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GRADUATE SCHOOL OF SOCIAL SCIENCES

BANKING AND FINANCE

MASTER'S PROGRAMME

MASTER'S THESIS

THE RELATIONSHIP BETWEEN FINANCIAL DEVELOPMENT, TRADE OPENNESS AND ECONOMIC GROWTH:

IN THE CASE OF MALAYSIA

Barka Kashtu

NICOSIA

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IN THE CASE OF MALAYSIA

We certify the thesis is satisfactory for the award of degree of

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Acknowledge

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Dedication

This work is dedicated to my parents and my big family.

Abstract

This thesis aim is to examine the long-run equilibrium and short-run relationships between financial development, trade openness, and economic growth in Malaysia by using a sample for the period 1982-2014. In this thesis, ARDL bounds test for cointegration approach and Granger causality test were applied to test relationship. In order to test the stationarity of the series, ADF and PP tests were applied, and both of them revealed that all the series are stationary at first differences. The ARDL established a long run and short run relationship between variables. Finally, Granger causality test revealed that there is no evidence supports finance led growth hypothesis, however, it revealed that financial development indirectly effect on growth process through trade openness channels.

Keywords: Financial Development, Economic Growth, Trade Openness, Granger Causality, ARDL.

Oz

Bu tezin amacı Malezya'da 1982 ve 2014 yılları arasında finansal gelişim, ticaret ve ekonomik büyüme arasında uzun dönemli denge ve kısa dönemli ilişkinin araştırılmasıdır. Bu tezde, ARDL koentegrasyon ve Granger nedensellik testi uygulanarak ilişki araştırılmıştır. Durağanlık test edilebilmek için ADF ve PP methodları uygulanmıştır ve her iki test yöntemide tüm serilerin birinci derece farkta durağan olduklarını ortaya koymaktadır. ARDL yöntemiyle seçilen değişkenler arasında uzun dönemli ve kısa dönemli ilişki olduğu ortaya konmuştur. Son olarak Granger nedensellik testi finansın ekonomik büyüme neden olduğu hipotezini destekleyecek kanıtlar sunmasada , finansal gelişimin ekonomik büyümeyi dolaylı olarak ticaret üzerinden etkilediğini ortaya koymuştur.

Anahtar Kelimeler: Finansal Gelişim, Ekonomik Büyüme, Ticaret, Granger Nedensellik ve ARDL.

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CHAPTER ONE

1.1 Introduction

The literature related to the relationship between financial development and the growth process has its foundation in the basic functions of the financial sector's effect on development technologies and accumulation of capital. The financial sector facilitates transactions for businesses that are participants in the growth process (Levin, 1997). The role of financial markets in the growth process has attracted significant attention, and it is recognised by economists to be a key factor in this process.

After the Asian financial crisis emerged in 1998, East Asian countries that were hit by the crisis including Malaysia, in the following years after this critical period struck in Asia, Malaysia attempted to overcome these problems, even when confronted with rapid fall in equity prices and the local currency value. Moreover, due to the infectious spread of the financial crisis that hit the region, Malaysia was forced to confront many challenges during that period.

Although the Malaysian banking system was in a relatively strong position at the onset of the crisis, a decline began to appear at the end of 1997. This was particularly noticeable in the inefficient distribution of liquidity within the system, which in turn threatened the smooth functioning of the borrowing and lending processes. Although the banking system remained flexible and strong, some banking institutions were confronted with liquidity problems, which led to increased competition among banking institutions in raising the interest rate (Bank Negara Malaysia, 1999), which is the Malaysian Central Bank. Furthermore, the Central Bank of Malaysia applied various procedures to rescue the financial system and has modified its monetary policy by focusing on the interest rate instead of monetary targeting, which reflects the unstable money demand during that period.

The global financial crisis in 2008 led national governments to extend their authority over the financial systems to a greater degree, in order to prevent the occurrence of additional disasters in the financial markets; moreover, they considered all the possible scenarios that could affect their domestic economic and

trading partners (Ivashina & Scharfstein,2010). Malaysia did not suffer from external shocks, but it did experience a negative shock in the fourth quarter of 2008, when industrial output deteriorated sharply and investment also declined. Furthermore, a comparison in the rate of GDP demonstrates that it was reduced to 0.1% in the fourth quarter of 2008, while the rate in the first nine months of the same year was 5.9% (Khoon and Lim 2010).

In general, the essential role of financial development has garnered considerable attention in studies on the growth process. Schumpeter (1912) asserts that an effective financial framework may propel the advancement of innovation through the effectiveness of the distribution of resources from an ineffective to a beneficial division. This concept was determined to be the primary method through which finance-growth hypothesis could be dissected. Interestingly, Robison (1952) suggests that the relationship ought to begin from growth to finance. In this regard, a high rate of growth prompts the necessity for a financial game plan, and a structured financial framework will naturally satisfy this demand. This view was characterized as the hypothesis of growth driven finance. Goldsmith (1969), Shaw (1973) and McKinnon (1973) have shown interest in researching the relationship between financial development and the growth process. Regardless of the first investment, it can be observed in the literature that there are various channels of transmission in illustrating the nexus between financial development and the growth process. The majority of studies assert that there is an existing significant and positive relationship between two these variables. In accordance with of the framework proposed by Goldsmith (1969), the development of domestic financial markets could promote a significant level of capital accumulation efficiency.

The transaction framework could directly impact on the financial sector whether it is through the basic transactions, such as the payment of bills or through more complex transactions. The financial sector is critical for business transactions that occur through it, (Levine, 1997), which is how the development of the financial sector impacts on the growth process. However, the relationship between finance and the growth process, is an issue that is easy to refute. Fundamentally, the argument concerns whether it is the development of the financial system that in the long run prompts the growth process, or vice-versa. This perspective is entangled

by another point of view that the relationship is rapid in nature. As a result, there is no consensus of opinion on which approach creators could rely. It is apparent that related studies conducted in the previous three decades have predominantly been concerned with the advancement of banking frameworks and their role in influencing the growth process. The reality is that, in the developing economies, the improvement of securities exchange significantly affects the operation of banking foundations. This suggests the role of securities exchange is becoming more critical and essential, particularly in various developing markets and their contribution should not be ignored (Khan and Senhadji, 2000). Some authors include each of financial brokers, analysis, risk sharing and assembly of information etc. in their suggested models, including those by (Bencivenga, 1995), (Greenwood & smith, 1997) and (Obstfeld, 1994). On the other hand, other studies have explored the probability of a positive correlation between investment financial development and total factor productivity (Benhabib & Speigel 2000). A positive interrelationship between output growth and financial development could possibly exist caused by different reasons, such as increasing the output or the demand for financial services, which positively impacts on financial growth and not the opposite (Robinson, 1952, p.86). However some authors have denied the presence of any effect of financial development on economic growth (Lucas 1988 p.6). Moreover, some could not ignore that the founders of development economics considered the financial development as an efficient factor of the growth process (Luintel & Khan, 1999).

According to (King and Levine, 1993), their study conducted in 80 countries for the period between 1960 and 1989 concerning long-run growth, presented evidence suggesting that their analysis demonstrated that financial development significantly contributed to the growth process. Levine asserts that middle-income individuals enhance monetary proficiency, and consequently development, by allocating financial resources appropriately, Levine (1997). Lucas (1988) affirms that the role of the financial sector in the growth process is "over pushed." Despite this discussion, present day writing on the finance-development connection coordinates the microeconomic and endogenous development hypothesis of financial frameworks (Lucas; 1988; Khan, 2001). Previous studies related to the development of financial systems and the growth process were predominantly focussed on cross-country investigations. For example Goldsmith (1969), Ruler and

Levine (1993), Levine and Zervos (1998) researched the relationship between financial development and the growth process, where they implemented a cross-country investigation. They came to a conclusion that proposes that the finance capacity participates in development. These studies created domestic financial sectors, for example, created nations [high-pay Association and Monetary Collaboration and Advancement (OECD) countries], can successfully add to increasing the investment rate and funds which prompts financial development (Becsi & Wang, 1997).

Based on this perspective, from the 1980's, various underdeveloped nations have implemented procedures in their financial systems and growth policies to boost the performance of the financial intermediaries, intending to improve the growth process. In this way, development has been achieved by these nations over the latest thirty years to the extent of improving their money related structures, and assessing the associations between the reforms of financial system and the efficiency of the economy.

There is a strong long-run nexus between the development of financial system and the growth process for developing countries. Specifically, as predicted in neoclassical growth models (Pagano, 1993), supported by King and Levine (1993), and Levine, Loayza, and Beck (2000), domestic gross savings has a positive impact on the growth process. Moreover, proxies for financial development, for instance, household credit provided by banks and local credit given to the private sector, positively impact financial development. Moreover, in concurrence with the standard outcomes for conditional convergence (Barro, 1997; Bekaert et al., 2005), it can be observed that a low introductory GDP per capita level identifies with an expansion in the development of an economy for most areas, after taking over for financial variables. In a similar manner, utilizing the Granger causality test, which was produced by Toda and Yamamoto (1995), discovered a two-way causality between finance and growth in all regions of Sub-Saharan Africa, East Asia and the Pacific. This finding is in concurrence with Morris, Sun, and Shan (2001) and Demetriades and Hussein (1996), who discovered bidirectional causality between finance and growth However Christopoulos and Tsionas (2004), revealed in their study that the direction is running from finance to growth. Additionally, these

discoveries are consistent with the legitimate suggestions of Blackburn and Huang (1998) and Khan (2001), which anticipated a two-way causality between finance and growth. Gurley and Shaw (1967), Goldsmith (1969) speculated that in underdeveloped nations, growth leads finance due to the raising of the demand for financial services.

1.2 The purpose of study:

The principal aim of this study is to examine the causality and the practical relationship between financial development and the growth of the economy, based on a case study of Malaysia, by applying various statistics methods and using time series data. Specifically, the study aims to:

- Determine the causal relationship between financial development and economic growth in the case of Malaysia.
- To evaluate the trend of financial deepening in Malaysia.

1.3. Contribution

This study is performed to contribute and provide additional knowledge into how financial development and economic growth are linked with each other in the case of Malaysia. The primary issue is how augmented change in Malaysia's financial framework adds to the growth process. The study uses an analytical framework in to gain a profound insight into the role of financial intermediation in the operation of economic growth. (Ang, 2008) applied a study to determine the mechanisms linking financial development and economic growth in Malaysia, using six equations for financial development, foreign direct investment, private investment, private savings, aggregate output, and saving-investment correlation to form the basis of the model. This is a simple model that offers some insight into the channels linking financial development and economic growth. (Ang, and Warwick, 2007) conducted a study to investigate whether the growth process leads to financial development in Malaysia or vice versa, by taking financial repression into account as well as the real interest rate.

