



Faculty of Economics and Business

Family Firms, Debt Ratio and Firm Performance

Cindy Yeo Siaw Hui

**Master of Science
2018**

LIST OF FIGURES

		Page
Figure 1	Theoretical Framework	9
Figure 2	GDP Annual Growth in Percentage	48
Figure 3	Conceptual Framework	65

CHAPTER 1

INTRODUCTION

1.1 Overview

Firm performance may be the implication of making the right decisions at crucial period such as financial crisis period. However, there are several frequently observed factors that need to be in consideration such as ownership structure and capital structure. Emerging country such as Malaysia faced the conflicts of interests among managers and shareholders because of the separation of ownership from control. When the managers have more control power, they attempt to use the limited resources to benefit their own personal interests. It raised the agency and expropriation issues. Expropriation of minority shareholders occurred due to the weak investor protection in developing country and combination of management and control in the firms. When this situation happens, the investors' confidence may be affected especially during the financial crisis period. This highlighted how important it is to have good corporate governance during Asian Crisis in the late 1990s. Besides, the capital market is imperfect and may influence the firm performances with the type of ownership structures in the organization. In short, debt ratio moderates the relationship between family firms and firm performance. This chapter discusses the background of the study, economic and capital market development in Malaysia, theoretical framework, problem statement, objectives, significance of study and the organization of study.

1.2 Background of the Study

Firm performance may reflect the results of making the right decisions at the crucial time such as during the Asian Crisis in the late 1990s. It can be either analyzed as the impact of firm value on market, observations of possible gains in investments or the efficiency estimation of investments (Suaia, 2002). For the past literatures, Tobin Q is commonly used as the market performance measure while return on asset (ROA) is the accounting performance measure. However, there can be several frequently observed critical factors such as ownership structure and capital structure.

Overall, the ownership structure around the world is either under the control of their founders, families or heirs. Most of the publicly listed firms in Western Europe, South and East Asia are family firms (La Porta, Lopez-de-Silanes & Shleifer, 1999). They were the first literature that examined the supreme power and discovered that the separation effects benefit the large shareholders. Managers who are also the majority shareholder at the same time have supreme rights to affect the investment decisions made by the firms. Claessens, Djankov and Lang (2000) also supported the existence of separation effects. In countries such as Indonesia, Korea, Malaysia, Singapore, Philippines and Taiwan (China), 15 to 80 percent of the firms have managers who are the family members and controlling shareholders at the same time. Malaysia was recorded as the third highest family control concentration dominated by the family founders and descendants after Thailand and Indonesia. High concentrated ownership could decrease the agency issue between managers and shareholders because shareholders would be observing managers but the managers are appointed among the family members for the concentrated ownership such as Malaysia. Therefore, conflicts are raised between majority shareholders who plays the

responsibility of managers and minority shareholder. This is the essential reason to monitor the influence of family ownership on the firm performance.

Besides, the importance of good corporate governance practice was highlighted during financial distress period such as Asian Financial Crisis 1997 and Global Financial Crisis 2008 (Zulkafli, Abdul Samad & Ismail, 2007). The concentrated ownership in Malaysia has negative relationship with firm performance and is inferred by the weak investor protection of minority shareholders (Tam & Tan, 2007). The weak governance also raised the expropriation and tunneling issues (Friedman, Johnson & Mitton, 2003). The majority shareholders who acts as managers tend to tunnel the resources out of the firms for their own personal benefits when the investor protection is weak. This affects the firm performance and raised the agency problem (Jensen & Meckling, 1976). The managers are not acting in the best interest of shareholders. On the other hand, several researches such as Sayilgan and Sayman (2012), Anderson and Reeb (2003), and Villalonga and Amit (2006) pointed out that family firms perform better than non-family firms because they need professional managers when the ownership is less concentrated. Managers prefer to use equity financing to avoid firms from financial distress. In other words, shareholders protections were insufficient during the crisis and caused devaluation in investments. Practicing good corporate governance gives directions on principle and best practices in corporate governance, obligation and plan the future aspects of corporate governance in Malaysia.

Another crucial factor of firm performance is capital structure. Studies on capital structure came to attention after the study of Modigliani and Miller (1958). In the perfect capital market, it is assumed to be frictionless, same capital flows across projects in economy and expected that there is symmetric relationship. Yet, it is generally accepted

that the market is imperfect in the real world. It academically contributed to the development of alternative theories such as trade-off theories, pecking order theory and agency theory (Harris & Raviv, 1991). Besides, excessive use of debts may cause the firms to be vulnerable during financial crisis period (Halim Ahmad & Hiau Abdullah, 2013). It is crucial that optimal level of debts where the firms maximize their value. This study proved that firms should not raise the level of debts beyond the optimal level because it did not add value to the firm and might placed it in financial distress position. Moreover, bigger firms in Malaysia relied more on equity than debt financing (Suhaila & Mahmood, 2009). This is the unique characteristics of Malaysia's capital structure.

Based on the discussion above, it shows that firm performance reflects the effect of making the right decision based on ownership structure and capital structure. Family ownership may be contributive to influence the control and management prospect that may eventually caused changes on capital structures and firm performance. However, the past literatures do not emphasize much on the relationship between the ownership structure, capital structure and firm performance. The development of capital structure and economy in Malaysia is discussed in the next section to have better understanding of how these changes may affect the three main variables.

1.3 Economic and Capital Market Development in Malaysia

According OECD Economic Assessment Survey 2016, Malaysia was reported as one of the most successful Southeast Asian economies and aims to become a high-income country by 2020. To accomplish this aim, Malaysia shall strengthen ongoing structural reforms as stated in the 11th Malaysia Plan (RMK11). Therefore, the economic assessment focuses on promoting inclusive productivity by increasing productivity and improving inclusive growth. Malaysia had sustained rapid average growth of average real GDP growth 6.4% per year since 1970. In the progress, Malaysia transformed from dependence on agriculture and commodity exports to a more diversified and open economy with strong bonds in global value chain. The economy was projected to grow at over 4% per year throughout the year 2016-17. Monetary and fiscal policy should maintain sensible to aid improve growth and keep the resilience of the economy to shocks. The rapid and inclusive growth facilitates the development of manufacturing, boosting growth, employment and productivity by extending access to global markets, capital, knowledge and technology. Due to the effort of reinforcing macro-prudential policies and boosting the financial sectors, the shock of Asian Financial Crisis 1997-98 and 2008 Global Financial Crisis was reduced and nurtured with business-friendly investment environment. During the 2008 crisis period, real GDP growth averagely 5.3% per year with services sector representing more than half of the GDP.

Malaysia also achieves market leading position in the global capital market with its spectrum of unique offerings (Capital Markets Malaysia, 2015). Malaysia has the highest bond market in ASEAN and is amongst the top three countries with the largest bonds outstanding in Asia. Malaysia also hosts the largest unit trust industry and leads the market in the global sukuk market. Due to the great achievements in Malaysian capital market,

Malaysia was promoted to Advanced Emerging Market in FTSE Global Equity Index Series in 2013. Capital Markets Malaysia (CMM) was developed by Securities Commission (SC) to optimize further growth and internationalization of Malaysia's capital market. CMM focuses on the four main pillars of the market: Equities, Fixed Income, Asset Management and Alternative Assets with highlights on the Islamic Capital Market (ICM) and Sustainable and Responsible Investment (SRI) framework to ensure spectrum expansion of product offerings to all potential issuers and investors. Malaysia also gives chances for capital market investment growth since it is one of the most developed economies in Southeast Asia. It has naturally become a global marketplace for such growth due to both firm governance infrastructure and instinctive government approval.

Moreover, Malaysia's leading role in ASEAN regional bloc and Trans-Pacific Partnership (TPP) offers chances for good growth potential in near future. Plus, the Malaysian market is suitable platform for publicly listed companies (PLCs) and small-to-medium-sized companies (SME) to search for the incredible modes of capital formation. Investors, then, can have less worries in producing sustainable long-term investment returns that will be exerted by stable long-term growth aspects in the commodities, manufacturing and services industries.

Lastly, a progressive area driven by young generation and exponential growth potential implies Malaysia and ASEAN as better option than matured market. Economic growth is optimized by the sustainable, inclusive and innovative prospect of capital market in Malaysia. CMM provides insights from authorities to assure the issuers and investors into participating in the investments and fundraising and yet remain dedicated to industry development. SC, a statutory body reporting to the Ministry of Finance, Malaysia was established under Securities Commission Act 1993. Its role as sole regulatory agency for

regulation and development of capital market gives it responsibility to supervise and monitoring the activities of market institutions, including exchanges and clearing houses, and regulating the persons licensed under the Capital Markets and Services Act 2007.

From the discussion above, Malaysia has developed from focusing on agriculture and commodity exports to a more diversified and open market. It also gained several achievements and brought new improvements in the capital markets. However, the concentrated ownership in Malaysia raised the expropriation issue which will be discussed in the next section.

1.4 The Expropriation Issue

In developing countries, the weak corporate governance practice among the firms raised the expropriation issue (La Porta, Lopez-de-Silanes, Shleifer & Vishny, 2000). Expropriation is generally related to agency problem raised by Jensen and Meckling (1976) who focused on the managers consumption and empire building. Insiders or managers who have excessive control attempt to use profits for their own personal benefits rather than returning the money to the outside investors. Therefore, expropriation issue on minority shareholders and creditors is common in many countries. Manager expropriations also may affect the investors' confidence especially during financial crisis (Johnson, Boone, Breach & Friedman, 2000). For illustration, investor's confidence wavered and influenced the capital flows of all the emerging market countries during the Asian Financial Crisis 1997-98. This implied that Asian crisis is sensitive to changes on exchange rate and stock market performances. Although the crisis effect do not convey which countries were vulnerable to confidence loss, it relayed the fact that changes on exchange rate and stock market

performances on confidence loss occurred due to investor's protection. Thus, corporate governance can be a crucial measure of macroeconomic problems in crisis period.

Survey done by Gama and Galvao (2012) also pointed out that investor protection of minority shareholders from expropriation of large shareholders should be increased. Overall, the past literatures indicated that family firms have better performance than non-family firms but only occur in situation where the link between family ownership and performance cannot be defined without difference of control and cash flow right. They predicted that shares owned by family firms will be decreased through the practice of efficient financial market. This showed that family firms play an important role in share market nowadays. The argument that family firms operate more efficient than professional firms because of less monitoring was also arguable. Managers and large family shareholdings are often the same person, so no separation between management and ownership compensate the firms with less or zero monitoring and discipline costs. Family firms owned the incentive, power and information to control the managers, decreased free-rider agency costs and raised returns. However, family differences and role conflict can lead to inability to work in the best of the firms. This was why the influences of family firms on the firm were studied.

Moreover, wealth expropriation due to concentrated shareholders such as family firms might occur when ownership and management is combined (Gama & Rodrigues, 2013). It was empirically demonstrated that family firms did better job than non-family firms in term of accounting performance. They reported that high family involvement in management level seems to reduce managerial opportunism. However, it did not revealed as increase in valuation but as alignment incentive between combine of large shareholders and firm value. Another way to channel family's private benefit is through board

dominance. For instance, US family firms performed better in both ROA and Tobin q because US dominated by common laws and; provides high protection to investors and creditors (Corstjens, Maxwell & Heyden, 2004). Contrast with US, French used civil law regime, provides low protection to investors and creditors, less efficiency and family firms are common among large quoted firms. They observed that these performance differences were mainly influenced by ownership structures and concluded that families prone to sustain their control in the firms with higher effective cost of capital than being equal to non-family firms.

1.5 Theoretical Framework

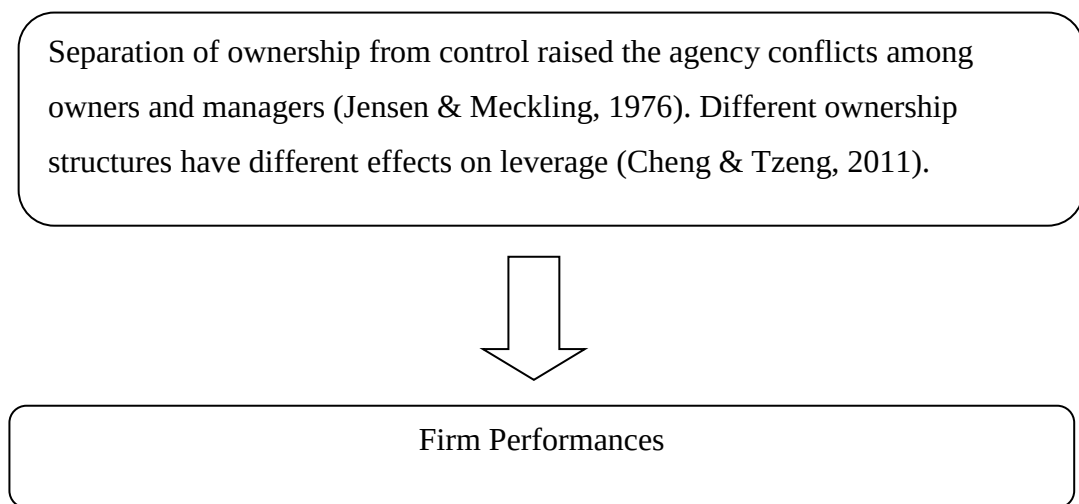


Figure 1: Theoretical Framework

The theoretical basis used in this study is the agency theory. Agency theory postulates separation of ownership from control caused the conflicts of interest between owners and managers which influence the capital structure decisions as well as firm performances to satisfy their own private benefits (Jensen & Meckling, 1976). It is a

written contract between the principal nominated the agent to complete certain tasks on their behalf including decision making authority delegation to agents.

As theoretical basis, this theory is applicable to this study because corporate governance separated the firm's control from ownership with condition where managements have more control compared to shareholders. Managers tend to use the limited resources to fulfill their own personal benefits rather than in the interests of shareholders. This condition is described as agency problem. Family firms can choose to use more debts or rely more on the equity. Family firms either has positive, negative or opposite influence on both capital structure and firm performance depending on the firm's characteristics. When different capital structure decisions are made by the family firms, the firm may perform differently because it bears different level of risks.

Besides, leverage was predicted to have inverse impact on agency costs (Margaritis & Psillaki, 2009). Based on the Jensen and Meckling (1976) agency cost model, they postulated that increased use of debts reduce the agency costs, decreasing inefficiency and enhance the firm performance with estimation that inverse connection may occur when disciplinary influence of increasing leverage became indefensible. Since the interests of management are unnecessarily to be aligned with shareholders, guiding the ownership structures is important especially to test agency cost model. Thus, from Figure 1 above, it shows that different ownership structures have different effects on leverage which in the end may affect the firm performance. In short, any changes on debt ratio moderate the changes on the relationship between family firms with the firm performance.

1.6 Problem Statement

Empirical studies supported that factors such as ownership structure and capital structure are useful in predicting the firm performance (Boroujeni, Noroozi, Nadem & Chadegani, 2013a). Family ownership only affects the firm performance when it is combined with certain type of family control and management (Villalonga & Amit, 2006). On the other hand, several researches such as Sayilgan and Sayman (2012), Anderson and Reeb (2003) and Villalonga and Amit (2006) pointed out that family firms perform better than non-family firms because they need professional managers when the ownership is less concentrated. Shyu and Shen (2011) also supported that family firms did perform better than non-family firms. The mix of equity ownership and management rights helped the family firms to lower the agency costs and boost the firm value in the long run. This affirmed that the influence of family ownership on firm performance should be monitored.

There are several issues related to ownership structure such as separation effect, expropriation of minority shareholders and tunneling were raised by researchers in past literatures. Separation of control from management caused the conflicts of interest between managers and shareholders. The roots of ownership structures are often associated with principal-agent framework where principal nominated an agent to complete the tasks on their behalf (Jensen & Meckling, 1976). Managers who have extreme control tend to transfer the limited resources for their own personal benefit. However, majority firms in Malaysia are family firms with concentrated ownership, so there is no separation effect of control from management. It was reported through the study of La Porta, Lopez-de-Silanes and Shleifer (1999) and Claessens, Djankov and Lang (2000). This could be a barrier towards developing better governance and turned out to be the initiative towards conducting this study for further improvements. Moreover, expropriation of minority

shareholders due to weak corporate governance in developing country such as Malaysia was highlighted during Asian Financial Crisis. Expropriation on the minority shareholders and creditors may also happen when managers are unwilling to return the money to them (Johnson, Boone, Breach & Friedman, 2000). This caused the investors to lose confidence especially during financial crisis.

Empirical evidences were also found on capital structure. Shubita and Alsawalhah (2012) stressed the relevance of capital structure in determining the firm's survival in the competitive market. Capital structure decisions also differ based on individual's and institution's preferences (Titman, 2002), capital structure theories (Harris & Raviv, 1991) and stages of economic development (Mahmud, Herani, Rajar & Farooqi, 2009). Control variables also have different effects on debt ratio in different countries. It is either negatively (Rajan & Zingales, 1995; Suhaila & Mahmood, 2009; Fattouh, Scaramozzino & Harris, 2005) or positively (Eriotis, Vasiliou & Ventoura-Neokosmidi, 2007) related to leverage. Hence, it is crucial to develop optimal capital structure to decrease firm's vulnerability towards economic downturn (Liew & Mohamad Jais, 2013; Halim Ahmad & Hiau Abdullah, 2013).

From the statement above, separation effects may cause investors to lose confidence if the expropriation on minority shareholders and creditors happened especially during financial crisis. The example above also shows that firms need to make transformation to survive in the dynamic and competitive market. Thus, it is crucial to make the right capital structures decisions in the management to sustain the firm's long-term growth. It also implied the moderating effect of capital structure on the relationship between ownership structures and firm performance. Different ownership structures make different capital structures decisions and this influences the firm performance.

1.7 Objectives of Study

Objectives guide researchers to ensure the planning goes smoothly and effectively. It also defines what the researchers want to find out and aims what to be examined in the study. The objectives of the study are to examine the hypotheses regarding the relationship between family firms and debt ratio on firm performance of the sample firms listed in both industrial and consumer product industries that are listed in Bursa Malaysia.

Specific objectives:

- a) To examine the relationship between family firms and firm performance
- b) To examine the relationship between debt ratio and firm performance
- c) To examine the moderating effect of debt ratio on the relationship between family firms and firm performance

1.8 Significance of Study

The study investigates how the ownership structures and capital structures related to one another which in the end influence the firm performance. Agency theory is used to explain the relationship and this theory is applied to this study. Significance of study defines the importance and purposes of conducting the study. It also raises interests and describes how it benefits the society and those who are involved. The significances are listed as below:-

(a) Practicing good corporate governance in the emerging countries gains the investors' confidences and boosts the economic growth in Malaysia.

Corporate governance was only actively promoted after the collapse of East Asian economies in the late 1990s (Zulkafli, Abdul Samad & Ismail, 2007). The crisis was affected by the weaknesses of domestic policy. Many measures were implemented to improve the aspect of fairness, transparency, accountability and responsibility in managing the corporations. Failure to good corporate governance will affect the firms' liquidity to operate efficiently. It also eases the agency conflicts between managers and shareholders, making ways to a more efficient capital market. This boosts the country's economic growth and inflows of foreign direct investments. In short, good corporate governance is the source for sustainable economic growth and helps to gain the investors' confidence to invest.

(b) There is little study focused on the relationship between ownership structures, capital structures and firm performances (Roshan, 2009). Therefore, this study is conducted to be contributive to the study gap.

Previous studies focused either the relationship between ownership structures and firm performance or the relationship between capital structures and firm performance (Nadaraja, Zulkafli & Masron, 2011; Roshan, 2009). Recent researches mainly emphasize on the relationship between capital structure and ownership structure that influencing top managements in making strategic decisions compared to focus on the relationship between capital structure and firm performance. Overall firm performance will be affected if there are any changes on strategic decisions. This shows that capital structure decisions are

essential for firms to maximize returns to stakeholders and adapt themselves into the competitive market.

(c) Exposure to better corporate governance practices decreases the expropriation and tunneling issue among the minority shareholders and creditors.

In developing countries, tunneling and expropriation issues are common because of the weak corporate governance. When the investors' protection is weak, the entrepreneurs tunnel the resources out of the firms (Friedman, Johnson & Mitton, 2003). On the other hand, expropriation is often associated with agency problem (La Porta, Lopez-de-Silanes, Shleifer & Vishny, 2000). Managers or insiders who have extreme control attempt to use the resources for their personal benefits rather than returned the money to investors. Thus, expropriation of minority shareholders and creditors are common in developing countries. With better corporate governance practices, stronger investors' protection is developed. Besides, a more efficient capital allocation, high growth financial markets and dispersed shares of ownership across the firms. This shows how the exposure of good corporate governance practices help to decrease expropriation and tunneling issues among developing countries.

(d) Awareness of the importance to have good corporate governance is raised to the public. It helps to enhance the investors' protection and encourage the economic growth of firms among the developing countries.

(e) Investors can have more information regarding the projects or investments they consider to invest when more information about family ownership, capital structures and firm performance are exposed to the public. This enables them to make better, efficient and accurate predictions or estimations on the market condition. Thus, they can avoid themselves from being expropriated by managers or insiders who have great control over management in the firm.

1.9 Organization of Study

This study emphasizes on the relationship between family ownership and debt ratio which in the end influence the firm performance among randomly picked Malaysian firms selected from both industrial and consumer product industries. It focuses from year 2007 to 2013. This study is divided to five chapters which are:-

- Introduction
- Literature reviews
- Methodology
- Empirical results
- Conclusion

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

The effect of ownership structures and capital structures on firm performances has been debated globally for decades, especially on the developed countries. Different ownership structure use different capital structures and caused different impacts on the firm performances. In this chapter, reviews of previous studies related to this study are included. This proves that developing countries like Malaysia also supported the relationship between family firms, capital structures and firm performances, especially based on agency theory.

2.2 Overview of Sample Sectors in Malaysia

Malaysia, newly industrialized country, experienced an economic boom and had rapid development during the late 20th century (Economy Watch, 16 March 2010). Malaysia has grown from emerging market into advanced emerging market, creating niche areas of expertise and gives stable long-term growth (Capital Markets Malaysia, 2015). The key focus of the economy in Malaysia is diversified, stability and opportunities. As diversified economy, it has become the leading exporter of electrical appliances, electronic parts and components, palm oil and natural gas. Malaysia is also the world's largest producer of tin, rubber and palm oil (Economy Watch, 16 March 2010). Besides, Malaysia was also the 28th largest oil producer and 17th largest natural gas producer in the world in

2010. Malaysia moved slowly towards the third stage of economic development by emphasizing on services nowadays. It can be seen through the implementation of Industrial Master Plan (IMP3), which is to transform the country into a major trading nation with emphasis on services and human capital. Therefore, it caused service sector to have 49.3 percent of GDP in 2010. It is part of the national development strategy to venture into new growth area, increase the economic base for exports and sustained growth in economy to reach the vision of becoming developed country by 2020. According to the 10th Malaysia Plan (RMK10), the service industry aimed to reach 61 percent of GDP by 2015 and Malaysia government is expected to invest nearly RM687.7 billion over the next fifteen years into services alone. Malaysia is also competing against Bahrain to be the world leader in Islamic banking and allowing foreign banks to open new branches in the country. Industry was responsible for 41.6 percent of Malaysia's GDP and had the 37th highest industrial production growth rate in the world at 7.5 percent in 2010. With Malaysia's chairmanship of ASEAN and establishment of the ASEAN Economic Community (AEC) in 2015, economic integration among the ASEAN members will be the main aim for a single market and production base, which will generate ample growth opportunities for investors in Malaysia within and beyond ASEAN community (Capital Markets Malaysia, 2015).

