THE DETERMINANTS OF FINANCIAL DEVELOPMENT IN MALAYSIA: A PANEL DATA ANALYSIS

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DECLARATION

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ABSTRACT

THE DETERMINANTS OF FINANCIAL DEVELOPMENT IN MALAYSIA: A PANEL DATA ANALYSIS

This study aims to investigate the factors that influence the financial development in Malaysia. A panel data was used in this study with 10 companies' annual data listed in Bursa Malaysia from 2006 to 2015. The dependent variables of this study is financial development while the independent variables are non-performing loans, financial structure, inflation rate, saving rate, foreign direct investment, and liquidity illusion. Analysis of panel data method include unit root test, correlation analysis, and panel regression model (Random Effects Model) are employed in this study. The results of the analysis indicated that non-performing loans and saving rate have a significant negative relationship with the financial development while financial structure and foreign direct investment provided an insignificant positive relationship with financial development. Other than that, inflation rate and liquidity illusion showed an insignificant negative relationship with financial development. Financial structure of firm is the most influential variable that affect financial development. The findings of this study are consistent with previous study on financial development. In a nutshell, a further study can be done in order to improve the study.

ABSTRAK

Kajian ini bertujuan untuk mengkajikan faktor-faktor yang mempengaruhi perkembangan kewangan di Malaysia. Data panel telah digunakan dalam kajian ini dengan laporan tahunan 10 syarikat yang tersenarai di Bursa Malaysia dari tahun 2006 hingga 2015. Pembolehubah bersandar dalam kajian ini adalah pembangunan kewangan manakala pembolehubah bebas adalah pinjaman tidak berbayar, struktur kewangan, kadar inflasi, kadar simpanan, pelaburan langsung asing, dan ilusi kecairan. Analisis kaedah data panel termasuk ujian unit root test, correlation analysis, and panel regression model (Random Effects Model) telah digunakan dalam kajian ini. Keputusan analisis menunjukkan bahawa pinjaman tidak berbayar dan kadar simpanan mempunyai hubungan negatif yang signifikan dengan pembangunan kewangan manakala struktur kewangan dan pelaburan langsung asing mempunyai hubungan positif yang signifikan dengan pembangunan kewangan. Selain daripada itu, kadar inflasi dan ilusi kecairan menunjukkan hubungan negatif yang signifikan dengan pembangunan kewangan. Struktur kewangan syarikat adalah pembolehubah yang paling berpengaruh dan membawa kesan kepada pembangunan kewangan. Dapatan kajian ini adalah selari dengan kajian sebelum ini yang mengenai pembangunan kewangan. Secara ringkas, kajian lanjutan boleh dilakukan dengan lebih baik bagi meningkatkan kajian.

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LIST OF ABBREVIATIONS

BMA	Bayesian Model Averaging
CAR	Capital Adequacy Ratio
CPI	Consumer Price Index
CPS	Credit to Private Sector
DCPS	Domestic Credit to Private Sector
EQTA	Equity to Total Assets
EU	European Union
FDI	Foreign Direct Investment
FEM	Fixed Effect Model
GDP	Gross Domestic Products
GNP	Gross National Product
ISIC	International Standard Industrial Classification
MENA	Middle East and North Africa
NPLs	Non-performing Loans
SADC	Southern Africa Development Community
VIF	Variance Inflation Factor

LIST OF SYMBOLS

r^2	-	Multiple correlation between the predictor variable and the other predictors
FD_{it}	-	Measure of financial development of a firm at time t
α_0	-	Intercept for each entity
β	-	Parameters of the respective variables
X_{it}	-	Independent variables
ε	-	Residual error
t	-	Time period i.e. t = 1, 2, 3 … T
i	-	Selected firms in Malaysia
NPL_{it}	-	Non-performing loans
FS_{it}	-	Financial structure
IR_{it}	-	Inflation Rate
SR_{it}	-	Saving Rate
FDI_{it}	-	Foreign Direct Investment
LI_{it}	-	Liquidity illusion

CHAPTER 1

INTRODUCTION

1.1 Background of Study

In the era of globalization, mobility of goods and services are now accompanied by the mobility of resources such as capital and labour. The drivers of globalization are the level of technology, infrastructure, removal of trade barriers and finally financial development. Financial development is found to be the indicator for economic growth. It is measured in terms of its size, depth, access, stability and efficiency. Financial development is essential because it guarantees high capital accumulation. A well develop financial system could accumulate funds from short term money market and long term capital market. Both the money market as well as the capital market are able to accumulate funds through diversified financial instruments. These also encourage inflow of foreign direct investment into the country. Eventually it indirectly reduces poverty by increasing job opportunities and encourages economic growth in the nation. This is supported by Takyi and Obeng (2013), Raza *et al.* (2014) and Khalfaoui (2015).