However, this study attempts to determine the relation between financial development and economic growth, and the level of a financial deepening in Malaysia, using annual time series data covering the period 1982-2014. Furthermore, it employs two indicators to measure financial development: the ratio of domestic credit to the private sector as a percentage of GDP, which refers to financial sources that are provided to the private sector; and the ratio of money and quasi money measurement of a financial deepening in the economy, which includes traveller's checks of non-banking issuers, savings deposits and supply currency. Another indicator that is included to represent trade openness is trade to GDP, which is the sum of goods and services as a percentage of GDP. Finally, gross domestic product measures economic growth. The functioning market economy in Malaysia is taking considerable steps toward the stability of macroeconomic and structural reforms, which will attract foreign investments. The objectives behind these developments were to increase the role of the private sector and to enhance the efficiency of the financial sector. Therefore, the findings of this study will offer empirical evidence of the nature of this relationship. The significance of this study is that it highlights whether the new policies adopted by the Malaysian government as a response to the 2008 crisis have influenced the financial development and economic growth relationship.

1.4. Research questions

- What is the causal relationship between financial development and economic growth in Malaysia?
- Does financial development indirectly induce economic growth through trade openness channels?

1.5. Significance of the Study

An important question that could be asked at the outset is why Malaysia was chosen for this study. The answer to this question can be explained by the fact that Malaysia is now considered to be a leading country among developing nations, having experienced rapid financial development after modernisation was

introduced in the 1980s, instead of depending solely on mining and agriculture. Focusing on this advancement has led to a critical change in its financial framework. Different financial rebuilding programs that were intended to satisfy a superior financial framework have been propelled since the 1970s and the rich history of Malaysia financial sector is changing. Malaysia has a good database as indicated by the developing nations' standards, which provides additional motivation for the study.

Outline:

The study will be organized as follows

Chapter One: Introduction

Chapter Two: Literature review

Chapter Three: Literature and empirical review

Chapter Four: Data methodology

Chapter Five: Analysis and results

Chapter Six: Conclusion and recommendations

CHAPTER TWO:

2.0. LITERATURE REVIEW AND EMPIRICAL REVIEW

2.1. Literature review

2.1.1 Theoretical Review

Conventional growth theory argues that the growth of an economy demands innovation in sectors that are related to that economy. However, some contemporary researchers have presented studies related to the role of financial development on the growth of the economy (Goldsmith, 1969). They are concerned with advancements in segments pertinent to finance and offer a central force for dynamic economic development. McKinnon (1973) pronounced that progression of financial markets enables financial development, which is a response to an expanding utilization of finance related intermediation by borrowers and savers. One productive method that leads to the effective flow of assets amongst establishments and individuals after a certain period of time is the monetization of the economy. This can generate funds and reduces the constraints on capital accumulation and, additionally, it improves the effectiveness of speculation through determining more profitable divisions. The proficiency of the investment rate in the economy is therefore expected to increase. The probable points of interest of advancement in financial development incorporate the decrease of capital expenses, the distribution of credit through capital markets rather than through commercial banks and public authorities, and the end of idle markets.

King and Levine (1993), and Balassa (1993) emphasised that financial framework advancement in any economy facilitates portfolio enhancement for savers, which lessens the likelihood of risk and gives more alternatives to financial specialists to expand yields. The financial system has the capability to lessen investment costs for investors and individuals as well as upgrading the profitability through its capacity of collecting, processing, and analysing data. The strength of economic productivity is determined by the quantity and quality of investment. In general, facilitating constraints of credit, particularly working capital, is anticipated to enhance the efficiency of allocation of the resources that will reduce the gap between actual and predicted productivity. It is important to mention that financial systems provide financially related functions, and the effects of such functions are

specific to different countries; therefore, they cannot be generalized in terms of the success of their implementation.

Functional financial intermediation in an economy significantly relies on the volume of the financial system's innovation and contribution in relation to the level of economic growth and activities level, as well as the extent to which financial intermediation can be performed through this critical function. A healthy financial system provides the opportunity to benefit from economies of scale, which can play an effective role in reducing the operational costs of financial intermediaries.

Greenwood and Jovanovic (1990) asserted that there is a significance in the wider contribution of individuals as financial intermediaries in their theoretical models of the nexus between finance and growth. According to them, a strong and large financial system can facilitate or reduce credit constraints, provide opportunities for profitable investments, and offer better opportunities for firms to borrow. Allen and Gale (1997) proposed an argument that suggests that a sizeable financial system could be highly efficiency at monitoring the use of funds and allocating capital. A large financial system could also enhance inter-temporal risk sharing. This can be accomplished through extending financial system activities broadly many individuals with a better allocation of risks, which in turn, could enhance investment activity and increase the rates of growth by improving physical and human capital. However, financial intermediation efficiency relies on the channels linking the volume of growth and the financial system, which requires a high level of financial intermediation. Stiglitz and Weiss (1992) illustrated that information collecting can be considered as one of the key elements of a financial system, which consequently dictates its financial efficiency. Manipulated information, externalities of the business and finance sector and honourable competition could cause minor or major problems in the investment and financial sectors such as an inefficient allocation of capital, which could lead to undesirable consequences. However, the market imperfections can be addressed by legal and institutional means. This will ultimately boost the efficiency of financial markets and contribute to economic growth.

The structure of financial intermediation relates to the maturity of available financing assets and the level of the development of capital markets and

institutional investors, such as insurance companies. Modigliani and Miller (1958) noted that the presence of liquid equity markets drives agents to save through these equities, as they offer increased long-term yields. The alteration of banking system with markets seems to be a consequence of changes in intermediation cost. The potential channel of financial intermediation structure as it affects the efficiency of allocating resources of the firms according to Shleifer and Vishny (1997) is through its effect on corporate governance. A contemporary theoretical review shows that financial development through financial intermediation innovations aids the process of allocating resources, savings mobilization, and participates in economic growth (Bittencourt, 2012; and Huiran and Wang, 2013). Furthermore, growth theory argues that markets and financial intermediaries appear endogenously as a reflection of market incompleteness, thus participate in long-term growth. Financial markets and institutions, which emerge endogenously to relieve the impacts of information and transaction cost frictions, affect decisions relevant to investment focused on boosting productivity activities by considering potential entrepreneurs and funding the appropriate projects. Beck and Levine (2001) determined three significant indicators of financial development that are fundamental in illustrating the differences in the economic performance of developed and developing countries. These pointers include stock exchange exercises, credit to private division, and the capacity of the nation's lawful framework to secure financial specialists and banks. The dismantling of the conventional theory of financial development (closed capital accounts, bank-based systems, public development banks, directed credit, and capped interest rates) founded in underdeveloped countries in the post-war decades has become a fundamental component of economic reforms in recent times. The new standard model of financial composition reflects the priorities of financial development based on financial market liberalisation. These reforms were anticipated to increase the levels of investment and savings, boost the rate of growth and reduce macroeconomic instability. Thus, financial development compositions can vary across different areas and countries. It is difficult to consider any claim that the existence of a unique relationship between the development of financial system and the growth process in different nations. This demonstrates that banks are still fundamental to the process of financial intermediation.

2.1.2. The relation between financial development and growth in the economy

The positive effect of money-related improvements on the economic growth hypothesis has not resulted in a general consensus among economists. In other words, some economists contest that that financial development is not beneficial for growth. In his simple internal growth model, (Pagano, 1993) concludes that the rate of constant state growth positively relies on the percentage of savings diverted to investment, which financial strongly impacts on the growth and converts savings to investment (Berthelemy & Varoudakis, 1996). They used a theoretical model to investigate whether the growth rate is related either to the number of banks or the level of competitiveness of the financial system, and the results indicate that the high quality of education comes from a previous step of growth, which shows that the financial systems in underdevelopment nations are ineffective since the quality of education is low (Greenwood & Jovanovic, 1990). The efficiency of enterprise investment is the essential reason for the positive effect of structure on growth, due to the fact that agents have potentially more information relevant to the nature of fluctuation, and this is more or less adaptable with the classical perspective on the relationship between growth and financial development (Levine, 1991). There are two reasons behind rapid growth, which consider the stock markets and internal growth model. The first reason is because the agents have the permission to diversify portfolios, and the second reason is because the firms' ownership can be traded without disrupting the production process. The model has the logical implication that, in the absence of stock markets and due to the risk aversion agents would be less willing to invest. According to (Singh, 1997), financial development may not have a positive impact on growth for various reasons. The first reason is, because of the instability of the stock market pricing process in under developing countries, such conditions are not adequate to determine efficient investment allocation. The second reason is because the continuous interaction between stock market and currency in the wake of undesirable economic shocks could generate macroeconomic instability and decrease long-term growth. The third reason is due to the possibility of market development diminishing the concerns on banking system in developing nations. In the majority of private organizations, families still

maintain significant control over the administration, which is no longer common in a recent and developed financial framework (Classens et al., 1999). Additionally, another key element is the restricted improvement of the financial markets the past 30 years. Furthermore, the majority of companies in Malaysia are normally not recorded and, consequently, the most source of finance comes from banks rather than financial markets. The proportion of market fixation for Malaysia is in high contrast with other more propelled market capitalization, the financial market in this case is concentrated in the hands of the ten largest enterprises. Furthermore, the financial environment in Malaysia can be depicted as a bank-based framework as opposed to an advertising based framework.

2.1.3. Financial sector policy

Financial liberalisation is an essential factor in the financial sector as it is widely recognised. For example, the policies of repealing constraints on interest rates and trade liberalisation could have a relatively significant effect on financial development. Financial liberalisation presents uncertain benefits to an economy in the long term, as it could cause financial weakness. Malaysia adopted a gradual approach to reforming the structure of its financial sector in 1970, by carefully liberalising interest rates to relieve the effects of the world economic recession within the nation. The market explained interest rate mechanism was repealed in 1985; however, it was reintroduced in 1991 (Williamson & Mahar, 1998). After the Asian financial crisis that occurred in 1997-1998, there are various indications refer that imply that the Malaysian government was struggling. It implemented tangible procedures to improve the banking management system as it adopted an assimilation strategy instead of a closure structure of banking that aimed to combine financial organisations and national banks into a small number of groups, which offered the potential to enter into the international competitive bank industry.

The most influential research studies are conducted to determine what could cause sustainable growth flow in a country‘s economy, as well as the preferred areas in which to invest. The growth process is an output of various policies related to macroeconomics and conditions of the institutions in the country (OECD, 2004).

2.1.4. Interaction between the financial sector and the economic growth

The prediction is that the financial sector participating in economic growth through its role that it is essential in development of the technology and offering funds to capital accumulation. The capital accumulation and developed technology are significant drivers in the growth process. The enhancing or intensifying qualities of the financial sector could therefore affect growth process (OECD, 2004). Another primary association, International Monetary Fund (IMF 2004), express that a broken financial sector can have a serious impact on the capacity of the economy. It conceivably varies the anticipated effect of the monetary policy, expansively affecting economic recession and critical expenses that are caused by the state since trying to protect financial organizations in financial ordeal. Moreover, the relationship between nations achieved through exchange and finance show that financial emergencies can have overflow impacts as, which were apparent after the recent financial crisis. Based on the aforementioned conclusions, it can be concluded that the key to financial and monetary strength relies upon the efficiency of the financial sector. The remarkable effect of financial development is the decrease of savings and investing transactions, Zingales (1996). This infers that the cost of capital is lessened in the national economy. The financial sector assists with establishing determination systems that minimize moral risk for firms. Transactions are connected through the financial foundations with the objective of directing reserve funds into profitable investments. These investments assume a critical role and add to the development of the economy (Lynch 1996).

