CHAPTER II

LITERATURE REVIEW

A. THEORIES

1. Financial System Stability Theory

Financial system is the system that covers financial transaction and the exchange of funds from the excess to the deficit one, or between investors, lenders and borrowers. Financial system are made of intricate and complex models that portray financial services, markets, products, practices, financial transaction, instruments, and institutions that link depositors with investors.

Bank Indonesia (2003) defines Financial System Stability as a condition in which the economic mechanism of price formation, funds allocation and risk management operate properly in support of economic growth. A stable financial system can creates trust for the customers and investors to save their funds to the banks. Therefore, the financial system must be regulated by the authorities. The authorized authority to govern the running of financial system in Indonesia is Bank Indonesia as the center bank.

As a part of the economic system, the financial system allocates funds from those with a surplus to those in deficit. In unstable financial system, allocation of funds will be inefficient, thus hindering economic growth. Experience has clearly shown that the costs of recovery from the effects of an unstable financial system are enormous, especially when instability leads to crisis (Bank Indonesia , 2007).

2. Vulnerability of Bank Theory

The activity and function of banks as an intermediary institution that serve country's money supply and operate much of the country's payment system make banks become fragile and vulnerable. Many types of risks can be present in an individual bank. Zamir Iqbal and Hennie Van Greuning (2007) stated in his book the types of risk in individual banks are;

a) Financial Risks

Financial risks are subject to complex interdependences that may significantly increase a bank's overall risk profile such as a bank engaged in foreign currency business is normally exposed to currency risk, but it also exposed to liquidity, credit and re-pricing risk if it carries open positions or mismatches in its forward book.

b) Operational Risk

Operational risks are related to a bank's organization and functioning, including people worker, computer-related and other technologies, compliance with bank policies and procedures, and measures against mismanagement and fraud.

c) Business Risks

Business risks are referred to the bank's business environments, macroeconomic, policy concerns, legal and regulatory factors, the financial sector's infrastructure such as payment system and auditing profession.

d) Event Risk

This Event Risks include all type of exogenous risk that if they were to materialize could jeopardize a bank's operations or undermine its financial condition and capital adequacy.

These all risks mentioned above indicate that Islamic banking as an financial institution in national economy that serve all the national payment and money supply has the high level of vulnerability. If the risks are too materialized and Islamic banking cannot absorb the shocks from eternal such as macroeconomic shocks and global shock will result to the damage in resilience of Islamic banking.

The fragile nature or the vulnerability of banking system leads to the view that problems in the banking industry can cause more negative effects rather than other industries. The collapse of one bank in one nation can cause the instability in many firms that has business relation with that bank.

The level of vulnerability is the important thing to know in every business as one of the factors that can trigger the detriment of bank's performance. According to Canon (1994) the vulnerability refers to the individual characteristic or group of people who interact and give contribution in social and economy environment. The vulnerability is divided into 3 aspects, they are:

a. Degree of resilience, is the capacity of individual or group of people to stand or scraping along from an impact of hazard.
b. Degree of preparedness (warning system).
c. Component of healthy, is the ability to recover from injury, and rescue from danger.

3. Resilience of Banks Theory

In essence, the financial system stability can be realized by avoidance of financial crisis. This financial system stability refers to the stability of all financial institution, non-financial institution, financial market and infrastructure that form together into a financial system. Banking institution or banking sector is considered as the high level vulnerable institution in financial system. It is due to the complexity and the importance of the banking sector. Thus, the resilience of Islamic banking is needed to maintain the financial system stability in one nation.