On the other hand, consumer product firms faced both the global economic impact on consumer spending and the rise of a more demanding and digitally empowered consumer (Conroy, 2015). Consumer sector is known as a secondary sector of the firms that consider those economic sectors and produces a complete tangible item (Nurulain Mohamed Ramli et al., 2013). Its purpose is to send the output of primary sector and make complete items, then trade or sell to the domestic consumers or locations where it is useful

for other businesses. In Malaysia, consumer sectors can be divided to two types which are light industry that focused on consumers need with little capital intensive and heavy industry that focused more on capital intensive. This sector has improved drastically for the previous two decades because of the increased population growth and improved standard of living. As the economy grew, the demand on food and beverages, clothes and utilities will also increase accordingly.

However, consumer spending in United States (U.S.) remained relatively restrained due to causes such as present medium wage growth, comparatively high savings ratio and the increase in income and wealth inequality (Conroy, 2015). 79 percent of consumers had perception that U. S. economy was facing recession, 94 percent responded that they remained caution and spending at present ratio although the economy enhanced, and 83 percent responded that they observed every spending category closely to identify which spending they could save. Moreover, use of Internet and social media to compare the price, research on the products or product purchases through website and mobile apps made consumer tend to express their opinions broadly. Consumers nowadays also prefer to have more transparency, so it is mandatory to give satisfactory responses on consumer inquiry and feedbacks efficiently. However, the disturbing issues such as more M&A activity in U.S. grocery retail market, the increasing use of digital commerce as the strategic sales medium when online shopping became trend and development of new business model affected the industry growth. To enhance the growth and/or innovation, companies can take into consideration the following steps:

- (a) micro-segmentation of consumers where individuals are willing to pay greater premium for products that are innovated specially for them

- (b) improved digital features boost the consumers preferences - have better connection with target consumers
- (c) protected data privacy and security for competitive advantage – consumers are assured that the trust they have in consumer products brand is warranted

Consumer sector in Malaysia such as food and beverages (F&B) subsector is expected to grow continuously due to flexible nature, boosted by strengthening US dollar (for net exporters) and depressed trend of global commodity market (Borneo Post Online, 10 October 2015). Implementation of goods and services tax (GST) also boosted certain quantity of pre-stocking activities that caused big changes between the first quarter of 2015 (1Q15) and 2Q15 sales. Unsurprisingly, local sentiment decreased by 1.2 percent as shown by Consumer Sentiment Index (CSI) from 72.6 points in 1Q15 to 71.7 points in 2Q15 when GST was implemented. This is probably due to the consumers' nervousness to face the decrease of crude oil prices, sharp collapse in RM and uncertainties when GST is implemented.

However, the consumers are slow in adaption to new costing environment as well as recovery from fear and anxiety on internal and external warnings. Overall, consumer sectors are reiterated as “neutral” stance because GST implementation is expected to influence the consumer psychologically rather than the overall consumers' spending pattern (Borneo Post Online, 7 April 2015). The GST might create psychological obstacle on consumers from have normal spending for certain period of time. 6-months adaptation period of consumers to new costing environment is unavoidable. Therefore, Price Control and Anti-Profiteering Act 2011 was enforced to observe, control and take action on any raise on price to have excessive profiteering in combination of GST implementation. It

helps to avoid companies to raise their margin through price rise rather than better efficiency. To understand how all this development affects the firm performance, the next section discussed the relevant literatures of ownership structure as one of the variables that affect firm performance.

2.3 Ownership Structures

Separation of ownership and control is common in the corporate finance field. Generally, the firms among the East Asian countries had improved their control through pyramid and cross-holdings. Most of the literatures assumed that widely dispersed ownership is the most common ownership form. This was originally derived by Berle and Mean (1932)¹ but were propagated by Jensen and Meckling (1976). Widely dispersed ownership only existed among the largest firms in countries with effective investor's protections. Firms are either families or states. It was proven by La Porta, Lopez-de-Silanes and Shleifer (1999), the first literature that studied the separation effect as the controlling shareholders' benefit. They also discovered that the corporate ownerships around the world are different because of the various levels of legal investors' protection. Ownership structures from 27 countries were collected to identify the controlling shareholders. These shareholders typically have high involvement in management and worsen the separation problem. However, they rejected the model of Berle and Mean which widely dispersed ownership was claimed to be the most common ownership form because firms for developing countries like East Asian countries are heavily concentrated. The agency

¹ Berle and Mean (1932) raised the public attention by stating that the widely held firms in United States has dispersed ownerships among minority shareholders but, the control is concentrated in the management. Due to the concentrated ownership, managers tend to be dishonest by aiming to achieve their own private benefits only.

problem between minority and controlling shareholders was mitigated by making improvement on the domestic legal system.

Besides, Claessens, Djankov and Lang (2000) also detected separation of ownership and control happened to the large family-controlled firms in Korea, Taiwan and Singapore. However, the separation effect is only common among the family-controlled and small firms, not large family controlled firms. More than two-thirds of the listed firms are controlled by one shareholder and older firms are more likely to be concentrated. Although there is separation of ownership from management, there is no separation of control from management. Majority of the developing East Asian countries have high wealth concentration. This could be the formidable barriers to improve legal and other institutional frameworks for better corporate governance.

Other than separation of ownership and control, tunneling and expropriation issues also existed in the developing countries. Among Asian firms, tunneling occurred in those that used pyramid as control (Friedman, Johnson & Mitton, 2003). In this study, definite proof that entrepreneurs tunnel resources out of firms when the investors' protection is weak was discovered. Same goes to the anecdotal proof that the similar entrepreneur may prop up firms with their own private resources. This inspired the development of an optimal propping model to boost the business survival. In this model, the entrepreneur can commit to prop through borrowing rather than equity but the firms may fail if the negative adverse shock is too extreme. The propping existence can be analyzed through Asian financial crisis 1997-98 by illustrating how debt and corporate governance substitute each other in the emerging market. The firm-level corporate governance grew worse if the firms had high level of debts. Yet, this model is not well developed and outside investments are usually in debts form compared to equity. This type of financing pattern described the

reason emerging markets encountered fast growth and maintained vulnerable to economic crisis at the same time.

For the past 20 years, both academic and practical approaches to corporate governance focused on the investor's expropriation (La Porta, Lopez-de-Silanes, Shleifer & Vishny, 2000). Expropriation is generally associated with agency problem raised by Jensen and Meckling (1976) who emphasize on the managers consumption and empire building. Insiders or manager who has controlling power tend to use profits to benefit themselves rather than returning money to outside investors. Thus, the expropriation of minority shareholders and creditors often occurred in many countries. Strong investor protection can be reflected through efficient corporate governance which included high value and growth of financial markets, dispersed ownership of shares and effective capital allocation across the firms.

Manager expropriation might influence the investors' confidence especially during financial crisis (Johnson, Boone, Breach & Friedman, 2000). For example, investors' confidence deteriorated and affected the capital flows of all the emerging market countries during the Asian Crisis 1997-98. Thus, it conveyed that Asian crisis was more sensitive to changes on exchange rate and stock market performance compared to macroeconomic variables. Yet, the macroeconomic variables had indirect impacts in measuring the crisis effects across emerging market countries. Although the results did not illustrate which countries were vulnerable to confidence loss, they relayed the fact that the changes on exchange rate and stock market failure on confidence loss was caused by investors' protection. Thus, corporate governance can be the important measure of macroeconomic problems during crisis period.

As mentioned by Claessens, Djankov and Lang (2000), family firms who are heavily concentrated are great contributors to the US economy but it is hard to define the family firms precisely. There were no exact and measurable criteria to define it but the criteria that were found in the past literatures include the percentage of ownership, strategic control, the participation of several generations and the intention for the business to maintain as family firms. Thus, it is generally defined based on their involvement in the business. It is theoretically defined as business handled with the purpose to shape and follow the vision of business held by a main coalition controlled by the members of the same family or a small number of families that has potential to survive across generations of the family or families (Chua, Chrisman & Sharma, 1999). In contra, family business definition from operational view is by quantifying the family involvement based on its components – ownership, management, governance and succession. The empirical results showed that the components of family involvement are not efficient indicators of succession and professionalism, but at the same time, provided strong proof that vision, intentions and behavior is what they should used to define family business because the main objective of family business management research is to understand, predict and modify behavior to assist family business in reaching their goals and improve the firm performance.

The conceptual study on the perception of family ownership from emerging market terms was investigated by Ibrahim and Abdul Samad (2010). By analyzing various definitions of the family ownership, the benefits and disadvantages of family ownership are presented thoroughly in Table 2. They also explained that family firms play important role throughout the world and Malaysia with the proof of creating several tycoons. To describe the corporate scene, 5 top richest families who are undeniably contributed to the economic

growth were listed and their importance grew over time. The table below is the example of latest tycoons in Malaysia.

Table 1: Top 5 Richest Man in Malaysia 2016 List

Rank	Name	Net Wealth (US\$ Billion)	Origin of Wealth	Flagship
1	Robert Kuok	10	Palm oil/Shipping/Real Estate	Kuok Group*
2	Ananda Krishnan	7.4	Telecom	Maxis / Aircel
3	Quek Leng Chan	5.3	Banking, Real Estate	Hong Leong Group*
4	Teh Hong Piow	4.65	Banking	Public Bank*
5	Lee Shin Cheng	4.6	Palm Oil, Real Estate	IOI Group*

Note: * Family firms

Source: Forbes (2016).

From Malaysia perspective, highly concentrated ownership had negative impact on firm performance and is inferred by weak levels of minority shareholder protection (Tam & Tan, 2007). The observation of the ownership effects on performance among the largest 150 Malaysian firms was analyzed. Ownership is categorized into individual (family), state, foreign and trust fund ownership where individual ownership consists of 65 percent of the firms. They pointed out that different ownership structures influence the firm performance differently, foreign ownership performs the best, and then followed by family firms and state owned firms.

On the other hand, Shyu and Shen (2011) supported that family firms did perform better than non-family firms. The mix of equity ownership and management rights helped the family firms to lower the agency costs and boost the firm value in the long run. Based on the panel data of 465 Taiwanese listed firms from 2002 to 2006, regression on both accounting and market performance measures suggested that if the creator played the role of chairman and CEO at the same time, it had the most rewarding influence on the firm performance. When the CEO passed the role to hired managers, it may boost firm

performance in the short run. It was also beneficial to firm value in the long run when the position is assigned to a descendant. Similar result was found in the study of Ibrahim and Abdul Samad (2011b).

In a nutshell, concentrated ownership such as family firms in Malaysia affects the firm performance differently if financing decisions are different. Thus, the next section of this chapter discusses the relevant literatures on capital structures.

Table 2: Advantages and Disadvantages of Family Firms

Advantages of Family Firms	Disadvantages of Family Firms
Ownership concentration empowers family members to achieve their goal better than other shareholders	Increases conflicts between family and minority shareholders when the control is high and the shareholder's protection is low
High contribution to the firm when family is highly involved in management	Family firms may, in choosing non-monetary benefits, remove resources from profitable projects and damage firm performance
May reduce or completely get rid of agency problems among managers and shareholders	Influence the firm's policies to fulfill the needs of the family, rather than maximize the firm's profit
Family has strong incentives to supervise managers and improve firm performance since their wealth is closely linked to firm value	Usually prioritize family members when selecting managers, so more capable, qualified and competitive hired managers may be neglected
Tend to have longer investment horizon so they are more willing to practice long-terms investment plans	Strengthen firm control by creating barriers to prevent entry by a third party and this is damaging to management and firm value
Long term survival in the business make a positive reputation in shareholders' views , so family reputation likely to build sustainable economic benefits	Less likely to build good relationship with other major non-family shareholders – may lead to conflicts, harming the business reputation in both consumer and shareholders views

Abstract from Shyu and Shen (2011).

2.4 Capital Structures

Capital structure is generally defined as firm's financing framework which consists of debts and equity. How well a firm fulfills their stakeholders' need highly depends on capital structure and critical to any organizational system (Shubita & Alsawalhah, 2012). It determined whether the firm able to survive or not in the competitive market. Data of Jordan's industrial firms based on six years (2004 – 2009) was collected for correlation and

multiple regression analysis. The analysis of 39 firms revealed that debt is significantly negative related with profitability. It implied that profitable firms relied more on equity as their main financing choice. In fact, profitability increased with control variables: size and sales growth because there was economic downturn. Sales levels went down during the economic turmoil, caused cash inflow issue in the firm and firms began to defect the debt settlement. It is important for creditors to understand the firm's financial condition to deduct the default risk and lowered losses on lending firms. Although financial leverage offers tax benefits to the companies, it raised default risks to lending firms. As leverage increased, the risk of credit default increased as the potential return for Jordan dropped and might raised the possibility of firm being illiquid when economy faced recession.

Hence, it is crucial to develop contingent capital structure since excessive debts raised the firm's vulnerability towards economic downturn (Liew & Mohamad Jais, 2013). It was a fact revealed after the Asian Financial Crisis 1997. Based on contingency theory and traditional capital structure theories, a study of what comprise the organizational-environmental fit to the contingent capital structure in Malaysia and how fast is the adaption on such structure after the crisis. 6675 observations were collected from 779 listed firms in Malaysia to develop the unified capital structure model based on synergy of various capital structure theories. From the model, Malaysian firms have slow adaption although they maintained the firm's leverage at lower level despite of the strict institutional environment and, entry to financial and capital market. At the same time, not a single theory could explain the capital structure decisions since the capital structure in Malaysia is dynamic and obtained different results when it is regressed with different estimation approaches. In short, this model provided insight to practitioners towards adaptation approach and established other financial reforms to face future crisis.

Capital structure decisions also differ based on individuals' and institutions' preferences as well as the levels they can hedge (Titman, 2002). Financial markets are imperfectly integrated although most recent studies on risk management and capital structure examine environments where markets for various securities (debt, equity and derivative markets) are perfectly integrated. Thus, he debated the discussion by stating the consequences of integration deficiency and the high impacts on how the firms increase capital plus the levels to which they are willing to hedge on environment decided by individuals' preferences. For instance, family firms conveyed that they prefer to be independent when family firms developed fewer joint ventures compared to non-family firms (Abdellatif, Amann & Jaussaud, 2010). It was supported by previous studies since family firms performed better and enjoyed sounder capital structures rather than their counterparts. Most literatures around the world also emphasize comparative study between family firms and non-family firms on profitability but not particularly focused on capital structures.

Besides, causes such as median industry leverage, tangibility, log of assets, expected inflation, market-to-book assets ratio and profits have high influence on the capital structure decisions (Frank & Goyal, 2009). Positive impact on leverage was found in median industry leverage, tangibility, log of assets and expected inflation while opposite effect was found in market-to-book assets ratio and profits. They also discovered that firms that pay dividend tend to use little leverage. Similar goes to book leverage but firm size, market-to-book ratio and the inflation impacts are independent on book leverage. This empirical proof seems to support the trade-off theory of capital structure.

Several capital structure theories were also developed based on agency costs, asymmetric information, product/input market interactions and corporate control, without including the tax-based theories (Harris & Raviv, 1991). For instance, any changes in debt level brought changes in bankruptcy costs, so optimal capital structure can only be achieved if the tax sheltering benefits provided that changes in debt level is equivalent to the bankruptcy costs (Roshan, 2009). The relationship between capital structure and ownership structure was then linked with management to solve the principal-agent problem. Leverage, one of the capital structure's determinants, was used to ensure that the managers improve the firm's value without wasting the resources. Managers tend to use free cash flow to pursue their own interests instead of paying dividends to the shareholders. Thus, increase of free cash available attracted the managers to invest more without considering whether the investment is good or bad and may raised the debt level.

Additionally, different stages of economic development impacted the capital structure between markets differently (Mahmud, Herani, Rajar & Farooqi, 2009). Capital structure is one of the complicated areas of strategic financial decisions due to its influence on macroeconomic variables and the past literatures were only conducted in the industrialized countries. Cross sectional data over 525 Japanese companies, 129 Malaysian companies and 114 Pakistani companies were collected from year 1996 to 2005. Dummy variables were used on the four variables (financial liberalization, efficiency of financial markets, creditors' rights and enforcement). The other two variables are growth in GNP per capital and prime lending rate. GNP growth for Japan and Malaysia is significantly related to capital structure of firms and higher economic growth tempted them to depend more on long term debt. The opposite result happened to Pakistan due to the combination of inefficiency and high leverage may drive the firms towards debt trap.

Apart from that, control variable such as firm size also gave different effects on leverage in different countries. It is either negatively (Rajan & Zingales, 1995; Suhaila & Mahmood, 2009; Fattouh, Scaramozzino & Harris, 2005) or positively (Eriotis, Vasiliou & Ventoura-Neokosmidi, 2007) related to leverage. Rajan and Zingales (1995) claimed that firm leverage did not have much difference across the G-7 countries (United States, Japan, Germany, France, Italy, United Kingdom and Canada). Factors claimed by previous studies to have same correlation on firm leverage in United States, also have similar correlation with other countries as well. Size had positive correlation with leverage for all countries except Germany while profitability had negative correlation on leverage for all countries except Germany. By assuming that liquidation for all countries are lavish, small firms should be alert of debts in Germany while large firms significantly decrease debts compared to small firms in Germany. Even so, detailed analysis of United States and foreign countries implied that the theoretical stands of the results still remained ambiguous.

In Malaysia, negative connection of size with total debts was discovered by Suhaila and Mahmood (2009). The factors of capital structure for companies listed in the Bursa Malaysia Securities Berhad (BMSB) market for six years (2000 – 2005) were analyzed. The pooled OLS model reported that size, liquidity and interest coverage ratio have significant negative connection with total debts but found insignificant negative connection on growth (annual changes on earnings). Negative connection of size with total debts indicated that bigger firms do not rely much on debt financing compared to small firms and is possibly due to bigger firms prefer to use equity or retained earnings as major contributors to the firm's capital structure. However, this negative relationship rejected the previous findings in other countries. This showed how unique is the characteristics of Malaysia's capital structure. In the same way, leverage also played an important role in

South Korean firms during the 1997 financial crisis and recovery because different country applied certain corporate structure (Fattouh, Scaramozzino & Harris, 2005). The big panel data of 1992 to 2001 was used to observe the changes of debt-equity distribution between firms in different quartiles. The conditional quantile regression showed significant relations with variables that supported the asymmetric information models. These results also assessed the development of South Korea's policy reform due to 1997 crisis. Thus, the correlation of high leverage with size implies that the authorities focused on *chaebol* (large family owned firms) to decrease the economy's debt were proven true.

Conversely, size was positively related to debt ratio for Greek (Eriotis, Vasiliou & Ventoura-Neokosmidi, 2007). 129 Greek firms from 1997 to 2001 were collected as sample for panel data regression to identify the firms' traits that influence capital structure. The firms' traits were interpreted based on several different explanatory theories. Size is the most influential factor on capital structure because size is closely connected to risk and bankruptcy costs. Majority of the big firms are diversified, so they bear less risk and decreased the default probability. This allows big firms to decrease transaction costs related to long-term debt issuance and used lower interest rate. According to previous study, big firms prefer to use debt, so positive connection of size to debt ratio was expected. They obtained the expected result and implied that increased sales revenue is associated with larger firms. Besides, fixed effect model fit the explanatory variables well and is considered the best model compared with total model and random effect model after the Hausman test was conducted. Growth showed insignificant statistic in random effects model but it showed significant results in the other two models. Thus, they concluded that growth did give impact on determining capital structure.

Furthermore, Kim and Berger (2008) analyzed the factors of capital structures in large firm headquartered in United States (U.S.) and Korea. Five dependent variables (profit, firm size, non-debt tax shields, growth and business risk) were included with seven industries indicator to investigate the connection between market worth and leverage ratio. OLS regression model clarified that only profitability is significant variable for both countries. Previous study claimed that growth is negatively connected with leverage as it increased the agency costs of debt by adding more investments to growth opportunity. Most findings implied that the findings for Japanese industries or firms can relate to Korea compared to US. Identically, Yang and Ma (2011) conducted regression on panel dataset of 4716 large and medium-sized firms in Chinese electronics industry from 2005 to 2007 since most literatures focused on listed firms and other countries other than China. Debt ratio was positively influenced by the firm size and growth but negatively influenced by the profitability. Debt ratio also affected by mixed determinants suggested by several theories and unlisted Chinese firms tend to get bank loans as capital gives opportunity to alter pecking order theory based on listed firms. For ownership structure, lower debt ratio was found in the Chinese electronics firms with greater share of foreign equity.

2.5 Agency Theory

Separation of ownership and control together with the theory of the firm are one of the popular debates in the corporate finance world (Jensen & Meckling, 1976). Agency relationship is defined as a written agreement between principal and the agent in achieving certain tasks on their behalf including the decision making authority delegation to the agent. If both parties were utility maximizers, the agent might not always act in the best

interest of the principal but principal can limit the agent by offering attractive incentives or incurring monitoring cost. How high is the agency costs depended on the manager's objectives. It varied from firms to firms. It is either value maximization or empire building. As discussed in earlier section, separation of ownership from control do not occurred in most family firms because most founding family firms owned both large quantities of equity and senior management positions in their firms. This clarified that family firms are different from the well-known "Berle and Means firm" where ownership is assumed to be widely dispersed among shareholders but control is focused in the hands of professional managers.