Financial sector development is considered to be one of the drivers of the proficiency of the economy through multinational agencies. Although it may be intuitive that there is a relationship between the growth process and the development of the financial system, another issue emerges whether the development of the financial sector can cause growth process. This indicates the presence of a causal relationship, which could either be that financial improvement advances growth process or vice versa, where financial development in turn advances financial development. The direction of the relationship could consequently influence the approaches selected by domestic powers. Patrick (1966)

defined the case where financial development promotes growth process as the supply-driving and the reverse as the demand-following hypothesis. He illustrated that the demand–following hypothesis indicates that the financial sector improves as reflect of individuals demand for financial services. In this regard, the development of financial administrations accessible in the economy reflects the demands of borrowers. This perspective reveals that the financial sector is not a proactive factor of the growth process.

Additionally, Patrick (1966) recognized the supply-leading phenomenon by describing it as the financial sector's development before the real demand from the individuals. The predicted role of financial development according to this view is vital toward the onset of the operation. It provides the opportunity for development through the guidance of financial institutions.

The establishment of financial organizations and their respective administrations will serve as encouragement for their utilization by the populace to contribute and save. This will instigate the development of the economy. In this regard, the supply of financial services through these financial organizations will encourage economic transactions that have the potential to inspire the growth of the economy.

Patrick (1966) additionally found that the interaction between the two is predicted as the market is not static and these two perspectives can change at any moment in response to developments in the market transactions. The supply-leading financial institutions initiating the growth process, as more transactions are conducted and more purchasers get involved, there will be an adjustment to the point where financial transactions are demanded. The shift is observed from supply-leading to demand-following, from growth process driving financial development to financial development driving growth process.

2.1.5. Bank-based or Market-based?

There is significant debate in the literature over the relative features of the capital market-dominated financial system by (Anglo. Saxon model), in promoting growth see (Japanese, German model). Bank based systems have various effects on economic growth, and tends that promote economic growth in the long term, which

encourages banks to offer loans for a longer period to entrepreneurs. Conversely, a market-based financial system is likely to have a shorter-term impact as corporations are predominantly focused on their immediate efficiency, and the possibility of financial markets to have a mutually enhancing role in the development of financial systems and financial intermediaries. The existence of a large number of medium and small sized corporations is considered as one of the key features of the Malaysian financial system.

2.1.6. Measurement financial development

The determining of financial development indicators differs based on the countries included in the study, based on the type of financial system of the country whether it is market-based or bank-based financial system and that could be used to guide which indicators must be employed for the study. For example, bond and stock market development can be captured when identifying that the country's financial system is market-based including the familiar indicators capturing the performance of bank-based systems. The quantity of financial sector indicators determined also varies across the studies. One indicator can be qualified to capture the potential impact of financial development in the economy according to some researchers. While other researchers argue that one variable might not properly capture the level of financial development in the country and suggest employing multivariable and gather them into one comprehensive indicator. One more option is to make use of multivariable and used them to examine whether having a various measurement of financial development can affect the findings. Some common measurement indicators employed in different studies are the relative amount of liquid liabilities and the amount of the credit in the economy, these two variables measure the depth and volume of the financial sector (Gregorio & Guidetti, 1995; see also Khadraoui & Smida, 2012).

And there are some determinants of financial development, namely:

- Regulation and supervision

The governments play a role to regulate banks, and most of economists confess that role which is regulation and supervision of financial system, (Barth, Caprio and

Levine; 2004, 2006) debated the extent of government participation in regulating of banks, an extreme perspective is the invisible hand approach, that the legislature has no role in the financial system and markets are foreseen to watch budgetary establishments. This point of view has been condemned for ignoring market disappointments as contributors, and it would be too expensive to screen adequately. Along these lines, governments typically go about as approved screens for stores. Something else, many claim a more intercessions, which government direction is considered as a key to avoid showcase disappointments (Stigler, 1971).

As per this viewpoint, solid managers are expected to affirm solidness of the money related framework and guide banks through supervision and directing, as this point of view depends on two huge speculations. In the first place, governments frequently act to the best advantage and fulfil the general public, second that legislatures have further learning than business sectors.

The private reinforcing perspective depends among two phenomenal perspectives of coordinating the fiscal system. This perspective sees the typical monstrosity of market frustrations, that stimulate government intercession, which suggests that supervisory workplaces don't fundamental grasp a target that empowering business division disillusionments. The centring is around enabling markets, where there is a basic part for governments in boosting the propelling strengths of private masters to beat trade and information costs, in this way the private examiners may take a premium effectively organization over banks. By then, the view purpose of private reinforcing hopes to outfit supervisors with energy to impel banks to reveal correct information to general society and to decline controlling the information, which it gives private administrators a practical part to watch banks (Barth, Caprio and Levine, 2006). The private strengthening point of view is firmly bolstered by experimental proof, where there is a little confirmation underpins that strengthening controllers helps the solidness of banks, there is additionally proof of the investment of directions and supervisory that compel exact data uncovering in upgrading of the general level of saving money segment (Barth, Caprio and Levine, 2006).

- Historical determinants

The back assumes a huge part in upgrading improvement, there is a rising assortment of research that testing determinants of budgetary advancement. One

territory of this line of research worries on chronicled determinants of money related improvement and studies the social, legitimate, ethic, geographic, and political divergences crosswise over nations that may partake to shape monetary division advancement.

La Porta et al. (1997 and 1998) attest that divergences fit as a fiddle the laws and execution systems that protected the privileges of outside speculators, therefore influencing budgetary advancement. Focusing on the divergences among best legitimate convention, the French common law, the British customary law, this point of view holds that lawful custom fluctuate as far as the need they append to securing the privileges of financial specialists against the state. Rajan and Zingales (2003) and Haber (2004) worry on how political economy powers shape residential approaches toward money related improvement and influence and change the political influence of the first class who took high positions in administration or in other word settled in occupants. As per this point of view, shut political frameworks likely upset the advancement of budgetary frameworks that upgrade rivalry, because of brought together states are more receptive to and proficient at strategies requirement that secure the interests of the first class than aggressive political frameworks. Stulz and Williamson (2003) affirm that culture and religion have a huge part in influencing advancement of foundations. Numerous scientists face off regarding that religion assumes a part in local viewpoints with respect to establishments. This point of view proposes that Muslim and Catholic nations have a tendency to develop societies that keep up confining rivalry and private property rights. Acemoglu, Johnson, and Robinson (2001) banter about that the level to which European could settle in land influenced the decision of colonization technique with dependable authorization, and he fundamentally worries on the infection environment.

- Role of arrangements

What's more with recorded powers, the approach of government shape the synthesis and money related frameworks' capacity. Especially, the level of macroeconomic and political steadiness and the operation of administrative and data framework all influence the money related contracting environment. Besides, governments influence the responsibility for foundations and the level of contestability through

local and outside sources that impact the execution of money related frameworks and the level to which people have entry to budgetary administrations.

2.2. Empirical review

There are many ways to test the relationship between financial development and economic performance in both developed and developing countries, as suggested by previous studies. The common understanding is that a well-developed financial system is essential for economic productivity and enhancement of growth (Zhang and Wang 2012; Gurley and Shaw, 1967). The function of the financial system is to act as a bridge, filling the information gap between deficit units (investors) and surplus units (savers), lowering the costs of transactions and promoting risk sharing (Goldsmith, 1969; Hassan et al. 2011; Mirbagheti et al. 2014). However, some studies have suggested that the development of the financial sector might impede the growth process (King and Levine, 1993; Michael, 2012), which means that the higher level of returns earned via improved allocation of resources by banking system may be influenced by a decrease in saving rates in the case of financial sector shocks which influence the level of economic activities. Goldsmith (1969) pioneered the study on the nexus between finance and economic growth. He analysed the causal nexus between financial development and economic growth, covering the period from 1860 to 1963, he utilizing an example that included 35 unique nations. The findings showed that the value of financial intermediation assets to GDP is a positive and significant determinant of economic performance. The volume of the financial intermediary sector is relevant to the quality of financial services, which the financial sector offers. This study provided a foundation for further studies on the finance-growth nexus. However, the period covered lacks the dynamics of the modern financial system, implying that the findings could potentially be inconclusive. Chen (2006) conducted a study analysing the relationship between economic growth and financial development in the case of China. Covering the period from 1985-1999. The results suggested that the financial development in China positively impacts on economic growth. Moreover, Chen's paper specified two channels through which the financial sector contributes to economic performance, which are the mobilization of credit

availability and savings. Cheng and Degryse (2007) examined the impact of the development of banking and non-banking financial institutions on domestic economic growth. Using data gathered from the period 1995–2003, the findings suggested that the development of the banking system has a positive effect on economic growth. Another study conducted by Guariglia and Poncet (2008), examined the causal relationship between finance and economic growth in the case of China. This study covered sample data extracted from 1989-2003, using two indicators to measuring finance, which were market-driven finance and state intervention. The results suggest that market-driven financing positively contributed to economic growth, while state intervention indicators of financing contributed negatively to economic growth. Leitao (2010) conducted a study to investigate the causal relationship between financial development and economic growth coin BRIC countries (Brazil, Russia, India and China) and European Union countries (EU-27). It covered the period from 1980 to 2006. The findings suggest that the indicators of financial development were positively and significantly related with economic growth in the regions concerned. Anwar and Sun (2011) investigated the mutual relationship between the stock of domestic capital, the stock of foreign investment, and economic growth in the case of Malaysia. Using sample data from 1970–2007, the discoveries proposed that the level of monetary advancement significantly affected the development of the local capital stock in Malaysia, while its impact on economic growth was statistically insignificant. Furthermore, economic growth in Malaysian may be related with financial development, particularly the financial market' liberalization. However, the use of simultaneous equations for the study may not have adequately captured the dynamics of the financial sector.

Hussein and Demetriades (1996) directed a study to explore whether the development of the financial system assumes a role in causing the growth process, employing 16 underdeveloped nations as the case study. The study utilised the Granger causality test to verify this hypothesis, but failed to find any supporting evidence for their case. They employed two different indicators to measure financial development, and the findings of their study provided evidence of a bi-directional causality between financial development and economic growth.

Khalifa Al-Yousif (2002) conducted a study attempting to discover evidence that supports the supply-leading or demand-following phenomena, employing the Granger causality tests. However, the study did not reveal convincing findings in support of this theory. However, he was successful in the discovery of significant proof of a two-way directional relationship between financial development and economic growth by employing panel data obtained from 30 underdeveloped nations for the period 1970-1999.