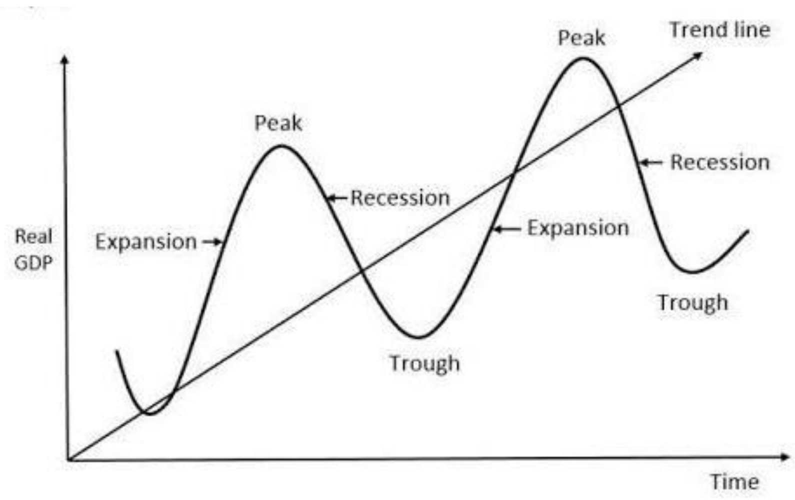
The resilience of the banking sector can be defined as the capacity of the banking sector to adapt in response to both short-term shocks and long-term economic conditions while continuing to fulfil its functions in serving the real economy. Banks are mentioned to be resilient if meet these several conditions;

a. Banks are able to absorb shocks without any government intervention
b. The ability of banking sector to run its function in serving the real economy continuously, especially in running its function as an intermediary that provides loans, deposits from people, financial transaction and payment Crossen et al (2014).

Christine Berry (2015) defined the resilience of banking sector as the condition where individual bank is able to restrain from various shocks either external or internal shocks, and individual bank can adjust and absorb or respond immediately to every possible risks appear. Thus, bank can anticipate various possible potential risks that can affect the bank’s performance and function.

4. **Business Cycle Theory**

The business cycle is the natural fluctuation or rise and fall of economic growth (real GDP) that occurs over time. The activity of rise and fall of economic growth is a cycle where the depression and expansion of business may occur. This cycle is a useful tool for analyzing the performance of economy.



Source: corporatefinanceinstitute.com

FIGURE 2.1

Business Cycle Phases

Business cycle can be defined as recurring and fluctuation levels of economic activities. The business cycle shows the ups and downs in aggregate economic activity, it is measured by the fluctuation in various macroeconomic variables, such as gross domestic product (GDP), employment, consumption rate, and etc.

The changes in the economic activities together produce a bigger change in the overall economy of a nation. This overall change in an economy is termed as a business cycle. Business cycle is generally regular and periodical in nature. A business cycle is characterized by sequence of five phases, namely, expansion, peak, recession, through, and recovery.

In expansion phase, there is also rise in the standard of living, and when the expansion point reaches the maximum level and economic factors become stable, this situation is called as the peak of business cycle the decline in economic activity will lead into the beginning of recession phase. In the recession phase, businessman and entrepreneurs become pessimistic about their growth and hold their funds from investment. The decline in economic activities reaches a certain limit after which there is no further declining in economic factors. This is called as through phase of business cycle. Then the recovery phase will occur after the recession, and through phase. In the recovery phase, the economic condition will time by time face its expansion phase.

a. Real Business Cycle Theory

In this theory of real business cycle, the fluctuation is deemed to be a naturally change in level of output by maintaining the balance between the fluctuation of output and labor substitution. The assumption of this theory is that price and wage are flexible (complete price flexibility), even in the short run. This theory refers to classical dichotomy where nominal variables money volatility and price level have no effect on real sector such as output and unemployment. The new classical economists embrace a classical dichotomy that monetary policy issued by the government does not affect the employment opportunity and the level of economic output.

In this theory, the change of real sector is caused by natural factor such as technology advance that results in increasing of productivity that lead to the economy growth. So, the fluctuation in the real sector of economy such as consumption level, unemployment rate, and investment rate is resulted by the behavior of individuals to economic changes.

b. Monetary Business Cycle Theory

In the theory of monetary business cycle states that the business cycle is result of changes in monetary and credit market condition. Business cycle is the continuous phases of inflation and deflation, and changes in an economy take place due to changes in the flow of money. It is different from new classical economist in theory of real business cycle that embrace a classical dichotomy that monetary policy issued by the government does not affect the employment opportunity and the level of economic output. Here in theory of monetary business cycle the monetary policy issued by the government has impact on the economic output, for example, banks offer credit facilities to individual or organization due to the fact that banks find it profitability to provide credit on easy term. When banks stop providing credit, it will reduce investment by businessman, and then it leads to the decrease in the demand for consumer and capital goods, prices, and consumption. It can be said that an economy shows growth when the volume of bank credit increases. This increase in the growth continues till the volume of bank credit increases.