For the past decade, several researches were conducted on how to ease agency costs between managers and shareholders based on Berle and Means' assumption but only few studies concentrated on family firms, especially in developed countries. Thus, it is crucial to study the family firms because it is not only common among developed countries but the developing countries as well (La Porta et al., 1999). Faccio and Lang (2002) observed that 44 percent of firms in Western Europe are dominated by families while Anderson and Reeb (2003) reported that family firms existed in one-third of S & P 500 firms in the US. Cost and benefits of family firms has been debated broadly based on the classical owner-manager agency conflicts (Berle & Mean, 1932; Jensen & Meckling, 1976) and agency conflicts between large and minority shareholders. Mazzi (2011) also mentioned that family focus primarily on two groups of stakeholders which are the relationship between the owners and managers or minority and majority shareholders when agency theory arise from the separation of ownership, control and management. Family firms are generally younger and smaller than non-family firms, but family firms also survive longer than non-family counterparts. Family firms have common characteristic despite of their geographic

factor which is they have great level of concentration (Aguilera & Crespi-Cladera, 2012). Greater control of family firms can lead to conflicts of interest because of the presence of private benefits of control. Agency conflicts only occurred in family-owned firms when large family ownership used their power to withdraw private benefits from the benefits of non-family shareholders. It is also applicable to private benefits of control as the benefits of family at the cost of outside investors.

In family firms, this agency problem also affected the financing choices because of several stakeholders who have influential power over the choices (Lyagoubi, 2006). They are family shareholder, external shareholder, managers and lenders. Previous studies claimed that firm's ownership structure can affect financial performance by reducing the agency conflicts between managers and shareholders but few studies emphasize on how the family shareholders affect the financing decisions in the firm. This raised the researcher's attention to conduct this study by examining the relationship of family ownership and debt financing behavior among the privately held and public firms. Shareholders are high risk takers while managers and creditors are risk aversion. The contrast behavior illustrated how the firm's owner assumes risk will affect the firms' resources to debt and implied that debts have negative connection with the profitability. In other words, debts are relatively more costly than equity and overusing debts might lower the profitability. Previous studies such as Fama and French (1998), Graham (2000) and Booth et al. (2001) also supported this finding.

Two most common agency problems raised in past literatures are conflicts of interest between shareholders and managers; and between controlling (family) shareholders and non-controlling shareholders or Agency Problem I and II. However, Villalonga et al. (2015) discovered another two agency problem. It is the conflicts of interest between

shareholders and creditors; and between family shareholders and family outsiders (non-shareholders and non-managers). Conflicts between shareholders and creditors are not obvious in family firms compared to non-family firms because founding family firms are associated with lower debt levels. Then, the cost of debt was negatively associated with various investor protections' levels. Meanwhile, conflicts between family shareholders and family outsiders happened when multi-tier agency structures were generally found in concentrated ownership, managers were chosen as agents and the principal had different goals with agents in any agency relationship since the family ownership have their own incentives to achieve. So, to ease the agency problems in corporations, mechanisms like ownership concentration, executive compensation, debt, dividend policy, legal investor protection and etc are applied.

Likewise, agency problems existed when managers have incentives to achieve their own benefits at shareholder stake (Agrawal & Knoeber, 1996). To control the agency effects, several alternative mechanisms such as insider shareholdings, institutional shareholdings, shareholdings by blockholders, the use of outsiders on the board of directors, debt financing, the external labor market for managers and market for corporate control can be applied. Using around 400 large firms, the cross-sectional OLS results were compared by regressing firm performance (measured with Tobin Q) with alternative mechanisms. In simple OLS regression, statistically significant estimates were found between firm performances with insider ownership, outsiders on board of directors and debt financing. Performance is either positively connected to bigger insider ownership or negatively connected to more outsiders on the board and increased debt financing. For multiple OLS regression, there is no connection between insider ownership and firm performance but the other alternative mechanisms remained the same results as the simple

OLS regression result. Also, the simultaneous framework showed insider ownership and firm debt were statistically insignificant. Only the influence of outsiders on the board remained. Overall, the outputs were consistent with optimal use of each control mechanism.

Similarly, agency problem also can be associated with executive compensation because managers tempted to misuse their authority to benefit themselves (Bebchuk & Fried, 2003). They prone to held excess cash for empire building although there is no potential investment chance. They also may entrench themselves in their positions to avoid themselves from being removed from management when they are not performing well. Given these points, any research on executive compensation is connected to the agency problems that affected the management decision – making. They observed the relatedness through two approaches which are “optimal contracting approach” and “managerial power approach”. In brief, managerial power significantly influenced the executive compensation’s purposes in firms that had separation of ownership and power. Executive compensation is not only the tool to demonstrate the agency problem existence due to separation of ownership and control but also play a role in the agency problem itself.

Good corporate governance, the way investors were assured that they will gain benefits from their investments eased the agency problem (Shleifer & Vishny, 1997). This survey was conducted to demonstrate the severity of agency problem and the usage of management on investors’ funds. Large investors are efficient in solving agency issue yet less efficient in redistribution wealth from other investors to themselves. Excellent corporate governance in United States, Germany and Japan collaborate significant legal protection of some investors with the role of large investors. This is different from most other countries that gives limited protection to investors, constrained source of funds and

stuck to family firms. The limited understanding on politics of corporate governance around the world caused the best form of corporate governance approaches remained as a riddle.

With the attention on corporate governance, Ibrahim and Abdul Samad (2011a) examined the influence of corporate governance and agency costs on family and non-family ownership. In short, family firms experienced lower agency costs rather than non-family firms but had lower firm value. Family ownership could mitigate the effect by restricting numbers of controlling directors on board. This confirmed that Malaysian firms especially family ownership alert towards agency costs and corporate governance mechanisms. Using the sample of public listed firms in Malaysia from 1999 to 2005, they analyzed ROA and Tobin Q ratio as the performance measure while debt ratio, firm age and firm size as the control variables. They discovered that debt ratio is positive and significant for family firms but negative and significant for non-family firms. Next, firm size and age are negative and significant for both family and non-family firms when regress with Tobin Q. Generally speaking, firms chose plans that reduce agency costs over time because any reform to firm's managerial ownership affect performance. This was proven by the study of Himmelberg, Hubbard and Palia (1999). From agency aspect, debt is an alternative governance mechanism in lessen the agency conflict of interests among shareholders and managers (Kochhar, 1996). Debts slowed down the agency costs of free cash flow available to the managers and avoid the managers from investing in uneconomical investments. When managers have less free cash flows, they have less decision rights and increased their aims to use the assets effectively so that the firm value will increase. Shareholders also showed preference in using equity than debt in acquisition firms. In short, high fund raising through equity presented better performance.

Based on the agency theory, Ganguli (2013) argued that ownership structures influenced or influenced by the capital structure. With five years data (2005-2009) on listed mid-cap Indian firms, the simultaneity of ownership structures and capital structure was examined with Hausman specification test on endogeneity. Fixed effect model was applied to study the connection after controlling the profit, risks, tangibility, growth and size. The empirical result implied that ownership structure influenced capital structure but not contrariwise. Pursuant with theoretical estimation, it illustrated that leverage had positive connection with concentrated shareholdings but negative connection with dispersed shareholdings after the variables are controlled. This supported the “managerial entrenchment hypothesis” and “pecking order theory” of capital structure. They pointed out that capital structure had statistically significant positive connection on profitability but statistically insignificant negative connection on size. It also showed statistically insignificant positive connection on growth. This implied the managerial entrenchment effect (entrenched managers would rather retain earnings and prefer issuance of equity than debts for their own job protection) and pecking order theory (corporate with greater profit consumed little debt).

2.6 The Relationship Between Ownership Structure and Capital Structure

Several studies such as Al-Najjar and Taylor (2008), Borojeni, Noroozi, Nadem and Chadegani (2013a), Nadaraja, Zulkafli and Masron (2011), and Sayilgan and Sayman (2012) illustrated the relationship between ownership structure and capital structure. The first study was conducted by Al-Najjar and Taylor (2008) by applying both single and reduced-form equation methods. Panel data on non-financial Jordanian firms from 1993 to

2003 was collected to discover the comparative under-researched connection between ownership structure and capital structure. To convey the interaction comparison between developed and developing country, they used the same factors of capital structures, namely: profitability, firm size, growth rate, market-to-book ratio, asset structure and liquidity. On the other hand, the factors of ownership structure are asset structure, business risk (BR), growth opportunities and firm size. The result confirmed that asset tangibility, firm size, growth opportunities and business risk are the joint factors of ownership structure and capital structure. Thus, this study concluded that there is no detailed theoretical argument about how the corporations make decisions on various financing approaches but the empirical results were insufficient to support the argument.

However, financial managers are expected to consider ownership structure and corporate governance before any financial decisions were made because the research of Borojeni, Noroozi, Nadem and Chadegani (2013a) showed that these variables could be influential in capital structure to increase firm performance. Financial data of 87 firms listed on Tehran Stock Exchange (TSE) during 8 years were collected to examine the influence of ownership structure and corporate governance on capital structure. Leverage was used as the capital structure measure; percentage of inside shareholders and amount of shares owned by institutional shareholders for ownership structure measure; and firm size as one of the control variables. These results of seemingly unrelated correlation testing models showed that all variables have significant influence on leverage. As mentioned in the past literatures, the existence of institutional and inside shareholders encouraged firms to use more debts in financing because both groups prefer debt financing.

Besides, all of the financial aspects (size, profitability, liquidity and ability to service debt) have significant connection with capital structure except for growth when

Nadaraja, Zulkafli and Masron (2011) probed the factors of capital structures among Malaysian public listed firms from 2001 to 2006. The empirical result claimed that family ownership structure have significance effect on capital structure by showing significant influence on liquidity and ability to service debt. So, concentrated ownership would influence the financing decisions aligned with reasonable and rational analysis since the pre-crisis period is the time where any careless decisions may caused large conglomerates to fail. From the panel data, the non-significant connection of family ownership to capital structure changed the significance of other variables.

The research on Istanbul Stock Exchange (ISE) by Sayilgan and Sayman (2012) showed that firm's ownership structure influence the capital structure. Pooled data of 167 Turkish manufacturing firms listed on ISE from 1998 to 2009 was selected to test the effect of ownership structure on capital structure. In economic view, leverage ratio decreased when the shares of minority shareholders decrease. In other words, majority shareholders prefer equity financing, so negative relationship between ownership structure and capital structure was found in this study. In light of agency theory, firms with less concentrated shareholdings need professional managers. Professional managers prefer equity financing and agency costs arise between shareholders and professional managers because of capital structure options. However, the findings revealed that concentrated shareholdings like family firms decrease agency costs. Thus, managers (at the same time shareholders) prefer not only the high risk capital structure but also maximizing shareholders' wealth. As mentioned earlier, they need professional managers if firms' shareholdings are less concentrated. Then, it raised agency problems and the managers have to use equity financing to avoid financial distress.

Good corporate governance practice in Malaysia helps to ease the effects of family firms and debt ratio on the economy of Malaysia. This was emphasized by Zulkafli, Abdul Samad and Ismail (2007) after the collapse of East Asian economies. This shows that it is one of the important approaches and is discussed in the next section.

2.7 Corporate Governance in Malaysia

Ownership structure is one of the essential elements in shaping the corporate governance in a firm (Amran & Ahmad, 2013). Emphasis on corporate governance only started after the collapse of East Asian economies in 1997 (Zulkafli, Abdul Samad & Ismail, 2007). International Monetary Fund (IMF) reported that the crisis was influenced by weaknesses in the domestic policy such as huge current account deficits; concentrated bank loans in real estate development and financing share repurchases; weakening domestic financial system; weak governance and risk management; and excessive international loans in the corporate sector. After the crisis, like other East Asian countries, corporate governance had been actively promoted among the Malaysian corporate sector. Many measures were applied to enhance the fairness, transparency, accountability and responsibility in operating the corporations. Corporate governance is defined economically as essential factor to gain efficiency by injecting minimal funds to highly profitable investment projects. However, efficiency in reality scenario is only achievable at specific level of risks where investment projects gain higher profits than cost of capital. The crisis is the effect of not practicing good corporate governance and influence the funds liquidity from operating efficiently. Additionally, corporate finance emphasized the efficiency of

corporate governance as commitment to make full use of injected funds and gains profits.

Several sources of such agendas are as follows:

(a) Malaysian Code on Corporate Governance

Malaysian Code on Corporate Governance (MCCG 2017) was introduced by Finance Committee in March 2000 and had positive impacts on the corporate governance practices of the firms (Securities Commission Malaysia, 2017). It reflects the global principles and internationally recognized minimum requirements by the statute, regulations or those prescribed by Bursa Malaysia. The principles such as board of directors, director's remuneration, shareholders and accountability and audit are hybrid in nature. Thus, Malaysian firms should apply the principles flexibly and in accordance to the various conditions faced by the firms. In MCCG 2017, corporate governance is defined as:

- i. Guide to manage the firm's operations towards promoting firms prosperity and accountability
- ii. Emphasize on defining long-term shareholder value while considering the interests of other stakeholders
- iii. Ethical behavior, accountability and sustainability are essential to the firm's governance and stewardship of investor's capital
- iv. Identifies the distribution of rights and responsibilities among the participants of the firm
- v. Outlines any procedures for decision-making, internal control and risk management
- vi. Concerned with shareholders' interests and balance the needs among shareholders

MCCG was reviewed in 2007 and 2012 to ensure that it is relevant and aligned with best approaches while the changes are as stated in Table 3 (Securities Commission Malaysia, 2017).

(b) Capital Market Master Plan (CMP)

CMP was introduced by Securities Commission to plan the focus of Malaysian capital market for the next ten years and was launched in February 2001. The effective mobilization and allocation of monetary sources plus high level of confidence to market candidates are visions made by CMP. CMP's objective is to create a more contributive surrounding for investors in the Malaysian capital market.

(c) Financial Sector Master Plan (FSMP)

It was launched in March 2001 by Bank Negara Malaysia in order to plan the incoming focus of financial sector over the next ten years. It aimed to create a more resilient, competitive and dynamic financial systems that conducts to economic growth and technology driven. The good corporate governance features include developing the shareholders' and consumers' activisms, regulatory control and priority sector financing. One of the examples of recommendations on banking sector is request board committee to make more improvements on corporate governance.

(d) Institutional development such as Malaysian Institute of Corporate Governance (MICG)

MICG is a non-profit public company limited by guarantee with founding members such as Federation of Public Listed Companies (FPLC), Malaysian institute of Accountants (MIA), Malaysian Association of Certified Public Accountants (MICPA), Malaysian institute of Chartered Secretaries and Administrators (MAICSA) and Malaysian Institute of Directors (MID). Awareness and good practice of corporate governance in Malaysia is the mission but more transparent and accountable structure of firm's operation to gain investors' confidence is their aim. It eases the impacts of agency theory and signaling theory, making ways towards more efficient capital market. Indirectly, it boosts the country's economic growth and raise inflows of foreign direct investments. In summary, good corporate governance is the key to a robust and competitive corporate sector, which functions as a source for sustainable economic growth.

Since corporate governance practice affects the economy from commodity market to open and diversified markets, it shows that it affects the operations of the firms in term of ownership structures and capital structures. Then, these changes will cause changes in firm performance. Thus, the next discussion section will focus on firm performance and is divided to several sub – sections to differ the influence of family firms, debt ratio and moderator (FAMDA) on firm performance accordingly.

Table 3: Key Features and Key Principles of MCCG 2017

MCCG 2017's Key Principles	
(a) Board leadership and effectiveness	✓ Code of conduct and ethics are established, reviewed and published on company's website for effective control and managing conflicts of interest, corruption, insider trading, money laundering as well as power abuse. ✓ Board is expected to promote good business conducts and cultures that engender integrity, transparency and fairness. ✓ Board decisions are made objectively in the best interests of the company from diverse perspectives and insights. ✓ Remuneration policies are made through transparent and independent process. The level and composition of remuneration consider the company's aim to attract, motivate and retain right talent in board and senior management to ensure the company's long-term objectives are achievable.
(b) Effective audit and risk management	✓ An effective Audit Committee brings transparency, focus and independent decisions in overseeing the financial reporting process. ✓ Level of knowledge, skills, experience and commitment to the members are essential to apply responsibilities effectively. ✓ Proper risk management and internal control reflects the level of risks they will take and implement necessary controls to achieve their objectives. ✓ Internal auditors are expected to deliver proactive strategic advice and comments business improvements.
(c) Integrity in corporate reporting and meaningful relationship with stakeholders	✓ Boards ensure that the communications with stakeholders are effective, transparent and regular. ✓ General meetings are conducted for directors and senior management to involve shareholders in order to promote deeper understanding on firm's business, governance and performance. ✓ Opportunities for shareholders to practise their ownership rights and views to board and senior managements on any concerned issues.
Key Features of MCCG 2017	
	✓ CARE approach (Comprehend, Apply, Report) - providing fair and meaning framework on how the firms apply the practices ✓ Non-listed firms are encouraged to implement the MCCG practices to improve their accountability, transparency and sustainability ✓ Guidance are provided to have practices that companies expected to achieve ✓ Firms are introduced to Step-Up practices - towards greater excellence

Source: Securities Commission Malaysia (2017)

2.8 Firm Performances

Investors analyzed firm performance measure based on the impact of firm value on market, observations of possible gains in investments and the efficiency estimation of investments (Sauaia, 2002). However, most of the existing literatures used the book value instead of market value of liabilities or stock because there are other factors to consider and may cause complication in measurement. Tobin Q was widely used as the estimation

measure of firm performance and was analyzed with other past performance estimation. It allows the researchers to study the past performance and illustrated the growth opportunities based on q measure (future performance) in areas such as dividend policy, capital investments, ownership structure, capital structure, performance of administration and monopoly power. Tobin Q was also used to relate the firm's value with its ownership structure from ownership structure viewpoint as well as to proof the changes on capital structure influence the firm's value from capital structure viewpoint. In Finance field, it is not only used as firm's performance measure from investor viewpoint but also as proxy of the firm's value. In essence, Tobin Q could be defined as the ratio between market value of the firm's assets and the replacement value of its asset.

Other than Tobin Q, ROA and Total Shareholders Return are also performance measure and family firms never fare worse on these three performance measures compared with non-family firms. Sometimes, it is much better. It was pointed out by Corstjens, Peyer and Heyden (2006) who studied how family firm in US, UK, France and Germany performed in various national and legal environments compared to non-family firms. They also seek to understand whether investors view the firm differently or not and how different would they view the firms. After analyzed the data with Fama-French-Carhart valuation model and multifactor Fama-MacBeth regression model, they found the results are remarkably robust. Regression of family firms from 1993 to 2002 revealed that stock returns of family firms were well explained by the classical four-factor pricing model. Then, it confirmed that family firms portfolios encountered various risk exposures across different countries and also when compared with non-family firm portfolios in their countries accordingly. These differences reflected that investors should be more concerned

about both geography and ownership structures aspect as it did have influence on firm performance.

A critical review regarding the performance of family firms by Dyers (2006) revealed that majority of previous literatures neglected the family effects on organizational performance. Out of nine researches, four of them were claimed that family firms are better performers compared to non-family firms; three studies were presented that non-family firms have outstanding performance; two studies have mixed outputs. Different methodological approaches applied to the studies revealed conflicting discovery. The most appropriate theory applicable to how the firm performance was influenced by the family aims, relationship and resources is agency theory and resource-based view. These theories explained that certain “family characteristics” may lead to various agency benefits but other family characteristics created costs and burdened the firm performance. Family firms also prone to use the resources for personal benefits rather than for the firm’s benefits and may put the firms at risk.

In Malaysia, gross domestic products (GDP) are generally used to describe the economic growth. Surprisingly, Malaysian economy had growth of 4.3 percent year-on-year in three months to September 2016, higher than 4.0 percent growth of last year and exceeded the market estimation of 4.1 percent growth (Trading Economics, 11 Nov 2016). It was the most extreme development since the fourth quarter of 2015, because the faster rise in private consumption triggers the decrease in exports and a decline in government spending and investment. Figure 2 below showed the changes of GDP growth over years in percentage.

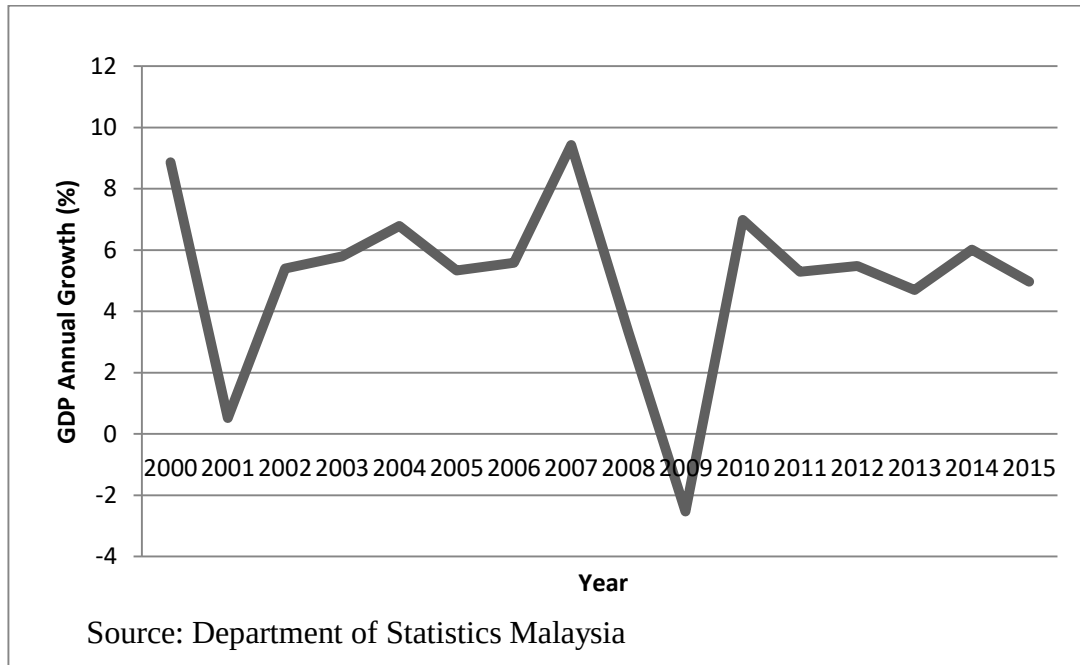


Figure 2: GDP Annual Growth in Percentage

From Figure 2, there are two steep decreases in two years which are 2001 and 2009. This is probably due to the recovery period from financial crisis that occurred during 1997-98 and 2007-08 respectively. From 2002 to 2006, the growth seems moderate and stable over time but it had a steep rise in 2007. Yet, after 2007, GDP has steep decrease until year 2009. The similar trend which happened from 2002 to 2006 occurred from 2010 to 2015.

2.8.1 The Influence of Family Firms on Firm Performances

Ownership structure is one of the crucial factors in developing the corporate governance of a firm and this attracted Amran and Ahmad (2013) to assess the influence of managerial and family ownership structure on the firm performance. Descriptive and multivariate regression analysis was analyzed based on the sample of 420 firms listed on Bursa Malaysia from year 2003 to 2007. From the sample, they claimed that equity

ownerships in Malaysia focused on several owners, mainly by State government, families or large firms. The results concluded that managerial ownership connected significantly to ROA but the family ownership connected significantly with Tobin q and ROA. It implied that greater portion of insider ownerships boost the firm performance because of the transformation of internal and external benefits and decrease in shareholders' conflict of interest. It also suggested that firm performance deteriorate when the managers' share ownership rise. Managers with increased control and greater shareholdings will tend to pursue their own self – interests rather than the shareholders' interests.