Other than the national income of a nation, an important indicator in the area of finance to measure growth is financial development. Economist claim that M1 money supply which consists of coins, notes and time deposits could be used as an indicator to measure financial development. But as we enter into the era of globalization, our nation will be constantly influence by the external as well as the internal factors. This creates financial crisis in a nation. If the nation is financially sound, it could be withheld the financial turmoil, if not it could even lead bankruptcy.

Takyi and Obeng (2013) measured the domestic credit to private sector as a percentage of Gross Domestic Products (GDP). This is because the financial development is a procedure that indicate enhancement in efficiency, quality, and quantity of financial mediator services. Raza *et al.* (2014) used credit private sector as percent of GDP (CPS) as the measurement of financial sector development. The reason of the researchers use CPS is because CPS is important for private investment and growth in an economy. Besides that, the domestic banks play a major role in increasing productivity, labour, efficiency and convincing growth in an economy. Thus, the development in financial sector could represented by CPS. Khalfaoui (2015) also used domestic credit to private sector (percentage of GDP) (DCPS). The DCPS refers to financial resources supplied to the private sector by financial corporations, like through non-equity securities purchases, trade credits and other accounts receivable, and loans that evidence a request for refund. Domestic credit could be obtained through deposits. Deposits if not converted to credit will dampen financial development. When deposits are placed in a financial system, depositors illusionate that it is highly liquid. Question arises whether liquidity illusion is good or bad for a financial development?

A liquidity illusion is a situation where holders of securities, commodities and currencies wish to change their holdings (assets, funds, savings, investments, securities, bonds, stocks and shares, and reserves). What happens is that when these holders want to change these elements to accommodate according to their need such as they want to show that they have strong financial background, they will just simply change the real number of holdings they have to show that they have cash to meet immediate and short-term obligations, or assets that could be quickly converted. It also shows that this company has ability to quickly convert an investment portfolio to cash with little or no loss in value (Das, 2016).

In my opinion, illusion liquidity could destroy financial stability of a nation because of the excessive liquidity is a violation of normal market operations. Reduced supply of money and increased demand for money due to trader has lost trust on smaller organization institution for market-making will ultimately drive reductions in trading liquidity and higher trading costs which will, in turn, drive higher financing costs and lower investment returns. Then, the more significant concern is the reduction ability of financial markets to absorb stress. The absence of trading liquidity may not cause the next financial crisis, but it will inevitably increase volatility and accentuate losses. The problems of changing liquidity fundamentally also highlight the distorting effects of intervention in market mechanisms. The liquidity illusion process is difficult to reverse. Withdrawal of liquidity would precipitate the problems. Yet the more money that central banks add to the money markets, the longer they delay in withdrawing their support, the greater the distortion to normal market functioning and the larger the risk (Das, 2016).

There are many indicators that could be used to measure the financial development. Firstly, it is the non-performing loans. Non-performing loans are loans that has become passive. The borrower could not pay the monthly installment or in other words could not service the loan. This creates a mismatch in the financial development. This is because the money saved by the depositors are given away as loan. It could be short term or long term loan. Therefore, if the borrowers do not pay, the loan which is considered an asset will be a liability. The financial institution has to resort to the lender, central bank. This will reflect in the bank's financial statement. Thus, the higher the non-performing loan, the lower the financial development.

Furthermore, consumer price index is used to measure inflation rate. Inflation rate influences the interest rate through the monetary policy. When inflation increases in a country, the central bank will increase the interest rate or the savings rate to curb inflation. When interest rate is high, the investors will invest money in the country's investment tools to make higher returns. More investment increases the reserve in the country which eventually leads to financial development

In addition, the financial structure also reflects how diversified are the depositors in the nation. If the financial system is fully diversified, then depositors will save in various financial tools. The risk factor will be low. In Malaysia 75 percent of the money deposited by the depositors are channeled to housing loan or real estate. The savings is only for short term but the loan is for long term, thus this could lead to a financial crisis if the loan does not pay back the depositors on time. Financial institution gives loan more for real estate because it is saver when the property is taken as collateral unlike other loans like business.