5. Money Theory

The phenomenon of banking crisis in the world has taken big attention from economist to analyze by doing some researches. The importance of banking sector for the national economy also becomes a reason to put special attention from the government and many policy makers. It is because among other things, they provide deposits, which serve as the major part of the country's money supply; are large providers of credit to households, business firms, and government; and operate much of the country's payment system. George G. Kaufman (2013) in his paper stated, Banks are fragile because a large percentage of their deposits and other sources of funding are short-term and can be quickly and easily withdrawn. In the other words, banks are the financial institution that has high level of vulnerability. Thus, the high level of vulnerability of bank followed by various shocks can damage the several factors in banking resilience.

Based on empirical study by Kunt and Detragiache (1998) about the banking crisis determinant, on their study they stated that banks can be collapse if meet several conditions. The conditions are; Non-performing assets reaches 10% of total assets of bank, the bailout reaches 2% from GDP, the excessive owner transition of many banks to the government, bank-runs massively happen and close many banks by the government in many period of time to secure the saving comprehensively. This bank run occurs when many people try to withdraw their deposits at the same time. As much of the capital in a bank is tied up in investment, the bank's liquidity will sometimes fail to meet the demand from the costumer.

An individual bank failure actually does not have very influential in the economy overall, but if the failure occurred in the banking sector as a whole because of the contagion effects that is resulted or disruption of interbank relation as a result of unstable economic fundamentals, feared to worsen the economic condition as a whole.

Ascarya (2009) mentioned in his paper *"Pelajaran yang Dipetik Dari Krisis Keuangan Berulang: Perspektif Ekonomi Islam"* about the cause of crisis from Islamic Perspective, inter-alia;

a) Money Creation Leads to Hyper-Inflation

The money creation (*seigniorage*) by the government, money creation through banking sector (*fractional reserve banking*), and the creation of artificial purchasing power through credit card can result the instability in financial system. These all money creations lead to the hyper-inflation for the economy in one nation. As the quantity of money in people's pocket is higher than its value, thus the value of money will drop significantly time by time due to the hyper-inflation (Ascarya, 2009).

The example of this hyper-inflation situation can be seen from several countries, one of those countries is Hungarian. Hyper-inflation hit Hungarian on August 1945 until July 1946. The inflation rate reached 207% then caused the price of goods changed doubled in every 15 hours. Another example comes from Germany. In this country hyper-inflation occurred on August 1922 until 1923. The inflation rate reached 21% and doubled the price of goods in every 17 hours. (Pebrianto, 2013)

b) Interest (*Riba or Usury*)

Interest rate is one of the roots of financial crisis. In such as several western economists criticized the interest rate system with credit mechanism that resulted many countries in the world are snared in the interest rate system with credit mechanism. The countries cannot pay the debt to other countries or international financial institution because of applying the interest system. This interest system engenders high economic growth by high debts and time by time the amount of debt keeps increasing. Regrettably, the high growth does not lead to the prosperity of people.

Interest rate system actually has been forbidden since long time ago in Jews' rabbinic. The interest rate is mentioned in (Exodus 22:25, Deuteronomy 23:19, Leviticus 35:7, Lucas 6:35). In Christian's rabbinic (Lucas 6:34-35), and also from Greece's believe that is mentioned by Plato (427-347 SM), Aristotle (384-322 SM). The Holy Qur'an as guidance for Muslims whole over the world forbids the *Usury* or *Riba* gradually started from QS. Ar-Rum 30:39, QS. An-Nisa 4:161, QS. Ali Imran 3:130-132, and QS Al-Baqarah 2:272-279 (Ascarya, 2009).

