosures, extra voluntary disclosures and non-extra voluntary disclosures) and CAMEL have effects on stock returns?**

When considering the informative value of the voluntary disclosure, the findings revealed that the explainable variables included total voluntary disclosure and CAMEL explained 56.5% of the variations due to factors affecting the stock returns. When using the extra voluntary disclosures and CAMEL as independent variables, it was found that the explainable variables explained 45.3% of the variations due to factors affecting the stock returns. In addition, when using non-extra voluntary disclosures and CAMEL as independent variables, it was found that the explainable variables explained 40.9% of the variations due to factors affecting the stock returns. The overall findings indicated that liquid assets to total deposits and all the three dimensions of the voluntary disclosures (total voluntary disclosures, extra voluntary disclosures and non-extra voluntary disclosures) demonstrated statistically significant positive effects on stock returns. Among the three dimensions of voluntary disclosures, the total voluntary disclosures had the highest impact on the stock returns, followed by the non-extra voluntary disclosures and extra voluntary disclosures, respectively. These findings were supported by previous studies that found the voluntary disclosures provide informative value to investors (Elbannan and Elbannan, 2015; Birindelli, Ferretti, Chiappini, Cosentino and Andrea, 2020). The findings were consistent with the stock valuation concept, that is, the appropriate value or the intrinsic value of common stock is derived from the present value of the future cash flows obtained from investing in that stock. The discount rate used in present value calculation will be higher for higher investment risk level. Therefore, all relevant information, especially voluntary disclosures, were used to appraise the future performance and investment risk. Moreover, this study also found that

a bank is more likely to voluntarily disclose information if it benefits the bank. Always, good banks are more likely to voluntarily disclose more voluntary information because voluntary disclosures would indicate significant positive impacts on stock returns. Thus, banks with higher voluntary disclosures tend to have greater stock returns.

Additionally, this study also found that the ratio of liquid assets to total deposits as a proxy for banks' liquidity significantly and positively affected stock returns. Liquidity management is one of the crucial issues for the banking sector. Higher liquidity reduces the short-term risk of banking operations. This may influence stock price and increase stock returns. In contrast, the study found that non-performing loans and capital adequacy ratio did not have statistically significant effects on stock returns. This may be because non-performing loans may not have a direct effect on stock returns, but they directly affected the level of voluntary disclosures, which, in turn, affected the stock returns. In conclusion, non-performing loans affect stock returns indirectly through voluntary disclosures. This issue is considered to be a valuable topic for further study.

In addition, the finding revealed that capital adequacy ratio demonstrated an insignificant effect on stock returns. This may be because investors assess stock prices using data from voluntary disclosures which indicate future operating directions and investment risks. However, CAMEL information was derived from past performance. In other words, CAMEL was already recognized by investors and reflected in the share price at the time the CAMEL announced. Consequently, the CAMEL information may have a minor effect on investors' decision making. Furthermore, in highly competitive and efficient stock markets and in situations of rapid and intense technological changes, future information relating to strategic and non-financial information are more likely to convince investors to trade on stocks more than the CAMEL information. Babu and Viswanathan (2018) stated that current bank rating systems, such as CAMEL, may no longer accurately assess the banking environment because the ratios were potentially manipulated. These researchers recommended the application of close monitoring systems together with CAMEL. For the investors' side, many studies indicated that sophisticated investors are more likely to employ not only financial information but also other information such as GDP, company future performance, and personal experiences to make an investment decision (Keswani, Dhingra and Wadhwa. Bharti, 2019). Past

records were just another source of information they could consider. Furthermore, investors in emerging markets prefer the “day trade” to speculate on their investments. Day traders used just software and access to real-time stock quotes to create the perception that they could successfully compete with professional investors and market makers, even if empirical evidence showed that a lot of day traders lost most of their gains (Douglas and Diltz, 2003).

### **5.3 Contributions of the Study**

#### **5.3.1 Theoretical contributions**

The results of this study contribute to the academic literature in six ways as follows.

(1) The banking industry in Thailand makes voluntary disclosures at a moderate level and this is likely to increase slightly. Most voluntary disclosures consist of non-financial information, followed by strategic information and financial information, respectively. Within non-financial information, the board and directors section provided the highest score followed by the sections dealing with employee information and social responsibility. Within strategic information, the general information section provided the highest score followed by the sections dealing with risk information and research and development. Within financial information, the general financial information section provided the highest score followed by the sections dealing with stock information and business segment information.