Christopoulos and Tsionas (2004) revealed evidence using threshold panel cointegration tests, which supports the supply-leading hypothesis where augment change in financial development leads to a change in economic growth. The results of the study propose a direct causality between financial development and the growth process, and a one-way directional relationship from financial development to the growth process. In this study, they utilized board information covering 10 underdeveloped nations for the period between 1970 and 2000. Gries, Kraft and Meierrieks (2011) conducted a study contributing to reject the finance- lead growth hypothesis, with a sample covering 13 developing countries for a period of 1960-2003. They found evidence supporting that, the demand-following hypothesis for the majority of nations. They employed Granger causality tests in a VAR and error correction model including three variables, which were trade openness, financial development and economic growth. A study conducted by Shan, Morris and Sun (2001) failed to support the supply-leading hypothesis. The used a sample covering 10 developed countries for a period covering 12 years. The findings of the study rejected the finance-lead growth hypothesis. On other hand, Xu's (2000) conducted a study covering a period of 1960-1993 using data from 41 developing countries in a multivariate VAR framework to analyse the long-run influences of finance on growth process through dynamics interactions. The findings revealed that the development of the financial system is significant for the growth process.

Ghirmay (2004) conducted a study that provided findings suggesting the existence of a cointegrating relationship between two variables, which used a sample covering 13 developing countries for a period of 30 years. He used a VAR framework combined with cointegration tests to investigate this relationship. The study suggests a bidirectional causality in six nations. The significance of the

economic growth leads to the necessity to identifying its determinants, one of which could be financial development.

Michael (2012) applied a study to examine the validity of Schumpeter's assertion that finance promotes growth in South Africa. Using data covering period 1965 to 2010, the study followed multiple approaches including the Two-Stage Least Squares (2SLS) regression, the Fully Modified Ordinary Least Squares (FMOLS) regression, as well as the Error Correction approach and the Granger causality test. This study used measures of financial development, namely domestic credit as a percentage of GDP, the degree of financial intermediary services, and the broad money supply to GDP measuring the aggregate volume of the financial intermediary. The control variables included in the model were the openness of economy, size of government, inflation, and a dummy variable accounting for the financial reforms that commenced in the 1980s. The results suggested that financial development in the case of South Africa did not promote economic growth, both in the short run and long run. The Pairwise Granger Causality test result supports the assertion that there is a unidirectional causality running from financial development to economic growth. This study presents relatively controversial results. Another study was applied by Savrun (2011) to examine the long-run relationship between real income, financial development and international trade in the case of Turkey. In this study, the proxy of international trade was the exports of services and goods. Application of the Johansen cointegration test revealed that there was a long-term relationship between real income and its regressors. Real income in Turkey converges to its long-term equilibrium level significantly at various levels through participation in the financial sector and international trade. The application of the Granger causality tests found that a change in the financial sector precedes a change in real income, which is evidence that asserts the validity of the supply-leading hypothesis in Turkey. The study provides evidence that the development of financial system has a positive influence on the growth process. Mirbagheri et al. (2014) conducted a study to investigate the role of financial development on economic growth in selected Economic Community Organization (ECO) countries (Pakistan, Azerbaijan, Islamic Republic of Iran, Turkey, Turkmenistan, Kazakhstan, Kyrgyz Republic, Tajikistan, Uzbekistan, and Afghanistan). The sample covered the period 1990-2012, using panel data analysis and Pedroni Panel

cointegration tests. The findings suggested that market capitalization and stocks traded positively and significantly impacted on output levels with coefficients of 0.0055 and 0.033, respectively. The coefficients of the financial development indicators domestic credit to private sector and domestic credit by bank system are 0.08 and 0.15, respectively. Other variables included in the model which include capital stock per labour force; secondary enrolment (% Gross) and general government consumption expenditure have positively impact on output while output per labour force has negatively impact on output. The results suggest that financial sector development plays a dominant role in the economic growth on a global basis, although the coefficients determined by this study are relatively low. Huiran and Wang (2013) conducted a study applying a Bayesian dynamic factor model to investigate the causal relationship between financial development and economic growth for a sample of 89 countries using data gathered from the period 1970-2009. The study estimated the idiosyncratic factors that drive the dynamics and co-movement of financial development and economic growth in three different income groups. The findings suggested that a common factor had a more effective role in explaining the output growth in Emerging Market Economies and Industrial Economies, while, in developing countries it did not act in this manner. The levels of financial development across the three selected regions are different and present a challenge regarding the selection of indicators and the likely impact (possibly effect) that they may have on economic performance. Raynal (2007) applied a study to examine the effect of financial development on economic growth in Latin America using variables including income inequality, education, productivity, and capital growth. The data covered the period 1971-1998 for 12 selected Latin American countries. The proxies of financial development namely, private sector credit as a share of GDP and bank deposits as a share of GDP. A bi-directional causality from finance to growth process was discovered. Additionally, Raynal utilized instrumental factors to quantify money related advancement to address the issue of endogeneity in which the results are contrasting. The findings suggested that financial development has a positive impact on the percentage of the population that had completed secondary education and also on income inequality, and also shows a positive impact from finance to growth in Latin America. However, the countries in the region have experienced their own share of financial

crises and the attendant impact on growth indicates that the finance-growth nexus is time specific. Mhadhbi (2014) applied a study to investigate the causal relationship between financial development and economic growth analysing 110 selected countries in both developed and developing nations. The study applied dynamic panel using GMM approach. The data covered the period 1973 to 2012. The findings suggest that the variables that have positive and significant effects on economic growth in the selected countries are those that reflect the level of availability of the banking system. Additionally, the credit granted by the financial system to the private sector, although significant, has a negative impact on growth. The variable of financial deepening of the economy appears to have a positive effect on economic growth for developing countries and a negative effect on developed countries. In terms of Argentina, Brazil and Mexico, a study conducted by De Gregorio and Guidotti (1995) investigated the performance of financial development in Latin America. The high rate of bank credit to GDP ratios during the 1970s and 1980s exerted a negative influence on economic growth in those countries. This was attributed to the unnecessary oversupply of credit due to ineffective regulation and deposit insurance policies that consequently degenerated into banking crises. However, the influence of bank credit on growth is based on multiple channels, some of which are complex and implicit in nature. A study applied by Esso (2010) offered evidence that suggests that the causal relationship between financial development and economic growth is a result of the stability of macroeconomic and function of economic growth level. Jenkins and Katircioglu (2010) attempted to find a causal linkage between money related advancement and financial development in Cyprus. They utilized the bounds test approach and incorporated these factors in particular: money related advancement, financial development, and universal exchange. They determined that there is no causality among the development of financial system and economic growth. Kabir et al (2011) tested the nexus between financial development and the growth process in each of low, middle and high wages. He employed the Granger causality test to record the direction of the causality in selected nations. The results provided evidence of the existence of a significant and positive causality between financial development and economic growth in developing countries. Moreover, short-run multivariate analysis provided mixed results: a one-way causality from growth to

finance for the two poorest regions and a bidirectional causality relationship between finance and growth for the majority of regions. It also found that a low initial GDP per capita level is linked with a higher rate of growth. As participated in neoclassical models, domestic gross savings has a positive effect on growth. However, the study found the presence of a long-run linkage between finance and growth. This study, though a wider coverage, employed a short-run analysis (VAR), which may not necessarily depict the dynamics of financial development in the long run. Similarly, Campos, Karanasos, and Tan, (2012) conducted a study to examine the effect of financial liberalization on economic growth in Argentina using time series data covering the period 1896-2000. The findings of the study proposed that financial liberalization has a positive impact on economic growth in the long-term, while in the short-term it has a negative impact on economic growth. This study appears to cover a wider period that may not reveal the financial sector dynamics over time. Shan, Morris and Sun (2001) examined the causality between financial development and economic growth in nine selected Organization for Economic Cooperation and Development countries and China. The study proposed a bi-directional causality in five nations and a unidirectional causal relationship running from economic growth to financial development in three nations. There was no relationship found between the factors in China, although there was a two way causal relationship between budgetary advancement and financial development. Blanco (2009) analysed the relationship between budgetary improvement and financial development in Latin American for 18 chosen 18 nations. The findings suggested the existence of a two-way causal relationship between the variables in those countries with a strong rule of law, creditor rights and middle income individuals. Furthermore it was found that there is a unidirectional causal linkage running from economic growth to financial development. César Calderon and Lin Liu (2003) investigated the causality between financial development and economic growth, using data from 109 industrial and developing countries covering the period from 1960-1994. The study suggested that financial development leads to growth, and the implication of the Granger test showed the existence of a causality from financial development to economic growth, and vice versa. The results of various studies using different econometric approaches provided mixed findings. The overriding consensus from

these studies is that financial development has the potential to positively influence economic performance. The performance of Latin American countries since the implementation of economic reforms (financial reforms in particular), that started in the 1990s attests to the fact that finance is critical for growth. This relation is reinforced by the experience of the four so- called Asian Tiger countries, where finance played a key role in their economic transformation.

Moreover, Luintel and Khan (1999) applied a study using a sample covering 10 underdeveloped nations and the obtained results demonstrated that the relationship between money related improvement and yield development is a two-way causality. Tsangyao Changa and Steven B. Caudill (2005) researched the causal relationship between the development of financial system and the growth process in the case of Taiwan, utilizing information gathered from the period from 1962 to 1998, based on four factors. The results of the Granger test showed that there is a two-way causality running from financial development to economic growth. The ratio of M2 as a percentage of GDP was measured as a proxy of financial development. The results of this study highlight the significance of financial development in the recent growth of Taiwan. Qi LIANG and Jian-Zhou TENG (2006) directed a study looking at the causal relationship between monetary advancement and financial development in China, utilizing time series information from the period 1952-2001, employing a vector autoregressive (VAR) framework. The results of this study showed the existence of a two-way causality from economic growth to financial development. Dimitris and Efthymios (2004) investigated the long-term causality between financial deepening and economic growth, implicated cointegration tests and vector error correction model. This study used data collected from 10 underdeveloped nations and the findings offer evidence that supports the hypothesis that there is a single equilibrium causality among growth, financial deepening, and ancillary variables. Ang, (2008) applied a study that estimates six equations to determine the mechanism linking financial development and economic growth in Malaysia, where they used a sample covering the period 1960-2003 by employing the ARDL approach and the error correction model to determine the cointegration. The findings revealed that the development of the financial system has a positive effect on the growth process. (Ang and Warwick 2007) conducted a study to investigate whether financial development

contributes to economic growth, in which they used GDP per capita, financial development, interest rate and financial repression as variables. They employed cointegration and causality tests and the findings revealed that financial development is an outcome of economic growth. Additionally, financial repression and interest rates negatively influence financial deepening. (Guryay, Safakli and Tuzel 2007) investigated the relationship between financial development and economic growth in Northern Cyprus using the OLS estimator for the period 1986-2004, and their findings revealed that there is a positive negligible impact from the development of the financial system on the growth process.