In addition, different ownership structures showed different productivity when the productivity is used as the performance measure. Barth, Gulbrandsen and Schone (2005) analyzed the correlation between family ownership and productivity by focusing on the owner-management roles based on agency theory. The productivity contrast is explained by the gap in management regime. An establishment level survey was conducted in 1996 among firms related to Confederation of Norwegian Business and Industry (NHO) and showed that family-owned firms are not as productive as the non-family-owned firms. Family-owned firms managed by professional managers are as productive as the non-family-owned firms but family-owned firms managed by owner family are less productive significantly. The productivity difference may be caused by the skills or incentives (profits verse efficient operations) gap between professional and family managers. Although Anderson and Reeb (2003) reported that family firms perform better compared to non-family firms, they found that family ownership has concave correlation on performance. In short, the result showed concrete and significant negative (positive) impact of family (professional) management on productivity.

Notwithstanding, family firms eased the agency issue between owners and managers but increased the conflicts between the family and minority shareholders when shareholder protection is weak and control is strong (Maury, 2006). Tobin Q and ROA of active family firms showed that the firms continue to outperform the non-family firms in terms of profitability in various legal regimes. Family firms can boost the firm's performance where active family ownership increased profitability with no changes on value premium of the firm. Family firms boost the valuation in weaker control but profitability began to improve when the control is strong. It showed that family firms perform differently in different legal and cultural background. Strong family firms tempted to put their own personal benefits first when the legal environment do not harm minority shareholders but supporting them into being notorious. So, greater firm valuation in bringing benefits to all shareholders is efficiency gains from active family firms if minority shareholders protection improved.

Similarly, Gill and Kaur (2015) studied the connection between family involvement in business (FIB) and financial performance (FP) of firms listed in the S&P BSE 500 Index from 2006 to 2010 to reveal how the ownership, management and governance influence FP. The economic backdrop of most countries maintained to be controlled by family business and family control is common among publicly listed Indian firms. From the two-way fixed-effects panel model and two-stage least squares (IV-2SLS) regression, they found out that family firms (FF) are dominant over a number of industries in a large sample and founding family often participated in the actual management of the companies. They also reported that FIB is associated with superior FP. Both accounting and market performance are higher for FF compared to non-family firms (NFF). This showed FIB decreased the agency problem without causing serious losses in decision making

efficiencies. For firm size, it had significant negative impact on FP, consistent with debate that smaller firms have better performance.

On the other hand, the positive relationship between family ownership and firm performance occurred up to certain level of share ownerships but turned to negative beyond that level because of its non-linear relationship. In essence, the relationship may unnecessarily be positively or negatively related. Poutziouris, Savva and Hadjielias (2015) conducted panel data regression of UK firms listed on London Stock Exchange (LSE) from 1998 to 2008. It measured the impact of family involvement in terms of ownership and management on firm performance (accounting ratios and Tobin Q) while controlling several external factors of the firms as well as the firm's business characteristics. The result demonstrated that family ownership had positive relationship with concentrated firms in the founding family when performance is measured by ROA. Next, concentrated family firms may decreased agency problems and strengthened the stewardship attitudes. Then, the firm performance started to deteriorate when the family ownership reached one-third of the firm's total share and positive relationship between family ownership and performance are more obvious younger family firms.

Next, Anderson and Reeb (2003) discussed how the founding-family ownership influenced the firm performance. From the sample of S & P 500 firms in 1992, one-third of S & P 500 is family firms with at least 18 percent of outstanding equity. Differ from expected result, the firm performances for families are greater than non-family firms. Although family firms and firm performance were nonlinearly connected, the performance when family members are CEO is greater than with outside CEOs. From ROA, they discovered that family firms have better performance and profitability especially in firms where family members as the CEO because family know the enterprise well and did their

roles as the firm's protector. The univariate and multivariate analysis based on Tobin Q illustrated that family firms either old or young firms had greater Tobin Q values. The family members as CEO were also related to higher value gains. When families had higher control, the possibility of entrenchment and poor performance increased. Family firms eased the agency conflicts without causing serious harm to decision-making efficiency if the market is transparent and well-regulated. To conclude, the results do not support the hypothesis that minority shareholders are not influenced by family ownership, implying that family ownership is a useful institution structure.

However, investors who had prejudice on family firms implied that higher ROA did not necessarily mean greater performance (Corstjens, Maxwell & Heyden, 2004). For example, the French family firms practiced civil law regime. It provides low protection to investors and creditors, less efficiency and family firms are common among large quoted firms. These firms may get influenced through pricing. In contrast, US was dominated by common laws which provide high protection to investors and creditors. Thus, they observed that these performance differences were mainly influenced by ownership structures and concluded that families prone to sustain their control in the firms with higher effective cost of capital than being equal to non-family firms. This governance raised the ROA. To study the gap of economic performance among French family-owned and non-family-owned firms, 1993 to 2002 were selected because the French economy was volatile at that time. This period was quite difficult for family firms who are often assumed to be very traditionalist. The result showed that US family firms performed better in both ROA and Tobin q.

On the other hand, Orelund (2007) used Tobin Q as proxy and considered the family controls on CEO-position as ownership structure measure to study the family effect

on firm performance. General agency costs were separated into two types of costs on minority shareholders which are costs of private benefits of control and costs of mismanagement. Costs of private benefits of control incurred from the expropriation of minority shareholder by control of the firms due to conflict of interest. Contra to that, costs of mismanagement existed because of the controlling individuals' inability to handle companies efficiently. Majority of the family firms faced the costs of mismanagement and was supported by the results. It was mainly caused by the founder's entrenchment for they have lacking on management skills. To handle the endogeneity problem on sample data of 144 Swedish public firms from 1985 to 2000, fixed effects regression was used.

Family firms governed better than non-family firm based on governance mechanism although firm value, on average is lower in family firms based on Tobin Q and ROA (Ibrahim & Abdul Samad, 2011b). To study the connection between corporate governance mechanisms and performance among family and non-family ownership publicly listed firms in Malaysia, 2030 observations consisted sample of 290 companies selected across seven years from 1999 to 2005 with measure of ROA and Tobin Q. Control variables such as firm size, debt ratio and firm age were included along with corporate governance mechanisms such as board size, independent director and duality. From the panel regression model, the fixed effect approach was used to explain the relationship. The significant result on Tobin Q and ROA confirmed that family firms basically invest higher share of assets in certain companies where the return is less profitable. In addition, family ownership basically concerned with family interest and firm's survival since family firms tend to be small and risk averse. However, the result showed that family firms governed better than non-family firms based on the governance mechanisms.

Last but not least, different types of ownership structure and corporate governance affected the strategy as well as the performance (Le Breton Miller & Miller, 2008). This paper harmonized the opposite reviews by examining the past literatures that relates ownership priority and preference level of risk in both entrepreneurship and family business. In relation with family control, ownership and management, the study concluded that value-maximization prospect is only applicable to entrepreneurship whose owners emphasize on growth while utility-maximization prospect only happen in family business literature where it involved multiple family owners or executives. Family firms tend to harvest than grow. This might be because of the shared priorities and loyalties between business and family decisions. On the other hand, lone founders oriented to grow in their firms through market expansion or innovation. In short, the powerful individual owners were different according to their priorities, capabilities and motivations to ensure the long run availability of the firms.

2.8.2 The Influence of Capital Structures on Firm Performances

Firm's financing behavior considered as the main cause of corporate failure among Kenya's firms since both management and investors often have two dilemmas (Mwangi, Macau & Kosimbei, 2014). It is either optimal capital structure applied in the firms or how different capital structure decisions influenced the firm performance. Panel data model (random effects) on 42 non-financial companies in Kenya from 2006 to 2012 revealed that greater financial leverage negatively influenced ROA. They also found out that agency theory inapplicable to Kenya firms since the financial leverage did not mitigate the agency problem. Greater usage of current liabilities to finance assets helped to improve the firm

performance and was probably because current liabilities are less costly compared to long-term debts. This study also provided proof that greater percentage of current assets in relation to total assets did improve ROA.

However, different capital structures may influence the firm performance differently since it may mitigate the agency costs (Warokka, Herrera & Haim Hilman Abdullah, 2011). The multivariate regression proved that the corporate governance theory prediction is true. This theory postulated that the leverage affects agency costs which then affect firm performance. It defined that an inverse causality relations between ownership structure, capital structure and firm performance occurred. The after-crisis East Asian firms supported the efficiency-risk theory when they studied the relationship through t-test and multivariate regression. Hence, debt can be an indicator of how well is a firm performing based on the incentive signaling approach. Likewise, Ong and Teh (2011) revealed that capital structure influenced the firm performances at certain measures in the pooled model. Various performance measures were used to study the relation of capital structure and firm performance before and during crisis (2007) on 49 Malaysian construction firms from 2005 to 2008. The outcomes only showed that there is relationship between capital structure and firm performance are related but no relationship with other variables in the study.

Most of the previous studies showed significant negative influence of capital structures on performance but positive influence on performance occurred at certain measures. First is the study of Zeitun and Tian (2007). Capital structure showed significantly negative influence on firm performance for both accounting and market estimation. Evidence on the stock market efficiency can be obtained by observing the impact of capital structure on firm performance. 167 Jordanian firms were selected as sample data of 1989 to 2003 and used random effects model on the unbalanced panel data.

It was more suitable model because this study need to control the influence of Industrial sectors on performance and fixed effects model does not allow this influence to be controlled. Thus, they pointed out that increased leverage level decreased the ROA. Debt ratio negatively significant with ROA and Tobin Q but firm size positively significant with both estimation as bigger firms have lower bankruptcy cost. Yet, growth was discovered to be positively significant with ROA only but insignificant for other estimation. Next, Pouraghajan, Malekian, Emamgholipour, Lotfollahpour and Bagheri (2012) conducted similar study on publicly listed firms on the Tehran Stock Exchange. Multiple regression estimations and Pearson correlation were tested on the 400 firm-year from 12 industrial groups during 2006 to 2010 with ROA as financial performance measures. From the results, there was significant negative connection between debt ratio and firm performance. It also pointed out that asset turnover, firm size, asset tangibility and growth opportunity had significant positive connection on firm performance. However, the regression of ROA with firm age claimed to be insignificant. Therefore, they concluded that management can raise the firm's profitability when the debt ratio decreased to improve the firm's performance and raise the shareholders wealth.

However, excessive use of debts caused the firms to be vulnerable and this was seen as the effect of Asian Financial Crisis in 1997. This effect was revealed by Halim Ahmad and Hiau Abdullah (2013) in the research on leverage effects on the firms' value and the optimal level of debts where the firms maximize its value. This crucial decision may have influence on the firm performance, so an advanced panel threshold regression model by Hansen (1999) was applied to test the impact among the 467 Malaysian listed firms from 2005 to 2009. Single threshold effects between debt ratio and firm value was shown in the estimation and proved that the threshold debt ratio of 64.33 percent for

Malaysian listed firms existed. It partly supported the trade off theory where the firms tend to find an optimal level where benefits of tax shield and incremental cost of debt financing. This study provided the evidence that firms should not raise the level of debts beyond the threshold level as it did not add value to the firm and might placed it in financial distress position.

Similar results were obtained when Gleason, Mathur and Mathur (2000) analyzed how the national culture affected the capital structure decisions which then affected the firm performance based on the option of capital structure made by the firms. Previous literatures emphasized the capital structure effect on the firm performance but the literature about the effect of national culture on capital structure is rather rare, so this issue was raised in this study. Data collection of retailers from 14 European countries was categorized into four clusters to study how the capital structure differs across different clusters. Capital structure had negative impact on firm performance when both financial and operational measures were regressed. This probably due to the agency issues which lead to overleveraging of retailers and caused lower performance in the firm. To ease the agency conflicts, several options such as retailers should increase equity in the capital structure to reach appropriate level of capital structure, managers should focused on option devices that avoid performance-reducing overleveraging to control agency conflicts and costs, and high growth firms should increase their firm size to trigger the advantages on economies of scale and market bargaining power because greater firm size is associated with greater firm performance were applied.

Negative relationship between debt ratio and management's shareholdings was also reported in the study of Friend and Lang (1988) when they tested whether capital structure decisions are partially affected by the managerial self-interest. The data of 984 NYSE firms

from 1979 to 1983 was collected to run the ordinary least square regression. From the regression, firms with greater profitability (ROA) and risk had lower leverage. Larger firms among closely held firm (CLC) relied more on debts but reported to be vague among publicly held firms (PHC). Greater managerial shareholdings in the firm lowered the level of debt, indicated that increasing non-diversifiable risk of debt to management than to public investors when a low debt ratio is sustained. Moreover, substantial boost on debts cannot be discovered when the non-managerial principal stockholder existed, implied that interests of managers and public investors may collide when there is controlling non-managerial stockholders.

In contrast, debt ratio was found positively significant relationship with Tobin Q (Javed & Akhtar, 2012). Their study focused on how capital structure related with financial performance using the 21 industries in Pakistan from year 2004 to 2008. Based on the correlation and regression analysis, the relationship between leverage (debt ratio and debt-to-equity ratio), financial performance (market to book value, Tobin Q and ROA), growth and size is positive for this study. When debt rose, the risk of the firm rose together with the costs of financial distress and financial expenses may rise but deteriorate the return instead. Creditors may raise the costs of debt to prevent the asset substitution and underinvestment issue. If negative relationship occurred, it may be caused by local market lenders who are sensitive in guarding loan repayments or the time period when data is collected especially during the time horizon where country market are volatile. The coefficient of correlation between debt ratio and Tobin Q is around 0.86 which was highly significant positive relationship. In other words, Tobin Q improved when the debt ratio increased.

2.8.3 The Moderating Effect of Debt Ratio on the Relationship between Family Firms and Firm Performances

Family firms played crucial roles in the world economy, but it received less attention because of the obstacles in obtaining sufficient data on family firms. Family ownership influenced the firm performance only when it was combined with certain type of family control and management (Villalonga & Amit, 2006). Panel data on publicly traded U.S. firms listed on Fortune 500 at least one year during 1994 to 2000 was collected while family control was divided into several structures such as multiple share classes, pyramids, cross-holdings or voting agreements. From the descriptive statistic, they concluded that family and non-family firms had significantly distinctive result on age, growth, performance, corporate governance and control, financial and investment policies, and industry connection. Family ownership also made minority shareholders to be better off in family firms compared to they have been in non-family firms. This implied that families did bear responsibility in mitigating the agency conflicts between large shareholders and minority shareholders. When the ownership concentration is high, the family ownership caused moderate positive effects on the firm value, suggesting that family ownership may get rid of Agency Problem I but might be rejected by the costs incurred by family management when professional managers had better performance than the family firms.

Concentrated ownership generally associated with more leverage but it did not have enough supporting proof on this. Thus, Margaritis and Psillaki (2009) studied the causality of capital structure, ownership structure and firm performance across different industries. Non-parametric Data Development Analysis (DEA) was applied on the French manufacturing firms to empirically illustrate the industry “best practice” production

frontier and estimated the firm efficiency as the distance from that frontier. Firm efficiency is the proxy of agency costs raised from conflicts of interests between debt holders and equity holders or different principal-agents objectives. It supported Jensen and Meckling (1976) *agency cost hypothesis* where increased leverage was related to better efficiency and firms with better concentration ownership has lower agency costs especially for firms from chemicals industry. They also found out that family firms generally have better performances compared to non-family firms. Besides, they also examined the inverse relationship from leverage to efficiency based on two hypotheses: the *efficiency – risk hypothesis* and the *franchise value hypothesis*. Based on quantile regression analysis, the results supported the *efficiency – risk hypothesis* (positive influence of efficiency on leverage) and highly concentrated ownership is on average associated with more leverage but they did not find any proof that ownership structures did influence the leverage.

Many previous studies concentrated on capital structures, but only few studies investigated how the ownership concentration and dispersion influence the capital structure especially the Malaysian market. Capital structure choice played a crucial role for the firm because it could impact the shareholder's earnings and firm's value (Shahar, Adzis & Baderi, 2016). Heavy reliance on debt would put the firm's reputation at high risk and raised the firm's bankruptcy costs. With study on relationship between ownership structure and firm specific characteristics total of 38 middle-capital publicly listed firms in Malaysia covering the year 2008 to 2012, they discovered that concentrated firms negatively connected to leverage ratio (capital structure measure). This implied that debt is less likely used as the monitoring tools in the highly concentrated firms. It helped to decrease debt related financial distress cost which decreased the agency costs although it increased agency costs to managerial opportunistic behavior. This study also helped the investors to

have deeper understandings on capital structure and judged the firm's corporate governance practices according to their ownership concentration and the capital structure choice.

In Taiwan, family firms are positively connected with leverage and firm performance (Cheng & Tzeng, 2011). With least square dummy variables (LSDV) or fixed effect model and 3SLS on the electronics, textile and chemical industries in Taiwan from 2000 to 2009, they tested the sample based on four models, which are the agency cost hypothesis, convergence-of-interest hypothesis, entrenchment effect hypothesis and the combined effect of agency cost and convergence-of-interest hypothesis. Five empirical results including the positive connection between ownership concentration and leverage for the electronics and textile industries, the positive impact of ownership concentration on firm performance likely to be fragile when leverage is controlled amidst industry, the positive impact of ownership concentration on leverage likely to be fragile when firm performance was controlled, different ownership structures revealed the various managerial opportunism levels amidst various industries, and family firms were positively connected to firm performance and leverage were obtained. Additionally, family firms with more concentrated ownership and incentive impacts may have positive influence on both capital structure and firm value. On the other hand, family firms with entrenchment impacts on minority shareholders may increase leverage but decrease firm value. This study did not only give the perception of ownership structures and debt finance decisions to firm worth but also perception of investment decisions to boost the investors' income.

Similar results has occurred in the study of Boroujeni, Noroozi, Nadem and Chadegani (2013a) who investigated the relationship between ownership structure, capital structure and firm performance. Concentrated ownership and firms with high debt ratio

have positive effect on firm performance. A sample period of 8 years (2001 until 2008) was collected on 123 companies listed on Tehran Stock Exchange (TSE). They used ROA to estimate the firm performance. Using the multivariate regression model, the effect of independent variables and control variables on firm performance was examined to test the research hypotheses. The first hypothesis used debt ratio as the control tool for managers from wastage of cash flows on ineffective investment by illustrating that firms with high debt ratios are performing better than other firms. Second hypothesis tested whether ownership structures cause the changes in firm performances. Institutional shareholders with significance influence enable them to make changes on procedures and activities as well as monitoring the managers. The results supported that institutional shareholders with high concentration help firms to improve firm performance. The results also demonstrated that big firms with greater business growth have better performance. Therefore, these factors are useful in predicting the firm performance.

2.9 Summary

This chapter reviews the theoretical and practical approaches as well as debates on ownership structures, capital structures, firm performances and control variables such as size, age and growth. It is arranged from overview of the Industrial Product and Consumer Product sector in Malaysia, ownership structure, capital structure, agency theory, relationship between ownership structure and capital structure, corporate governance in Malaysia to firm performance. The firm performance is then divided to several subsections to differentiate the influence of the variables on firm performance.

Overall, family firms outperform the non-family firms but different results may be obtained when different methodological approaches are used (Dyers, 2006). Family firms can have positive or negative or mixed result on firm performances. Most firms prefer to use debt than equity as it offers tax benefits to companies (Shubita & Alsawalhah, 2012). However, the increased risk of defaults might cause the firms to be illiquid during recession. Thus, it is important for creditors to know the firm's financial position and optimal capital structure to avoid putting the firms at risk. Family firms are positively connected to debt ratio and firm performances in both Pakistan (Javed & Akhtar, 2012) and Taiwan (Cheng & Tzeng, 2011). However, family firms are negatively connected with debt ratio in Malaysia and implied that debt is less likely to be used as monitoring tool on agency costs (Shahar, Adzis & Baderi, 2016).

CHAPTER 3

METHODOLOGY

3.1 Introduction

This chapter provides discussion on the methodology used to conduct the study. It is divided to several parts. The discussion begins with the conceptual framework, followed by the research design and the procedure of data collection. Next, the chapter describes the methods used to measure and analyze the relationship between family firms, debt ratio and firm performances among the publicly listed firms of both industrial and consumer product industries in Malaysia. The empirical model followed by the hypotheses development are also included. Last but not least, the diagnostic checking for multicollinearity, heteroscedasticity and serial correlation is conducted to detect any bias misspecification on the panel regression model. Then, rectification on the model makes the data analysis to be less biased and more accurate.

3.2 Model of the Study

The diagram below illustrates the relationship between the three main variables which are the ownership structures, capital structures and firm performances. Firm performance is the dependent variable while ownership structures and capital structures are the independent variable. Ownership structures and capital structures are divided into family firms or non-family firms and debt or equity respectively. The thesis studies the moderating effect of debt on the relationship between family firms and firm performance.

Apart from the three main variables, independent variables such as firm size, firm age and growth are added into the model as the control variables because they are the firm characteristics that may affect the firm performance.

