

THE IMPACT OF THE INDUSTRIAL REVOLUTION 4.0 ON THE INSURANCE INDUSTRY AND WHETHER OF THE ASSETS AND INVESTMENTS PLAY A ROLE TO INVESTMENT YIELD?

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Abstract

Purpose of the study: This research aims to know the influence of the Industrial Revolution 4.0 era on the insurance industry on the side of assets and Investment insurance companies to Investment Yield Sharia Insurance in Indonesia.

Methodology: This type of research is explanatory research. This type of research data is secondary data sourced from the Financial Services Authority (OJK) Republic of Indonesia period in 2016-2107. The tool of analysis in this research is the Partial Least Square method using Smart PLS statistics.

Main Findings: The results are an influence of Assets and Investment on Investment Yield on insurance companies in the Industrial Revolution 4.0 era. In the era of the industrial revolution, 4.0 potential insurance improve economic growth through several aspects, namely promote financial stability. Facilitate trade and commercial activities. mobilize domestic savings. Offering a variety of risk management on capital. Increase more efficient allocation of capital and reduce the risk of loss and can increase Investment Yield for shareholders and stakeholders.

Applications of this study: This research is the observation only on Sharia Insurance Company sample while other issuers are not observed in this study and this research implies that sharia insurance issuers are growing and contributing to their shareholders and shareholder.

Novelty/Originality of this study: The first time observing the Sharia Insurance industry industrial Revolution 4.0 era and previous research to observe in Sharia banking.

Keywords: *Industrial Revolution 4.0, Sharia Insurance, Industry, Assets, Investment, Investment Yield.*

INTRODUCTION

Islamic insurance known various types of investments that have their respective parts and need to be understood so that the problem of investment in insurance can be carried out in accordance with the rules and can be done between people because Islam upholds the Muslim brotherhood with one another. Islamic insurance emerged as a reformist movement for the existence of an insurance system that was considered not in accordance with the rules of Islamic law or sharia. Indeed, it has become a characteristic of the name of Sharia law; it will always come to show people on a straight path. Likewise in insurance, Islamic insurance or commonly referred to as Takaful presents a more humanistic and equitable insurance concept that puts forward help to help rather than a business.

This type of goods or services is so important. In this case, the investment in the capital market, involves the underlying assets that are traded, the trading instruments used, the form of agreement between investors, brokers, and investment managers (fund managers), or even with certain issuers to avoid insider information lead to insider trading. In terms of capital market analysis, investors and investment managers (fund managers) must be keen to see market movements, whether these changes are caused by internal factors or external factors. Whereas in terms of macroeconomics, it is necessary to examine whether market movements are due to macro conditions, it is necessary to examine whether market movements are caused by macro-objective conditions, rumors, or issues that are deliberately thrown by certain parties that shake the market.

Some investments in insurance are Sharia and some are harmonized, Islamic economics students are encouraged to understand matters related to the above problems so that the investment system in Islamic insurance can be implemented in accordance with the correct Islamic rules. Fixed assets are relatively fixed assets and durable is therefore very important if an asset remains in the company for investing. Profitability by using Net Profit Margin formula is a way that is used to see a gain of each sale sales proceeds. The instability of a fixed asset investment in an enterprise will affect profitability in the enterprise, if any fixed assets have expired and damaged then the fixed assets have not been invested then the management within the company. Should every fixed asset invested so if the fixed assets have expired, it can be immediately replaced with a new one, so the service on society will be good. Investments in fixed assets are a firm hope to be able to recover the funds invested in the fixed assets.