2.2.1 Summary of empirical review

Study	Variables	Model	Results	Countries
Gries, Kraft and Meierriek s (2011)	Trade openness and financial development and GDP	VAR and VECM.	The study revealed that There is no evidence that finance indirectly motivates growth process via the channel of trade openness.	13 Latin America countries
Michael (2012)	DC as percentage of GDP, M2 as percentage of GDP, trade and inflation.	(2SLS) and (FMOLS).	Financial development has not promoted economic growth both in the short run and long run.	South Africa
Savrun (2011)	Real income, international trade, and financial development.	Johansen cointegration test	There is a long-term relationship among real income and its regressors	Turkey
Mirbaghe ri et al. (2014)	FD (DCPS and DCPSB) and GDP.	Pedroni Panel cointegration tests	The results suggest that financial sector development play a dominant role in the growth of economies of selected countries.	(ECO) countries
Jenkins and Katirciogl u (2010)	financial development, economic growth, and international trade	Bound test approach	The study found that there is no causality among finance and growth.	Cyprus
Cheng and Degryse (2007)	GDP, FDI, FD (credit extended by banks to local enterprises over GDP, and saving in the banking system to GDP.	GMM estimator	findings offered that the development of bank system has a positive effect on economic growth	China

Guariglia and Poncet (2008)	state intervention and market-driven finance as indicators to measure finance	GMM estimator	The results suggest that the market-driven financing are positively contribute to economic growth, while state intervention indicators of financing contribute negatively on economic growth.	China
Leitao (2010)	GDP per capita, private credit to GDP, trade to GDP.	A dynamic panel data (GMM- SYS)	The findings suggest that indicators of financial development positively and significantly related with economic growth of the study regions.	(EU-27) and (BRIC) countries
Huiran and Wang (2013)	GDP per capita, domestic credit to private sector to GDP.	Bayesian dynamic factor model	The findings suggested that common factor had more effective role in explaining the of output growth in Emerging Market Economies and Industrial Economies.	89 countries.
Mhadhbi (2014)	GDP per capita, liquid liabilities to GDP, and credit issued by deposit money banks to private sector divided by GDP.	GMM approach.	The credit granted by the financial system to the private sector though significant, has a negative impact on growth. The variable financial deepening of the economy seems to depend positively on economic growth for developing countries and negatively for developed country.	110 selected countries in both of developed and developing countries.
De Gregorio and Guidotti (1995)	GDP per capita and bank credit to private sector	OLS	. The high rate of bank credit to GDP ratios during the 1970s and 1980s negatively influence on economic growth in those countries.	Latin America countries
Raynal (2007)	FD (private sector credit as share of GDP and bank deposits as share of GDP), inequality, education, productivity, and GDP	Granger causality tests	. The findings suggested that financial development has a positive impact on the percentage of the population that completed secondary education and on income inequality, and also shows a positive impact from finance to growth in Latin America	Latin America countries
Kabir et al (2011)	GDP per capita, domestic credit to private sector as percentage of GDP, domestic credit provided by banks, and M3.	Granger causality tests	The study revealed that there is one-way causality from growth to finance for the two poorest regions and bidirectional causality relationship between finance and growth for most regions.	middle and high-income countries as classified by the World Bank
Campos et al. (2012)	M3 to GDP, total deposits in savings banks as share of GDP, and GDP.	PARCH model	The findings of the study offered that the financial liberalization has a positive impact on economic growth for long-term, while for short-term it has a negative	Argentina

			impact on economic growth.	
Esso (2010)	GDP per capita and credit to private sector.	Toda and Yamamoto Approach.	The study revealed there is a long-run relationship between financial development and economic growth in six countries, namely, Burkina Faso, Cape Verde, Cote d'Ivoire, Ghana, Liberia and Sierra Leone. financial development 'leads' economic growth in Ghana and Mali while growth causes finance in Burkina Faso	(ECOWAS) countries.
Blanco (2009)	GDP per capita, private credit issued by deposit money banks as share of GDP, and liquid liabilities to GDP.	Granger causality test	The discoveries recommended the presence of a two way causal relationship between the factors in the nations with solid govern of law and leaser rights and center salary assemble. Furthermore found that there is a unidirectional causal linkage running from growth process to financial development.	Selected 18 countries Latin American countries.
Luintel and Khan (1999)	Real GDP to population, total deposit liabilities of deposits banks to nominal GDP, and interest rate.	vector autoregression (VAR) framework	results give evidence that the causal between financial development and output growth is two-way causality	10 developing countries
Calderon and Lin Liu (2002)	GDP per capita, broad money M2 to GDP and credit to GDP.	Granger causality tests	The results showed the existence of causality from financial development to economic growth and vice versa.	109 industrial and developing countries
Qi and Jian (2006)	GDP per capita, real interest rate, and money stock over GDP.	Vector autoregressive (VAR) framework.	The results of this study showed the existence of a two-way causality from economic growth to financial development.	China
Dimitris and Efthymios (2004)	Real output, financial depth, output share of investment, and inflation	Johansen cointegration tests.	The discoveries give clear proof backings to the speculation that there is single balance causality between financial development and economic growth.	10 developing countries
Chen (2006)	GDP per capita, and FD (savings, bank, loan to budget).	GMM estimator	The results suggested that financial development of China positively impact on economic growth.	China
Hussein and Demetriades (1996)	Gdp per capita, bank deposit liabilities to nominal GDP, and private sector to nominal GDP.	Granger tests	The results found that two way directional causality between financial development and economic growth.	16 developing countries

Khalifa Al-Yousif (2002)	GDP per capita, currency ratio, and M2 to GDP.	Granger causality test and (ECM).	The study found vast proof of a two-way directional relationship among financial development and economic growth	30 developing countries
Christopoulos and Tsionas (2004)	Real output, financial depth, real output share of investment, and inflation.	Johansen cointegration tests	The results reveal that there is relationship between financial development and economic growth, and a unidirectional relationship from the development of financial system to growth process	10 developing countries
Shan, Morris and Sun (2001)	GDP, bank credit, and FD (loans made to private sector by commercial banks, and other deposit-taking to GDP).	vector autoregression (VAR) model	The findings of the study rejected the hypothesis that finance-lead growth.	Nine (OECD) countries
Xu's (2000)	Real GDP per capita and real exports per capita.	Granger causality tests	The study found that financial development is significant for growth of the economy.	41 developing countries
Ghirmay (2004)	Real GDP, credit to private sector, liquid liabilities of financial system.	VAR framework and cointegration tests	The study suggests a bidirectional relationship in six countries.	13 sub-Saharan African countries
Tsangyao and Steven (2005)	GDP per capita, exports, imports, and M2 to GDP.	(VECM)	The results of this study highlight the significance of financial development in recent growth of Taiwan.	Taiwan
Guryay, Safakli, and Tuzel 2007	GDP, population growth, domestic investment to GDP, growth of export, deposits to GDP, and loan to GDP.	OLS	There is a positive negligible impact from development of financial system on growth process.	Northern Cyprus

2.2.2 Summary empirical review of Malaysia

Anwar and Sun (2011)	Stock of domestic capital, the stock of foreign investment, and real GDP.	GMM estimation	Findings suggested that the level of financial development has a significant impact on the growth of the domestic capital stock in Malaysia, while its impact on economic growth is statistically insignificant.	Malaysia
(Ang, 2008)	FD, FDI, private investment, private	ARDL	The study found that financial development has a significant	Malaysia

	saving, GDP, and saving investment		positive impact on economic growth in Malaysia via both the quantitative and qualitative channels.	
(Ang and Warwick, 2007)	Real GDP per capita, real interest rate, extent of financial repression.	Johansen cointegration test	The study found that that financial liberalization, through removing the repressionist policies, has a favorable effect in stimulating financial sector development. Financial depth and economic development are positively related	Malaysia

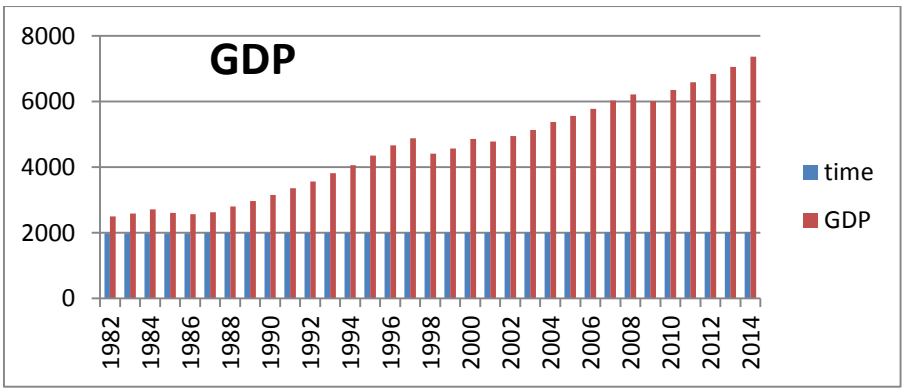
CHAPTER THREE

3.0. MALAYSIAN ECONOMIC GROWTH AND FINANCIAL DEVELOPMENT

3.1.1. Economic growth and financial development in Malaysia

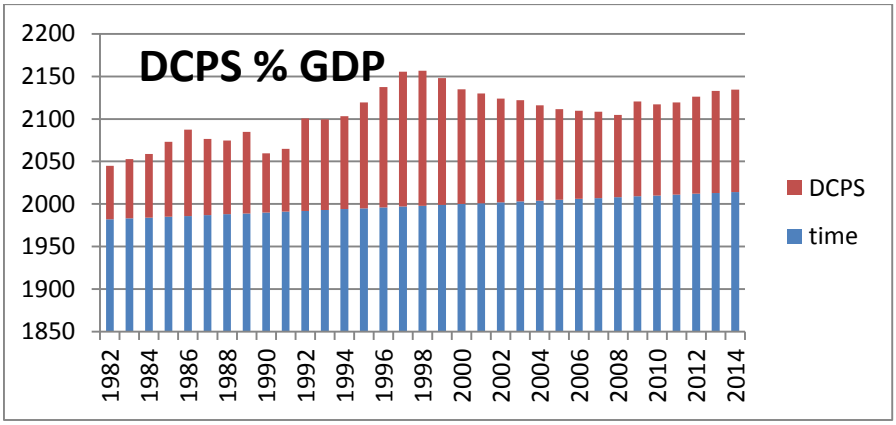
James B. Ang (2007) conducted a study that demonstrates that financial development positively affects the growth process through both the subjective and quantitative channels. The results of the study show that financial development leads to greater yield development, and through advancing private investment and private savings, and it offers confirm that repression financial policies such as, high hold requirements, coordinated credit projects, and each of these policies have significantly contributed to the development of financial system, where the state interventions in the economy, for example, source allocation, and employee provident fund negatively impact on financial development. Furthermore, another study was conducted by Ang and Warwick (2007), to research whether financial improvement causes the development of the economy, or vice-versa in the case of Malaysia, utilizing time series information, through taking both real interest rate financial repression in consider. Additionally, it proves that financial development has an advantageous impact on strengthening financial sector developments through minimising the repression policies. Furthermore, it demonstrates that both genuine loan fees and financial repression strategies have opposite effects on financial deepening. Finally the results obtained show that economic growth leads to higher financial development and not vice versa.

