

# Early Warning System for Sharia Insurance Companies in Indonesia and Malaysia at 2013-2015 periode

Sylva Alif Rusmita, Puji Sucia Sukmaningrum, and Zata Atikah Amani

*Universitas Airlangga, Surabaya, Indonesia*

*sylvalifr@feb.unair.ac.id, puji\_sucia@yahoo.com, zatatikah@gmail.com*

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**Abstract:** The purpose of this research is to know the health of Islamic insurance companies in Indonesia and Islamic insurance companies in Malaysia using early warning system during the period of 2013-2015. Early warning system is the measurement where those ratios will provide early warning. This research method uses quantitative methods, and using sample of three Islamic insurance companies in Indonesia and eight Islamic insurance companies in Malaysia. Assessment of financial performance using early warning system is measured by the ratio of change of surplus ratio, underwriting ratio, incurred loss ratio, commission ratio, management ratio, investment yield ratio, premium growth ratio, and retention ratio. The data used is secondary data which is being collected of annual financial report from 2013-2015. The results show all of the ratios on Islamic insurance companies in Indonesia and Malaysia in good health. But when viewed from per ratio, health level in Islamic insurance companies in Malaysia is better than Islamic insurance companies in Indonesia.

## 1 INTRODUCTION

Islamic Economics is a branch of science that develops and grows to solve the economic problems caused by greed and injustice. Here the Islamic economy grows and comes to reach *falah* with *maslahah* as a goal to avoid from harm.

The development of Islamic economics in Indonesia develop rapidly since the monetary crisis in 1997 which have impacted on liquidity of conventional bank. However, Bank Muamalat was established in 1992 to survive when the crisis occurred. Various Laws supporting the system of Islamic finance institutions began to be made by Government, such as Law Number 7 of 1992 concerning Banking as amended by Act Number 10 of 1998 and Act Number 23 of 1999 concerning Bank Indonesia which at the same time received direct support from the Indonesian Vice President Jusuf Kalla.

The development of *Takaful* or Islamic Insurance in Indonesia which is also involved in the development of sharia banking industry has a positive impact on the development of sharia insurance industry in Indonesia. The development of *Takaful* was driven by the demand of sharia banking which requires insurance protection for every asset in

Islamic banks, such as the company's assets and third party assets.

Insurance is one of the non-banking financial institutions engaged in services which is also one of the pillars that can promote economic growth in Indonesia. On chapter 246 of the Code of Trade Commercial Law which explains that insurance is an agreement, whereby an insurer binds himself to an insured with a premium to provide reimbursement to him because of a loss, damage or loss of expected profit, which he may suffer because of an event that is not certain.

The explanation above also relates to the definition of insurance in the business view which explains that a company whose main business receives or sells services, transfers risks from other parties, and earns a share of risk among its customers (Ali, 2004: 60).

Sula (2004: 33) defines *takaful* in the sense of *muamalah* is mutually carrying risk among fellow people, so that among others be the insurer of other risks. Thus *takaful* is a shared responsibility between the Muslims and in this case is aimed at helping, and guaranteeing another Muslim in matters of righteousness (Hasan, 2014: 19).

The system implemented in this Takaful insurance is based on ta'awun principle which is helping each other in the good way of spending funds tabarru 'or ibdah funds, donations, and charities intended to bear the risk (Amrin, 2006: 5). It known as sharing of risk on Takaful insurance, while conventional insurance applied transfer of risk.

Table 1: Comparison of Total Assets for Sharia Insurance in Indonesia and Malaysia in 2013 – 2015 (on trillion).

Sharia Insurance	2013	2014	2015
Indonesia	Rp 16,66	Rp 22,36	Rp 26,52
Malaysia	Rp 65.171	Rp 70.812	Rp 76.930

Source: Indonesia Insurance Statistics by the Financial Services Authority & Annual Report by Bank Negara Malaysia (which has been reprocessed).

Based on data published by the Financial Services Authority (OJK), the total number of sharia insurance companies reached 8 units consisting of 5 units of sharia life insurance, 3 units of general insurance sharia, and 0 units of reinsurance sharia. The total number of sharia business unit companies reaches 45 units consisting of 19 units of sharia insurance, 23 sharia general insurance and 3 units of Islamic reinsurance with total assets reach Rp 26.52 trillion in 2015 or grow 18.6 percent from Rp 22, 36 trillion in the past year. Based on the data, industry in the field of services that is sharia insurance will continue to grow rapidly can be one of the financial sector that can also be interpreted as part of the main movement of the Indonesian economy.