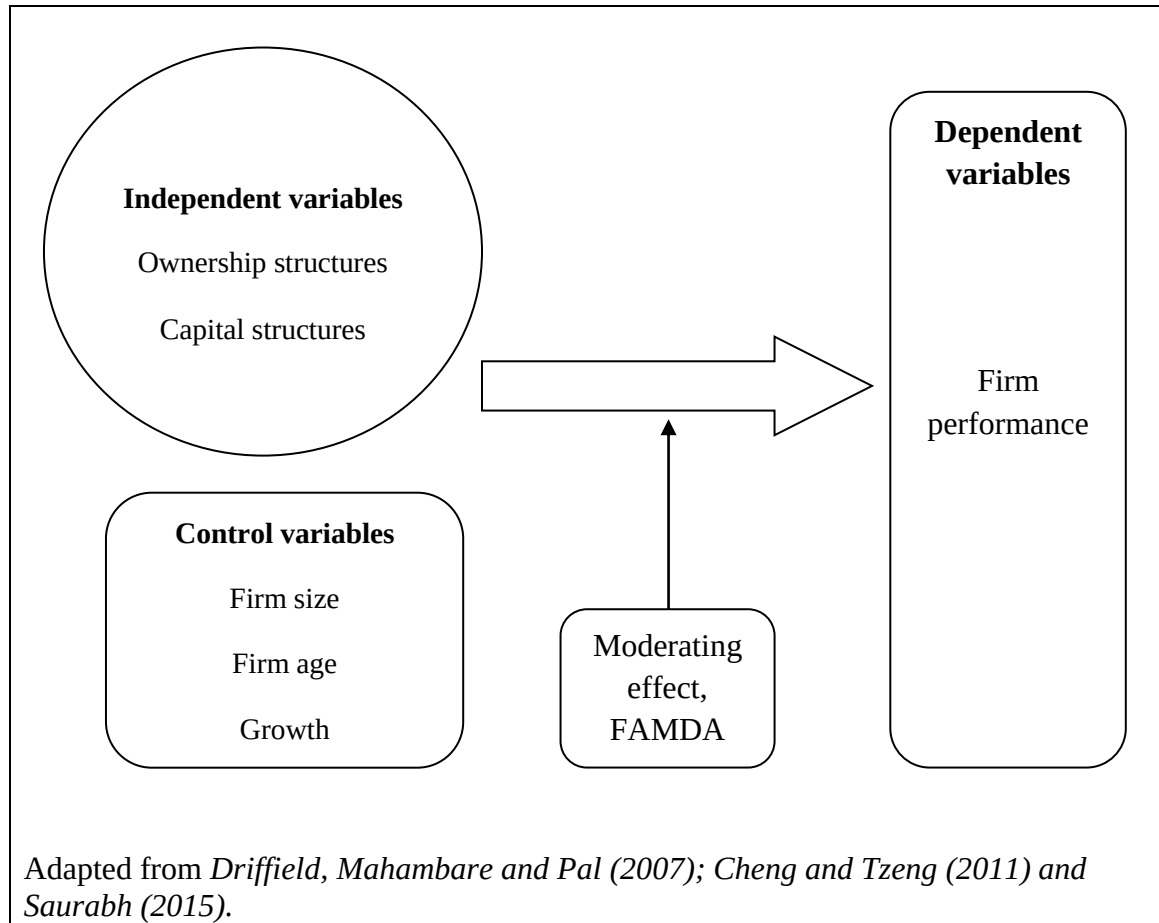


Figure 3: Conceptual Framework

This model can be written in the functional form as below:

$$PERF_{it} = f(FAM, DA, FAMDA, SIZE, AGE, GROWTH) \dots \dots \dots (1)$$

Where,

PERF = Firm performance (ROA and Tobin Q)

FAM = Family firms

DA = Debt ratio

FAMDA = Moderating effect of capital structure (Interaction of family firms
and debt ratio)

SIZE = Firm size

AGE = Firm age

GROWTH = Growth

Rationally, the ownership structures affect the capital structures and firm performance based on agency theory. According to agency theory developed by Jensen and Meckling (1979), separation of ownership, control and management increase the conflicts of interests among the shareholders and managers. The goals between principal and agents also differ in any agency relationship as the family ownership has their own incentives to achieve. Most of the family firms own large portions of equity and holds senior management positions in their firms. In other words, most of the family firms do not separate the ownership from control. This means family firms no longer use the “Berle and

Means firm” concept where ownership is dispersed among small shareholders but control is under the hands of professional managers. This showed that the moderating effect of capital structure will affect the relationship between family firms and firm performance. Thus, the relationship is written in the functional forms as Equation 1 as stated above.

From Figure 3, the dependent variable is the firm performance while independent variables are ownership structure (family firms) and capital structure (debt ratio). Control variables such as firm size, age and growth are included to control the industry and firm characteristics on firm performances. Family firms are the proxy for ownership structure based on the previous study of Cheng and Tzeng (2011). Referring to the top 30 shareholders list, top 10 shareholders are the controlling shareholders of the firms who have strong impact on firm’s decision. Family firms operate differently compared to non-family firms in terms of control and management mechanisms, so it is used as proxy for ownership structure.

On the other hand, debt ratio, the capital structure measure, is referring to previous study of Deesomsak, Paudyal and Pescetto (2004); Driffield, Mahambare and Pal (2007); and Cheng and Tzeng (2011). Generally speaking, not all ownership structure theories are applied efficiently in different industries because firm and industry characteristics must be considered as various ownership structures may incur different agency costs. To avoid bias or specification error on the results, control variables are included. Control variables for the study of Deesomsak, Paudyal and Pescetto (2004) are firm size and growth; Driffield, Mahambare and Pal (2007) are firm size, age and growth; and Cheng and Tzeng (2011) are firm size and age. Referring to these three previous study, firm size, age and growth are included as control variables of this study.

Last but not least, the family ownership and debt ratio is moderated and represented by FAMDA to test the moderating effect of debt ratio on the relationship between family firms and firm performance. It analyzes how debt ratio influences the firm performance of the family firms. Family firms are always contrary with non-family firms in term of control and management mechanisms so, it is used as proxy for the moderating effect of debt ratio (Cheng & Tzeng, 2011).

3.3 Research Design

Research design basically defined as comprehensive plan on how the study will be conducted by describing how the data is collected, what instruments used to conduct the tests, how the instruments will be applied and the objectives of analyzing the collected data. This study involves quantitative data that is presented in numerical form to explain the relationship between variables. This study aims to analyze the relationship between family ownership and capital structures on firm performance among Malaysian firms.

The dependent variable is the firm performance while the independent variables are family ownership and capital structures. Firm performance is divided into two measures which are the accounting (ROA) and market value (Tobin Q) measures while family ownership is measured with qualitative model which is dummy variable regression model. For capital structure, it is measured with debt ratio. Several control variables such as firm size, age and growth are also included in the panel data regression because they are the firm-specific explanatory variables that are closely related to the firm performance. Moreover, FAMDA is included to test the relationship between ownership structure and firm performance moderated by capital structure because family firms operated differently

compared to non-family firms on control and management components. Previous studies such as Anderson and Reeb (2003); and Poutziouris, Savva and Hadjielias (2015) claimed that they may influence the connection between family ownership and firm performance. Additionally, firm level panel data was used by Driffield, Mahambare and Pal (2007) to investigate the influence of ownership structures on capital structure and firm valuation. Therefore, panel data regression model is used in this study.

3.4 Data Collection

The yearly data is obtained based on secondary data available from Thomson Datastream Database. Another source of data is internet – annual reports of publicly listed firms in Malaysia. Target sample for this study is firms from industrial and consumer product industries listed in Bursa Malaysia from year 2007 to 2013. The secondary data is collected through the process below:-

- Firms with negative, low value or missing data such as absence of data during the 7 years are excluded to obtain detailed analysis.
- Financial data such as total asset, net income, ROE, market value, capital expenditure and operating income were obtained from Datastream database while total debt, age and use of dummy variable on family firms are observed from the annual reports of the selected sample firms.

In this study, the two industries are selected as sample because firms from both industries dominate the majority part of the market among the available industries. After the filtering process, this study collected 1141 observations, consists of 163 firms and 7 years. Table 4 below is the summary of sample selection after the filtering process.

Table 4: Summary of Sample Selection

	Industrial	Consumer Products	Total
Total firms	260	134	394
Firms with available data	240	222	362
Minus: Firms with missing value	(140)	(59)	(199)
Total sample	100	63	163

3.5 Data Analysis

The collected data will be regressed on Stata 11.0 for data analysis. Most of the researchers use this software for panel data regression because it provides heteroscedasticity-corrected standard errors in the panel data regression model (Gujarati & Porter, 2009). Descriptive statistics, diagnostic test and panel data regression model are conducted to analyze the relationship of ownership structure and capital structure on firm performance among Malaysian firms.

3.5.1 Descriptive Statistics

Descriptive statistics is an analysis of data to describe the basic characteristics of each individual variables used in this study separately or to measure the relationship between variables. It includes analysis of minimum values, maximum values, means and standard deviations. In this study, the relationship of financial characteristics on firm performance is analyzed.

3.5.2 Pearson Correlation Coefficient

One simple way to detect or identify multicollinearity is to observe the correlation coefficient for two independent variables (Gujarati & Porter, 2009). The correlation coefficient measures the extent to which two variables move together. The value (r) varies from -1 to +1. If r is less than 0, then the two variables are negatively correlated. This means that when one variable goes up, the other variables tend to go down or vice versa. If r is 0, the variables are not correlated. Any changes in one variable do not give any information about the movements of other variables because it appears to have nothing to do with each other. If r is positive, the variables are positively correlated, which means they tend to move in the same direction. When one variable goes up, the others also tend to increase or vice versa. If r is 1, the variables are perfectly positively correlated. It always moves in the same direction. A correlation coefficient that is close to zero implies that the two variables do not tend to move together so the multicollinearity is not serious. The closer r is to +1 or -1, the more likely for multicollinearity to occur. However, r is not the most accurate measurement for multicollinearity.

3.5.3 Statistical Model

Panel Data Regression

Panel data is defined as data sets consist of same cross-sectional unit observed over time (Gujarati & Porter, 2009). It can be regressed by combining time-series data across various cross-sectional data such as families, states, regions, firms or randomly sampled individuals. In short, panel data have both space and time dimensions. Baltagi (2005) stated the benefits of panel data as follows:

1. The existence of heterogeneity is possible among the variables over time because panel data is connected to cross-sectional data. Panel data regression can capture such effects well by permitting for subject-specific determinants (variation).
2. Panel data presents more comprehensive analysis, more variability, less possibility that the variables correlate with one another, greater degree of freedom and greater competence.
3. By analyzing the repetitive cross-section of estimation, panel data are more appropriate to study the dynamics of change.
4. Panel data has better identification and estimation of influences that simply cannot be detected in pure cross-section or pure time-series data.
5. Panel data allows us to study more complex behavioral models. For instance, incidents such as economies of scale and technology development can have better analysis through panel data than through pure cross-section or time-series data.
6. By increasing the sample size or number observations, panel data can decrease the bias that may occur if we combine individuals or firms into wide accumulation.

Panel data can be either balanced or unbalanced panel (Gujarati & Porter, 2009). A panel is considered balanced if each subject has the same number of observations and vice versa. However, most literatures used balanced panels. Besides, the terms short panel and long panel are also common among panel data literature. Therefore, different estimation techniques are applied according to the nature of panel data (long panel or short panel). The techniques are as follows:

(a) Pooled OLS (Ordinary Least Square) model

(b) Fixed effects model (FEM)

(c) Random effects model (REM) or ECM (Error Components Model)

Since panel data combines both cross-sectional and time series data, problems like heteroscedasticity and autocorrelation need to be identified (Gujarati & Porter, 2009). Cross-correlation between individual units at the same point in time also may occur. Thus, the estimation techniques are applied to determine which model fit the variables of the study well. For pooled OLS model, it is assumed that the explanatory variables are nonstochastic, which means they are uncorrelated with the error term. The high value of R^2 is expected in this model because lumping together different individuals with different times caused the heterogeneity (individuality or uniqueness) to be undetectable but all of the regression coefficients are significant with high statistic. As an aftermath, it is quite possible that error term may be correlated with other variables included in the model. The estimated coefficient also may be biased and inconsistent.

On the other hand, FEM is time-invariant, which means each unit's intercept does not change over time although the intercept may vary across subjects. Thus, heterogeneity exists among subjects because each firm has its own intercept value. To enable FEM model works efficiently, several classical assumptions need to be revised. First, error variance is assumed to be heteroscedastic or constant error variance on cross-section units. To correct the heteroscedasticity effects, Stata is applied as it contributes heteroscedasticity-corrected standard errors in the panel data regression models. Besides, FEM is also assumed that there is no autocorrelation for each unit over time and error term of each unit has no

correlation with the error term. This model is only suitable for case where the individual-specific intercept may be correlated with one or more variables.

REM is suitable to define the individual specific constant terms as random distribution over the cross sectional units if the individual effects are strictly uncorrelated with the regressors (Greene, 2002). This condition is only applicable if sampled cross sectional units are picked from the large population. Similar to Greene, Gujarati and Porter (2009) defined REM with the assumption that the intercept of an individual unit is randomly picked from a large population with a constant mean value. This model is better than FEM in terms of economical in degrees of freedom because N cross-sectional intercepts is not necessarily estimated and can includes variables that remain constant for a given subject because all the variables are collinear with subject-specific intercept in FEM. REM is more appropriate for case that random intercept of each cross-sectional unit is uncorrelated with the variables and; only the mean value and its variance is determined.

The Breusch and Pagan Lagrangian Multiplier (LM) test is easy to compute in determining whether pooled OLS or REM is the appropriate model as it only requires the OLS residuals (Greene, 2002).

$$H_0 : \sigma_\mu^2 = 0 \quad (Pooled\ OLS)$$

$$H_0 : \sigma_\mu^2 > 0 \quad (Random\ Effects)$$

Under the null hypothesis, LM is distributed as chi-squared with one degree of freedom (1 df). There is only 1 df because of the hypothesis testing that variance of error term equals to zero (Gujarati & Porter, 2009). If the null hypothesis is rejected, random effects model is more appropriate compared to pooled OLS model. This test also limits the generality as it

can detect accurately the variables applied in the sample separation and proves that there is no random effect in the model (Greene, 2002). The model is homoscedastic if $\alpha = 0$ and it is sensitive to the assumption of normality. Additionally, the difference between random and fixed effect model is the relationship between error term (u_i) and independent variables (x_{it}). The random effects model is where u_i is unrelated to x_{it} and the distribution of heterogeneity is restricted. In contrast, fixed effects model is where the distribution is unrestricted so that u_i and x_{it} may be correlated. According to Gujarati and Porter (2009), these two models have substantial differences. With the Hausman test, which model gives reliable result can be determined. The null hypothesis of Hausman test is the FEM and REM estimators do not differ substantially. If null hypothesis is rejected by observing the X^2 distribution, this concluded that REM is not suitable because the random effect may correlated with one or more regressors and FEM is more preferred compared to REM.

Empirical Model

Panel data regression will be applied to this study to test the relationship between ownership structures and capital structures on firm performance among Malaysian firms in both industry and consumer products industries. This regression is estimated based on several formulations which are pooled Ordinary Least Square (OLS) model, fixed effects model and random effects model. Besides, several variables are logarithmically scaled to ease the heteroscedastic problem (Friend & Lang, 1988). This study is conducted to study the relationship of capital structure and family ownership on firm performance. The dependant and independent variables are discussed in the conceptual framework. Hence, the model used on this study is as follows: -

$$PERF_{it} = \alpha + \beta_1(DA)_{it} + \beta_2 (FAM)_{it} + \beta_3 (FAM*DA)_{it} + \beta_4 (SIZE)_{it} + \beta_5 (AGE)_{it} + \beta_6 (GROWTH)_{it} + \mu_{it} \dots\dots\dots(2)$$

Performance is measured by return on asset (ROA) and Tobin Q. These measures are commonly used in the previous studies. Researchers used the ROA as the proxy for accounting performance measures while Tobin Q is the proxy for market performance measures (Zeitun & Tian, 2007; and Salim & Yadav, 2012). Tobin Q is the market value of equity plus book value of debt to the book value of assets (Zeitun & Tian, 2007; and Silva & Majluf, 2008). Maury (2006) defined it as market value of common equity plus the book value of total assets minus common equity and deferred taxes divided by the book value of total assets. Based on these two studies, it is computed as such formula: -

$$Tobin\ Q = \frac{Market\ Value\ of\ The\ Firm}{Total\ Assets} \text{ (Anderson \& Reeb, 2003)}$$

Another firm performance measure, ROA is the ratio of net profit to total assets (Salim & Yadav, 2012). Based on Maury (2006), it is defined as (net income before preferred dividends + (interest expense on debt - interest capitalized)* (1- tax rate) divided by last year's total assets times 100 but Silva and Majluf (2008) formulated ROA as net income plus [interests multiply (1 – tax rate)] divided by total assets. Referring to the definitions of previous studies, ROA is summarized as follows: -

$$ROA = \frac{Net\ income}{Total\ Assets} * 100$$

There are two independent variables in this study which are the capital structures and ownership structures. Overall, the researchers used debt ratio to represent the capital structures. The studies included Abor (2005); Zeitun and Tian (2007); Driffield, Nahambare and Pal (2007); Suhaila and Mahmood (2009); Cheng and Tzeng (2011). Thus, this study uses debt ratio to measure the capital structure of the sample firms. It is measured as total debts divided by total assets.

$$DA = \frac{\text{Total Debts}}{\text{Total Assets}}$$

To measure the ownership structures in this study, dummy variable regression is used to define family business as the East Asian corporations are controlled by large family business and has concentrated ownership (Claessens et al., 2000). Family firms are distinguished with (0,1). This measure comes from the studies of Anderson and Reeb (2003) and Villalonga and Amit (2006) while the definition of percentage shares on family ownership is in line with study of Orelan (2007). Based on the annual report of selected firms, “1” represents family firms if the top 10 shareholder list indicate that the members or a group of members, unnecessarily from same family, who controls the firm is the largest shareholders and owns ≥ 25 percents of shares. “0” is for the opposite condition.

FAMDA is used to test the moderating effects of capital structure on the relationship between ownership structures and firm performance. Referring to the study of Cheng and Tzeng (2011), it is measured by multiplying the variable of family ownership (FAM) and capital structure (DA). In formula form, **FAMDA = FAM*DA**. Next, control variables such as firm size, age and growth are included to control the influence of the variables on the dependent variable, firm performances. Driffield, Nahambare and Pal

(2007), Cheng and Tzeng (2011) and Saurabh (2015) included firm size, age and growth as the firm-specific control variables.

(a) Firm Size

Firm size is one of the most common explanatory variables for capital structure. Large firm size is often associated with improved firm performance because the firms can enjoy the benefits from economies of scales and market bargaining power when the firm size increased (Gleason, Mathur & Mathur, 2000; and Shubita & Alsawalhah, 2012). Besides, larger firms have more capacity and capabilities and firm size is measured by log of total assets (Silva & Majluf, 2008). Firm size can be positively (Friend & Lang, 1988; Deesomsak, Paudyal & Pescetto, 2004) or negatively (Rajan & Zingales, 1995) connected with debt ratio. Gill and Kaur (2015) postulated that smaller firms performed better because it is probably influenced by the time period used in the study.

(b) Firm Age

Firm age is measured in years since the firm is established. Driffield, Mahambare and Pal (2007) found that the firm age is predicted to have negatively relationship with performance because aged firms are less likely to change to new technology but are positively related with leverage especially the East Asian countries because aged firms has developed close links with their lenders so they can obtain debt easily and at lower rate. Anderson and Reeb (2003) also claimed that greater Tobin Q value can be found regardless of the age because family firms eased the agency conflicts without causing serious harm on

decision-making efficiency. Therefore, it is included as the control variable to control the effect.

(c) Growth

Growth is either measured as sales growth (Driffield, Mahambare & Pal, 2007; Zeitun & Tian, 2007) or is explained as the book value of total assets minus the book value of equity plus the market value of equity divided by the book value of total assets (Deesomsak, Paudyal & Pescetto, 2004). Growth is expected to have negative connection with debt ratio because high growth firms prefer not to use debts as their income may be unavailable when they needed it (Deesomsak, et al., 2004). Zeitun and Tian (2007) also mentioned that it was discovered to be positively significant with ROA only but insignificant for other estimation. Nadaraja, Zulkafli and Masron (2011) clarified that all financial aspects have significant connection on capital structures except growth. This insignificance result is supported by Pontoh and Ilat (2013). It may be influenced by the financial crisis that occurred in 2008 as Malaysia has slow adaptation towards excessive debts during economy downturn (Liew & Mohamad Jais, 2013).

3.5.4 Hypotheses Development

Firm performance may rely on increased information about the market, experience and the firm's trustworthiness (Driffield, Mahambare & Pal, 2007). The firms that are able to survive for a long time in the competitive market earned good reputation. This helps to maintain as well as boost the firm's performance to a better stage. Previous studies are

either focus on the relationship between ownership structures and firm performances which is in line with Maury (2006), Ibrahim and Abdul Samad (2011a), Ibrahim and Abdul Samad (2011b), and Amran and Ahmad (2013) or the relationship between capital structures and firm performances which is in line with Ong and Teh (2011), Gleason, Mathur and Mathur (2000), and Halim Ahmad and Hiau Abdullah (2013). Only several studies focused on the relationship between ownership structures and capital structures on firm performances such as Taiwanese firms (Cheng & Tzeng, 2011), Malaysia (Shahar, Adzis & Baderi, 2016), Turkish (Boroujeni, Noroozi, Nadem & Chadegani, 2013a), and East Asia (Driffield, Mahambare & Pal, 2007).

Thus, this study tends to study the relationship of family firms, debt ratio and firm performance of publicly listed firms in Malaysia. Based on the agency cost hypothesis of Jensen and Meckling (1976), greater debt ratio is estimated to decrease the agency costs, lower inefficiency and raised the firm performance. It was supported by the study of Warokka, Herrera and Haim Hilman Abdullah (2011), and Amran and Ahmad (2013). Thus, different ownership structures and different capital structure choices influence the firm performance differently. For instance, Amran and Ahmad (2013) pointed out that concentrated insider ownership improves the firm performance because the transformation of internal and external benefits lessens the conflicts of interest between managers and minority shareholders. Conversely, Warokka, Herrera and Haim Hilman Abdullah (2011) reported that debt influence the agency costs that affects the firm performance. Thus, debt can implies how well the firms are performing based on incentive signaling approach.

Besides, the relationship between ownership structures and capital structures was also discussed in the past literatures. There is no detailed theoretical argument on how firms make decisions on various financing approaches and the empirical results of Al-

Najjar and Taylor (2008) is not convincing enough to support the argument. According to Borojeni, Noroozi, Nadem and Chadegani (2013a), financial managers are expected to consider ownership structure and corporate governance before making any financing decisions. Institutional and inside shareholders prefer to use debt financing. Concentrated ownership influence the financing decisions aligned with reasonable and rational analysis especially during pre-crisis period where any careless decisions may fail the operations (Nadaraja, Zulkafli & Masron, 2011). On the other hand, majority shareholders prefer equity financing so, decrease in leverage ratio occur if the shares of majority shareholders increase (Sayildan & Sayman, 2012). Firms with less concentrated shareholding need professional managers and raised the agency costs as managers (at the same time shareholders) prefer not only the high risk capital structure but also maximizing shareholder's wealth to avoid financial distress.

The discussion above summarizes the influence of ownership structure and capital structure on firm performance in developing countries as well as worldwide. It also considers the other factors or control variables that may indirectly affect the influences of selected variables for this study. However, variables for the study must be specific so that the hypotheses testing can be tested accurately. Thus, the hypotheses regarding the relationship between family ownership and debt ratio on performance is stated as follows:

H₁: There is relationship between family firms and firm performance.

H₂: There is relationship between debt ratio and firm performance.

H₃: Debt ratio moderates the relationship between family firms and firm performance.