(2) Factors influencing the total voluntary disclosures comprise the percentage of common shares held by government shareholders (+), return on equity (+), loan to deposit ratio (+), percentage of common shares held by foreign shareholders (-), listed banks (-), capital adequacy ratio (-), and non-performing loans (-).

(3) Factors influencing the strategic information disclosures comprise return on equity (+), loan to deposit ratio (+), percentage of common shares held by foreign shareholders (-), and non-performing loans (-).

(4) Factors influencing the non-financial information disclosures comprise non-performing loans (+), liquid assets to total assets (+), and percentage of common shares held by foreign shareholders (-).

(5) The percentage of common shares held by foreign shareholders have a negative effect on the financial information disclosure.

(6) Bank liquidity and the voluntary disclosures comprising: total voluntary disclosures, extra voluntary disclosures, and non-extra voluntary disclosures have positive effects on stock returns, but capital adequacy ratio and non-performing loans have statistically insignificant influences on stock returns.

### **5.3.2 Practical contributions**

The results of this study provide implication for banking practice as follows.

**Management:** Since the voluntary disclosures have positive influences on stock returns, management should consider providing voluntary disclosures to the public. This is to reduce the asymmetry of information between management and the public. When the public are made aware of all the important information, then they will be keen to invest. On the other hand, when the public have less information, they would invest using more of their own judgment and ultimately fail in the long-term.

**Regulators:** Central banks and Securities Exchange Commissions should encourage banks to disclose useful information to the public. This is to reduce the issue of information asymmetry. Also, monitoring and enforcement should be continuously applied. Also, reward schemes should be taken into consideration. This is to motivate banks to voluntarily disclose all essential information to the public.

**Investors:** These findings found that higher voluntary disclosures and greater liquid assets to total deposits lead to more stock returns. Therefore, investors should consider both liquid assets to total deposits and voluntary disclosures as vital information before making any decision, especially when trading stocks. This is because banks tend to disclose voluntary information to signal their future performance and corporate growth. The voluntary disclosure information can be used for analysis to make investment decisions and help investors get more returns on stocks, increasing wealth and sustainability in the long run.

**Researchers:** This study contributes to the academic literature by attempting to confirm or disprove the findings reported in previous empirical voluntary disclosure studies concerning the relationship between the extent of voluntary disclosure in annual reports and bank fundamentals. The study also provides a basis for the undertaking of

future research of bank fundamentals which significantly and positively correlate with the extent of voluntary disclosure. However, as some findings may be inconsistent with some previous voluntary disclosure studies, researchers should be aware of using all findings.

## **5.4 Research Limitations and Recommendations for Further Research**

### **5.4.1 Research limitations**

The limitations of this study can be summarized as follows.

Firstly, this study attempted to initiate voluntary disclosure indices by referring to previous studies, by carefully excluding all the mandatory disclosure items based on the regulations of the Bank of Thailand, the Securities and Exchange Commission, the Thai Accounting Standards, the Thai Financial Reporting Standards, and the researcher's experience to identify voluntary disclosure, however, the criteria might be subjective because they were based on judgments. This self-constructed index has been widely employed by previous empirical disclosure studies as a suitable research instrument in measuring the level of disclosure information. However, this present study found significant findings which contribute to the literature.

Secondly, this study collected voluntary disclosures and other information based on existing data. Other types of information sources were omitted from data collection. These other sources of information may include internal bank circulars, financial press releases, and analysis reports which might be used by bank management to communicate their information to the public.

Finally, this study was based on data collected from banks based solely in Thailand, including 11 commercial banks, six government policy banks, and the Thai subsidiaries of three foreign banks. Hence, the conclusions and implications of this study may not be applicable to the banking industry as a whole.

### **5.4.2 Recommendations for further research**

The results of this study present a number of suggestions for further research as follows.:

Firstly, the voluntary disclosures recommended by this study may include only the time of data collection periods. Some other voluntary disclosure may be changed and

developed into different ones. Continuing studies to observe new voluntary disclosures may be needed to improve the robustness of results and their implications.