Based on the publication results from Bank Negara Malaysia globally, takaful industry has grown rapidly, it is because takaful industry appeals to both Muslim and non-Muslim consumers. The Industry is expected to grow by 15-20 percent per years with total contribution estimated to reach USD 7.4 billion of total assets of USD 16.1 billion by 2015, and currently stands more than 110 takaful companies around the world. It is also offset by Malaysia and Indonesia which are the main markets in the development of takaful insurance.

Based on data published by Bank Negara Malaysia, total assets of sharia insurance in Malaysia after converted to the Indonesian currency exchange rate of Rp 3,113.17 per RM 1 amounting to Rp 76,930 trillion in 2015 with sharia life insurance assets amounting to Rp 66,588 trillion while general insurance assets of sharia amounting to Rp 10,342 trillion. Of the total assets increased by 8 percent from Rp 70,812 trillion in 2014.

Although there is an increase in total assets of a Takaful company but in financial matters is the most important issue in supervising financial performance. Especially the supervision of financial performance of sharia insurance industry which has specific criteria in its performance assessment, it is necessary to have the provision of Early Warning System (EWS) or an early warning system to solve problems if they occur in the future.

Early Warning System or usually referred to as an early warning system that aims to determine the extent to which the financial health of a company. Satria (1994: 5) describes the usefulness of the Early Warning System (EWS), which states that:

In many countries EWS calculations are used to help insurance commissioners measure financial performance and assess the health of an insurance company by detecting earlier impending insolvency shortages, identifying firms that require more rigorous monitoring and immediate attention , and determine the level (grading) of insurance companies.

According to Satria (1994: 133) there are nine important ratios that are often used in assessing the financial performance based on the Early Warning System (EWS), but in this study will use 8 ratios including the Ratio of Surplus Change, Underwriting Ratio, Claim Ratio, Management Cost Ratio, Investment Return Ratio, Premium Growth Ratio, and Own Retention Ratio.

The formulation of the problem in this study is how the health of sharia insurance companies in Indonesia with Malaysia using early warning system during the study period 2013-2015?

The purpose of this study is to find out the health of sharia insurance companies in Indonesia with Malaysia using early warning system during the study period 2013-2015

## 2 THEORY AND DEVELOPMENT OF HYPOTHESIS

Sharia insurance or better known as takaful, at-ta'min, and tadhamun are mutual efforts to protect and help between a number of people or parties through investment in the form of assets or tabarru 'funds and provide a pattern of return to face certain risks through akad sharia (Aziz, 2010: 190). Sula (2004: 33) defines takaful in the sense of muamalah is mutually carrying risk among fellow people, so that among others be the insurer of other risks.

## 2.1 Sharia Insurance in Indonesia

The development of sharia insurance industry players during the last five years can be classified according to the form of the implementation of sharia business activities, namely pure sharia (full fledge) and part of sharia (Sharia unit) and described as sharia life insurance company, insurance company.

Based on the growth of total assets of sharia insurance industry in 2013 has grown in terms of assets of 20.43 percent, in 2014 by 25.71 percent, in 2015 decreased increase of only 18.2 percent, and in 2016 increased growth again to 20.42 percent. If from 2013 to 2016, the total assets of the sharia insurance industry experienced an average growth every year of 21.19 percent. This may reflect that the sharia insurance industry continues to be in demand by the public and is beginning to be trusted as a financial institution that can be coupled with conventional insurance that is better known to the public at large.

## 2.2 Sharia Insurance in Malaysia

The development of Takaful industry in Malaysia began in the early 1980s inspired by the needs of the Muslim community in Malaysia, which was later used as an alternative to sharia-based for conventional insurance, as well as complementing the operations of sharia banks established in 1983.

The general insurance industry of sharia in Malaysia has experienced remarkable growth since more than 20 years ago. This is evidenced by the increasing number of sharia general insurance companies along with decent industrial performance diakuin and a good progressive with a broad market structure and a variety of products provided by general insurance operators of sharia. Although sharia general insurance is formed early and leads from sharia life insurance from total contribution since the beginning of the Malaysian sharia insurance but nowadays sharia insurance has more than 71 percent of total contribution obtained from sharia insurance industry in Malaysia (Bank Negara Malaysia, 2004 ).

## 2.3 Early Warning System Analysis

*Early Warning System (EWS)* using a series of test ratios (test ratios) applied to the financial statements of general insurance companies to measure the company's financial capabilities and performance. There are 8 important ratios used to measure financial performance According to Satria (1994: 67-72). They are surplus ratio, underwriting ratio, claim ratio, growth ratio of premiums, commission ratio, cost

management, ratio investment, premium growth ratio, and retention ratio

## 3 RESEARCH METHOD

The research is using quantitative approach. Analytical technique used is descriptive statistic, that is statistic technique used to analyze data by describing data which have been collected before (Anshori and Iswati, 2009: 116)

### 3.1 Operational Definition

The operational definition contains explanations / specifications of the variables that have been identified, the measurement of variables, and the scale / size used. he operational definitions of the variables used in this study are surplus ratio, underwriting ratio, claim expenses ratio, ROI, Growth ratio premium.