Investments in fixed assets concerning expectations of future sales results. Fixed asset investment is a form of capital investment carried out by the company in the hope that one day the operations activities of the company can generate profits or recover funds that have been invested. The availability of cash or liquidity is an important factor in

determining the amount of cash dividend to be distributed. Cash Dividend is a cash outflow, so the stronger the company's liquidity position, the greater its ability to pay dividends. Before obtaining new debt, the company must have planned how to pay off the debt. The allocation of profit or cash reserves to pay off debt will result in reduced allocations to distribute cash dividends. The faster the company's growth rate the greater the required funds, the greater the share of the reserved earnings, the lower the dividend payout rate ([Muda et al., 2018b](#)). Of the various types of dividends available, cash dividends are the most commonly distributed dividend to shareholders ([Abdulkaderet al., 2005](#); [Ahmed, 2010](#) & [Ahroum al., 2017](#)). This is because the dividend in cash is more desirable to shareholders than any other form of dividend distribution, as cash dividends help to reduce uncertainty in shareholder investment activity. A large amount of profits does not necessarily mean that the company is able to distribute cash dividends because the availability of cash should also be adequate. Cash dividends play an important role in the company as a gesture of the company's condition and its prospects for future profitability.

The 4.0 industrial revolution based on science, technology, and innovation is a threat to the reduction of Assets, capital expenditure to investment, a number of workers in several sectors that are replaced by technological change. The industrial revolution 4.0 based on sciences, technology and innovation. There is a threat of a reduction in the number of workers in several sectors that are replaced by technological changes. Some insurance companies are already improving with steps to optimize the resources owned by the company, both in terms of Human Capital (HC) and Information and Technology (IT). Technology is developing so rapidly and brings drastic changes. The disruption phenomenon that characterizes the development of the 4.0 industrial revolution civilization with the support of technological advancements is believed to lead to the transition to the technological revolution. Fundamentally, this will change the way of life, work, and organizational relations in dealing with each other.

LITERATURE REVIEW

The Impact of the Industrial Revolution 4.0 on the Insurance Industry

The Industrial Revolution 4.0 or the digital revolution threatens conventional jobs, including in the financial services sector. Technological advancements allow machines to do human work and create new jobs ([Janssens, 2019](#) and [Rogaleva et al., 2019](#)). Compared to other industries, insurance is difficult to implement interactions that are 100 percent digital. Insurance still requires a long process and paperwork, but it will make this process simpler with digitalization ([Albu et al., 2019](#)). The insurance industry still needs an agent role. Technology is here to help the performance of insurance agents. In the future, there will be modernization and digitalization of traditional distribution channels, in the sense of digitizing processes between company-agent-customers ([Bohnert et al., 2019](#) and [Carroza, 2019](#)). One of the technological adoptions carried out by insurance companies through insurance applications. The company can provide more personal pricing or premium calculations in accordance with the needs of the debtor in accordance with their characteristics.

Basic Principles of Investment

The basic principle of Islamic insurance investment is that the company as the mandatory holder must invest in the funds collected from the participants, and the investment in question must be in accordance with sharia principles. Investment for Muslims means investing funds in certain sectors (financial sector or real sector) for a certain period of time to get the expected return. Advantages in the view of Islam have a holistic aspect. ([Ahmed, 2010](#)).

1. Material or financial aspects; which means a form of investment should produce competitive financial benefits compared to other forms of investment.
2. Halal aspects; this means that a form of investment must be avoided from the fields and procedures that are unlawful and/or haram. A form of investment that is not halal will only bring the perpetrator to error and destructive attitudes and behavior individually and socially.
3. Social and environmental aspects; which means a form of investment should provide positive contributions to the community and the surrounding environment, both for the current and future generations.
4. An aspect of hope to the pleasure of God; meaning that a particular form of investment is chosen in order to reach the pleasure of Allah. Awareness of eternal life becomes a guide for the three aspects above. Thus, the probability of effort must be seen as something that is continuous to live.

Investment of Portfolio

In general, corporate objectives can be grouped into three groups, namely: (1) Profitability (Profitability), (2) Growth (growth), (3) Survival ([Limet al., 2016](#) and [Chen & Li, 2020](#)). Survival without growth only puts the company as a reluctant life to die not wanting. Meanwhile, profitability without regard to survival is very risky. [Guambe and Kufakunesu \(2020\)](#) state that state growth without profitability is impossible. Because in achieving the goal of survival it is difficult to be numerically analyzed, then the central issue that requires in-depth discussion is growth. Because, in terms of growth, it means that the company is definitely profitable and leads to survivability. The insurance industry as one of the financial institutions managing public funds in large numbers, especially life insurance, is very dependent on the success of managing investments in an effort to realize the company's goals. Realizing this, financial management

and investment experts are trying to develop measures that can be used to determine. For example, whether or not an investment proposal is feasible or how successful an investment is in meeting the expected level of taking.