c) Speculation

Basically, the speculation activity in all aspects of business refers to the zero-sum game, the condition where the acquiring gain is only for one side or party and the acquiring loss is for one another. This speculation activity is hurting Islamic principles because one side or party conscious or unconsciously gets hurt. This is very different from risks sharing in business activities that can result benefit and value added to both sides (Ascarya, 2009).

d) The International Monetary System

Nowadays, fiat money becomes a regular tool in international monetary system. Every country can easily do *seigniorage* or money creation without any back up from underlining asset such as gold and silver. In this case, a country which its money become international currency will have huge benefits as long as its currency is used to do financial transaction in international such as Dollar in U.S. The more Dollars is used as international payment, the more benefits that U.S will get from seigniorage. Otherwise, the countries with currencies that cannot be converted (developing countries, small countries, under developing countries) can only get benefit from seigniorage at the national level. Thus, the gap in exchange rate between many countries has become main determinant for the inflation in many countries (Ascarya, 2009).

e) Decoupling between real and monetary sector

According to Agustianto (2008) about the imbalances between real sector and monetary sector, he stated that the growth and the development of Islamic economic are encouraged, but unfortunately, such rapid growth of the financial sector is not balanced by the growth of real sector. The development of real sector is far left behind compared to the financial sector. Whereas, both sectors of the economy that are real and monetary sector must run equally (equilibrium).

The phenomenon of imbalances between financial sector and the real sector is very prone to cause economic chaos or imbalances. Thus, the development of the financial sector must be balanced with the real sector. Allowing the rapid growth and development of the financial sector without the development of the real sector and ignore the equilibrium (balance) of both sector of economy, not only poses a threat to economic destruction but also violates the most fundamental principles of Islamic economy, which is the necessity of linking monetary sector with the real sector in economy.

B. CONCEPTS

1. Definition of Islamic Banking

Discussion on Islamic banking as the economic pillar in Islam appeared in the beginning of the 1970s. In 1970s-1980s was known as the initial period of rise in Islamic banking especially for trade finance and working capital that are still adopted from working mechanism in the conventional banking. However, despite being the largest Muslim country in the world, Indonesia was relatively slow in introducing Islamic banking. It was 20 years after the emergence of the modern Islamic banking in the world, the government of Indonesia decided their support for Islamic banking project would be an important gesture toward the Muslim community.

Islamic banking can be defined as a financial institution that abides by Sharia principles in all of its activities through its role as a financial intermediary between savers and investors. Islamic banking provides banking services within the framework of legitimate contract and achieves a balance between economic and social return. According to the Act of The Republic of Indonesia No. 21 of 2008 concerning Sharia (Islamic) Banking, Sharia (Islamic) bank can be defined as: "bank that conducting business based on the Syaria Principles consisting of Sharia (Islamic) Commercial bank and Sharia (Islamic) Rural Bank.

Indonesia is one of the Muslim Populous countries in the world has been adopting the Islamic banking as one of the intermediary institution along with the conventional banking. Islamic banking in performing their duties must not deviate from the teachings of Islam but they should be helping others to create a well-being. As it is mentioned in Surah an-Nisa verse 29 and this verse become one of Islamic law foundation about Islamic banking.

يَا أَيُّهَا الَّذِينَ آمَنُوا لَا تَأْكُلُوا أَمْوَالَكُمْ بَيْنَكُمْ بِالْبَاطِلِ إِلَّا أَنْ تَكُونَ تِجَارَةً عَنْ تَرَاضٍ مِنْكُمْ ۚ وَلَا تَقْتُلُوا
أَنْفُسَكُمْ ۚ إِنَّ اللَّهَ كَانَ بِكُمْ رَحِيمًا.

O you who have believed, do not consume one another's wealth unjustly but only [in lawful] business by mutual consent. And do not kill yourselves [or one another]. Indeed, Allah is to you ever Merciful.

2. Banking Performance

Banks performance gets a big attention in the economic literature, it is because banks have an important role in economy. There are many aspects of the performance of banks that can be analyzed. Banking performance is related to internal determinants (specific to banks) and external variables (macro-economic and macro-financial) which reflect the economic and legal environment in which the bank operates (Makram, Ezzeddine, & Anis, 2015).