Secondly, this present study was restricted to one particular country and jurisdiction. Thus, further study could be undertaken using data from other countries to compare the extent of voluntary disclosure practices.

Thirdly, this study included some independent variables of CAMEL and bank fundamentals. Other explanatory variables such as board composition and complexity of businesses, among others, may be introduced for further studies.

Fourthly, given the narrow dataset, statistical methods should be carefully considered, especially endogeneity due to omitted variables and reversion causality. Fixed effects and random effects or instrumental variable approach may be taken into consideration.

Finally, this study found that voluntary disclosures and bank liquidity influenced stock returns. However, CAMEL (capital adequacy, asset quality, management efficiency, earning and profitability) did not have direct effects on stock returns. Further research should focus on whether CAMEL influences stock returns through voluntary disclosures or it should investigate the mediating effects of voluntary disclosure on the relationships between CAMEL and stock returns. Such research could help explain why CAMEL do not have direct effects on stock returns.

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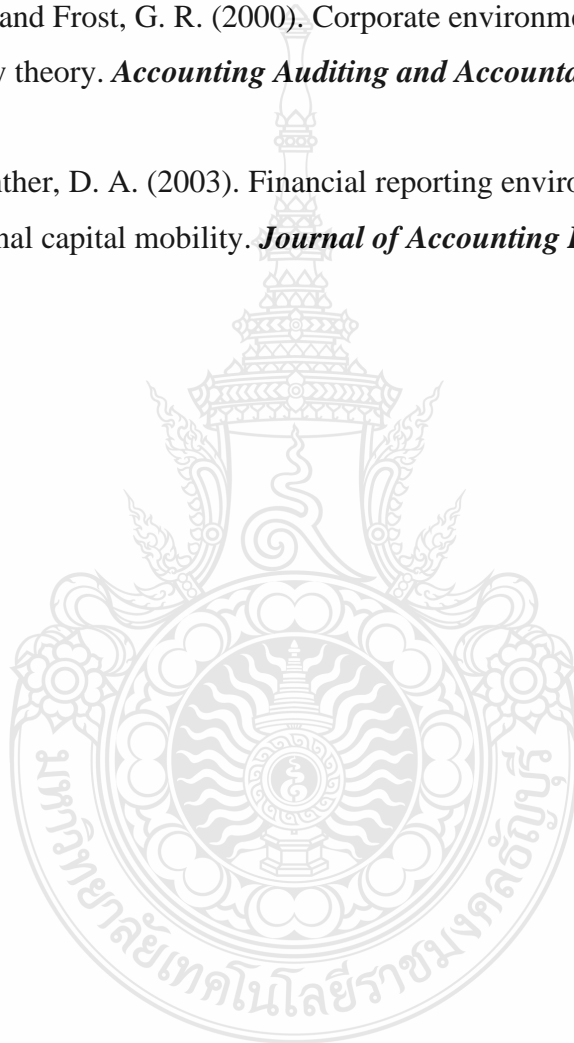
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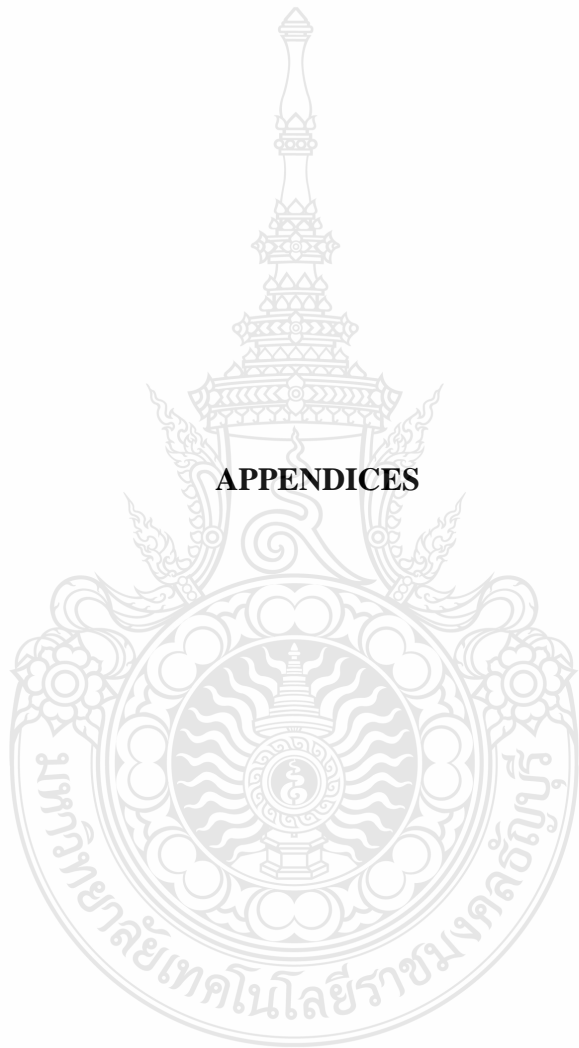
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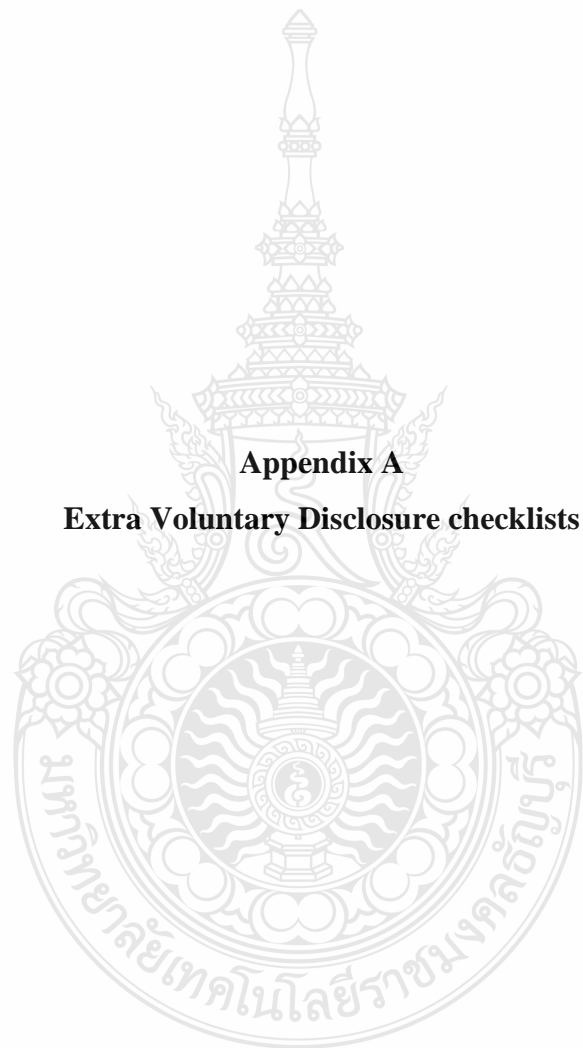
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## **I. Strategic voluntary disclosures**