### 3.2 Data

In this study used the type of quantitative data in the form of secondary data. Secondary data is primary data that has been processed further and presented by primary data collector or by other party and usually presented in the form of table or diagram (Siagian and Sugiarto, 2006: 17). Where the data comes from the company's financial report downloaded on the official website of the Takaful company. Secondary data used in the form of annual financial statements from each website of Sharia Insurance in Indonesia and sharia insurance in Malaysia period 2013-2015

### 3.3 Sample

In this research, sampling technique used is purposive sampling. Anshori and Iswati (2009: 105), stated that purposive sampling is a technique of determining samples with certain considerations

The sample used is a full sharia insurance company in Indonesia registered in the Financial Services Authority prior to 2013 and a full sharia insurance company in Malaysia registered with Bank Negara Malaysia and publishes and publishes its annual financial report for the period 2013-2015 through each insurance company sharia. Total sample from Sharia Insurance Indonesia are three companies and Sharia Insurance Malaysia are ten companies.

Table 2: Reseach Sampling.

Sharia Insurance in Indonesia	
1	PT Asuransi Takaful Keluarga
2	PT Asuransi Jiwa Sharia Al-Amin
3	PT Asuransi Jiwa Takaful Umum
Sharia Insurance in Malaysia	
1	AmMetLife Takaful Berhad
2	Etiqa Takaful Berhad
3	Great Eastern Takaful Berhad
4	Hong Leong MSIG Takaful Berhad
5	HSBC Amanah Takaful (Malaysia) Berhad
6	Zurich Takaful Malaysia Berhad
7	Prudential BSN Takaful Berhad
8	Sun Life Malaysia Berhad
9	Syarikat Takaful Malaysia Berhad
10	Takaful Ikhlas Berhad

### 3.4 Analysis Technique

Data analysis techniques in quantitative research using statistical analysis. Data analysis in this research uses two stages namely descriptive statistics. Descriptive statistics present the mean, the lowest (minimum), and the highest (maximum) values of the ratios tested: Surplus Change Rate, Underwriting Ratio, Claim Load Ratio, Commission Ratio, Management Cost Ratio, Return Ratio Investment, Premium Growth Ratio, and Own Retention Ratio of Takaful insurance that is sampled during the period 2013-2015. Descriptive statistics in this study using Ms. Excel 2013.

## 4 RESULTS AND DISCUSSION

Based on data analysis the result of this research are:

### 4.1 Sharia Surplus Ratio

Table 3: EWS Calculation Result on Sharia Surplus Ratio Changes in Indonesia and Malaysia.

Surplus Ratio	N	Min	Max	Mean	Std. Dev
Indonesia	9	0,00	0,30	0,03	0,10
Malaysia	9	0,00	0,00	0,00	0,00

Source: Result of Data Processing.

Sharia Insurance in Indonesia has a better financial performance when compared with Sharia Insurance in Malaysia. Sharia Insurance in Indonesia has the highest Surplus Ratio Change Rate on descriptive statistic analysis for the average value and maximum value. Sharia Insurance in Indonesia has an average of 0, 03 or 3% with the highest ratio of 0,30 or 30%

and the lowest ratio of 0%. While the average Malaysia Sharia insurance surplus ratio is 0, 00 or 0% with the highest ratio of 0,00 or 0% and the lowest 0%.

### 4.2 Underwriting Ratio Description

Table 4: EWS Calculation Result on Sharia Insurance Underwriting Ratios in Indonesia and Malaysia

Underwriting Ratio	N	Min	Max	Mean	Std. Dev
Indonesia	9	-0,01	0,22	0,14	0,06
Malaysia	9	-0,21	0,04	-0,06	0,09

Source: Result of Data Processing.

Financial performance of Sharia Insurance in Indonesia and Sharia Insurance Malaysia in the period 2013-2015 based on Underwriting Ratio show that Sharia Insurance in Indonesia has an average of 0.14 or 14% with the highest ratio of 0,22 or 22% and the lowest ratio of -0.01 or -1%. On the other hand, the average underwriting ratio of Sharia Insurance in Malaysia is -0.06 or -6% with the highest ratio of 0.04 or 4% and the lowest being -0.21 or -21%. So, Sharia Insurance both countries in good condition, but Shariah Insurance Malaysia has better financial performance compared to Sharia Insurance Indonesia because Sharia Insurance in Malaysia has the lowest Underwriting Ratio value. It can be concluded that Sharia Insurance in Malaysia has a good assessment in the determination of the contribution given to customers of sharia insurance.