Graph 3.1



The figure above represents GDP per capita at constant 2005 U.S dollar, with the first measurement of 2,498,279 in 1982, with the final measurement of 7,365,239 in 2014. These statistics represent GDP divided by midyear population.

Graph 3.2



The figure above represents domestic credit to private sector as a percentage of GDP for Malaysia based on World Bank Data. One cane observe from the chart that the first measurement in 1982 was 62.73, leading to the latest measurement of 120.56 in 2014. .This represents the sources of private sector that are provided by of the purchase of non-equity securities, trade credits, and loans, and other accounts receivable.

Graph 3.3

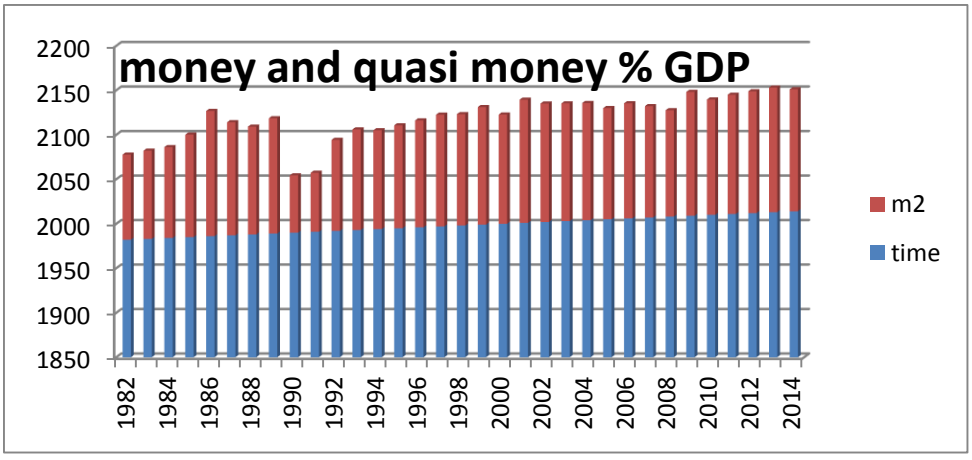
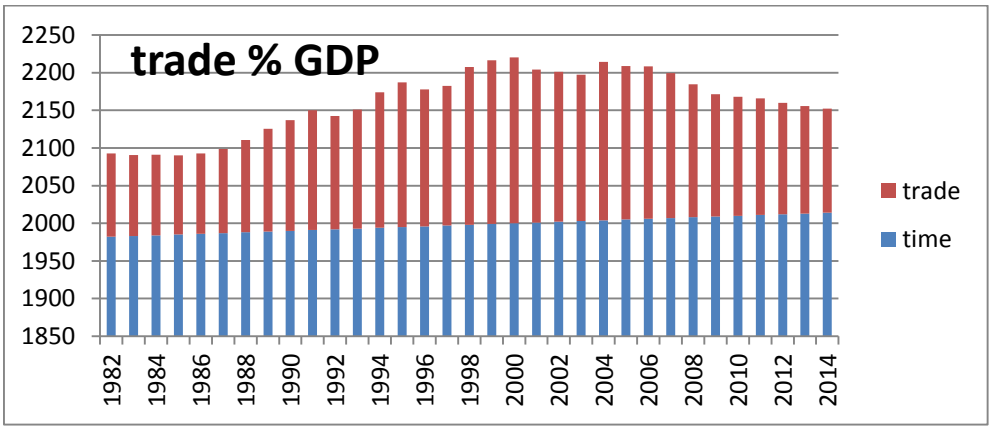


Figure 3.3 above represents money and quasi money to GDP for Malaysia, which was measured at 95.76 in 1982, through to 137.09 in 2014. This represents demand deposits, and the time, savings, and foreign currency deposits of domestic sectors.

Graph 3.4



The figure above represents trade as a percentage of GDP for Malaysia, where the first measurement was 110.85 in 1982, and was measured at 138,456 in 2014, according to the World Bank Data. Trade is proxy of the sum of imports and exports of services and goods measured as a percentage of gross domestic product.

3.1.2. Economic growth in Malaysia and its history

In 1957, Malaysia gained independence and, for the past several decades, the Malaysian government has significantly progressed towards development, by determining development strategies that have incorporated national development, moderated its development strategies, and economic policy. The development strategy achieved by embracing suitable policies and effective implementation has successfully transported the country‘s economic structure from primarily mining and agriculture to manufacturing. Furthermore many liberalisation measures were introduced as a means to increase productivity to a level necessary for global competitiveness. Malaysia increased to a middle-income level during the 1980s as a consequence of various effective factors, such as proper liberalisation in the trade system, the stability of the political system, and growth of exports and savings.

Manufacturing exports and foreign direct investment continued to support growth in the country during the 1990s, which led to growth in the per capita income until it reached an annual level of approximately 8 percent per annum during the crisis period from 1997 to 1998. Furthermore, the efficient management of exchange rates, prices and the unemployment rate allowed the country to successfully remain stable. However, in 1997- 1998 the Asian financial crisis placed Malaysia in a precarious conditions after it damaged the financial system, leaving it in a weakened state. Instability of international reserves to meet increase in the financial market of transferring the net worth (Athukorala, 2001, pp. 44-56). After a year of experiencing the crisis, Malaysia revived within a short period of time, and the revival came as a result of embracing different efficient policies, including adjusting the exchange rate to the US dollar, careful capital controls and an expansionary fiscal policy. An important research was conducted to determine what could maintain the growth flow in a country‘s economy, and the preferred areas in which to invest. Economic growth is an output of many macroeconomic policies and institutional conditions of a country. (OECD, 2004)

CHAPTER FOUR

4.0. METHODOLOGY

4.1. Methodology and Data

This study addresses the empirical linkage between financial development and economic growth in Malaysia using secondary data collected by the World Bank and Trend Economy, with macro-level time series annual data for the period 1982-2014. Two indicators are utilised to represent financial development, which are the domestic credit to the private sector to GDP, and money and quasi money as a percentage of GDP, as well as an indicator representing openness trade, which is trade to GDP (Leitao, 2010; Beck, 2002). The study also uses GDP per capita 2005 US dollar to represent the real economic sector and as a proxy of economic growth.

The measurement of the chosen variables is as follows:

The measurement used for economic growth is GDP per capita in 2005 United States dollar, which is we calculate GDP per capita to GDP by midyear population. Gross domestic product is considered to be the sum of the total amount produced by citizen in the economy in additional to any goods or taxes, subtracting any foreign aid.

Different measurements could be used for as a proxy for financial development proxy, as referenced in the literature (Beck, 2002). It is also proposed that any upgrade or enhancements to the size of those proxies are presumed to be through the development in the financial sector.

In addition, as Beck (2002) also that suggested the ratio of domestic credit to the private sector as a percentage of GDP could be defined as the national credit to the private sector, which refers to financial sources that are given to the private sector; for example, by way of loans, purchasing commercial paper, trade credits and purchasing items on account, that require repayment at a later time (Burak Savrun, 2011).

The measurement of the deepening of financial in the economy is the money and quasi money to GDP, which includes traveller‘s checks from non-bank issuers,

savings deposits, other deposits, deposits in a given country‘s economy at that moment, and the supply of currency.

Furthermore the measurement of trade and openness of the economy is Trade divided by GDP (meaning the sum of imports and exports of goods and services as a percentage of GDP).

Another variable that was included in the model is the dummy (d1) variable, as another indicator of growth, particularly during the period of the Asian financial crisis. The dummy variable is assigned a zero value (0), except in 1998 where it was given a value of (1).

$$Growth=B_0+B_1(DCPS)_t+B_2(M2)_t+B_3(TRD)_t+\varepsilon_t \quad (1)$$

Where t denotes the time index, (ε_t) represents the error term, Growth represents the dependent variable (GDP per capita 2005 US$), and for the explanatory variables, (DCPS) represents domestic credit to the private sector to GDP, (M2) represents money and quasi money as a percentage of GDP, and finally (TRD) represents trade to GDP.

Table.4.1. Variable description and the Expected signs

Variable / Country	Malaysia
DCPS	Positive (+) Negative (-)
M2	Positive (+) Negative (-)
TRD	Positive (+) Negative (-)

A positive relation between DCPS/GDP and GDP implies a positive impact from DCPS on economic growth, and an increase in DCPS leads to an increase in economic growth with specific units. However, negative relationship between these

variables implies that an increase in DCPS causes a decrease in GDP, and vice versa. A high DCPS is a clear indication of a strong economy.

A positive relation between M2/GDP implies that increase in M2 to GDP causes a decrease in GDP, while a negative relation between them implies that an increase in M2 to GDP causes a decrease in GDP. A higher level of M2 to GDP implies a larger financial sector.

A positive relationship between TRD/GDP implies that an increase in trade to GDP leads to increase in GDP, while a negative relation between them implies that an increase in trade to GDP leads to a decrease in GDP, and vice versa. Furthermore, a positive relationship between the two variables, along with evidence supports trade led growth hypothesis.

4.2. Unit root tests

This is an initial test to investigate the presence of unit root for each time series, and takes the form of a test examining the cointegration between variables; therefore, the unit root is a relatively significant test to examine the stationarity of a time series, because non-stationary variable's results are unreliable, therefore, the test was performed using Augmented Dickey-Fuller, 1979 (ADF). Additionally, all cointegration tests must be applied after this test. Enders (1995) suggested that in the case the results of one unit root being unreliable, it is recommended to utilize both of the Augmented Dickey-Fuller (ADF) (1981), and Phillips-Perron (1988) which should provide more reliable results. For this reason, the ADF and Phillips Perron tests are commonly used to investigate the stationarity of the variables. The data will be tested to identify whether it is consistent at level I(0), at the first difference I(1), or at the second difference I(2).

4.3. Augmented Dickey-Fuller test (ADF)

$$\Delta y_{t=}p+\Delta p_1 y_{t-1}+\Delta p_2 y_{t-1}+ \Delta p_3 y_{t-1} + u_{t-1} \quad (2)$$

The above formula is a sample of ADF, where Δ is denoted as the difference operator, t is the time index, p_1, p_2, and p_3 are coefficients, and (t-1) is the first difference.

The null and alternative hypothesis is for the presence of a unit root.

$H_{0:}\ p_2 = 0$

$H_{1:}\ p_2 < 0$

This study follows the Akaiki information criterion (AIC 1974), because it is appropriate to the number of observations as a small sample, according to Mackinnon (1991).

