

## CHAPTER II

### LITERATURE REVIEW AND THEORETICAL FRAMEWORK

#### 2.1 Literature Review

In writing this study, researcher has obtained the information from previous research and studies as a reference and comparison, both in terms of advantages and disadvantages. In addition, researcher also get the information from books and theses in order to obtain a pre-existing information on theories that are related to the tile of this study, The Significance of Islamic Banking on Indonesia's Economic Growth.

**El- Galfy Ahmed and Khiyar Khiyar Abdallah (2012), “Islamic Banking and Economic Growth: A Review”. Journal of Applied Business Research**

This study is conducted in order to see the impact of Islamic banking on economic growth of a country. It is done by writing down on previous studies on Islamic banking and economic growth but more focused on the characteristics, advantages and the main instruments provided by Islamic banks. The main characteristics of Islamic banking is to ensure fairness in any kind of economy activities and therefor, activities which involve *riba* (interest), *maisir* (gambling) and *gharar* (speculative trading) are prohibited. As for the advantages, Islamic banking is more efficient and stable, more conducive to property alleviation and known best for reduction of moral hazard because of its systems are based on Quran and Hadith. Key instruments of Islamic banking are the products offered

by them, namely; *mudharaba*, *musyaraka*, *ijara*, and *murabaha*, where each of the products has its own specialties and advantages.

Other than that, literature review on previous studies about relationship between Islamic financing in general and Islamic banking is particular are the main focus of this study. Comparative performance between Islamic and conventional banking is part of main focus of this paper as well. By implementing Islamic banking as part of a country's policy turned out to be positive to economic growth. When the entire banking sector switch side by implementing sharia law, the amount of money and goods will be well balanced and end up with balanced economy. In a nutshell, the results of this study are hypothesis and research studies on previous studies. For hypothesis, there is no evidence saying that Islamic banking is the main component for economic growth, even though previous studies tried to prove it. Previous research studies have some difficulties to make a conclusion that suits the whole world economy because most of the studies were tested on a single- country economy.

**Rama Ali (2013), “Perbankan Syariah dan Pertumbuhan Ekonomi Indonesia”**

The author conducted a study on the contribution of Islamic banking on the growth of Indonesian economy. There are few problems that are stated in this paper and was the main reasons for this paper to be made:

- To analyse whether Islamic financial institutions has an impact on Indonesia's economic growth or vice versa? Is there any relationship between these two factors?
- Is there a long- run relationship between the Islamic financial sectors with Indonesia's economic growth?
- How big is the variation of the variable in case there is an innovation to the other variables in the model used in this study?
- How is the response of a variable in case of shock on the other variables in the model used in this study?

By identifying the existing problems, the objectives of this study are:

- To analyse the impact and contribution of Islamic banking on Indonesia's economic growth.
- To investigate the relationship between the Islamic financial sectors with Indonesia's economic growth.
- To test whether there is a long- run relationship between Islamic financial institutions and Indonesia's economic growth.
- To analyse the response of each variables in case of shock on the other variables in the model used in this study.

The methodology used to conduct this study is by using time series data with Gross Domestic Product (GDP), Total Finance (TF), Total Deposits (TD),

Consumer Price Index (CPI) and Openness of Economy as variables. Collected data is then analysed using unit root test, Johansen test, Granger Causality test, error correction model, variance decomposition and impulse response function. Unit root test results showed that GDP, TF, TD, CPI and OE, each variable integrate the first order. So it is possible for the time series data used in this study will co-integrated in long- run relationship.

The results from Johansen test, the variables tends to move towards the long-run equilibrium. In other words, by using this test with maximum likelihood, the results showed that  $H_0$  is rejected. In each short period of time, GDP, TF, TD and other variables tend to adjust themselves to achieve a balance (equilibrium) long-run relationship. On the Granger Causality test results show that there is a relationship pattern finance-led growth in the first test models and bidirectional causality in the second test model. That is, financing and deposits in Islamic banking as a significant role in explaining the variations that occur in economic growth and the real sector.