Similar situation could also be seen for foreign direct investment. Inflow of investment increases the money supply in the country. Increased money supply will be followed by an increase in inflation. The monetary policy could curb the inflation by increasing interest rate. At the same time, the inflow of foreign currency increases the reserve in the financial institution. Purchasing power among worker in these institution also increases leading them to save. Finally, financial development will take place.

Lastly, liquidity illusion which is a new indicator used to measure financial development. With the era of digital finance, assumption that one has liquid but really does not lead to a financial disaster. One spends in his card credit worth RM60,000 claiming that he has the cash. But in real life it is a loan. This was the reason for the credit crunch crisis that took place in 2008. It destroyed many country's financial development.

Financial development is an important indicator for growth of a nation. Financial development is closely related to political development. Thus, to maintain a sustainable growth, empirical analysis will be constantly conducted by financial expert to identify the direction of a financial development in a nation.

1.2 Problem Statement

The economy of Malaysia in recent years grows rapidly and it has become a middle-income nation. This act as a lesson for the underdeveloped countries to establish shared prosperity and reduce the case of poverty in the country. According to the World Bank (2013), the economy of Malaysia continues to show a strong momentum with the growth of real gross domestic product (GDP) in 2013. Thus, this proved that the domestic demand of Malaysia still remains robust with the growth of GDP. Now, the annual gross national income (GNI) per capita of Malaysians are in the number of US$10,000 (RM30,000) and Malaysia is working to become a high-income nation. Financial sector development is the major contributor in the success of Malaysia nowadays because it acts as a key in establishing the shared prosperity. Since financial development is important in the growth of an economy, then question arises on what is the determinant of financial development which lead to the economic growth in Malaysia? (World Bank, 2013)

Based on the research that have been done, there are three major variables that could influence the financial development of the firms. These three major variables are macroeconomic, financial, and foreign direct investment. In the macroeconomic variables, non-performing loans and financial structure are included. Non-performing loans refer to the bad debts in the firms while financial structure is determining the assignation of financial resources between equity and liabilities. Inflation rate and saving rate were used in the financial variables. Inflation rate is the increase of prices of goods and services. Meanwhile, saving rate defined as the amount of money that from personal, government and business. The foreign direct investment is the investment made by a country into another country. These variables were believed in having significant relationship with the financial development which lead to the economic growth in Malaysia.

In addition, Bank Negara released the monetary and financial developments data for January 2016 that showed the broad money, M3 which in other word is the money supply was decreasing. According to Figure 1.1, the annual growth of M3 in January 2016 was lower than in January 2015 and it actually started to decline in October 2015. Other than that, annual growth of M3 in January 2016 (2.2%) was even lower than in December 2015 (2.7%). Besides that, the amount of money circulating in the Malaysia's economy, M1 also decrease in October 2015. M3 were referring to the money circulating in the economy, short-term money market loans, fixed deposit, current and saving accounts, and other large liquid assets. Meanwhile, M1 were defined as the easy access to the money in the accounts. Both of these were the measurements of liquidity in the economic system of Malaysia. So, the question also arises whether liquidity illusion affect the financial development in Malaysia? (Bank Negara, 2016)

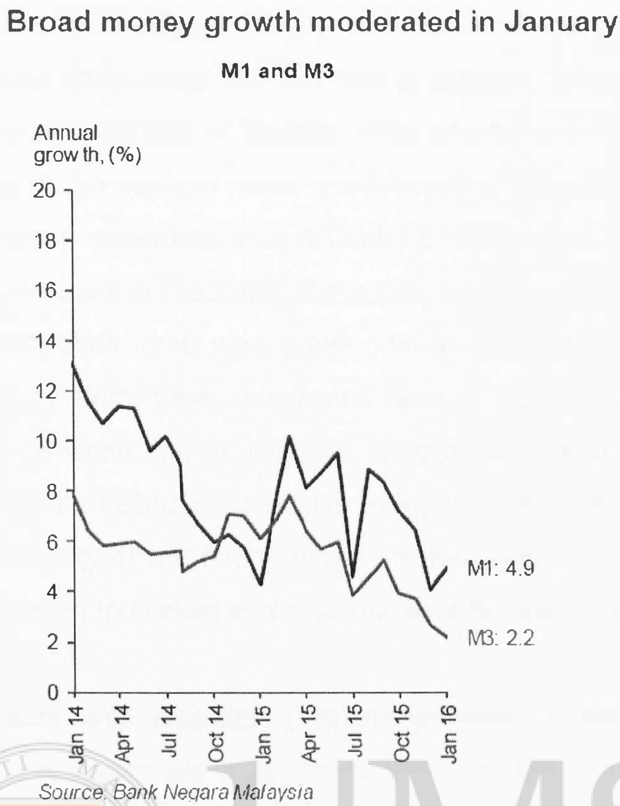

Figure 1.1: Broad Money Growth Moderated in January
Source : Bank Negara Malaysia (2016)