4.4 Phillips Perron test (PP)

The Phillips Perron (1988) test is an alternative of the Augmented Dickey-Fuller test, and the advantage of using it instead of the ADF is that the PP tests are generally in strong forms in Heteroscedasticity in the error term. Another feature of this test is that it supplies an alternative procedure for correcting serial correlation in unit root testing, and also it does not require specification of the lag length.

4.5. ARDL Bounds test approach co integration

The ARDL bounds test was introduced as an alternative of the Johansen cointegration as a result of debate among researchers, who considered that Johansen is not the most suitable method to apply for I(1) variables. Furthermore, the ARDL has some benefits that make it more desirable than Johansen cointegration, the first of which is that the ARDL approach does not require all of the variables to be stationary at I (1), and it can be used for I(0) variables as well (Pesaran et al, 2001). The second benefit is that the ARDL is more statistically significant than any other methods in determining the cointegration relations, particularly when using small samples (Ghatak and Siddiki 2001). The ARDL approach is also the most suitable method when the unit root properties of the data are uncertain for empirical work. The previous procedure of any cointegration is testing of integration degree of each variable in the model, which depends on the

type of unit root test used to examine the stationarity by Bahamani- Oskooee (2004:85). Ultimately, the ARDL bounds test is an approach that can be used for different variables do not have not the same number of lags. Two steps must be followed before applying the ARDL model. The first step is determining the presence of a long-run relationship between thae variables, which can be conducted by F-test. The second step is to estimate the long-term relationship coefficients and to determine their values, followed by short-term estimation and error correction which representing ARDL model (Pesaran and Pesaran, (1997). In cases with more than one lagged coefficients, the joint test of significance or the Wald test, is the most appropriate method, and it determines the long-run relationship by comparing with the critical values given by Pesaran et al (2001).

(3)

$$\Delta InGDP_t = \beta_0 + \sum_{i=1}^{n1} \beta_{1i}\, \Delta InGDP_{t-1} + \sum_{i=1}^{n2} \beta_{2i}\, \Delta InDC_{t-i} + \sum_{i=1}^{n3} \beta_{3i}\, \Delta InM2_{t-i} + \sum_{i=1}^{n3} \beta_{3i}\, \Delta InTRADE_{t-1} + \sum_{i=1}^{n2} \beta_{4i}\, \Delta InD1_{t-i} + \lambda_1\, InGDP_{t-1} + \lambda_2\, InDC_{t-1} + \lambda_3\, InM2_{t-1} + \lambda_4\ InTRADE_{t-1} + \lambda_5\ InD1_{t-1} + Ut$$

Where Δ is denoted as the first difference, U is an error term, and B is the coefficient. LGDP is the log of the gross domestic product per capita (GDP), LDC is the log of the domestic credit to the private sector, LM2 is the log of the money and quasi money as a percentage of GDP, and LDCB is log of the domestic credit to the private sector provided by banks to the GDP. The Wald test calculates the F-statistic value and compares the value of the upper and lower bound critical values provided by Pesaran et al (2001), at 1%, 2.5%, 5%, and 10% significance level. Furthermore, if the value of the F-statistic is greater than both upper and lower bound values I(0), I(1) critical values, this leads to a rejection of the null hypothesis and implies the absence of the cointegration. Rejecting the null hypothesis implies the presence of the cointegration, and the lower value of F-statistic implies that there is no cointegration among the variables.

After detecting a long-run relationship from the first step, a second step must be followed, which is the ARDL approach and it enables the estimation of each of the long-run and short-run simultaneously in order to estimate the effect of one variable on the others.

(4)

$$ln(GDP)_t = \propto_1 + \sum_{i=1}^{p} \emptyset 1_i \, ln(GDP)_{t-i} + \sum_{i=1}^{p} \beta 1_i \, ln(DC)_{t-i} + \sum_{i=1}^{p} \gamma 1_i \, ln(DC)_{t-i} + \sum_{i=1}^{p} \beta 2_i \ln(M2)_{t-i} + \sum_{i=1}^{p} \gamma 2_i \, ln(M2)_{t-i} + \sum_{i=1}^{p} \beta 3_i \ln(TRADE)_{t-i} + \sum_{i=1}^{p} \gamma 3_i \, ln(TRADE)_{t-i} + \sum_{i=1}^{p} \beta 4_i \ln(D1)_{t-i} + \sum_{i=1}^{p} \gamma 4_i \, ln(D1)_{t-i} + \mu_t$$

The existence of the error correction term implies the confirmation of the long-run relationship, and the value of the coefficient must be between zero and one, and the sign of the error correction should be negative and significant.

(5)

$$\Delta lnGDP_t = \gamma_0 + \sum_{i=1}^{p1} \gamma_{1i} \, \Delta lnGDP_{t-i} + \sum_{i=1}^{p2} \gamma_{2i} \, \Delta lnDC_{t-i} + \sum_{i=1}^{p3} \gamma_{3i} \, \Delta lnM2_{t-i} + \sum_{i=1}^{p4} \gamma_{4i} \, \Delta lnTRADE_{t-i} + \sum_{i=1}^{p5} \gamma_{5i} \, \Delta lnD1_{t-i} + \varphi EC_{t-1} + \vartheta t,$$

Where ECM_{t-1} indicates error correction term.

(6)

$$ECM_t = \ln(GDP)_t - \propto_1 - \sum_{i=1}^{p} \emptyset 1_i \, ln(GDP)_{t-i} - \sum_{i=1}^{p} \beta 1_i \, ln(DC)_{t-i} - \sum_{i=1}^{p} \gamma 1_i \, ln(M2)_{t-i} - \sum_{i=1}^{p} \gamma 2_i \, ln(TRADE)_{t-i} - \sum_{i=1}^{p} \gamma 3_i \, ln(D)_{t-i}$$

Where ϑ is an error term, and φ represents the speed of adjustment.

4.6. Granger Pairwise causality test

The Granger causality test is a test performed to investigate the causality between time series variables, and this test has been widely employed in economic literature to examine the direction of the relationship between two variables. Granger causality tests whether the lag of one variable has predictive power for another variable (Engle and Granger, 1988).

CHAPTER FIVE

EMPIRICAL RESULTS

5.1. Unit root test

The ADF tests are implicated at level and first difference with intercept and intercept and trend terms. The selected maximum lag is (8) and the Schwarz Criterion is used in accordance with Pesaran and Shin (1997). Table 1 represents a summary of the Augmented Dickey-Fuller unit root test and it clearly reveals that the variables are all non-stationary at level at 5% level of significance. However, each of LGDP and LTRADE became stationary when converted to the first difference I(1) with intercept and intercept and trend, while LDC and LM2 became stationary when converted to the second difference I(2) with intercept and intercept and trend.

Table 2 represents the findings of the Phillips Perron unit root test and it is implicated at level and first difference terms, with intercept and intercept and trend term, which clearly shows different results to the ADF test. All variables appear to be non-stationary at level I(0), while they became all stationary at the first difference I(1)Furthermore, the Phillips Perron test was ultimately conducted as an alternative to ADF to obtain more accurate and precise results.

Table 5.1: Augmented Dickey-Fuller test

Table 5.1				
Augmented Dickey-Fuller test				
Country sample period	ADF		ADF	
Malaysia (1982-2014)	level		First difference	
variables	intercept	İntercept and trend	İntercept	İntercept and trend
LGDP	0.453629(0)	1.688079 (0)	4.670151(0) ***	4.590870(0) ***
LDC	2.270771 (1)	2.106615(1)	4.505526(1) ***	4.592033(1) ***

LM2	2.9279223(1) *	3.570627(1) **	5.358239 (1) ***	5.260360(1) ***
LTRADE	1.834197(1)	0.277543(0)	3.331747(0) **	4.344919 (2) ***

Note: *, **, and *** indicate 10%, 5%, and 1% respectively and represent the significance of probability value. The value in parenthesis represents the lags.

Table 5.2: Phillips Perron test

Table 5.2				
Phillips Peron test				
Country sample period	Phillips Peron		Phillips Peron	
Malaysia (1982-2014)	level		First difference	
variables	intercept	İntercept and trend	İntercept	İntercept and trend
LGDP	-0.465970 (1)	-1.878791(2)	-4.670151(0)***	-4.590870(0) ***
LDC	-2.431363(3)	-2.187824(3)	-5.132004 (3) ***	-5.152286 (2) ***
LM2	-2.781075(0)*	-3.251688(2)*	-6.969219(7) ***	-6.753663(7) ***
LTRADE	-1.477360(2)	0.229738(5)	-3.382766(5) ***	-5.733252(28) ***

Note: *, **, and *** indicate 10%, 5%, and 1% respectively and represent the significance probability value. The value in parenthesis represents the lags.

Table 5.3 Correlation analysis

Correlation t-statistic probability	LGDP	LDC	LM2	LTRADE
LGDP	1.000000 -------- --------			
LDC	0.602562 4.203785 0.0002	1.000000 -------- --------		
LM2	0.500487 3.218727 0.0030	0.644653 4.695090 0.0001	1.000000 -------- --------	

LTRADE	0.642151 4.664029 0.0001	0.699281 5.446519 0.0000	0.236990 1.358198 0.1842	1.000000 -------- --------

Correlation analysis examines the relationship between the dependent variable and the regressors, and also between the regressors themselves. From the results obtained in the table above, it can be observed that there is a positive correlation between LGDP and LDC, M2, and LTRADE, with a significance of P. value at 1% level at each correlation. There is a positive and significant correlation between LDC and Lm2, and LTRADE, while a low and insignificant correlation exists between LM2 and LTRADE.

Table 5.4: Bound test

Bound test		
Null hypothesis		
İmport equation	Eq1	
Computed F statistics	5.553071 ***	
Bounds critical values	I(0)	I(1)
1% significance values	4.3	5.23
2.5% significance values	3.8	4.68
5% significance values	3.38	4.23
10% significance values	2.97	3.74

Where "***" indicates the significance of P.value at 1% level.

Decision: The null hypothesis is rejected at 1%significance level, which indicates that there is a long-run relationship between financial development and economic growth. Therefore, we can conclude that the equation is cointegrated. Furthermore, the F-statistic "Wald test" is a joint test for coefficients of LDC (-1), LM2 (-1), LTRADE(-1) and LGDP (-1).

Table 5.5: ARDL long-run

Dependent Variable : LGDP ARDL (2,3,2,0)			
Long-run results			
Variable	Coefficient	Standard Error	t-statistics
Trend	0.033994	0.000676	50.271550***
D1	-0.148110	0.042533	-3.482222 ***
LDC	0.102678	0.055692	1.843662 *
LM2	-0.045779	0.060705	-0.754124
LTRADE	0.261645	0.047735	5.481140 ***
Diagnostic tests			
J-B normality test		2.637836(0.267425)	
Breusch-Godfrey serial correlation LM test		4.040197 (0.1326)	
Heteroscedasticity ARCH test		0.964448(0.6174)	
Ramsey Reset test		0.125735(0.7275)	

Note: ARDL (2, 3, 2, 0) selected model, Breusch-Godfrey serial correlation Lm test with lag 2, ARCH lag 2, Ramsey Reset with lag 1. And the values in the parenthesis represent P.value and corresponding values represent obs*R-squares for each Breusch and ARCH tests. While J-B represents the value of Jarque-Bera, and the value corresponding Ramsey Reset is F-statistic value.