3.5.5 Diagnostic Checking

Model specification bias often occurred in the research work (Gujarati & Porter, 2009). Therefore, several tests will be conducted to check whether the model is correctly specified or not and to check whether the variables fit the model or not. The usual diagnostic checking for panel data involved the test to test multicollinearity, heteroskedasticity and serial correlation.

Multicollinearity problem exists when there is a relationship among the main variables and this affects the model power as well as its ability in explaining the results (Shubita & Alsawalhah, 2012). The Gauss-Markov theorem claimed that the least squares estimator has the smallest variance among all linear unbiased estimators (Greene, 2002). Controlling other variables, the overall fit regression improved when the variance is smaller. Since this study did use dummy variables to represent family ownership, it is best to check whether multicollinearity exist in the model or not because dummy variables may sum up to one at every observation – dummy variable trap or perfect multicollinearity. Therefore, the variance inflation factor (VIF) is used as diagnostic statistic. If the mean VIF is less than 10, this means that there is no multicollinearity problem.

Heteroscedasticity basically existed in the volatile high frequency time-series data. It is detected by Modified Wald Statistic for groupwise heteroskedasticity in the residuals of a fixed effect model (Greene, 2002). Next is serial correlation. It is detected by the Wooldridge test for autocorrelation in panel data. Fixed effects model assumes that the residual variance is constant across units and there is no autocorrelation. When heteroscedasticity and autocorrelation problems are detected, the panel regression model

can be rectify by using FE with robust standard errors or panel-corrected standard errors model.

3.6 Summary

This chapter outlines the process of collecting data, sample selection, hypotheses development and method used to test the relationship between ownership structures and capital structures on firm performance among the publicly listed firms in Malaysia. This study uses the panel data regression model and run diagnostic checking to ensure that the model is not biased.

CHAPTER 4

EMPIRICAL RESULTS

4.1 Introduction

This chapter reports the results obtained from the collection of secondary data to demonstrate the relationship between ownership structures (family and non-family firms), capital structures (debt ratio) and firm performance (Tobin Q and ROA). This study uses panel regression model that involves both multiple regression and dummy variable model. Sample of firms were selected from two industries, which are the industrial product and consumer product industry.

4.2 Descriptive Statistics

Table 5 shows the summary of descriptive analysis on the relationship between family firms, debt ratio and firm performance among the 163 sample non-financial Malaysian firms. Relationship between financial characteristics on firm performance is also examined.

Table 5: Descriptive Statistics of 163 Firms From 2007 – 2013

	MEAN	SD*	MIN	MAX
ROA	5.459	8.754	- 40.276	57.798
TOBIN Q	0.001	0.001	0.000	0.012
FAM	0.681	0.466	0	1
DA	0.398	0.219	0.031	2.169
FAMDA	0.272	0.260	0	1.328
SIZE	5.412	0.460	4.321	6.788
AGE	21.358	14.160	1	64
GROWTH	0.942	7.636	- 20.989	223.855

Note: *SD = Standard Deviation, FAMDA = FAM*DA

Firm performance is measured by return on asset (ROA) and Tobin Q. For ROA, the maximum is 57.798 and mean is 5.459. This showed that the highest rate of return on assets is 57.798 but firms have earned average 5.459 percent of net income over total assets. In contra, the maximum for Tobin Q is 0.012 and mean is 0.001. Thus, the highest market value is 0.012 but on average, the firms' value in the market is 0.001 among the sample firms.

The ownership structure is defined with dummy variable regression. From the studies of Anderson and Reeb (2003), Villalonga and Amit (2006), and Orelan (2007), "1" represents family firms if the members or a group of members, unnecessarily from same family, who controls the firm, is the largest shareholders and owns ≥ 25 percents of shares. "0" is for the opposite condition. For this study, sample firms were selected from the two industries, which are Industrial Product and Consumer Product Industry because both industries have large sample sizes. 111 firms out of 163 firms are identified as the family firms. The frequency of observations is summarized in Table 6.

Table 6: Family Firms

Family Firms	Frequency	Percent (%)
1	777	68.10
0	364	31.90
TOTAL	1141	100

Table 6 shows that the sample size consists 68.10 percent of family firms and 31.90 percent of non-family firms. The same result is observed from Table 5 where 0.681 is the mean for family firms. It supported the frequency of observations that 68.1 percent of the sample size is family firms. This result is in line with the studies of La Porta, Lopez-de-Silanes and Shleifer (1999); and Claessens, Djankov and Lang (2000) in terms of the percentage on family firms. For instance, Claessens, Djankov and Lang (2000) clarified

that more than two-thirds of the listed firms are controlled by one shareholder and majority of the developing East Asian countries have high wealth concentration. Maximum value of 1 in Table 6 implying that there is a member or a group of members, unnecessarily from same family, controls the firms. They are also the largest shareholders and own ≥ 25 percents of shares.

Next, capital structure is represented by debt ratio or is measured as total debts divided by total assets. The maximum debt ratio is 2.17 but the average value for debt ratio is 0.398. It means that Malaysian firms have average debt ratio of 39.8 percent over total assets. The low average debt ratio is probably because they tend to avoid the possibility of firm being illiquid when economy face recession. Shubita and Alsawalhah (2012) claimed that default risks increase in lending firms although financial leverage offers tax benefits to the companies. As debt ratio increases, the risk of credit default increase as the potential return drops and may increase the possibility of firm being illiquid when economy downturn happens.

On the other hand, the moderating effect of debt ratio is represented by FAMDA where debt ratio moderates the relationship of family ownership and firm performance. From the table above, 1.328 on FAMDA is the maximum value for the moderating effects but the mean of 0.272 supported that average 27.2 percent mean of debt ratio influence the firm performance of family firms.

Last but not least, control variables such as firm size, age and growth are included to control the variables' influence on dependent variable, firm performance (Driffield, Nahambare & Pal, 2007; Cheng & Tzeng, 2011; Saurabh, 2015). Firm size is the most common explanatory variables for capital structure. Firm age is measured as number of

years since the firm is established. From Table 6, the maximum value is 6.788 while mean is 5.412. 64 years, the maximum value is the longest period of years since the firms are established. The sample firms have operated, on average for around 21 years based on the mean value, 21.358. Then, growth is measured as book value of total assets minus the book value of equity plus the market value of equity divided by the book value of total assets (Deesomsak, Paudyal & Pescetto, 2004). The highest growth rate among the firms is 223.855 while the mean 0.942 means that each firm reaches the growth rate at least around 94.2 percent of the book value of total assets.

Standard deviation (SD) generally measures how concentrated the data are around the mean. The smaller the standard deviation value, the more concentrated are the data around the mean (Gujarati & Porter, 2009). From the nine variables used in the study, the highest SD is 14.160 (AGE) while the lowest is 0.001 (TOBIN Q). This showed that age has concentrated data around the mean while Tobin Q has less concentrated data around the mean.

4.3 Pearson Correlation Coefficient Analysis

Table 7: Correlation Coefficient Among Variables

	ROA	TOBINQ	FAM	DA	FAMDA	SIZE	AGE	GROWTH
ROA	1							
TOBINQ	0.6247	1						
FAM	0.1673	0.1225	1					
DA	-0.0333	0.0304	0.0161	1				
FAMDA	0.1005	0.0986	0.7170	0.5881	1			
SIZE	0.2089	0.2126	0.1611	0.1834	0.2706	1		
AGE	0.1877	0.2612	0.0731	-0.0516	0.0635	0.4562	1	
GROWTH	-0.0171	-0.0308	0.0281	0.0344	0.0459	-0.0309	0.0527	1

The Table 7 above shows the correlation among the ownership structure, capital structure and firm performance. The highest correlation is the correlation coefficient between ROA and TOBINQ (0.6247). The correlation is close to 1, so it means that they are more likely to have serious multicollinearity problem as they tend to move together in the same direction. The positive correlation implies that the increase in ROA will cause an increase of 62.47 percent in Tobin Q or vice versa. However, family firms and debt ratio has the lowest correlation which is close to zero (0.0161). This means that the variables do not move together and less likely to have serious multicollinearity problem.

Most of the variables are positively correlated with each other except the correlation coefficient between ROA and DA, ROA and growth, Tobin Q and growth, DA and age, and size and growth. These negatively correlated variables results summarizes that a decrease in growth will cause an increase in ROA, Tobin Q and size; a decrease in DA will cause an increase in ROA and age, and a decrease in age will cause an increase in DA or vice versa.

4.4 Panel Data Regression

Panel data regression is used to study the relationship between family firms, debt ratio and firm performance among Malaysian non-financial firms because panel data has both space and time dimensions (Gujarati & Porter, 2009). Panel data illustrates more comprehensive analysis, more variability, less probability that the variables correlate with one another, greater degree of freedom and greater competence (Baltagi, 2005). Panel data are also more appropriate to study dynamics of change by analyzing the repetitive cross-sectional estimation and can better identification as well as estimation on the influences

that simply cannot be detected in either pure cross-section or pure time-series data. Different estimation techniques are applied based on the nature of panel data. The techniques include pooled OLS model, fixed effects model (FEM) and random effects model (REM). In this study, firm performance is measured with accounting measure (ROA) and market value measure (Tobin Q) as presented in both TABLE 7 and 8. The combination of multiple regression model and dummy variable regression model is used to capture the changes among these variables.

4.4.1 Panel Data Analysis Based on Accounting Measure (ROA)

Table 8 reports the summary of panel data analysis based on ROA. Family firms, firm performance, moderator (FAMDA) and control variables (size, age and growth) are significant either at 1 percent or 5 percent of significance level ($p\text{-value} \leq 0.05$). However, only debt ratio is significant at 10 percent of significance level ($p\text{-value} \leq 0.10$) in FEM. Variables that are insignificant in pooled model are debt ratio, FAMDA and growth. FAMDA, size and growth are insignificant in REM while FAMDA, age and growth are insignificant in FEM. After rectify the model with panel corrected standard error model, only debt ratio, FAMDA and growth are insignificantly and negatively related to firm performance (ROA) but family firms, size and age are positive and significantly related to ROA.

To test whether pooled OLS or REM is the appropriate model, Breusch and Pagan Lagrangian Multiplier (LM) test is computed. Since the $p\text{-value} < 0.01$, the null hypothesis that variance of error terms equal to zero is rejected (Gujarati & Porter, 2009). This shows that random effect model is more appropriate and limits the generality as it can detect

accurately the variables applied in the sample separation. At the same time, it proves that there is no random effect in the model (Greene, 2002). In REM, debt ratio, family firms and age show positive and significant results. Size and growth are insignificant and positively related to ROA while FAMDA is insignificant and negatively related to ROA. To test REM or FEM is appropriate model, the Hausman test is conducted. The p-value < 0.01, so the null hypothesis that FEM and REM estimators do not differ substantially is rejected (Gujarati & Porter, 2009). This means that FEM is more preferred compared to REM because the random effect may correlate with one or more regressors. In FEM, only debt ratio and size is significant but debt ratio is positively related with ROA while size is negatively related to ROA.

Problems like heteroskedasticity and autocorrelation must be identified since the panel data regression model combines both cross-sectional and time-series data (Greene, 2002). Thus, diagnostic checking is conducted. Since this study uses dummy variable regression model to represent family ownership, it is best to check whether there is any dummy variable trap or multicollinearity exists in the model. From Table 8 below, variance inflation factor (VIF) is 2.98. The mean VIF is less than 10, so this shows that there is no multicollinearity problem in this model. Both Modified Wald Statistic and Wooldridge test show significant results on fixed effect model. This implies that heteroskedasticity and autocorrelation problems are detected.

To rectify the panel regression model, FEM with robust standard errors model is applied. The coefficient of the variables remains the same as in FEM except debt ratio, size and growth but most of the t-statistic value increase except FAMDA, size and growth. Size is significant and positively connected with ROA while FAMDA and growth is insignificant and negatively connected with ROA. Family firms and age are significant and

positively connected with ROA while debt ratio is insignificant and negatively connected with ROA.

Table 8: Result of Panel Data Analysis
Dependent Variable: ROA

	Pooled OLS	Random Effects	Fixed Effects	FEM With Robust Standard Error
Constant	- 12.9037 (-3.89)***	- 2.5596 (- 0.44)	26.7241 (2.49)**	- 12.9037 (- 3.71)***
DA	- 0.6443 (- 0.31)	3.9473 (1.94)**	4.0084 (1.81)*	- 0.6443 (- 0.28)
FAM	3.4972 (3.16)**	3.8098 (2.45)**	(omitted)	3.4972 (4.46)***
FAMDA*	- 2.3636 (- 0.95)	- 2.3856 (- 0.86)	- 0.3120 (- 0.10)	- 2.3636 (- 1.28)
SIZE	2.8539 (4.47)***	0.5262 (0.47)	- 4.3253 (- 2.08)**	2.8539 (3.52)***
AGE	0.0682 (3.38)**	0.0776 (2.08)**	0.0293 (0.35)	0.0682 (3.70)***
GROWTH	- 0.0227 (-0.69)	0.0001 (0.00)	0.0091 (0.37)	- 0.0227 (- 0.88)
Breusch-Pagan LM test	918.82 (0.0000) ***		-	-
Hausman Test	-	22.29 (0.0005)***		-
Observations	1141	1141	1141	1141
Multicollinearity (VIF)	-	-	2.98	-
Heteroskedasticity (X^2 – stat)	-	-	2.0e+05 (0.0000)***	-
Serial Correlation (F – stat)	-	-	18.802 (0.0000)***	-

Note: * FAMDA = FAM*DA

1. Figures in the parentheses are t-statistics, except for Breusch-Pagan LM test, Hausman test, Heteroskedasticity and Serial Correlation, which are p-values.
2. *, ** and *** indicate the respective 10%, 5% and 1% significance levels.

4.4.2 Panel Data Analysis Based on Market Value Measure (Tobin Q)

Table 9 reports the summary of panel data analysis based on Tobin Q. Family firms, firm performance and control variables (size, age and growth) are significant either at 1 percent or 5 percent of significance level ($p\text{-value} \leq 0.05$). However, only debt ratio and FAMDA are significant at 10 percent of significance level ($p\text{-value} \leq 0.10$) in pooled model. The results are all significant except for growth in pooled model, REM and FEM. In pooled model, debt ratio, family firms, size and age show significantly positive connection with Tobin Q while FAMDA shows significantly negative connection with Tobin Q. The variables that are significant and positively connected to Tobin Q in both REM and FEM are debt ratio, family firms and age. However, FAMDA and size are negatively related to Tobin Q. Only growth is insignificant and negatively connected to Tobin Q in the three models (pooled model, REM and FEM). After rectify the model with panel corrected standard error model, the variables show significant results including growth. Debt ratio, family firms, size and age are positively connected to Tobin Q but FAMDA and growth are negatively connected to Tobin Q.

As stated before this section, Breusch and Pagan Lagrangian Multiplier (LM) test is computed to test whether pooled OLS or REM is the appropriate model. Since the $p\text{-value} < 0.01$, the null hypothesis that variance of error terms equal to zero is rejected (Gujarati & Porter, 2009). Table 9 shows significant result, so random effect model is more appropriate and limits the generality as it can detect accurately the variables applied in the sample separation. At the same time, it proves that there is no random effect in the model (Greene, 2002). To test REM or FEM is appropriate model, the Hausman test is conducted. The chi-square is less than zero, so the null hypothesis that FEM and REM estimators do not differ

substantially cannot be rejected (Gujarati & Porter, 2009). It suggests for generalized test. This means that REM is more preferred compared to FEM.

As stated before, problems like heteroskedasticity and autocorrelation are common in panel data regression model and must be detected through diagnostic checking (Greene, 2002). Since this study uses dummy variable regression model to represent family ownership, it is best to check whether there is any dummy variable trap or multicollinearity exists in the model. From Table 9 below, variance inflation factor (VIF) is 2.98. The mean VIF is less than 10, so this shows that there is no multicollinearity problem in this model. Significant results on both Modified Wald Statistic and Wooldridge test implying that heteroskedasticity and autocorrelation problems are detected.

To rectify the panel regression model, panel corrected standard errors model is applied. Feasible Generalized Squares (xtgls) is not applicable to this study because the method is infeasible if panel's time dimension (T) is smaller than cross-sectional dimension (N). It also tends to produce unacceptable small standard error estimates. Thus, panel corrected standard error (xtpcse) is used to overcome the problems of xtgls by depending on the OLS coefficient estimates (Beck & Katz, 1995). Similar to xtgls, xtpcse standard errors are robust to disturbances being heteroscedastic, contemporaneously cross-sectionally correlated and autocorrelated of type first-order autoregression (AR1). In panel corrected standard error model, the coefficients of variables are the same as the pooled OLS model. Most of the t-statistic in panel corrected standard error model is decreasing compared to pooled OLS model except debt ratio, family firms and size.

Table 9: Result of Panel Data Analysis
Dependent Variable: Tobin Q

	Pooled OLS	Random Effects	Fixed Effects	Panel Corrected Standard Error
Constant	- 0.0011 (-2.92)***	0.0014 (2.43)**	0.0037 (4.89)***	- 0.0011 (- 5.40)***
DA	0.0004 (1.91)*	0.0009 (5.78)***	0.0008 (5.43)***	0.0004 (2.70)***
FAM	0.0004 (3.10)***	0.0005 (3.02)***	(omitted)	0.0004 (6.23)***
FAMDA*	- 0.0005 (- 1.74)*	- 0.0007 (- 3.11)***	- 0.0007 (- 2.97)***	- 0.0005 (- 3.08)***
SIZE	0.0002 (2.98)***	- 0.0003 (- 2.90)***	- 0.0007 (- 4.83)***	0.0002 (5.21)***
AGE	0.0000 (6.74)***	0.0000 (5.97)***	0.0000 (5.39)***	0.0000 (5.58)***
GROWTH	- 5.46e-06 (- 1.47)	- 1.11e-06 (- 0.65)	- 6.71e-07 (- 0.39)	- 5.46e-06 (- 1.88)**
Breusch-Pagan LM test	2261.55 (0.0000) ***		-	-
Hausman Test	-	19.11 (0.0018)		-
Observations	1141	1141	1141	1141
Multicollinearity (VIF)	-	-	2.98	-
Heteroskedasticity (X^2 – stat)	-	-	6.2e+05 (0.0000)***	-
Serial Correlation (F – stat)	-	-	34.431 (0.0000)***	-

Note: * FAMDA = FAM*DA

1. Figures in the parentheses are t-statistics, except for Breusch-Pagan LM test, Hausman test, Heteroskedasticity and Serial Correlation, which are p-values.
2. *, ** and *** indicate the respective 10%, 5% and 1% significance levels.

4.5 Relationship between Ownership Structure, Capital Structure and Firm Performance

This study is conducted based on three hypotheses as follows:

H₁: There is relationship between family firms and firm performance.

H₂: There is relationship between debt ratio and firm performance.

H₃: Debt ratio moderates the relationship between family firms and firm performance.

Firm performances are regressed based on two measures which are ROA and Tobin Q. After diagnostic checking conducted, heteroskedasticity and serial correlation exist in the data of both measures but no multicollinearity problem in the data. Thus, the model is rectified by fixed effect with robust standard error on ROA and with panel corrected standard error on Tobin Q.

Based on the first hypothesis, Table 8 and 9 shows that family firms are positively and significantly related to both firm performance measures. However, it is omitted in FEM model and rectifies with panel corrected standard error on Tobin Q and fixed effect with robust standard error on ROA. It confirms that the null hypothesis for H₁ is rejected. There is positive relationship between family firms and firm performance. Family ownership influenced the firm performance only when it is combined with certain type of family control (Villalonga & Amit, 2006). Family firms mitigate agency conflicts between large and minority shareholders. When the firms are highly concentrated, family ownership boosts the firm value, suggesting that family firms may help to ease the agency conflicts

but may get rejected by the incurred costs by family management when professional managers have better performance. Similarly, Gill and Kaur (2015) described that both ROA and Tobin Q has higher value for family firms as family involvement in business eased the agency problem without affecting the decision making efficiency. Therefore, this supported the result that family firms are positively related to firm performance.

Debt ratio shows insignificant and negative relationship with ROA but is positive and significant relationship with Tobin Q. Significant relationship between debt ratio and ROA is only reported in REM and FEM model. It claims that the null hypothesis for ROA is not rejected but is rejected for Tobin Q. Thus, it proves that there is positive relationship between debt ratio and Tobin Q for H₂. This hypothesis is supported by the study of Warokka, Herrera and Haim Hilman Abdullah (2011); and Javed and Akhtar (2012). Higher level of debts aligns the interest of managers and shareholders (Harris & Raviv, 1991). Managers prefer debts than equity to minimize the financing costs and boost the firm performance. Conversely, managers may underestimate the bankruptcy liquidation costs and lower the firm performance. Firms only boost the profitability when the control is strong (Maury, 2006). Moreover, strong family firms will priority their own benefits first and raised the firm valuation when all the benefits are distributed to all shareholders.

Next, FAMDA is tested whether debt ratio moderates the relationship between family firms and firm performance or not. Table 8 and 9 show that FAMDA insignificant and negatively connected with ROA but is significant and negatively connected with Tobin Q. Thus, it concludes that debt ratio moderates the relationship between family firms and Tobin Q negatively in H₃. The insignificant and negative relationship of FAMDA with ROA is consistent with Warokka, Herrera and Haim Hilman Abdullah (2011)'s argument that there is inverse causality effects between ownership structure, capital structure and

firm performances. Under agency costs hypothesis, high leverage eased the agency costs of equity outsiders and boost firm value by restricting managers to act more in the interest of shareholders. Their research also denoted that the distribution of equity ownership among managers and external block holders has significant relationship with leverage and firm performance.

4.6 Summary

This chapter presents the discussion and results of panel data regression obtained from Stata 11. These regressions describe the two hypotheses which are the relationship of family firms and debt ratio on firm performance and the relationship between the interaction of family ownership and debt ratio (FAMDA) on firm performance. Firm performances are measured on accounting and market value measures which are ROA and Tobin Q. The results are summarized as below:-

Table 10: Summaries of the Results

Hypothesis	Support / Not Support	Justification
H ₁ : There is relationship between family firms and firm performance.	Support by both ROA and Tobin Q. Positive relationship.	- Family ownership influenced the firm performance only when it is combined with certain type of family control (Villalonga & Amit, 2006). Family firms mitigate agency conflicts between large and minority shareholders. Family firms may help to ease the agency conflicts but may get rejected by the incurred costs by family management when professional managers have better performance. - Gill and Kaur (2015) described that both ROA and Tobin Q has higher value for family firms as family involvement in business eased the agency problem without affecting the decision making efficiency.