1. Percentage of banking service calls handled by automated voice response
2. Number of banking customer service calls received
3. Disclosure of the bank customers and key suppliers
4. Analysis of the average loss rate on credit cards compared with industry average
5. Projected 5 year earnings growth - company vs. others
6. Percentage of fees waived
7. Comments on RandD invested in product development
8. Comments on RandD invested in basic research
9. Change in capital expenditures or RandD
10. Capital expenditure – planned
11. Advertising and publicity - planned
12. Disclosure of the expected expenses for advertising
13. Projection of capital expenditure or RandD
14. Disclosure of research and development (RandD) expenditure
15. Corporate policy on RandD
16. Comments on the competitive strength of RandD activities in relation to competitors

## **II. Financial voluntary disclosures**

1. Fixed asset revaluation within the last five years
2. Forecasts of future sales/future profits
3. Advertising and publicity method
4. Future profits forecasted
5. Financial history or summary - 6 or more years
6. Advertising information
7. Management earnings forecasts - Good news/Bad news
8. Expectations of profitability per share
9. Ageing schedule

## **III. Non-financial voluntary disclosures**

1. Classification of employees by age/level of education/functionality
2. Categories of employees (sex-function-age-education)

3. Average compensation per employee
4. Recruitment problems and related policy
5. Personnel cost per employee
6. Customer profile/market segment/ market share/number of customers
7. Percentage of customers receiving mailings or follow-up calls applied for credit cards