The Management of the Fund

In terms of the system, the management of the fund uses principles related to the rules of sharia law. But more important here is that there are differences in the role of the company and its responsibilities (Murphy et al., 2008). In the contract, it was stated that the company only acted as a fund manager while the risk remained with the participants. Unlike the conventional insurance system, usually, the funds deposited will belong to the company (Hisamatsu et al., 2020). Well in this Takaful, the funds deposited will still belong to the participant and the company will only manage it. In this case, it is clear that the role and Islamic insurance companies are quite a lot starting from administrators, risk managers, as well as managing funds to be invested (Hemrit, 2020). Several other instruments that are still in accordance with the rules and existing Islamic principles. Some of the instruments commonly used include *Mudharabah* Deposit, *Mudharabah* Financing, *Bai Bithaman Ajil* Financing, Sharia Bonds, Sharia Mutual Funds, Stock, Direct Participation, Building and Mortgage (Saad et al., 2016, Muda et al., 2018a, Muneeza et al., 2020). So that is the explanation of how the management of Islamic insurance investment funds should be part of what is available. By considering it all, the insurance company can already run it.

METHODOLOGY

This research type is explanatory research. Explanative or explanatory research is a research that can be done if the knowledge of the problem is sufficient, it means that there are already some specific theories and there have been various empirical studies that tested various specific hypotheses to accumulate various empirical generalizations. Research that can take the form of experiments always departs from a hypothesis obtained from a particular theory. The data used are secondary data sourced from the Financial Services Authority (OJK) Indonesia period in January 2015 until September 2017. To analyze the data, this study uses the Structuring Equation Modeling (SEM) method with data analysis tools using SmartPLS software version 3.0, which is run on computer interfaces. Partial Least Square is a variance-based structural equation analysis (SEM) that can simultaneously test measurement models while simultaneously testing structural models. This research conducts structural modeling (inner model) which is a structural model to predict causality relationships between latent variables. The model is obtained after going through the bootstrapping process. Statistical t-test parameters were obtained to predict the causality relationship. The model is evaluated by looking at the percentage of variance that is explained by the value of R² for the dependent variable using size. So the resulting structural model is the final structural model to predict causality relationships between variables.

RESULTS/FINDINGS

Result

The results of Figure 1 are the results of hypothesis testing in the form of figures. This is proof of the results that show the hypothesis that was designed earlier in accordance with the results of the study. After processing the data, it can be seen in Figure 1 that there are variables that have both positive and negative influences and some that have no effect. In addition, there will be variables that are significant and some that are not significant as follows in Figure 1:

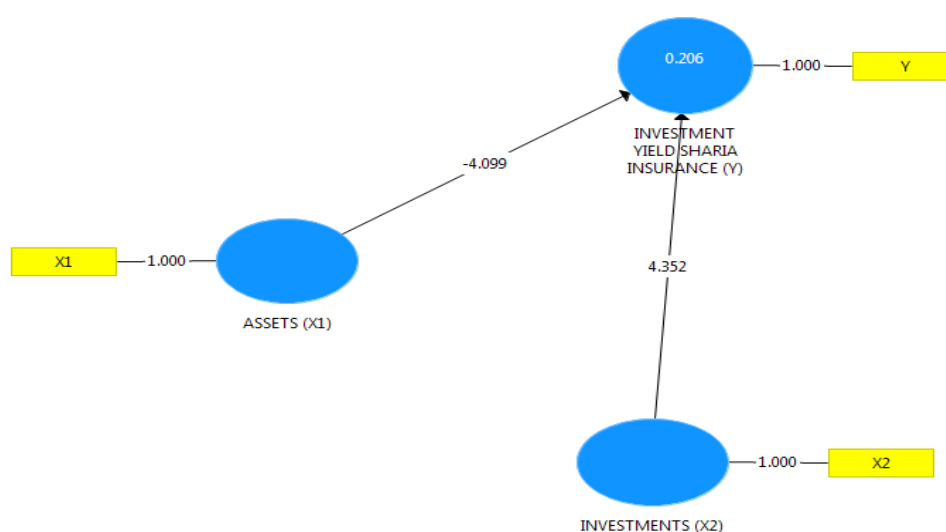


Figure 1: The All Model with Coefficient

Sources: SmartPLS result (2018).