To sum up everything, by improving financial institutions such as increasing the quality and quantity of human resources in order to fulfil the demand of Islamic finance industry that has been predicted to grow rapidly in the coming years. Providing adequate legal tools as a form of regulatory framework for the perpetrators of the Islamic finance industry. Next, the risk management system is also important to support the development of this industry in long- run period. Lastly, the stability of Islamic financial industry need to be stable for it will affect the stability of macroeconomic in Indonesia. Islamic banking should increase the

financing scheme of *mudharabah* for this scheme has proven to reduce poverty, unemployment and keep its eyes on inflation.

**Benhayoun Chairi, Gonnouni and Lyhyaoui (2014), “Islamic Banking Challenges Lie in the Growth of Islamic Economy Despite of the Free Interest Loan and Policy: Evidence from Support Vector Machine Approach”. CAN Journal of Finance and Risks Perspectives**

This study was conducted to investigate whether the practice of Islamic finance does give a great impact or the other way round on the financial health of companies. In order to do so, they used linear regression model as well as support vector machine model with financial data of 20 companies from the year of 2009 up till 2011. Assume that the financial health of a company is in a good shape, it will contribute to build a strong foundation for an economic growth. From the result, it is proved that the model used in this study has a good measuring effect with an accuracy result of creditworthiness risk up to 80%. Prohibition of interest loans are well known when it comes to sharia law, if we take this matter seriously and try to apply it, the number of debt in financial sector can be reduced by using risk-sharing concept. In our current state of economic crisis, ironically it will somehow give a positive impact on Islamic financial institutions for they're quite resistant with this situation. Lastly, some words from the writers of this journal somehow inspire me and give hope to Islamic economy, they wrote “to improve firm's solvency and eradicate financial crisis, policy makers need to start welcoming risk-sharing and free interest loan”.

**Lo Ching Wing and Leow Chee Seng (2014), “Islamic Banking in Malaysia: A Sustainable Growth of the Consumer Growth”. International Journal of Trade and Finance**

The objective of this journal is to discuss on the sustainable growth of Islamic banking consumer market in Malaysia by using analytical literature review. The Malaysian Islamic banking sector including DFIs shared 13% of the total global Islamic banking assets according to the report made by Malaysia Islamic International Financial Centre in the year of 2013. Other than that, the Malaysian Islamic banking sector has also grown equally fast as the global Islamic banking development. In terms of assets and customers, if we were to compare it with conventional banking sector, the Malaysian Islamic banking sector can be considered as a beginner.

The stability of economy that Islamic banking created is soon to be realised when the global financial crisis happened in 2009. Islamic banks are considered as a better alternative banking in terms of fundamental risk- sharing. Furthermore, Islamic banking offered a great potential and opportunities from the overall banking market size. Back in 2002, the Malaysian government launched the first Islamic *sukuk* in the world and has attracted a wide geographical distribution of investors that contributed to the growth of Malaysia’s economic. As for the result for this study, how the Malaysian customers select Islamic banking products are because of their fast and efficient service, speed of transaction and friendliness of bank staff which is top priorities for customers.

**Hachicha Nejib and Ben Amar Amine (2015), “Does Islamic Bank Financing Contribute to Economic Growth? The Malaysian Case”. *International Journal of Islamic and Middle Eastern Finance and Management***

The main purpose of this paper is to analyse the impact of Islamic Bank Financing on Malaysia’s economic growth from the year of 2000 until 2011. The theoretical framework for empirical investigation conducted by this study is to use neoclassical production function with several financial indicators (PRIVATE, PRIVIS and INVIS) of Islamic bank. The PRIVATE ratio makes it possible to measure the contribution of Islamic banks in financing the economy. PRIVIS ratio is used as a measure of Islamic banking sector development. The INVIS ratio allows us to complete the PRIVIS ratio, it is to assess the contribution of the Islamic Financial Intermediaries in the capital accumulation of the economy. Other variables such as Gross Fixed Capital Formation (GFCF), GDP, Consumer Price Index (CPI) and labour force. The authors also used Thomson- Reuters for MYR/USD exchange rates data.