## **Non-extra Voluntary Disclosures**

### **I. Strategic voluntary disclosures**

1. Strategy to improve performance
2. Future strategy - information on future expansion (capital expenditures)/general development of business
3. Foreign currency exposure management description
4. Description of strategic initiative to increase services provided
5. Description of strategic plans for growth by line of business
6. Relevant competitive environment/key competitors
7. Increase in the lifetime value of a credit card customer
8. Credit approval rates
9. Strategic and operational information and compliance objectives
10. Effect of political and economic factors on the results of the bank business
11. Bank contribution to the national economy
12. Relevant macro-economic environment of corporate
13. Important issues during the year
14. Impact of foreign exchange fluctuation on current results
15. Description of economic growth rates in population
16. Plans for growth
17. Status of ongoing strategic programs and update on achievability of objectives
18. Reflection of strategic objectives in incentive system
19. Operating plan next year
20. Key success factors
21. Key internal resources as a basis for competencies
22. Information that may affect the future performance of the bank
23. List of top five shareholders of the bank
24. Historical figures for last five years or more (or as long as company formation)
25. General outlook of business activities
26. Brief narrative history of the bank
27. Geographical distributions of shareholders

28. Research and development – planned
29. Status and assumptions on future development
30. Objectives and reasons for investments in IT
31. Discussion dependence on technology
32. Description of investments in organizational routines/processes
33. Description and analysis of investment projects
34. Consolidation of key development trends
35. Future prospects regarding RandD
36. Financial allocations for study and development
37. Discussion of company's RandD activities
38. Description RandD projects
39. Risks and under certainties
40. Information on risk management structure
41. Information on risk management committee
42. Existence of a risk management division
43. Duties and responsibilities of risk management division
44. Distinction between risk and opportunities
45. Degree of control in subsidiaries
46. Overview of the major subsidiaries
47. Probable risk responses assessment
48. Probability and impact setting
49. Operational risk management
50. Monitoring activities
51. Methods and programs used for quality control
52. Maturity of foreign currency assets and liabilities
53. Maturity information about deposits and other liabilities
54. Market risk exposure and management

## **II. Financial voluntary disclosures**

1. Stock option plans
2. Stock exchanges where shares are traded

3. Market share
4. Market growth
5. List of marketable securities
6. Forecasted market share
7. Domestic/foreign breakdown of marketable securities
8. Change in market share
9. Competitor analysis -qualitative/quantitative
10. Market share analysis - qualitative/quantitative
11. Summary of sales and net income for most recent eight quarters
12. Volume of shares traded (trend) / (year-end)
13. Change in sales/profits/COGs/GP/administration expense/operating expense/financial expense/inventory/AR
14. Core deposit growth
15. Cost of capital (WACC, hurdle rate, EVA target rate)
16. Disclosure of percentage growth for EPS/ROE
17. Disclosure of percentage growth for revenue
18. Fee-based revenue growth
19. Financial highlights/Financial summary (3yrs/+)
20. Financial history or summary (3 or more years)
21. Graphical presentation of performance indicators
22. Graphs and tables
23. Graphs to illustrate trends, such as EPS, fee income, ROA, ROE, etc.
24. Industry forecast (of any kind)
25. Investment performance
26. Statement of corporate quality performance
27. Past performance and highlights
28. Growth in investment (expansion plans, number pf outlets, etc.)
29. Review of operations by divisions - turnover/operation profit/productivity
30. Description of qualitative/quantitative forecasts of sales/profits/cash flows
31. Comparison of previous plan to actual achievement
32. Comparison of growth rates for fee income/total revenues/operating income

33. Comparative financial position for three to five years or more
34. Charts depicting various forms of income
35. Brief discussion of the bank operating results
36. Target performance goals for growth - dividend payout
37. Analysis of year-to-year changes compared to similar banks for efficiency ratio
38. Analysis of year-to-year changes compared to similar banks for fee income as percentage of total revenue
39. Analysis of year-to-year changes compared to similar banks for ROA/ROE
40. Brief discussion and analysis of a bank financial position
41. Cash flow forecast