Table 5.6: ARDL short-run

ARDL Short-run results			
Variables	Coefficient	Standard Error	t-statistic
D(LDGP(-1))	0.314606	0.109980	2.860570 **
D(LDC(-1))	0.244155	0.067854	3.597965 ***
D(LM2(-1))	-0.080028	0.044022	-1.817906 *
D(LTRADE)	0.227950	0.060601	3.761497 ***
D(D1)	-0.121861	0.014565	-8.366719 ***
CointEq(-1)	-0.897132	0.128316	-6.991607 ***
Estimated method : least squares			
Adjusted R squares		0.996551	

S.E of regression	0.018709
F-statistics	699.3410
Prob(F-statistics)	0.000000

Note: *, **, and *** indicate 10%, 5%, and 1% respectively and indicate significance level.

The ARDL cointegration methodology was conducted to gauge the parameters of the condition at the most extreme request lag set to 3; furthermore, 3 lag was set for the independent variables, which was chosen on the premise of the AIC. The dummy variable was added to the model denoted by D1, and was applied for the year 1998. The diagnostic tests results confirm the validity of the estimated equations.

Furthermore, the J-B normality test results confirmed the normality behaviour of the estimated residual series, as the value of Jarque-Bera is 2.637836 and it is observed that is greater than 0.05Additionally, the probability value is 0.267425, and these results confirm the normality behaviour of the estimated residual series; therefore, the null hypothesis is rejected. The Breusch-Godfrey serial correlation LM test examines whether the model suffers from a serial correlation problem. The null hypothesis represents the absence of serial correlation and the value of the P.value corresponding obs*R-squares is (0.1326), which is greater than 0.05. Therefore the null hypothesis cannot be rejected.

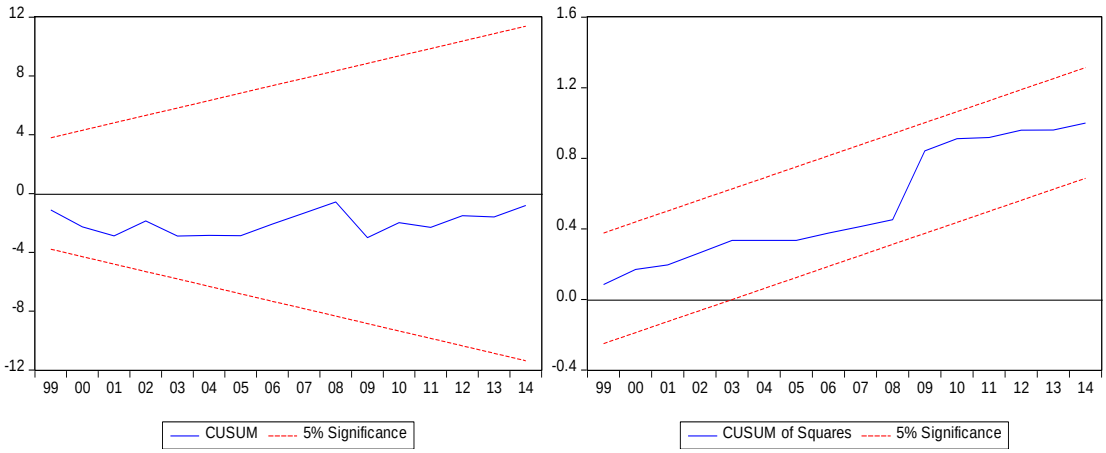
The ARCH test examines whether the model suffers from a Heteroscedasticity problem, and, according to the results obtained from the ARCH test with 2 lag, the probability value Chi-square (2) is 0.6174 and is greater than 0.05, which verifies the absence of Heteroscedasticity and the null hypothesis cannot be rejected, which represents that the distribution of error residuals are Homoscedastic. The Ramsey RESET test of stability it is conducted with one fitted term, and the value of probability is 0.7275 and is greater than 0.05, which confirms the stability. All these obtained results listed above are strongly desirable and are considered reliable for the purposes of the study.

Table 5 illustrates the ARDL short-run results, and it reveals that there is short-run cointegration between financial development and economic growth. The coefficient

of the error correction term is -0.897132 as it is significant at 1%, which is the basic condition that must be present to assert the existence of a short-run cointegration. Thus, the null hypothesis must be rejected, which indicates there is no cointegration. Additionally, all the variables appear to be significant at different significance levels; for example, TRADE, and DC are significant at 1%, GDP is significant at 5%, and M2 is significant at 10%.

Graph 5.1 CUSUM tests

CUSUM (a) **CUSUM of squares (b)**



In the figures above (a) represents the results of the CUSUM test, where it is clear that the blue line is within the critical area at 5% percent. Figure (b) represents the results of the CUSUM of squares test, where it is also revealed that the blue line is within the critical area at 5%, which is reliable evidence of stability.

Table 5.7: Signs of variables with Economic Growth and Interpretation of the Results

variables	signs
LTRADE	positive
LDC	positive
LM2	negative

The coefficient for domestic credit grants into the private sector as a ratio of GDP and trade as a ratio of GDP are positive, and money and quasi money as a ratio of GDP is negative. These findings are consistent with the results of Aras A. Mitho (2015), Katircioglu (2007), Shan et al (2001), and Luintel and Khan (1999). The results of the long-run based on ARDL demonstrate the relationship between financial development and economic growth. The hypothesis maintains that the presence of the financial sector enables the smooth functioning of financial intermediaries in channelling the less available resources from surplus to deficit unit and provides the resources for efficient allocation. Schumpeter (1912) provided evidence of a significant boost of financial development on economic growth. Furthermore, strong economic growth has the ability to generate high demand for certain financial instruments, in which the financial markets must change to respond the demand effectively. Robinson (1952) provided evidence of the impact of economic growth and financial development.

The empirical findings of the short-run relationship between financial development and economic growth in the case of Malaysia are explained below. A he positive relationship between economic growth and domestic credit to the private sector (DCPS) was found, due to the greater impact of the development of alternative sources of funds, such as bonds and shares and other external sources of finance on domestic credit to the private sector. A negative relation between (money and quasi money) and economic growth can be explained by the monetarist theory dominated by the works of Friedman (1953; 1960) the increase in money supply is more than the real increase in production. Thus, inflation is motivated by an expansionary monetary policy. Moreover inflation may affect saving and investment decisions, reducing the proportion of GDP devoted to investment. Therefore, this causing the economy to accumulate less human or physical capital. For example, when inflation is high, it often is more variable, thus harder to forecast. This may make it more difficult to deduce the real returns on investments from available market information and may cause savers and investors to be less willing to make long-term nominal contracts or to invest in long-term projects. The resulting reduced stocks of productive capital may, in turn,

imply lower levels of future GDP (Motley, 1994). Barro (1991), Cozier and Selody (1992).

A positive relationship was discovered between economic growth and trade, which supports the theory that trade leads to growth, which can be explained by the fact that trade openness impacts economic growth by embracing new technology that boosts total factor productivity. Furthermore another reason is the decline of government intervention and the openness to foreign bank entry as, according to the Negara Banks of Malaysia, there are twenty-seven commercial banks in Malaysia and only eight of them are domestic. This demonstrates the country's openness to international banks. This positive relation also can be explained by the authorities adopting liberalised investment and openness policies (Choong, 2005).

Table 5.8: Pairwise Granger Causality tests

Null Hypothesis	Obs	F-Statistics
D(LDC) does not cause D(LGDP) D(LGDP) does not cause D(LDC)	30	0.21756 1.48098
D(LM2) does not cause D(LGDP) D(LGDP) does not cause D(LM2)	30	0.05898 0.03289
D(LTRADE) does not cause D(LGDP) D(LGDP) does not cause D(TRADE)	30	2.75015* 0.01124
D(LM2) does not cause D(LDC) D(LDC) does not cause D(LM2)	30	4.88795** 0.61100
D(LTRADE) does not cause	30	0.01504

D(LDC) D(LDC) does not cause D(LTRADE)		5.04122**
D(LTRADE) does not cause D(LM2) D(LM2) does not cause D(LTRADE)	30	0.76357 3.48106**

Where **,*, denote to 5% and 10% respectively.

Table 5.8 reports the results of the Granger causality test. The Granger test was applied to measure the causality among the variables, and the results suggest that there is no evidence in this study that the finance-growth hypothesis is consistent with Gries et al (2011). There is evidence of the existence of positive causality running from trade to economic growth, which supports the trade leads to growth hypothesis and is consistent with Leitao (2010). Furthermore, this is consistent with the ARDL findings that revealed a positive causality between trade and economic growth, while there is no causality running from economic growth to trade. Additionally, there is evidence that there is a causality running from financial development to trade, while there is no causality running from trade to financial development. Finally, the Granger Pairwise test also reveals that the development of financial sectors and trade activities cause the growth process through channels of trade, and financial development indirectly affects economic growth.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

The fundamental aim of this study is to investigate the relationship between financial development, trade openness and economic growth in Malaysia. The study examines the long-run equilibrium relationship and short-run relationship between GDP and the growth rate. Two regressors represent financial development indicators, which are DCPS, and M2, and one more indicator represents trade openness, which is TRDE. The study utilised annual time series data covering the period 1982-2014.

The statistical properties were examined to identify the stationarity of the series.

Two unit root tests method were employed. The ADF revealed that all of the variables were not stationary at I(0), while they became stationary when converted to I(1). In in order to confirm the obtained results, PP test was also implemented, and it revealed consistent results with the ADF test.

The ARDL and Bounds test were implemented to examine the long-run relationship between financial development and the growth process, and both revealed that existence of a long-run and short-run relationship.

Ultimately, the Granger test revealed that there is no evidence in this study for the finance led growth hypothesis; there is a unidirectional causality running from trade to financial development, and financial development indirectly causes economic growth through trade openness channels.

The findings show that the development of the financial sector and trade activities in Malaysia are catalysts for GDP growth. Through application, financial development and trade are crucial sources of growth.

6.2 Recommendation

This study investigated whether financial development leads to economic growth or vice versa in Malaysia. Based on the findings of the study, it is recommended that trade activities should be boosted by importing quality materials and increasing the export of goods, which would lead to the growth of the economy.

The development of the financial sector is a more viable factor for the promotion of economic growth, particularly when monetary policy makers embrace openness policies, liberalized investment, and reduce the volume of the rules of stock market. The Malaysian government is also recommended to reduce its interventions to increase the discount rate, which can lead to negative consequences and disrupt the growth process.

Moreover, the Malaysian government is recommended to establish new laws and regulations to protect the rights of investors.

Finally, domestic and foreign investments should be encouraged in the country, particularly in the real sector.

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