To examine the statistical properties of the time series data, the authors conducted three different unit root test; augmented Dickey- Fuller (ADF), Phillips- Perron (PP) and Kwiatkowski- Phillips- Schmidt- Shin (KPSS). The first two unit root test (ADF and PP) were used to test the null hypothesis of unit root against the alternative stationarity. KPSS on the other hand tested the null hypothesis of stationarity against the alternative unit root test. The results from the unit root test showed that all the variables used in this study are integrated with order one. When the authors used Johansen and Juselius test, the results

showed an existence of a single cointegration relationship between GDP, investment, labour force and Islamic bank finance indicators. Economically, the results showed the insensitivity of Malaysia's elasticity for the long-run growth for it reacted differently on each Islamic banking financing indicators. A one percent increased of Islamic financing indicators, the chance of Malaysia to grow is so little, between 0.148% - 0.206% only.

This shows that the effects of different Islamic financing indicators on economic growth in the long run is not so important if to be compared with the effects in the short run. Econometric results summarise the reality of Malaysia's economy where Islamic banking is much more involved in a matter that does not have a major impact on economic growth in long-run period. In order to improve the efficiency of the Malaysian Islamic banks as financial intermediaries that facilitate the capital accumulation and the economic, the authors suggested to strengthen the weight of the PLS-based instruments in the loan portfolios of the Malaysian Islamic banks. By doing this, it will somehow reduce the inequalities that is happening around us and also to improve the economic opportunities for those who have high potential to contribute to the capital accumulation that will contribute to the growth of Malaysia.



**Zirek Duygu, Celebi Fusun and Hassan M. Kabir (2016), “The Islamic Banking and Economic Growth Nexus: A Panel VAR Analysis for Organization of Islamic Cooperation (OIC) Countries”. Journal of Economic Cooperation and Development**

The purpose of this study is to analyse the impact of Islamic banking variables on economic growth of 14 OIC countries from 1999 to 2011. By using VAR method and fixed effects regression, there is a significant and positive relationship for both short- run and long-run. The result of this study showed a strong connection between Islamic banking variables and the other variables which are capital stock, unemployment, inflation and government expenditure. The result also showed a positive reaction on economic growth to shock Islamic instruments (Islamic deposits, investments and size) in the long- run. This shock contributed more than 3% of the forecast error in economic growth for the next 10 years period. Increased in Islamic banking activities will contribute to the increase in economic growth. This explained why the relationship between Islamic deposit, size and investment is significant and positive. Other variables such as capital stock and investment also contributed to economic growth.

Results from three regression of this study showed a positive and significant answers. Relationship between economic growth and unemployment is negative. As economic growth increase, the number of unemployment will decrease and there will be new opportunities wide open for them. For government expenditure, the result showed a negative and significant relationship. When the share of government decreased, the share of private sector will increase

depending on short- run. Inflation result showed a positive and significant with an increase of inflation, unemployment decreases. According to Phillips curve approach depending on the Keynesian model in short term. As for lending interest rate, the result is insignificant in the sense of economic growth. There is no relationship between economic growth and other indicators of human development.

**Hayati Safaah Restuning (without year), “Peran Perbankan Syariah Terhadap Pertumbuhan Ekonomi Indonesia”.**

This paper analyses the role of Islamic banking on Indonesia’s economic growth by using Ordinary Least Squares (OLS) to determine how much Islamic banking influenced the Gross Domestic Product (GDP) which is for this study, GDP represents the growth. The result showed the total assets of Islamic banking has zero significant effect on GDP, while the Islamic financing process on the other hand, had a significant effect on GDP. As for the total assets and total financing, the variables of Islamic banking can explained the 33.8% effect it had on GDP variable. This means that Islamic banking has a very small role related to economic growth in Indonesia. The causes of this to happen because of the market share of Islamic banking is relatively small compared to conventional banks. Even though the number of Islamic banking assets continued to grow each year. Strategies need to be made by Islamic banking in order to boost their market share among others. One of them is simply by improving the quality and the quantity of human resources, strengthen the regulation and adapting the development of technologies.