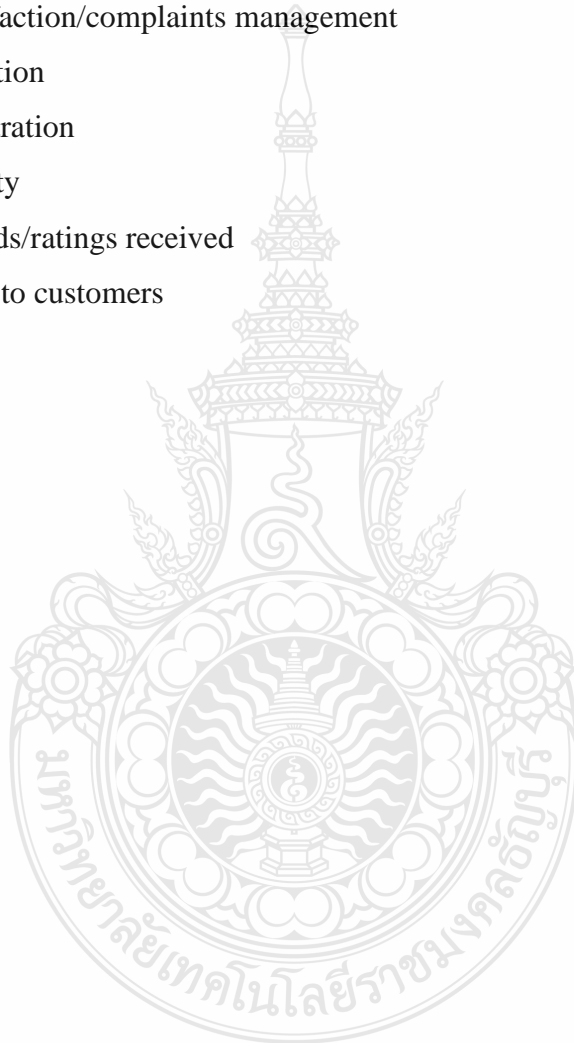
### **III. Non-financial voluntary disclosures**

1. The methods of determining bonuses and compensation to the members of Board of Directors
2. Comments on the abilities of the Board/CEO
3. Business experience of top management
4. Business experience of the non-executive directors
5. Business experience of the executive directors
6. Background of senior managers
7. The extent of the existence of the Committee on Corporate Governance
8. The extent of concern by the Board of Directors as to the competition by other banks
9. Recommendation to management
10. Picture of all senior managers/ board of members / director / CEO
11. Personal characteristics of name, age, education, and address of board members/CEO/director/top management team
12. Details of CEO's contact address
13. Commercial experience of the non-executive directors
14. Commercial experience of the executive directors
15. Budget for staff training expenses
16. Number of full-time employees during year

17. Number of employees working in study and development
18. Number of employees trained
19. Number of employees for two or more years
20. Nature of training
21. Line-of-business distribution of employees
22. Information on geographical distribution of employees
23. Incentive program for employees
24. Geographical distribution of employees
25. Employment rotation policy
26. Statement of policy on employee participation/involvement/competence development
27. Employee satisfaction
28. Description of competence development program and activities
29. Comments on the abilities of the employees
30. Comments on employee safety and health
31. Categories and the quality of the staff who have received training in the bank
32. Recruitment policies (e.g. equal opportunity, diversity, supporting national manpower)
33. Reasons got change in employee numbers or categories over time
34. Rate of employee turnover
35. Bank policy on employee training
36. Policy on communication
37. Receiving quality awards as a result of increase in the quality of the firm's products/services
38. Awards related to products
39. Product description
40. Statement of working environmental and safety policy
41. Future prospects regarding environmental program
42. Contributions to scholarship and health
43. Comments on achievements in environmental program
44. Statement of policy regarding corporate social responsibility
45. Statement of corporate social responsibility
46. Statement of charity policy



47. Sponsoring public health, sporting of recreational projects
48. Participation in government social campaigns
49. Integrity and ethical value
50. Information on community services
51. Information of social banking activities/banking of the society
52. Information on international banking facilities
53. Customer satisfaction/complaints management
54. Customer retention
55. Customer penetration
56. Customer loyalty
57. Customer awards/ratings received
58. Awards related to customers



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