The results of the study that show the research hypothesis is based on the original sample value and the t value of statistics. The result with Boot strapping Methods show in Table1 :

Table 1: Bootstrapping Run Test

	Standard Deviation	t Statistics	p Values
Assets (X1) -> Investment Yield Sharia Insurance (Y)	1,777	2,306	0,021
Investments (X2) -> Investment Yield Sharia Insurance (Y)	1,777	2,449	0,015

Sources: SmartPLS result (2018).

Table 1 shows are Assets and Investments are an influence on Investment Yield Sharia Insurance. The inner model evaluation can be shown in the R-Square shown in Figure 2:

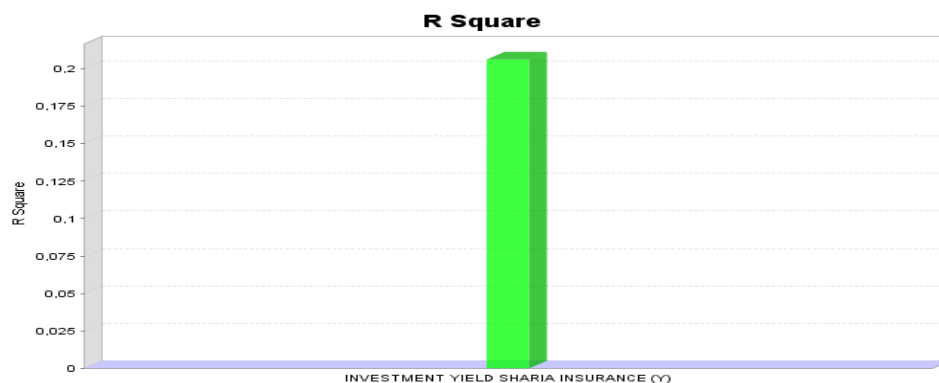


Figure 2: R Square

Sources: SmartPLS result (2018).

Figure 2 shows the variation of the R Square relationship illustrated in the green bar diagram of 20.6 percent. Whereas the statistical counts are in Table 2 below:

Table 2: R-Square Value

	R Square	R Square Adjusted
Investment Yield Sharia Insurance (Y)	0,206	0,118

Sources: SmartPLS result (2018).

Based on Table 2 show that the variation of R-Square value of 20.6%. The results show that Assets and Investments are significant variables on Investment Yield Sharia Insurance. The Adjusted R Square value is 0.118. The value of illustrates that all the independent variables in this study were able to represent the dependent variable.

Discussion

Assets owned by an entity in the form of tangible assets, such as machinery, buildings, land, buildings, equipment or also Intangible Assets in the form of patent rights, copyrights, copyrights, and trademark rights. The value of assets in the company's financial position is so important and presented in the statement of financial position is the most important part of the company that must be managed properly to provide benefits to the company in the form of profits so as to encourage the company's goals, namely Profit (Davison and Yasuba, 1960; Cotter and Richardson, 2002; Demske et al., 2008; Murphy and Gunter, 2008; Yousaf et al., 2014 & Das et al., 2016). The company can protect and maintain the value of assets to remain high, maintained, have a longer life, and avoid damage to assets that can cause a decrease in selling value through Assets of Management. The value of assets can be maintained to the maximum if the company is able to provide adequate operational costs so that it can provide high output so that it is in line with the company's objectives for the utilization of these assets. Companies will find it easier to plan asset financing such as funds for purchase or construction, maintenance with adequate asset management. Funds to extend the useful life and asset replacement can also be controlled. Asset control can be done well so that the impact on capital budgeting in the form of purchasing new assets that are not needed by the company and wasting a large investment fund. The application of the principle of risk management is a method of managing uncertainty in the future. Efforts to create the importance of risk assets management are needed for the company. Where future appraisal assets are needed so that their fairness can be determined according to international principles (Lim et al., 2016 & Yee et al., 2017). Implementation of asset management can reduce risk in the form of control measures, preventive, detective and corrective actions for company assets.