## **2.2 Theoretical Framework**

### **2.2.1 Theory of Economic Growth**

Economic growth in general is known as a process of change in a country's economy on an ongoing basis towards a better state for a certain period. It can also be defined as increase in production capacity of an economy in the form of an increase in national income. According to Sukirno (2000) as cited in *Teori Pertumbuhan Ekonomi*, 2016, economic growth can be interpreted as an outgrowth of an activity in the economy that could lead to a positive production of goods and services in the community to increase and followed by increased of affluence by the society. The achievement of high economic growth is one of the four main objectives of macroeconomic policymakers. Growth is highly desirable because it will allows people to consume more goods and service and also contribute to the provision of goods and polishes the social life (health, education and etc.) and thus improving the stand of living.

Theory of economic growth is developed based on empirical experiences so that the theory can be used as a basis for predicting and creating a policy of general theory of economic growth. Experts said this theory can be divided into two categories, namely, the theory of historical economic growth and theory of classical and neoclassical economic growth. The theoretical framework of this study will be discussed on conventional and Islamic point of view.

### 2.2.2 The Solow- Swan Growth Model

Robert Solow from Harvard University and Trevor Swan from University of Sydney independently developed a model of economic growth that falls under neoclassical growth model and known as Solow- Swan's theory. Solow- Swan model focuses on how the population growth, capital accumulation, technological progress and outputs interact in the process of economic growth. The model used in this theory is general production function that can accommodate a wide range of possibilities for substitution between capitals (K) and labour (L). The form of production function is  $Q = F(K, L)$ .  $Q$  is the total output,  $F$  is function,  $K$  and  $L$  have been explained. This model allows the use of various combination of K and L to obtain an output level. Even though Solow- Swan model is similar to the model of Harrod- Domar, Solow- Swan model can be said as more flexible due to some reasons. Firstly, this model avoids the instability problem which is one of the characteristics in Harrod- Domar's model. Secondly, it is more flexible on explaining the problems of income distribution.

Mujahidin Muhammad (2011) stated, in the Harrod- Domar model, output and capital, labour and capital, each one of them is connected by a production function with coefficients that cannot be changed, that is  $Q^p = hK$  and  $Q^n = nN$ . The Solow- Swan growth model avoids the problem of instability by taking new conclusions related to the distribution of income in the growth process. By using this production function, there will be a consequence in which, all factors that are available, both  $K$  and  $L$  will always be used fully. This is because the production function of the neoclassical, no matter how many  $K$  and  $L$  provided, it will be

combined for the sake of the production process and there is no possibility of excess and deficiency factor in the model. As for this neoclassical model, the growth process can be divided into four stages (Mujahidin Muhammad, 2011):

- i) Labour ( $L$ ) grows with a certain rate, for example,  $p$  per year.
- ii) The production function  $Q = F(K, L)$  applicable to each production.
- iii) There is a propensity to save by the society that can be describe as a proportion ( $s$ ) of a particular output ( $Q$ ). Society savings,  $S = sQ$ , increased on  $S$  depend on the increase and decrease of  $Q$ .
- iv) All public savings have been invested,  $S = I = \Delta K$ . In neoclassical model, there is no questions on how  $S$  and  $I$  achieved their balanced state. In other words, problem involves warranted rate of growth is no longer relevant. The growth in the neoclassical model always qualify warranted rate of growth because  $S$  is deemed to be the same as  $I$ .