Makram Nouaili et. al (2015) in their research “The Determinants of Banking Performance in Front of Financial Changes” expose the various potential determinants of banking performance by splitting them into micro-banking indicator (specific to banks), macro-financial (related to banking industry) and external (macroeconomic).

3. Micro-Banking Indicator (Specific to Banks)

a) Return on Assets (ROA)

ROA can give us the understanding to know how efficient management is at using its assets to generate earning. ROA variable represents the profitability of Islamic banking, ROA can be defined as a financial ratio that shows the percentage of profit that company earns in relation to its overall resources (Arlan, 2013). It is commonly defines as net income divided by total assets. Net income is derived from income statement and profit after taxes.

b) Capital Adequacy Ratio (CAR)

The capital adequacy ratio (CAR) is a measurement of a bank's capital. It is expressed as a percentage of a bank's risk weighted credit exposure. Capital adequacy ratio also can be defined as the measurement of a bank's capital that is used to protect depositors and promote the stability and efficiency of bank. It is an international standard that measures a bank's risk of insolvency from excessive losses.

c) Third Party Funds (DPK)

Third party fund is the measurement of amount of fund that is obtained from the depositor and other parties in bank. This source of funds is the most important source in the banking operations. Generally, the type of fund from the third party can be divided into; demand deposit, saving deposit, and time deposit. Banks can be seen as successful bank if the amount of third party funds can be used as a source to facilitate the operation of the banks. So, the huge number of third party fund can help bank to run its operation.

4. Macro-Financial (Related to Banking Industry)

a) Exchange rate

Exchange rate defines as the rate at which one national currency will be exchange for another. It is can be referred to the value of one country’s currency in relation to another currency. A currency will tend to become more valuable when demand is greater than the provided supply. Instead, the value will be reduced if demand is less than the provided supply.

If the economy of a country improves, the country's currency tends to strengthen against other currencies. Conversely, if a country's currency weakened against the currencies of other countries, it is possible that the condition of the country weakened compared to the previous.

A currency is said to be convertible (currency convertible) it can be exchanged freely in other countries’ currency. The unavailability of convertible currency will complicate trade between countries, because each will not accept the currency of its trading partner country. In this circumstance what happens is barter trade, which is swapping but if the currencies of all countries are convertible then multinational trade or international trade that occurs will be more effective (Arlan, 2013).

b) Inflation

Bank Indonesia defines inflation as rising prices in general and continuously. It is not be called inflation if prices of one or two items only, otherwise lead to increasing the price on other goods. The opposite of inflation is called deflation. While inflation according to the causes, can be divided into two kinds. They are:

1) Demand Pull Inflation

Demand-pull inflation is used in Keynesian economics to describe what happens when price levels rise because of imbalances in aggregate supply and demand. Demand-pull inflation occurs when job opportunities are high, it creates high levels of income and expenditure raises that exceed the economic capacity of issuing goods and services. Excessive spending will cause inflation. So, the government is forced to print money or borrow from the central bank to finance such overspending that causes aggregate demand. It will exceed the ability of the economy to provide goods and services. Then, this situation will lead to inflation.

2) Cost Push Inflation

Cost push inflation caused by an increase in prices of input labor, raw material, etc. caused by the depreciation of the exchange rate, the impact of foreign inflation, the increase in commodity prices regulated by the government (administered price), and the occurrence of negative supply shocks caused by natural disasters and the disruption of distribution. According to Irving Fisher's theory, based on the function of money is a means of exchange. In the transaction between seller and buyer, there is an exchange between money and goods or services, so the value of money will be equal to the value of the goods or services. Therefore, if the amount of money in circulation increases, it will directly cause the price of goods or services to rise.

5. External Variables (Macro-economic)

a. Gross Domestic Product (GDP)

GDP has become widely used as a reference point for the health of national and *global* economies. Mankiw (2006) Defines GDP as the market value of all the final goods and services produced within a country in a given period of time. From its definition can be seen that good performance of one country's economy will result to the higher value of all final goods and services produced, this is also followed by the higher consumption, investment, government purchase and net-expert. Thus, GDP is a sophisticated measure the value of economy of economic activity.