Table 10 continued

Hypothesis	Support / Not Support	Justification
H ₂ : There is relationship between debt ratio and firm performance.	Support by Tobin Q only. Positive relationship. ROA: negatively insignificant Tobin Q : positively significant	- Debt ratio is positive and significantly connected with Tobin Q (Warokka, Herrera & Haim Hilman Abdullah, 2011; Javed & Akhtar, 2012) - Under agency costs hypothesis, high leverage eased the agency costs of equity outsiders and boost firm value by restricting managers to act more in the interest of shareholders (Warokka, Herrera & Haim Hilman Abdullah, 2011). - Higher level of debts aligns the interest of managers and shareholders (Harris & Raviv, 1991). Managers prefer debts than equity to minimize the financing costs and boost the firm performance. - Firms only boost the profitability when the control is strong (Maury, 2006). Strong family firms will priority their own benefits first and raised the firm valuation when all the benefits are distributed to all shareholders.
H ₃ : Debt ratio moderates the relationship between family firms and firm performance.	Support by Tobin Q only. Negative relationship. ROA: negatively insignificant Tobin Q : negatively significant	- The insignificant and negative relationship of FAMDA with ROA is consistent with Warokka, Herrera and Haim Hilman Abdullah (2011)'s argument that high leverage eased the agency costs of equity outsiders and boost firm value by restricting managers to act more in the interest of shareholders.

CHAPTER 5

CONCLUSION

5.1 Overview

This chapter summarizes the issues related to the study and the empirical results discussions with supports from previous studies. It also includes the policy implication, limitations and recommendations for future research.

5.2 Summary of Findings

Firm performance may be the consequences of making the wrong decisions during crucial period such as Asian Crisis in the late 1990s. The common measures used in the past literatures are Tobin Q as market performance measure and return on asset (ROA) as the accounting performance measure. However, there are several variables that are often regarded as related to firm performance such as ownership structure and capital structure.

One of the issues that are often raised on ownership structure is separation of control from management. La Porta, Lopes-de-Silanes and Shleifer (1999), the first literature that examined the separation of control from ownership as the controlling shareholder's benefit supported that the separation effect does exist. They also claimed that the corporate ownership around the world differ with various levels of legal investors' protections by rejecting the Berle and Mean (1932) assumption that widely dispersed ownership is the most common ownership form because the firms in developing countries

such as East Asian countries are heavily concentrated. Widely dispersed ownership only existed among largest firms in countries with strong legal investors' protection. Claessens, Djankov and Lang (2000) also supported the separation effect on large family-controlled firms in Korea, Taiwan and Singapore but it turned out that the separation effects is only obvious among small family-controlled firms. More than two-thirds of the firms in developing countries especially the European and Asian countries are controlled by one or a few controlling shareholders but older firms seems prefer concentrated ownership. Therefore, the conflicts of interests between managers and shareholders including between controlling and minority shareholders are raised. Managers who are also the shareholders at the same time may not act in the best interests of the shareholders. This is the essential reason to observe the influence of family firms on the firm performance. This separation effect also can be the formidable barriers to enhance legal and other institutional frameworks to implement better corporate governance.

The efforts to improve towards better corporate governance caught the attention from society when financial distress such as Asian Financial Crisis 1997 occurred or especially when the International Monetary Fund (IMF) reported that the crisis was affected by weaknesses in the domestic policy (Zulkafli, Abdul Samad & Ismail, 2007). In economic view, corporate governance is a crucial factor to ensure minimal funds are injected efficiently into investment projects that give highest profits. With good corporate governance practices, operating firms are more transparent and accountable for their actions to gain investors' confidences. The concentrated ownership in developing country such as Malaysia is inferred by the weak investor protection of minority shareholders (Tam & Tan, 2007). This weak governance in developing countries also raised the issue of expropriation and tunneling (Friedman, Johnson & Mitton, 2003). Tunneling among Asian

firms occurred in the firms that used pyramid as control. Entrepreneurs who act as managers tunnel resources out of the firm when the investors' protections are weak. This influences the firm performance and raised the agency problem. Agency problem is associated with insiders or managers who have extreme power tend to use profits for their own personal interests rather than returning money to investors (La Porta, Lopez-de-Silanes, Shleifer & Vishny, 2000). This decreases the investors' confidence especially during financial crisis and affected the capital flows of all the emerging countries (Johnson, Boone, Breach & Friedman, 2000). Conversely, several researches such as Sayilgan and Sayman (2012), Anderson and Reeb (2003), and Villalonga and Amit (2006) pointed out that family firms perform better than non-family firms because they need professional managers when the ownership is less concentrated. Managers prefer to use equity financing to avoid firms from financial distress.

Capital structure is another crucial factor that is often associated with firm performance. The literatures on capital structure started after the study of Modigliani and Miller (1958) which assumed that the perfect capital market is frictionless and same capital flows across the projects in economy. However, it is generally accepted that the market is imperfect in the real world and academically contributive to the development of alternative theories such as trade-off theories, pecking order theory and agency theory (Harris & Raviv, 1991). Halim Ahmad and Hiau Abdullah (2013) reported that the firm should not raised beyond the optimal levels of debts where firms maximize their value. It may place it in financial distress and cause the firms to be more vulnerable during financial crisis period. Additionally, bigger firms relied on equity – the unique characteristics of Malaysia's capital structure (Suhaila & Mahmood, 2009).

From the discussion above, we can summarize it as follows:-

- 1) Asian Financial Crisis 1997-98 highlighted the importance of corporate governance to enhance the economic growth and gain investors' confidence with a more transparent and responsible framework of operating firms.
- 2) Separation of control from management may develop the conflicts of interests between managers and shareholders including between controlling shareholders and minority shareholders. Separation effects are more obvious in small family-controlled firms especially the European and Asian countries. More than two-thirds of them are controlled by one or a few controlling shareholders.
- 3) Corporate ownership around the world differs with various level of legal investor's protection. The widely dispersed ownership is only common among the largest firms in countries with strong investors' protection while firms in the developing countries such as East Asian countries are heavily concentrated.
- 4) The concentrated ownership in developing countries such as Malaysia is inferred by the weak investor protection of minority shareholders. This weak corporate governance and investors' protection raised the issue of expropriation and tunneling. Thus, it is crucial to have good corporate governance practices.

This discussion summarizes how firm performance is influenced by ownership structure and capital structure. Ownership structure plays essential role in corporate governance in terms of control and management prospect especially the capital structure decisions. This may caused different changes on capital structure as well as the firm performance. It also shows how important of good corporate governance practice, the related issues raised in the past literatures as well as the economic and capital market development in Malaysia.

The secondary data is analyzed to examine the relationship between ownership structures (family or non-family firms) and capital structure (debt ratio) on firm performance (ROA and Tobin Q). Several control variables such as firm size, age and growth are included in the panel data regression model as they are the firm-specific explanatory variables that are closely related with the firm performance.

The descriptive statistics show the relationship of financial characteristics on firm performances. ROA shows that the highest rate of return on assets is 57.798 but earned average 5.459 percent of net income over total assets. For Tobin Q, the highest market value is 0.012 but on average, the firms' value in the market is 0.001. The ownership structure is defined with dummy variable regression (Anderson & Reeb, 2003; Villalonga & Amit, 2006; and Orelan, 2007). For this study, sample firms were selected from the two industries, which are Industrial Product and Consumer Product Industry because both industries have large sample sizes. 111 firms out of 163 firms are identified as the family firms. The sample size reports that 68.10 percent is family firms and 31.90 percent for non-family firms. The same result is observed from Table 5 where 0.681 is the mean for family firms. It supported the frequency of observations that 68.1 percent of the sample size is family firms. This result is in line with the studies of La Porta, Lopez-de-Silanes and Shleifer (1999); and Claessens, Djankov and Lang (2000) in terms of the percentage on family firms. Maximum value of 1 in Table 6 implying that there is a member or a group of members, unnecessarily from same family, controls the firms. They are also the largest shareholders and own ≥ 25 percents of shares.

Next, Malaysian firms has average debt ratio of 39.8 percent over total assets and the maximum value is 2.17. The debt ratio has low value because they tend to avoid the possibility of firms being illiquid when the economy is in recession (Shubita &

Alsawalhah, 2012). On the other hand, the moderating effect of debt ratio is represented by FAMDA where debt ratio moderates the relationship of family ownership and firm performance. From the Table 6, 1.328 on FAMDA is the maximum value for the moderating effects but the mean of 0.272 supported that average 27.2 percent mean of debt ratio influence the firm performance of family firms.

Control variables such as firm size, age and growth are included to control the variables' influence on dependent variable, firm performance (Driffield, Nahambare & Pal, 2007; Cheng & Tzeng, 2011; Saurabh, 2015). The maximum value of firm size is 6.788 while mean is 5.412. 64 years, the maximum value is the longest period of years since the firms are established. On average, the sample firms have operated for around 21 years based on the mean value, 21.358. Then, the highest growth rate among the firms is 223.855 while the mean 0.942 means that each firm reaches the growth rate at least around 94.2 percent of the book value of total assets. Lastly, the highest standard deviation (SD) is 14.160 (AGE) while the lowest is 0.001 (TOBIN Q). This showed that age has concentrated data around the mean while Tobin Q has less concentrated data around the mean.

Pearson correlation coefficient analysis is conducted to show the correlation among the ownership structure, capital structure and firm performance. The highest correlation is the correlation coefficient between ROA and TOBINQ (0.6247). The correlation is close to 1, so it means that they are more likely to have serious multicollinearity problem as they tend to move together in the same direction. The positive correlation implies that the increase in ROA will cause an increase of 62.47 percent in Tobin Q or vice versa. However, family firms and debt ratio has the lowest correlation which is close to zero (0.0161). This means that the variables do not move together and less likely to have serious

multicollinearity problem. A decrease in growth will cause an increase in ROA, Tobin Q and size; a decrease in DA will cause an increase in ROA and age, and a decrease in age will cause an increase in DA or vice versa. The other variables that are not stated above are the variables that have positive correlation with each other.

Panel data regression model is regressed on Stata 11.0 and the variables have significance level 1 percent or 5 percent. Heteroskedasticity and serial correlation are detected through the diagnostic checking on both measures but there are no multicollinearity problem detected in the data. Thus, the model is rectified by fixed effect with robust standard error on ROA and with panel corrected standard error on Tobin Q.

Family firms, firm performance, moderator (FAMDA) and control variables (size, age and growth) are significant either at 1 percent or 5 percent of significance level in ROA. Only debt ratio is significant at 10 percent in fixed effect model (FEM). Variables that are insignificant in pooled model are debt ratio, FAMDA and growth. FAMDA, size and growth are insignificant in REM while FAMDA, age and growth are insignificant in FEM. After rectify the model with panel corrected standard error model, only debt ratio, FAMDA and growth are insignificantly and negatively related to firm performance (ROA) but family firms, size and age are positive and significantly related to ROA. Breusch and Pagan Lagrangian Multiplier (LM) test the null hypothesis that variance of error terms equal to zero is rejected (Gujarati & Porter, 2009). It shows that random effect model is more appropriate and limits the generality as it can detect accurately the variables applied in the sample separation. At the same time, it proves that there is no random effect in the model (Greene, 2002). In REM, debt ratio, family firms and age show positive and significant results. Size and growth are insignificant and positively related to ROA while FAMDA is insignificant and negatively related to ROA. Hausman test rejected the null

hypothesis that FEM and REM estimators do not differ substantially is rejected (Gujarati & Porter, 2009). This means that FEM is more preferred compared to REM because the random effect may correlate with one or more regressors. In FEM, only debt ratio and size is significant but debt ratio is positively related with ROA while size is negatively related to ROA. Since this study uses dummy variable regression model to represent family ownership, it is best to check whether there is any dummy variable trap or multicollinearity exists in the model. Variance inflation factor (VIF) is 2.98, so there is no multicollinearity problem in this model. Both Modified Wald Statistic and Wooldridge test show significant results on fixed effect model, so heteroskedasticity and autocorrelation problems are detected. To rectify the panel regression model, FEM with robust standard errors model is applied. The coefficient of the variables remains the same as in FEM except debt ratio, size and growth but most of the t-statistic value increase except FAMDA, size and growth. Size is significant and positively connected with ROA while FAMDA and growth is insignificant and negatively connected with ROA. Family firms and age are significant and positively connected with ROA while debt ratio is insignificant and negatively connected with ROA.

Next, family firms, firm performance and control variables (size, age and growth) are significant either at 1 percent or 5 percent of significance level. Only debt ratio and FAMDA are significant at 10 percent of significance level. The results are all significant except for growth in pooled model, REM and FEM. In pooled model, debt ratio, family firms, size and age show significantly positive connection with Tobin Q while FAMDA shows significantly negative connection with Tobin Q. The variables that are significant and positively connected to Tobin Q in both REM and FEM are debt ratio, family firms and age. However, FAMDA and size are negatively related to Tobin Q. Only growth is

insignificant and negatively connected to Tobin Q in the three models (pooled model, REM and FEM). After rectify the model with panel corrected standard error model, the variables show significant results including growth. Debt ratio, family firms, size and age are positively connected to Tobin Q but FAMDA and growth are negatively connected to Tobin Q. Breusch and Pagan Lagrangian Multiplier (LM) test rejected the null hypothesis that variance of error terms equal to zero, so random effect model is more appropriate and limits the generality as it can detect accurately the variables applied in the sample separation. At the same time, it proves that there is no random effect in the model (Greene, 2002). The chi-square is less than zero, so the Hausman test do not reject the null hypothesis that FEM and REM estimators do not differ substantially (Gujarati & Porter, 2009). It suggests for generalized test. This means that REM is more preferred compared to FEM. As mentioned before in results for ROA, variance inflation factor (VIF) is 2.98 for Tobin Q, so it also do not have multicollinearity problem. Significant results on both Modified Wald Statistic and Wooldridge test implying that heteroskedasticity and autocorrelation problems are detected. To rectify the panel regression model, panel corrected standard error (xtpcse) is used to overcome the problems of xtglsl by depending on the OLS coefficient estimates (Beck & Katz, 1995). Most of the t-statistic in panel corrected standard error model is decreasing compared to pooled OLS model except debt ratio, family firms and size.

Based on the three hypotheses, the relationship between ownership structure, capital structure and firm performance is discussed with supports from past literatures. Based on the first hypothesis, Table 8 and 9 shows that family firms are positively and significantly related to both firm performance measures. However, it is omitted in FEM model and rectifies with panel corrected standard error on Tobin Q and fixed effect with

robust standard error on ROA. It confirms that the null hypothesis for H_1 is rejected. There is positive relationship between family firms and firm performance. Family ownership influenced the firm performance only when it is combined with certain type of family control (Villalonga & Amit, 2006). Family firms mitigate agency conflicts between large and minority shareholders. When the firms are highly concentrated, family ownership boosts the firm value, suggesting that family firms may help to ease the agency conflicts but may get rejected by the incurred costs by family management when professional managers have better performance. Similarly, Gill and Kaur (2015) described that both ROA and Tobin Q has higher value for family firms as family involvement in business eased the agency problem without affecting the decision making efficiency. Therefore, this supported the result that family firms are positively related to firm performance.

Debt ratio shows insignificant and negative relationship with ROA but is positive and significant relationship with Tobin Q. Significant relationship between debt ratio and ROA is only reported in REM and FEM model. It claims that the null hypothesis for ROA is not rejected but is rejected for Tobin Q. Thus, it proves that there is positive relationship between debt ratio and Tobin Q for H_2 . This hypothesis is supported by the study of Warokka, Herrera and Haim Hilman Abdullah (2011); and Javed and Akhtar (2012). Higher level of debts aligns the interest of managers and shareholders (Harris & Raviv, 1991). Managers prefer debts than equity to minimize the financing costs and boost the firm performance. Conversely, managers may underestimate the bankruptcy liquidation costs and lower the firm performance. Firms only boost the profitability when the control is strong (Maury, 2006). Moreover, strong family firms will priority their own benefits first and raised the firm valuation when all the benefits are distributed to all shareholders.

Next, FAMDA is tested whether debt ratio moderates the relationship between family firms and firm performance or not. Table 8 and 9 shows that FAMDA insignificant and negatively connected with ROA but is significant and negatively connected with Tobin Q. Thus, it concludes that debt ratio moderates the relationship between family firms and Tobin Q negatively in H₃. The insignificant and negative relationship of FAMDA with ROA is consistent with Warokka, Herrera and Haim Hilman Abdullah (2011)'s argument that there is inverse causality effects between ownership structure, capital structure and firm performances. Under agency costs hypothesis, high leverage eased the agency costs of equity outsiders and boost firm value by restricting managers to act more in the interest of shareholders. Their research also denoted that the distribution of equity ownership among managers and external block holders has significant relationship with leverage and firm performance.

The discussions above on the empirical results provide deeper understandings on how the family ownership and debt ratio influence the firm performances among Malaysian firms. It also empirically proved that there is relationship between family ownership, debt ratio and FAMDA on firm performance in accordance to the measures used. This implies that different measures gives different results regarding the influence of family firms and debt ratio on firm performance because the agency conflicts between the managers and shareholders caused them to make different financing decisions which in the end influence the firm performance. This study is essential to corporate governance study field but previous literatures did not paid much attention on it. In short, it is crucial to have good corporate governance practices and better investors' protections in developing countries like Malaysia to have better economic performance and enhance the economic growth.

5.3 Policy Implications

This study examines the relationship between family ownership, debt ratio and firm performances based on two measures (ROA and Tobin Q). It also examines the relationship of the interaction between family ownership and debt ratios on firm performances. Both relationships are tested based on the agency theory where conflicts of interests occurred among managers and shareholders (Jensen & Meckling, 1976). Insiders or managers with extreme control tend to use limited resources for their personal benefits rather than acting in the interests of shareholders.

The first implication will be on investors and shareholders. From this study, they can have deeper knowledge and information about how the family ownership and debts as well as their interaction will influence the firm performance based on accounting and market value measures. Different measures give different results depending on other factors that indirectly influence it. Besides, this study also raised their awareness of the importance on good corporate governance. Good corporate governance ensures that minimal funds are injected efficiently to the possible investments that can get highest profits, provides a more accountable and transparent framework of firm to gain investors' confidence and decrease the issue of expropriation on minority shareholders or investors (Zulkafli, Abdul Samad & Ismail, 2007). This study also gives investors and shareholders a better view of the corporation before they make investments on the firm. When they have enough information of the management which the firms they are investing, they can analyzed the financial condition and future prospects on the firms rationally before they invested in the firm. This avoids them from making any loss and misses their opportunity to invest in the investments that earns higher profits.

The second implication will be on the managers. Managers who are assigned to act in the interest of shareholders should act accordingly and not to misuse their authority for personal benefits. This caused changes on the capital structure decisions which may affected the firm performance severely especially during financial crisis period. For instance, concentrated ownership will influence the financing decisions aligned with reasonable and rational analysis since the pre-crisis period is the time where any careless decisions may caused large conglomerates to fail (Nadaraja, Zulkafli & Masron, 2011). Managers should be reminded to act in the interests of shareholders so that the management operates smoothly and investors get what they should have earned from investing on the firm.

The third implication will be on the economy policymaker in Malaysia. This study highlighted how severe the agency conflicts among managers and shareholders if it is not handled with care. In Malaysia, highly concentrated firms are negatively related with firm performance and are inferred by weak levels of minority shareholder protection (Tam & Tan, 2007). Strong investor protection can be reflected through efficient corporate governance which included high value and growth of financial markets, dispersed ownership of shares and effective capital allocation across the firms (La Porta, Lopez-de-Silanes, Shleifer & Vishny, 2000). Thus, they should promote better corporate governance practices among Malaysian firms to have economic growth in financial and efficient capital market.

5.4 Limitations and Recommendations

Each study surely has its limitation and the first limitation is there is no exact definition of family ownership as different countries have different definitions on ownership structures. This may exert different influence on debt ratio and firm performance (Cheng & Tzeng, 2011). Besides, different ownership structures incur different agency costs. Second limitation is the years used as sample observation. If the study period is longer, different results on the relationship between family firms, debt ratio and its interaction on the firm performance may be observed.

For future studies, more study on the relationship between ownership structures, capital structures and firm performance especially on developing countries should be conducted to fill the study gap. Most of the previous studies concentrated on either the relationship between ownership structures on firm performances or the relationship between capital structures and firm performances. Past literatures also focused more on developed countries rather than developing countries. Another recommendation is more variables to be included in the study as there are other firm characteristics that influence the firm performance but is not taken into consideration for this study. This study also can be conducted with different methods so that more observations and discussions can be discussed.

5.5 Summary

This chapter summarizes the discussion of the empirical results and debates from past literatures to support the relationship of family firms and debt ratio on firm performance. It also shows the empirical results of debt ratio moderates the relationship between family firms and firm performance.

REFERENCES

- Abdellatif, M., Amann, B., & Jausssaud, J. (2010). Family versus nonfamily business: A comparison of international strategies. *Journal of Family Business Strategy* 1, 108 – 116.
- Anderson, R. C., & Reeb, D. M. (2003). Founding-family ownership and firm performance: Evidence from the S & P 500. *The Journal of Finance* 58(3), 1301 – 1328.
- Abdul Jamal, A. A., Geetha, C., Mohidin, R., Abdul Karim, M. R., Lim, T. S., & Ch'ng, Y. (2013). Capital structure decisions: Evidence from large capitalized companies in Malaysia. *Interdisciplinary Journal of Contemporary Research in Business* 5(5), 30 – 49.
- Abor, J. (2005). The effect of capital structure on profitability: An empirical analysis of listed firms in Ghana. *The Journal of Risk Finance* 6(5), 438 – 445.
- Agrawal, A., & Knoeber, C. R. (1996). Firm performance and mechanisms to control agency problems between managers and shareholders. *Journal of Financial and Quantative Analysis* 31(3), 377 – 397.
- Aguilera, R. V., & Crespi-Cladera, R. (2012). Firm family firms: Current debates of corporate governance in family firms. *Journal of Family Business Strategy* 3(2), 66 – 69.
- Al-Najjar, B., & Taylor, P. (2008). The relationship between capital structure and ownership structure: New evidence from Jordanian panel data. *Managerial Finance* 34(12), 919 – 933.
- Amran, N. A., & Ahmad, A. C. (2013). Effects of ownership structure on Malaysian companies performance. *Asian Journal of Accounting and Governance* 4, 51 – 60.