Neoclassical economy will lead to a long- run equilibrium position. Assume that  $Q = F(K, L)$  has the constant return to scale characteristic, meaning that if  $K$  and  $L$  respectively increased by  $x\%$ , then  $Q$  will also increase by  $x\%$ . If the constant return to scale is valid, then we can express the production function in a simpler form. Next,  $F(k, l)$ , can be assume as another function,  $F(k)$  has just one variable ( $K$ ) because number one is a constant (not variable), so that the production function becomes  $q = f(k) \dots \dots \dots (1)$ . This equation says that output per labour is a function of per capita labour, or output per capita is a function of capital per capita. Next, the population (or labour) are considered to

be grown with  $p$  a year and the public has shown propensity to save. All the saving will then be invested in order to increase the capital stock with  $\Delta IQ = sQ$ . After experiencing manipulation algebraic equation becomes:  $K = K.L \dots \dots \dots (2)$ . Equation (2) states that the growth rate of capital per capita is equal to the growth rate of capital stock (total) minus the rate of population growth or labour (Mujahidin Muhamad, 2011).

In a nutshell, Solow stated that to achieve a long run equilibrium state is when  $K$  reach a stable level, meaning no more changes in its value. When  $K$  is constant, then the long run equilibrium will be achieved. The position of long run equilibrium can also be said as steady state position. This requirement has consequences that  $k = 0$ . Solow-Swan model uses a production function where output is a function of capital and labour and capital can be substituted for labour but with varying degree of perfection that shows a declining returns. So when capital is increased in relative comparison with the labour, hence increase output data become progressively smaller.

### **2.2.3 Harrod and Domar on Economic Growth**

Roy Harrod and Evsey Domar are two economists who are working independently, with a same conclusion where both stated that economic growth is determined by the high savings and investments. If the savings and investments are in a low position, economic growth of a country will also be affected by some negativity impact. If there is a high level of saving in a country, it provides funds for firms to borrow and invest. Investment can increase the capital stock of an

economy and generate economic growth through the increase in production of goods and services (Cheung Vanessa, 2013). Harrod- Domar theory is said to be the extension of short- term analysis introduced by Keynes on full employment and income theory. This growth model provides a long- term theory of output. Harrod- Domar have provided a model that focuses on the requirements necessary for steady economic growth. According to them, capital accumulation constitutes a major factor for the growth of an economy (“Theories of Economic Growth- Discussed,” 2016).

As time goes by, this theory has experienced a lot of modifications to reach a better state but still remain using the main formula of development made by Harrod- Domar. This formula is based on the assumption that the problem of development is basically caused by adding capital investment. If there is capital and the capital is used for investment, the result is economic growth. Based on the model, economists in the Third World countries are trying to solve the problem of underdevelopment by seeking additional capital, both domestic and internationally (by cultivate and increase domestic savings through capital and investment and external debt).

Harrod- Domar Theory have several assumptions (as cited in Donderdag, 2013):

- i) Economy in a state of full employment and capital goods are used fully.
- ii) Consists of two sectors, the household sector (*sektor rumah tangga*) and the corporate sector, means the government and foreign trade does not exist.

- iii) The amount of public savings is proportional to the magnitude of national income, meaning savings function starting from zero point.
- iv) The tendency to save fixed amount of cash (Marginal Propensity to Save = MPS), as well as between the capital- output ratio (COR) and increase the capital- output ration (Incremental Capital- Output Ratio or ICOR).