C. PREVIOUS STUDIES

A research conducted by Iftaha Nastiya Risqi (2017) with the title “Analysis of The Impact of Bank Specific Determinants and Macroeconomic Indicators on Profitability in Islamic Bank Period 2012-2015” by using multiple linear regression method. It stated that Financing Growth has positively and significant influence on the Return on Assets in Islamic Banks. Inflation rate has positive and not significant influence on Return on Assets in Islamic Banks. Meanwhile, Exchange rate has negative and significant influence on Return on Assets in Islamic banks.

Sumandi (2017), the research is about analysis an early warning system on the robustness of Islamic banking in Indonesia by using Non-parametric with signaling approach. The result of the result stated that there was bad resilience of Islamic banks during 2004-2005, but Islamic banks has stabile performance financial crisis in 2008. The bad resilience of Islamic banks in 2004 was caused by the shocks from internal of Islamic banks. The result also indicated 3 leading indicators from 5 indicators. They are: Interest rate, Inflation, and financing to deposits ratio (FDR). The criteria that to be called leading indicator are noise to signal ratio (NSR), The proportion of crises correctly called, The proportion of false alarm of total alarms, The proportion of crisis given an alarm issued dan The proportion of Prob of Crisis given no alarm. From 3 leading indicators can be found only interest rate can give potential probability for crisis in Islamic banks.

Research of Dwijayanthy dan Naomi (2009) is about the impact of iinflation, BI rate, and exchange rate on Bank Profitability. The method of this research is multiple regressions. The result of this research is BI rate had no significant relationship with bank profitability because there was the negative relationship between exchange rate, inflation and bank profitability.

Lino Briguglio (2009), the research is about measuring the resilience of economy by using a resilience index for economy. The result stated that GDP per capita has positive correlation with the resilience of economy and negatively correlated with vulnerability of economy.

According to Sen, et al. (2015), there are some factors that affect performance of Islamic banks and conventional banks in Malaysia by using descriptive methods with a simple regression analysis**.** The result stated that there is influence of capital adequacy, operational efficiency, economic growth and inflation to the profitability of conventional banks is significant and will not necessary affect the profitability of the conventional bank.

Assegaf, Putri dan Syarief (2014), the research is about the impact of macroeconomic variables on the financial performance of Islamic banks in Indonesia. The independent variables in this research are macroeconomic variables (inflation, interest rate, and money supply). The method in this research is multiple linear regression analysis. The results of this research are firstly, simultaneously all of the macroeconomic variables and ROA in the previous month significantly influence the ROA of Islamic banks. And partially all of the macroeconomics variables except ROA on the previous month not influence the ROA of Islamic banks. Secondly, simultaneously all of macroeconomic variables and ROE on the previous month significantly influence the ROE of Islamic banks.

And partially, only BI Rate had not significant effect to the ROE of Islamic banks. Thirdly, simultaneously all of the macroeconomic variables and NPF on the previous month significantly influence the NPF of Islamic banks. And partially, only BI Rate had not significant effect to the NPF of Islamic banks.

D. RESEARCH FRAMEWORK

The ability of Islamic banking as a financial institution that serve the real economy under the pressure of external shocks and the high level of vulnerability as its internal shock has made the Islamic banking needs big level of surveillance to obtain the resilience. The unpredicted world macroeconomic environment and also the high level of vulnerability are the real challenges for the Islamic banks performance, stability, and resilience.

The internal variables of Islamic bank that can indicate the level of resilience are Return on Assets (ROA), Capital Adequacy Ratio (CAR) and Third Party Funds (DPK). ROA indicates the profitability of Islamic banks, CAR relates to a bank's capital. It is expressed as a percentage of a bank's risk weighted credit exposure, while DPK correlates to liquidity and main source of operation. The normal resilience level of Islamic banking can be seen from those previous variables mentioned.

While, the external shocks that can trigger and worsen the vulnerability and decrease the resilience level of Islamic banking can be indicated from the external variables are gross domestic product, Inflation rate, and Nominal Exchange rate.