The key to running an income investing strategy is to know the amount of Dividend Yield from a stock. Dividends are part of net income set aside by Management to shareholders. The magnitude of dividends is said to be good if it comes to an optimal point where the amount distributed does not interfere with future expansion plans of the company and grows year by year (in other words, the company's net profit also grows). How to calculate the optimal dividend amount is one lesson of the finance course itself (Ng'ang' a, 2014; Ong et al., 2014; Inyama and Helen, 2015). The focus this time is on the dividend yield. The amount of money earned or lost can be called interest or profit/loss. Money investments can be referred to as assets, capital, principal, investment cost base. Return on Investment (ROI) is usually expressed as a percentage rather than a decimal point. ROI does not give an indication of how long an investment. However, ROI is often expressed in annual or annualized units and is often also expressed for a calendar or fiscal year. ROI is also known as the rate of profit or the outcome of an investment in the present, past or predicted in the future. Or the simplest language ROI represents a return on investment returns. Return for investors can be cash dividend, dividend, stock dividend, and liquidating dividend or changes in stock price. The distribution of cash dividends to management is a testament to the creation of corporate value-added and the achievement of earnest performance on the trust of shareholders who invest in a company (Mtunya et al., 2017, Nguyen et al., 2020 and Wilkie and Sahin, 2020). For investors, cash dividends represent the rate of return on their investments in the form of stock ownership issued. For the management, cash dividends represent cash outflows that reduce the company's cash. Therefore the opportunity to invest with cash that is distributed as dividends is reduced. For creditors, cash dividends can be a signal of the cash adequacy of a company to pay interest or even pay off the loan principal. The policy of cash dividends that tend to pay dividends in relatively large amounts will be able to motivate observers to buy shares of the company. Companies that have the ability to pay dividends assume the public as a profitable company (El-Gamal, 2006). However, consideration becomes more complicated when the interests of various parties are accommodated. On the one hand, there are those who tend to expect larger dividend payouts or vice versa.

The insurance industry is considered to have an important contribution to the paced economic growth of a country. However, the role of the industry gets less attention when compared to other industries in the financial sector, such as banking and credit (savings and loans). Paavola and Primmer (2019) state that insurance is an economic instrument that allows the transfer of risk finance from one party (individual or organization) to another party through a certain contract. In this case, the first party (the insured party), namely the individual or organizations are required to pay a sum of money called a premium (premium) within a certain period of time. Instead, when an unwanted event occurs, such as a fire, traffic accidents, etc. (as stated on the contract of agreement), the individual will obtain replacement of the amount in accordance with the agreed value in the contract. Insurance stimulates economic growth and stability through a long-term investment scheme.

CONCLUSION AND FUTURE WORK

In the era of industrial revolution 4.0 potential insurance improve economic growth through several aspects, namely: promote financial stability. Facilitate trade and commercial activities. Mobilize domestic savings. offering a variety of risk management on capital. Increase the more efficient allocation of capital and reduce the risk of loss. The results show that Assets and Investments influence to Investment Yield Sharia Insurance in Indonesia. Limited research is an only observation on Sharia Insurance while other issuers are not observed in this study and this research implies that Sharia insurance issuers are growing and contributing to their shareholders.

LIMITATION AND STUDY FORWARD

This research only observes the insurance industry in Indonesia so that it can only be generalized to the Indonesian scope. For other regions around ASEAN, Asia Pacific, and Europe, further research is needed.

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AUTHORS CONTRIBUTION

Iskandar Muda was is responsible for the paper preparation and corresponding to the publisher. Prof Erlina as supervisors guides the overall framework and suggestions for data analysis and discussions for findings. Hafizah, Bunga Aditi and Hermansyur, was responsible for data collection and paper formatting, language editing. All authors are contributed to this study.

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