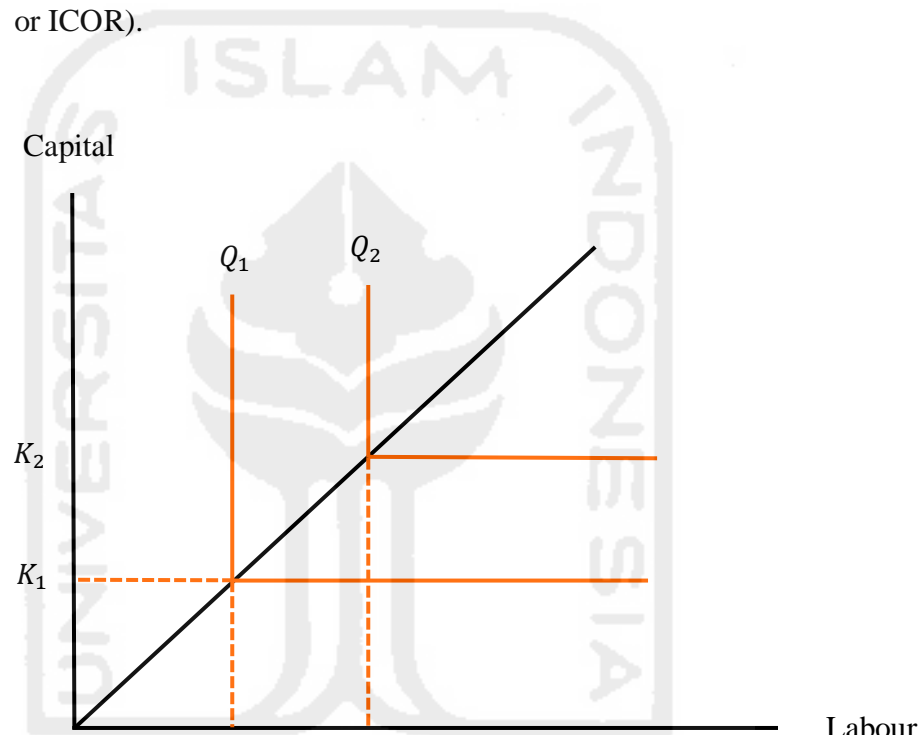


Diagram 2.1 L- Shaped Production Function

The L- shaped production function in Harrod- Domar's is due to the amount of capital that can only create a certain level of output. To produce an output of  $Q_1$ , it requires capital and labour, and any changes in this combination will contribute to the changes of the output.  $Q_2$  can only be achieved when the capital stock is equal to  $K_2$  (as shown in Diagram 2.1). According to Harrod- Domar, every economy can set aside a certain proportion of national income with



certain requirements such as, if the damages of capital goods for example buildings and so forth can be replaced. However, in order to grow the economy, new investments are required as additional stock.

For example, assume that there is an economy relationship between capital and output, if \$300 is needed to produce a total output of \$100, then every increase in new stock investment will have an impact on the increase number of total output. Lincoly (2004) as cited in Donderdag (2013) said it is known as capital output ratio (COR). As said in the theory, in order to grow, economies need to save up and invest certain proportion of its total output. When the amount of savings and investments increased, economic growth will grow as well. The newly generated income from capital accumulation produces demand for goods and services. According to Harrod-Domar theory, the most necessary condition for the growth of an economy is that the demand created due to the newly generated income that should be sufficient enough, so that the output produced by the new investment should be fully absorbed. If the output is not fully absorbed, there would be excess or idle production capacity. This condition should be satisfies consecutively to maintain full employment level and achieve steady economic growth in the long term (“Theories of Economic Growth- Discussed,” 2016).

As said in Domar’s model, the growth of aggregate demand equals investment (I) multiplied by multiplier scale ( $1/s$ ). While the production of capacity growth is equals to investment (I) divided by capital output ratio (K). According to the last point as mentioned before on the assumptions of Harrod-

Domar theory, through manipulation using mathematical methods, the growth rate of investment needed in order to equalize the growth rate of aggregate demand with supply has been obtained and can be expressed by the following equation:  $\frac{\Delta Y}{Y} = \frac{\Delta K}{K} = \frac{\Delta I}{I} = \frac{s}{k}$ , where  $\frac{\Delta Y}{Y}$  is the output or the growth rate of aggregate demand,  $\frac{\Delta K}{K}$  is the rate of increase in capital stock and lastly  $\frac{\Delta I}{I}$  is the rate of increase in investment. Harrod stated that economic growth can be differentiated by the actual growth rate, the growth that has been log and natural growth.

The actual growth ( $\Delta Y/Y$ ) is determined by the saving-output ratio ( $S/Y$ ) and additional capital-output ratio ( $\Delta K/\Delta Y$ ). Both of them are considered constant and through mathematical manipulation will be equal to the savings. At the level of the actual growth rate, actual output is not always equal to the output potential. The desired growth rate is the growth rate that is considered adequate by the investor to ensure the achievement of full capacity or the balance of demand and production in the longer term. Aggregate demand is considered quite high by the investors in this growth rate so as to ensure the group sell the entire capacity of the existing plant. The actual output will be equal to the potential output so there is no cyclical variations in economic growth. This growth rate is achieved when the output (actual and potential), aggregate demand, capital stock, and investment grew at the same rate.