According to Nesvetailova (2008), liquidity illusion has negative influence to the financial development. First and foremost, liquidity illusions have systemic implications for financial stability at the level of a macroeconomy. The illusion of liquidity arises in the act of a political-economic agents who inclined to give an assumption about the greater availability of 'savings' or credit facilities in an economic system could maintain the extension of private credit lines and financial revolution unlimitedly. Basically, the illusion of macro-liquidity or also known as the availability of credit which funds the economic transaction may affect the way liquidity is generated in a given economy and the way it relates with the dynamics in the real economy production, trade and service. So it could be saying that funding or settlement role of liquidity in a political economic context is related to the contemporary function of money and specifically the role of credit in settling any transaction inside and across the market (Nesvetailova, 2008).

Other than that, Nesvetailova (2008) also discussed that liquidity illusions have systemic consequences for financial balance that is securely connected to the first and corresponds to the qualitative side of liquidity. After analyzing an array of liquidity risks a financial institution in the markets faces, the problem of illusion of market liquidity is appropriately understood when one sees a financial market not as just a mere price-making platform or mechanism mediating the supply and demand for a given asset but also as a social institution that was govern by a complex set of behavior and psychological processes. With these, the second facet of the illusion of liquidity focuses on the relationship between the liquidity of an institution and the liquidity of the market system where the institution operates in liquidity of an individual institution is not the same with liquidity of the financial system. By fallacy of composition, it shows there is trade-off between individual and systemic liquidity (Nesvetailova, 2008).

Since macroeconomic variables, financial variables, foreign direct investment and liquidity illusion could generate a significant impact to the financial development of a firm, an analysis need to be conducted on how these variables could influence the economic growth of the firms in Malaysia.

1.3 Research Questions

Based on the problem statement, the research question is as follows:

What is the relationship between macroeconomic variables (non-performing loans and financial structure), financial variables (inflation rate and saving rate), foreign direct investment, and liquidity illusion with the financial development in Malaysia?

1.4 Research Objectives

The overall objective of this study is to explore the determinant that can influence financial development of firms in Malaysia. The specific objectives were as below:

i. To determine whether non-performing loans can affect the financial development of firms in Malaysia.

ii. To determine whether financial structure can affect the financial development of firms in Malaysia.

iii. To determine whether inflation rate can affect the financial development of firms in Malaysia.

iv. To determine whether saving rate can affect the financial development of firms in Malaysia.

v. To determine whether foreign direct investment can affect the financial development of firms in Malaysia.

vi. To determine whether liquidity illusion can affect the financial development of firms in Malaysia.

1.5 Scope of Study

The study used a panel data analysis with annual panel data which obtained from the period of 2006 to 2015 in Malaysia context. The secondary sources were obtained from the Bursa Malaysia Reports, Department of Statistics Malaysia Report, Bank Negara Report, and the Malaysia Financial Report. Other than that, the data from international sources such as the World Bank Report was used as well.

The study aims to determine the indicators of financial development which lead to the economic growth in Malaysia. The indicators were non-performing loans, financial structure of bank, inflation rate, saving rate, foreign direct investment, and liquidity illusion. Financial development was measured by the credit to private sector as percent of gross domestic product (GDP). The companies that selected in the study were Affin Holdings Berhad, Alliance Financial Group Berhad, AMMB Holdings Berhad, CIMB Group Holdings Berhad, Hong Leong Bank Berhad, MAA Group Berhad, Malayan Banking Berhad (Maybank), OCBC Bank Malaysia, Public Bank Berhad, RHB Bank Berhad.

1.6 Significance of Study

Many researchers have done the research in determining the determinant of financial development which lead to the economic growth of a country. Nonetheless, this cannot prove that the determinants of financial development in one country will be the same