Therefore, the macroeconomic condition along with the resilience of Islamic banking is urgent to be monitored.

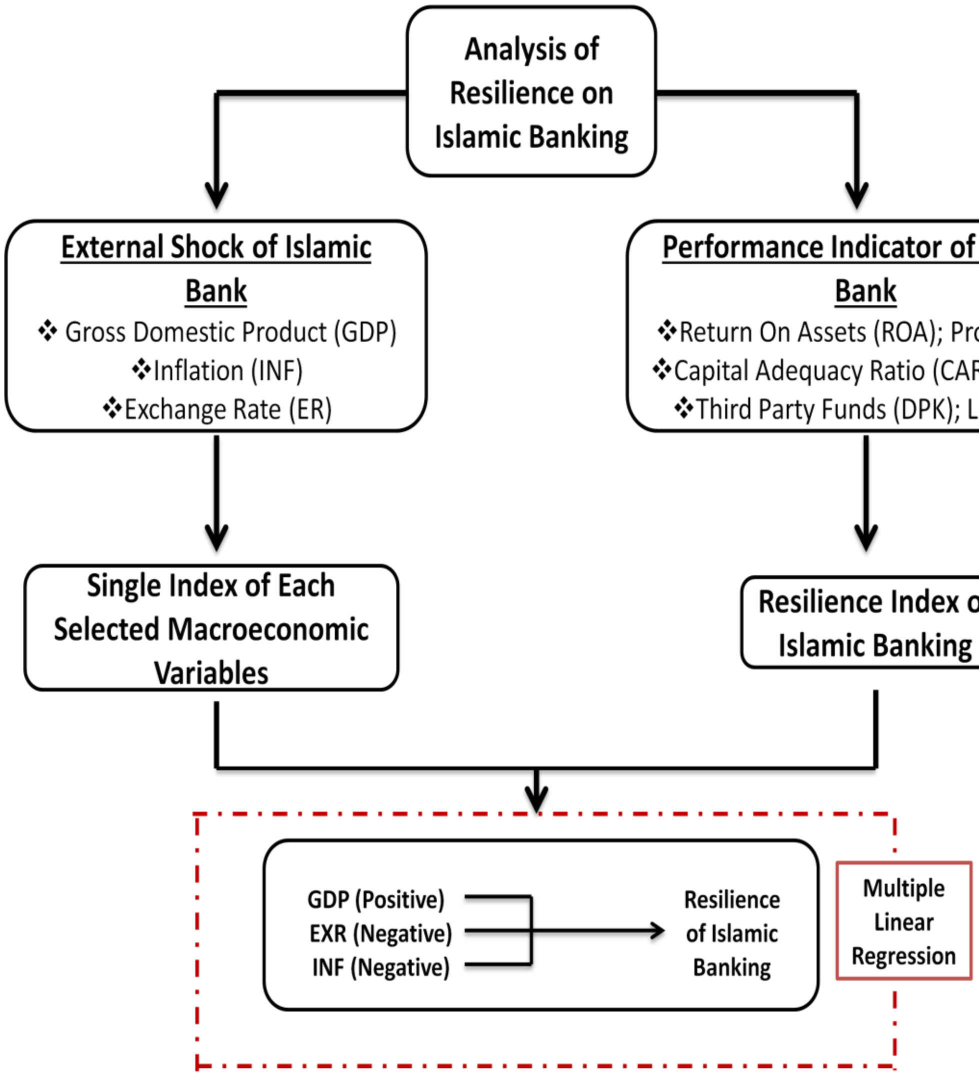


FIGURE 2.2

Research Framework

E. HYPOTHESIS

Based on the observation, the theories, and the previous studies, so the researcher adduces hypothesis:

H1 : gross domestic product (GDP) is positive and significant effect towards the resilience of Islamic banking.

H2 : Exchange Rate (ER) is negative and significant effect towards the resilience of Islamic banking.

H3 : Inflation Rate (INF) is negative and significant effect towards the resilience of Islamic banking.