In conclusion, stability of economic growth in the long run can only be achieved through government intervention through fiscal and monetary policies to tackle harassment irregularities and instability. These policies are very

important in a way to increase investment in the infrastructure sector which will boost aggregate demand in the short term and expand production capacity and ensure the sustainability of economic growth in the long term.

#### **2.2.4 Economic Growth from Islamic Perspective**

Conventional economics defined economic growth as a largely devoted to prosperity and material which can only last in a short- term dimension, or in other words, we dedicated ourselves for the sake of unbalanced state between life and hereafter. When spiritual satisfaction is used in this study, any mathematical problems will not be included for it is intangible. Anyways, in an Islamic point of view, Islam has considers economic growth as a means of ensuring social justice which it output will somehow contribute to human welfare. What makes the differences of definition of economic growth from Islamic and conventional minds are in Islam we have the prohibition of *riba* and *zakat* whereas these two points are can nowhere be find in conventional concepts.

From the reading above, a conclusion can be made where the fundamental difference between Islamic and conventional point of view lies on its ultimate goal. Conventional economics background is oriented with high growth of economic activities without accompanying to the equitable distribution of output produced. With this, the output produced will ended up with a product of uneven distribution of human welfare. In contrast with the concept of conventional perception, Islamic economics sees economic growth as a means to improve the material well- being of mankind regardless of race, religion and race. In addition,

Islamic perspective has a dual orientation in terms of economics, namely, the welfare of material (worldly) and inner satisfaction (hereafter).

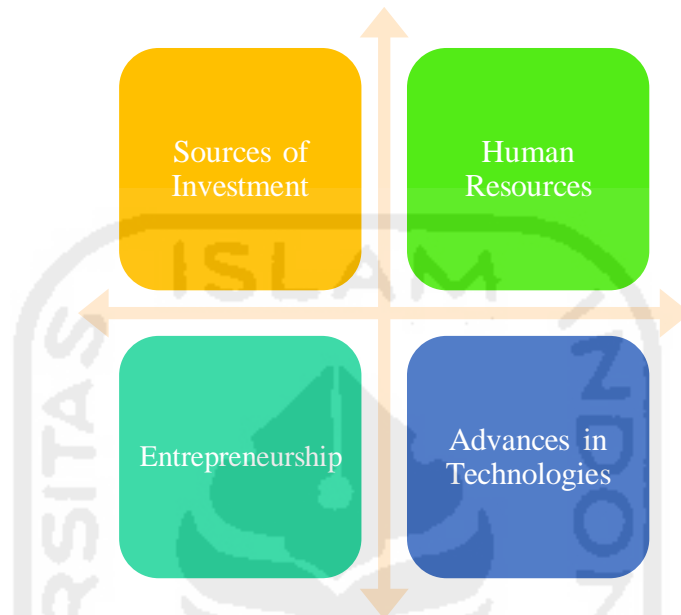


Diagram 2.2 Factors of Economic Growth According to Islam

As shown in Diagram 2.2, sources of investment, human resources, entrepreneurship and advances in technologies are four main factors of economic growth according to Islamic perspective. First point explains that growth requires investment resources (domestic and foreign investor) in order to increase the production of physical assets that generate future revenue streams. Physical assets mentioned before including factories and industrial machines that assist the growth of production. In connection with sources from external capital, it is important to cooperate with other Islamic countries, especially countries which took the prohibition of *riba* seriously in their financial management and freeing themselves from the influence of social, cultural and political slavery of Western's mind-set. By doing so, the potential significance of Islamic economics

on how to mobilize domestic resources for economic growth can be seen (Abidin Zainal, 2012).