- Baltagi, B. H. (2005). *Econometric analysis of panel data* (3rd ed.). USA: John Wiley & Sons Inc.
- Barth, E., Gulbrandsen, T., & Schone, P. (2005). Family ownership and productivity: The role of owner-management. *Journal of Corporate Finance* 11, 107 – 127.
- Bebchuk, L. A., & Fried, J. M. (2003). Executive compensation as an agency problem. *Journal of Economic Perspectives* 17(3), 71 – 92.
- Beck, N., & Katz, J. N. (1995). What to do (and not to do) with time-series cross-section data. *The American Political Science Review* 89(3), 634 – 647.
- Berle, A., & Means, G. (1932). *The modern corporation and private property*. New York: Commerce Clearing House Inc.
- Booth, L., Aivazian, V., Demirguc-Kunt, A. E., & Maksimovic, V. (2001). Capital structure in developing countries. *Journal of Finance* 56(1), 87 – 130.
- Boroujeni, H. N., Noroozi, M., Nadem, M., & Chadegani, A. A. (2013a). The impact of capital structure and ownership structure on firm performance: A case study of Iranian companies. *Research Journal of Applied Science, Engineering and Technology* 6(22), 4265 – 4270.
- Boroujeni, H. N., Noroozi, M., Nadem, M., & Chadegani, A. A. (2013b). The effects of ownership structures and corporate governance on capital structure. *Australian Journal of Basic and Applied Sciences* 7(4), 424 – 430.
- Capital Markets Malaysia Factsheet-Fact. (2015). *Capital Markets Malaysia*. Retrieved from <http://www.capitalmarketsmalaysia.com/wp-content/uploads/2015/06/fact-sheet-facts.pdf>
- Cheng, M. C., & Tzeng, Z. C. (2011). How does ownership structure effect capital structure and firms performance? Evidence from Taiwan. *Global Review of Accounting and Finance* 2(2), 61 – 81.

- Chua, J. H., Chrisman, J. J., & Sharma, P. (1999). Defining the family business by behavior. *Entrepreneurship Theory and Practice* 23(4), 19 – 39.
- Claessens, S., Djankov, S., & Lang, L. H. P. (2000). The separation of ownership and control in East Asian corporations. *Journal of Financial Economics* 58, 81 – 112.
- Conroy, P. (2015). 2015 consumer products industry outlook. Retrieved from <http://deloitte.wsj.com/cio/2015/01/08/2015-consumer-products-industry-outlook/>
- Consumer sector gravitating towards F&B subsector. (2015, October 10). *Borneo Post Online*. Retrieved from <http://www.theborneopost.com/2015/10/10/consumer-sector-gravitating-towards-fb-subsector/>
- Consumer sector: Life goes on despite GST. (2015, April 7). *Borneo Post Online*. Retrieved from <http://www.theborneopost.com/2015/04/07/consumer-sector-life-goes-on-despite-gst/>
- Corstjens, M., Maxwell, K. D., & Heyden, L. V. D. (2004). Family ownership and firm performance: Evidence from the French stock market. *INSEAD Working Paper Series*. Retrieved from <http://sites.insead.edu/facultyresearch/research/doc.cfm?did=1504>.
- Corstjens, M., Peyer, U., & Heyden, L. V. D. (2006). Performance of family firms: Evidence from US and European firms and investors. *INSEAD Working Paper Series*.
- Deesomsak, R., Paudyal, K., & Pescetto, G. (2004). The determinants of capital structure: Evidence from the Asia Pacific region. *Journal of Multinational Financial Management* 14(4-5), 387 – 405.
- Driffield, N., Mahambare, V., & Pal, S. (2007). How does ownership structure affect capital structure and firm value? Recent evidence from East Asia. *Economics of Transition* 15(3), 535 – 573.

- Dyers, J., W. G. (2006). Examining the “family effect” on firm performance. *Family Business Review* 19(4), 253 – 273.
- Eriotis, N., Vasiliou, D., & Ventoura-Neokosmidi, Z. (2007). How firm characteristics affect capital structure: An empirical study. *Managerial Finance* 33(5), 321 – 331.
- Faccio, M., & Lang, L. H. P. (2002). The ultimate ownership of Western European corporations. *Journal of Financial Economics* 65(3), 365 – 395.
- Fattouh, B., Scaramozzino, P., & Harris, L. (2005). Capital structure in South Korea: A quantile regression approach. *Journal of Development Economics* 76, 231 – 250.
- Frank, M. Z., & Goyal, V. K. (2009). Capital structure decisions: Which factors are reliably important? *Financial Management* 38(1), 1 – 37.
- Friedman, E., Johnson, S., & Mitton, T. (2003). Propping and Tunneling. *National Bureau of Economic Research Working Paper* 9949.
- Friend, I., & Lang, L. H. P. (1988). An empirical test of the impact of managerial self-interest on corporate capital structure. *The Journal of Finance* 43(2), 271 – 281.
- Gama, A. P. M., & Galvao, J. M. M. (2012). Performance, valuation and capital structure: Survey of family firms. *Emerald Group Publishing Limited, Corporate Governance* 12(2), 199 – 214.
- Gama, A. P. M., & Rodrigues, C. (2013). The governance-performance relations in publicly listed family controlled firms: An empirical analysis. *Emerald Group Publishing Limited, Corporate Governance* 13(4), 439 – 456.
- Ganguli, S. K. (2013). Capital structure – Does ownership structure matter? Theory and Indian evidence. *Studies on Economics and Finance* 30(1), 56 – 72.

- Gill, S., & Kaur, P. (2015). Family involvement in business and financial performance: A panel data analysis. *The Journal of Decision Makers* 40(4), 395 – 420.
- Gleason, K. C., Mathur, L. K., & Mathur, I. (2000). The interrelationship between culture, capital structure and performance: Evidence from European retailers. *Journal of Business Research* 50, 185 – 191.
- Graham, J. (2000). How big is the tax advantage to debt? *Journal of Finance* 55(5), 1901 – 41
- Greene, W. H. (2002). *Econometric analysis* (5th ed.). New Jersey: Prentice Hall, Pearson Education Inc.
- Gujarati, N. D., & Porter, D. C. (2009). *Basic econometrics* (5th ed.). New York: McGraw-Hill International Edition.
- Halim Ahmad, A., & Hiau Abdullah, N. A. (2013). Investigation of optimal capital structure in Malaysia: A panel threshold estimation. *Studies on Economics and Finance* 30(2), 108 – 117.
- Harris, M., & Raviv, A. (1991). The theory of capital structure. *The Journal of Finance* 46(1), 297 – 355.
- Himmelberg, C. P., Hubbard, R. G., & Palia, D. (1999). Understanding the determinants of managerial ownership and the link between ownership and performance. *Journal of Financial Economics* 53, 353 – 384.
- Ibrahim, H., & Abdul Samad, F. (2010). Family business in emerging markets: The case of Malaysia. *African Journal of Business Management* 4(13), 2586 – 2595.
- Ibrahim, H., & Abdul Samad, F. (2011a). Agency costs, corporate governance mechanisms and performance of public listed family firms in Malaysia. *South African Journal of Business Management* 42(3), 17 – 25.

- Ibrahim, H., & Abdul Samad, F. (2011b). Corporate governance mechanisms and performance of public-listed family-ownership in Malaysia. *International Journal of Economics and Finance* 3(1), 105 – 115.
- Javed, B., & Akhtar, S. (2012). Interrelationships between capital structure and financial performance, firm size and growth: Comparison of industrial sector in KSE. *European Journal of Business and Management* 4(15), 148 – 157.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics* 3(4), 305 – 360.
- Johnson, S., Boone, P., Breach, A., & Friedman, E. (2000). Corporate governance in the Asian financial crisis. *Journal of Financial Economics* 58, 141 – 186.
- Kim, H. J., & Berger, P. D. (2008). A comparison of capital structure determinants: The United States and the Republic of Korea. *The Multinational Business Review* 16(1), 79 – 100.
- Kochhar, R. (1996). Explaining firm capital structure: The role of agency theory vs. transaction cost economics. *Strategic Management Journal* 17(9), 713 – 728.
- La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (1999). Corporate ownership around the world. *The Journal of Finance* 54(2), 471 – 517.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (2000). Investor protection and corporate governance. *Journal of Financial Economics* 58, 3 – 27.
- Le Breton-Miller, I., & Miller, D. (2008). To grow or to harvest? Governance strategy and performance in family and lone founder firms. *Journal of Strategy and Management* 1(1), 41 – 56.

- Liew, T. P. L., & Mohamad Jais. (2013). In search of contingent capital structure in Malaysia. *Proceedings of the Global Conference on Business, Economics and Social Sciences*, 523 – 539.
- Lyagoubi, M. (2006). Family firms and financial behavior: How family shareholder preferences influence firm's financing. In Poutziouris P. Z., Smyrnios, K. X., & Klein, S. B. (Eds.), *Handbook of Research on Family Business* (pp. 537 – 552). Retrieved from http://www.untag-smd.ac.id/files/Perpustakaan_Digital_1/FAMILY%20BUSINESS%20Handbook%20of%20Research%20on%20Family%20business.pdf
- Mahmud, M., Herani, G. M., Rajar, A. W., & Farooqi, W. (2009). Economic factors influencing corporate capital structure in three Asian countries: Evidence from Japan, Malaysia and Pakistan. *Indus Journal of Management & Social Sciences* 3(1), 9 – 17.
- Malaysian Code on Corporate Governance 2017. (2017). *Securities Commission Malaysia*. Retrieved from <https://www.sc.com.my/wp-content/uploads/eng/html/cg/mccg2017.pdf>
- Malaysia GDP annual growth rate. (2016, November 11). *Trading Economics*. Retrieved from <http://www.tradingeconomics.com/malaysia/gdp-growth-annual>
- Malaysia industry sectors. (2010, March 16). *Economy Watch*. Retrieved from http://www.economywatch.com/world_economy/malaysia/industry-sector-industries.html.
- Malaysia's 50 richest list. (2016). *Forbes*. Retrieved from <http://www.forbes.com/malaysia-billionaires/list/#tab:overall>
- Maury, B. (2006). Family ownership and firm performance: Empirical evidence from Western European corporations. *Journal of Corporate Finance* 12, 321 – 341.

- Margaritis, D., & Psillaki, M. (2009). Capital structure, equity ownership and firm performance. *Journal of Banking and Finance* 34(3), 621 – 632. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.551.7618&rep=rep1&type=pdf>
- Mazzi, C. (2011). Family business and financial performance: Current state of knowledge and future research challenges. *Journal of Family Business Strategy* 2, 166 – 181.
- Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *The American Economic Review* 48(3), 261 – 297.
- Mwangi, L. W., Macau, M. S., & Kosimbei, G. (2014). Relationship between capital structure and performance of non-financial companies listed in the Nairobi Securities Exchange, Kenya. *Global Journal of Contemporary Research in Accounting, Auditing and Business Ethics* 1(2), 72 – 90.
- Nadaraja, P., Zulkafli, A. H., & Masron, T. A. (2011). Family ownership, firm financial characteristics and capital structure: Evidence from public listed companies in Malaysia. *Economia Seria Management* 14(1), 141 – 156.
- Nurulain M. R., Umi S. Z., Salwani A., Wan M. W. M., & Nur Hayati A. R. (2013). Determinants of profitability of consumer product sector in Malaysia. *International Academic Conference 2013*.
- Ong, T. S., & Teh, B. H. (2011). Capital structure and corporate performance of Malaysian construction sector. *International Journal of Humanities and Social Science* 1(2), 28 – 36.
- Oreland, C. (2007). Family control in Swedish public companies. Implications for firm performance, dividends and CEO cash compensation. Department of Economics, Uppsala University, *Economic Studies* 106, ISBN 978-91-85519-13-2.

- Pontoh, W., & Ilat, V. (2013). Determinant capital structure and profitability impact (Study of listed company in Indonesian Stock Exchange). *Research Journal of Finance and Accounting* 4(15), 43 – 49.
- Pouraghajan, A., Malekian, E., Emamgholipour, M., Lotfollahpour, V., & Bagheri, M. M. (2012). The relationship between capital structure and firm performance evaluation measures: Evidence from the Tehran Stock Exchange. *International Journal of Business and Commerce* 1(9), 166 –181.
- Poutziouris, P., Savva, C. S., & Hadjielias, E. (2015). Family involvement and firm performance: Evidence from UK listed firms. *Journal of Family Business Strategy* 6, 14 – 32.
- Rajan, R. G., & Zingales, L. (1995). What do we know about capital structure? Some evidence from international data. *The Journal of Finance* 50(5), 1421 – 1460.
- Roshan, B. (2009). Capital structure and ownership structure: A review of literature. Retrieved from <https://www.nyu.edu/classes/keefe/waoe/roshanb3.pdf>
- Salim, M. & Yadav, R. (2012). Capital structure and firm performance: Evidence from Malaysian listed companies. *Procedia – Social and Behavioral Sciences* 65, 156 – 166.
- Sauaia, A. C. A. (2002). Is the Tobin's Q a good indicator of a company's performance? *Developments in Business Simulation and Experiential Learning* 29.
- Saurabh, C. A. K. S. (2015). Determinants of capital structure: An empirical evaluation from India. *Journal of Advances in Management Research* 12(1), 1 – 14.
- Sayilgan, G., & Sayman, Y. (2012). The impact of ownership structure on capital structure of manufacturing firms: Evidence from the ISE. *The Istanbul Stock Exchange Review* 12(48), 1 – 11.

- Shahar, H. K., Adzis, A. A., & Baderi, N. (2016). The relationship between ownership structure, firm specific characteristics and capital structure: Evidence from Malaysian middle capital public listed firms. *International Journal of Economics and Financial Issues* 6(S3), 36 – 43.
- Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *The Journal of Finance* 52(2), 737 – 783.
- Shubita, M. F., & Alsawalhah, J. M. (2012). The relationship between capital structure and profitability. *International Journal of Business and Social Science* 3(16), 104 – 112.
- Shyu, J., & Shen, Y. H. (2011). How does family management affect firm performance: Evidence from Taiwanese firms. *Electronic Journal of Family Business Studies* 5(1 – 2), 74 – 95.
- Silva, F., & Majluf, N. (2008). Does family ownership shape performance outcomes? *Journal of Business Research* 61(6), 609 – 614.
- Suhaila, M. K., & Mahmood, W. M. W. (2009). Capital structure and firm characteristics: Some evidence from Malaysian companies. *Munich Personal RePEc Archive*. Retrieved from <http://mpa.ub.uni-muenchen.de/14616/>
- Tam, O. K., & Tan, M. G. S. (2007). Ownership, governance and firm performance in Malaysia. *Corporate Governance: An International Review* 15(2), 208 – 222.
- The World Bank data. (2016). *GDP growth (Annual %)*. Retrieved from <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=IN>
- Titman, S. (2002). The Modigliani and Miller theorem and the integration of financial markets. *Financial Management* 31(1), 101 – 115.
- Villalonga, B., & Amit, R. (2006). How do family ownership, control and management affect firm value? *Journal of Financial Economics* 80, 385 – 417.

- Villalonga, B., Amit, R., Trujillo, M., & Guzman, A. (2015). Governance of family firms. *Annual Review of Financial Economics* 7, 635 – 654.
- Warokka, A., Herrera, J. J. D., & Abdullah, H. H. (2011). East Asian corporate governance: A test of the relation between capital structure and firm performance. *International Journal of Economics and Finance Studies* 3(2), 1 – 10.
- Yang, Y. H., & Ma, D. (2011). Capital structure choice and ownership: Evidence from electronics enterprises in China. *China Economic Journal* 4(2-3), 145 – 158.
- Zeitun, R., & Tian, G. G. (2007). Capital structure and firm performance: Evidence from Jordan. *The Australasian Accounting Business and Finance Journal* 1(4), 40 – 61.
- Zulkafli, A. H., Abdul Samad, M. F., & Ismail, I. M. (2007). Corporate governance in Malaysia. Malaysian Institute of Corporate Governance 1.

Family Firms, Debt Ratio and Firm Performance

Cindy Yeo Siaw Hui

A thesis submitted

In fulfillment of the requirements for the degree of Master of Science (Finance)

Faculty of Economics and Business
UNIVERSITI MALAYSIA SARAWAK
2018

DECLARATION

The work described in this Master thesis, entitled “**Family Firms, Debt Ratio and Firm Performance**” is to the best of author’s knowledge that of the author except where due reference is made. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.

Name : Cindy Yeo Siaw Hui

Matric No. : 13020124

Date :

ACKNOWLEDGMENT

I would like to give glory and praise to the LORD for giving me strengths, passions and confidences to go on with my studies although I faced many trials and errors during the process. I would like to thank my family for their encouragement to further my studies. They supported me spiritually, financially and mentally. This enables me to continue my studies although I stuck halfway in the process.

I also want to thank my supervisor, Professor Madya Dr Mohamad Bin Jais and co-supervisor, Professor Dr Abu Hassan Bin Md Isa for their patience, time and efforts in giving feedbacks on my writing. With their guidance and comments especially my supervisor, I learned a lot in writing and academic skills. I also would like to thank UNIMAS and the Faculty of Economics and Business (FEB) for granting me the “Zamaalah Scholarship”. It helps to ease my family’s financial burden on my study and gave me opportunity to be UNIMAS tutor to gain experience for three semesters although I am physically handicapped. Through tutoring, I learned to manage classes and prepare materials or knowledge on the assigned classes.

Last but not least, I would like to thank my friends who are willing to share their knowledge and opinions on my writing. Without them, my journey life as postgraduate student would have been lonely.

ABSTRACT

Firm performance changes differently in accordance with the development of economic environment in the countries. Concentrated ownership in developing countries such as East Asian differs with various level of legal investor's protection. Thus, it raised the issue of expropriation and tunneling. This highlights how crucial it is to have good corporate governance especially during Asian Financial Crisis 1997-98. Besides, the common separation of control from ownership also develops conflicts of interests between managers and shareholders including the controlling and minority shareholders. Panel data regression model is analyzed to test the relationship of family firms, debt ratio and firm performance (ROA and Tobin Q). Samples were selected on two industries from year 2007 to 2013. Several control variables are also included to control their influences on firm performance. The empirical results showed that family firms positively related to firm performance and debt ratio is positively related to Tobin Q. It also empirically proved that debt ratio moderates the relationship between family firms and firm performance when it is regressed with Tobin Q. In a nutshell, different ownership structures make different capital structure decisions because there are agency conflicts between managers and shareholders which in the end influence the firm performance.

Keywords: Conflicts of interests, corporate governance, family firms, debt ratio, firm performance

Firma Keluarga, Nisbah Hutang dan Prestasi Firma

ABSTRAK

Prestasi firma berubah mengikut perkembangan ekonomi di sesebuah negara. Pemilikan tertumpu di negara membangun seperti Asia Timur adalah berbeza dengan pelbagai tahap undang-undang atas perlindungan pelabur. Hal ini menimbulkan isu ekspropriasi dan “tunneling”. Hal ini juga menekankan betapa pentingnya untuk menggunakan pengurusan korporat yang baik terutamanya semasa Krisis Kewangan Asia 1997-98. Selain itu, pembahagian kawalan dari pemilikan mungkin menimbulkan percanggahan kepentingan antara pengurus dengan pemegang saham termasuklah pemegang saham yang mengawal dan pemegang saham minoriti. Panel data regresi model dianalisis untuk menguji hubungan antara firma keluarga, nisbah hutang dan prestasi firma (ROA dan Tobin Q). Sampel dipilih daripada dua industri dari tahun 2007 hingga 2013. Beberapa pembolehubah kawalan dimasukkan untuk mengawal pengaruhnya ke atas prestasi firma. Keputusan empirikal menunjukkan bahawa firma keluarga berhubungan positif dengan prestasi firma dan nisbah hutang berhubungan positif dengan Tobin Q. Hal ini juga membuktikan secara empirikal bahawa nisbah hutang “moderate” hubungan antara firma keluarga dan prestasi firma apabila diregresi dengan Tobin Q. Kesimpulannya, struktur pemilikan yang berbeza akan membuat keputusan struktur modal yang berbeza kerana adanya agensi konflik antara pengurus dengan pemegang saham yang akhirnya mempengaruhi prestasi firma.

Kata kunci: *Percanggahan kepentingan, pengurusan korporat, firma keluarga, nisbah hutang, prestasi firma*

TABLE OF CONTENTS

	Page
DECLARATION	i
ACKNOWLEDGMENT	ii
ABSTRACT	iii
ABSTRAK	iv
TABLE OF CONTENTS	v
LIST OF TABLES	ix
LIST OF FIGURES	x
CHAPTER 1 : INTRODUCTION	1
1.1 Overview	1
1.2 Background of the Study	2
1.3 Economic and Capital Market Development in Malaysia	5
1.4 The Expropriation Issue	7
1.5 Theoretical Framework	9
1.6 Problem Statement	11
1.7 Objectives of Study	13
1.8 Significance of Study	14

1.9	Organization of Study	16
CHAPTER 2: LITERATURE REVIEW		17
2.1	Introduction	17
2.2	Overview of Sample Sectors in Malaysia	17
2.3	Ownership Structures	21
2.4	Capital Structures	26
2.5	Agency Theory	32
2.6	The Relationship Between Ownership Structure and Capital Structure	38
2.7	Corporate Governance in Malaysia	41
2.8	Firm Performances	45
2.8.1	The Influence of Family Firms on Firm Performances	48
2.8.2	The Influence of Capital Structures on Firm Performances	54
2.8.3	The Moderating Effect of Debt Ratio on the Relationship between Family Firms and Firm Performances	59
2.9	Summary	62

CHAPTER 3: METHODOLOGY	64
3.1 Introduction	64
3.2 Model of the Study	64
3.3 Research Design	68
3.4 Data Collection	69
3.5 Data Analysis	70
3.5.1 Descriptive Statistics	70
3.5.2 Pearson Correlation Coefficient	71
3.5.3 Statistical Model	71
3.5.4 Hypotheses Development	79
3.5.5 Diagnostic Checking	82
3.6 Summary	83
 CHAPTER 4: EMPIRICAL RESULTS	 84
4.1 Introduction	84
4.2 Descriptive Statistics	84
4.3 Pearson Correlation Coefficient Analysis	87
4.4 Panel Data Regression	88

4.4.1	Panel Data Regression Based on Accounting Measure (ROA)	89
4.4.2	Panel Data Regression Based on Market Value Measure (Tobin Q)	92
4.5	Relationship between Ownership Structure, Capital Structure and Firm Performance	95
4.6	Summary	97
CHAPTER 5: CONCLUSION		99
5.1	Overview	99
5.2	Summary of Findings	99
5.3	Policy Implications	110
5.4	Limitations and Recommendations	112
5.5	Summary	113
REFERENCES		114

LIST OF TABLES

	Page
Table 1 Top 5 Richest Man in Malaysia 2016 List	25
Table 2 Advantages and Disadvantages of Family Firms	26
Table 3 Key Features and Key Principles of MCCG 2017	45
Table 4 Summary of Sample Selection	70
Table 5 Descriptive Statistics of 163 Firms from 2007 – 2013	84
Table 6 Family Firms	85
Table 7 Correlation Coefficient Among Variables	87
Table 8 Result of Panel Data Analysis (ROA)	91
Table 9 Result of Panel Data Analysis (Tobin Q)	94
Table 10 Summaries of the Results	97