The second factor of economic growth according to Islam, human resources, played as one of the important roles for economic growth. We, humans, are the only living things who are active on economic activity, the one who exploit natural resources and the one who is taking care of capital accumulation, social development, economic and political institutions. We are best known as the one who contribute the most to the growth process. This is due to the special qualities inside us where no other living things have, professionalism and moral attitude. These two qualities are very important to achieve maximum contribution to the growth of economy. Example, professional workers without honesty might not be contribute anything to the process of growth and vice versa with workers who are honest. Same goes with having sincerity but no skills, it does not contribute much for economic growth. Abidin Zainal (2012) said this situation as two sides of a coin that cannot be separated from one another.

Moving on to the third point, entrepreneurship, some economist asserted their opinion by saying entrepreneurship as one of the most important factors in economic growth. It is so important until it has been mentioned in the Holy Quran and Prophet Muhammad PBUH. He said, “nine out of ten (or 90%) of sustenance is derived from commercial business”. In the Holy Quran, verse 275 of chapter two surah al- Baqarah stated “but Allah has permitted trade and has forbidden interest”. From these two statements, we can see how supportive Islam

is on the growth- development of entrepreneurship. Islam provides positive motivation to obtain halal livelihood by encouraging Muslims to work hard (working for other or it can be done independently) as long it does not breaks the sharia law. Allah has ordered us to find *rezk* that He has prepared for everyone (Abidin Zainal, 2012).

Last but not least, advancement of technology. It is something so undeniable that technological progress has contributed so much on our daily life and of course, to the growth of economic. Islam is not opposed to the concept of technological progress. As a reality, these technologies must be accepted and utilized as it provides significant contribution to growths. Verses from Quran guide people to find and earned new things or by experiences they had to benefit many people. New discoveries can be used to explore natural resources that Allah has provided for man's welfare. Other than the four factors mentioned before, economic growth can be measure by Gross National Product (GNP). GNP measures the flow of national income during a certain period of time. Generally, to calculate the growth, we use the same model as the conventional economics but adding the letter "Z" at the back of the model to differentiate Islamic and conventional economics. The letter Z represents *zakat* and the model can be expressed as  $GNP = C + I + G(E - M) + Z$ .

### **2.2.5 Islamic Bank**

Islamic banking or sharia compliant finance in general is defines as banking system based on sharia law. The main principle of sharia law is to ensure

fairness in any kind of economy activities and therefore, any activities involved *riba* (interest), *maisir* (gambling) and *gharar* (speculative trading) are strictly prohibited. Islamic banking has a significant influence on other Islamic financial practices such as *takaful* (Islamic insurance), Islamic bonds, Islamic mutual funds, sharia finance companies and Islamic capital market. In 2011, the global growth of Islamic banking decreased by 25%. Islamic banking in Indonesia on the other hand increased by  $\pm 49\%$ . Other than that, total deposits of Indonesian Islamic banking was also at the highest number back in 2011 with an increase of  $\pm 51\%$  (Bank Indonesia, “*Outlook Perbankan Syariah 2014*”).

### 2.2.6 Gross Domestic Product (GDP)

The gross domestic product (GDP) is one of the primary indicators used to gauge the health of a country’s economy. It represents the total dollar value of all goods and services produced over a specific time period. Usually, GDP is expressed as a comparison to the previous quarter or year (“What is GDP and Why is it So Important to Economist and Investors?,” 2016).

$$GDP = C + I + G + (X - M)$$

Diagram 2.3 Equation Used to Calculate GDP

Diagram 2.3 shows the equation used to calculate GDP where C is known as private consumption, I is gross investments, G represents government spending and (X-M) is exports and imports. Real GDP accounts for inflation and

deflation. It transforms the money-value measure, nominal GDP, into an index for quantity of total output (“Calculating Real GDP,” 2016).

### **2.3 Research Hypothesis**

The hypothesis of this study can be formulated based on what has been described above:

1.  $H_1$  : Total Financing (TF) has a negative and significant effect on GDP.