### 4.3 Description of Claim Expense Ratio

Table 5: EWS Calculation Result on Sharia Insurance Claim Expense Ratio in Indonesia and Malaysia

Claim Expense Ratio	N	Min	Max	Mean	Std. Dev
Indonesia	9	0,29	0,88	0,50	0,20
Malaysia	9	0,01	0,53	0,31	0,19

Source: Result of Data Processing.

Sharia Insurance in both countries has good performance, but Sharia Insurance in Malaysia has better financial performance compared to Sharia Insurance in Indonesia. It is because Sharia Insurance in Malaysia has the lowest Claim Ratio Rate. Based on the Claim Expense Ratio, Sharia Insurance in Indonesia has an average of 0, 50 or 50% with the lowest ratio of 0, 29 or 29% and the highest ratio of 0.88 or 88%. While Sharia Insurance Claim Expense Ratio in Malaysia is 0,31 or 31% with the lowest 0,

01 or 1% and the highest ratio of 0, 53 or 53%. So it can be concluded that Sharia Insurance in Malaysia has a good assessment in underwriting and risk closing process

#### 4.4 Description of Commission Ratio

Table 6: EWS Calculation Result on Ratio of Sharia Insurance Commission in Indonesia and Malaysia

Commission Ratio	N	Min	Max	Mean	Std. Dev
Indonesia	9	0,06	0,47	0,30	0,13
Malaysia	9	0,21	6,15	2,02	2,62

Source: Result of Data Processing.

Based on the Commission Ratio, Sharia Insurance in Indonesia has an average of 0, 30 or 30% with the lowest ratio of 0, 06 or 6% and the highest ratio of 0, 47 or 47%. While, Sharia Insurance Commission in Malaysia amounted to 2, 02 or 202% with the lowest 0, 21 or 21% and the highest ratio of 6, 15 or 615%. This illustrates that in the year Sharia Insurance in Indonesia and Asuransi Sharia in Malaysia have a good financial performance. However, here Sharia Insurance in Indonesia has a better financial performance. Since the Commission Ratio can be used as a benchmark in determining the acquisition cost incurred by the company in each industry, where the cost of acquisition in the Malaysian Sharia Insurance industry is high, it will be very influential in the Commission Ratio

#### 4.5 Descriptions of Cost Management Ratio

Table 7: EWS Calculation Result on Sharia Insurance Cost Management Ratio in Indonesia and Malaysia

Cost Management Ratio	N	Min	Max	Mean	Std. Dev
Indonesia	9	0,38	0,97	0,78	0,22
Malaysia	9	0,63	17,72	4,88	6,65

Source: Result of Data Processing.

The Management Cost Ratio, Sharia Insurance in Indonesia has an average of 0.78 or 78% with the lowest ratio of 0.38 or 38% and the highest ratio of 0.97 or 97%. While, the average Sharia Insurance Management Cost Ratio in Malaysia is 4,88 or 488% with the lowest 0, 63 or 63% and the highest ratio of 17.72 or 1772%. This illustrates that in the year Sharia Insurance in Indonesia and Sharia Insurance in Malaysia have a good financial performance. Sharia Insurance in Indonesia has the lowest Ratio

Management Cost, because sharia insurance in Indonesia is starting to grow so the management costs incurred are not too high than in Malaysia

#### 4.6 Premium Growth Ratio

Table 8: EWS Calculation Result on Sharia Insurance Premium Growth Ratio in Indonesia and Malaysia

Premium Growth Ratio	N	Min	Max	Mean	Std. Dev
Indonesia	9	-0,07	0,28	0,01	0,11
Malaysia	9	-0,21	101,84	11,61	33,84

Source: Result of Data Processing.

Sharia Insurance in Indonesia has an average of 0.01 or 1% with the highest ratio of 0, 28 or 0, 28% and the lowest ratio is -0, 07 or -7%. While, the average Ratio of Growth Insurance Premium Sharia in Malaysia amounted to 11,61 or 1161% with the highest ratio of 101,84 and the lowest ratio -0.21 or -21%. Sharia Insurance in Malaysia has a better financial performance when compared with Sharia Insurance in Indonesia due to Sharia Insurance in Malaysia have in the Ratio of Premium Growth more sustainable than Sharia Insurance in Indonesia. The shariah insurance premium in Malaysia has increased every years where the factors that influence are the level of education, the level of awareness of citizens and government regulations which require citizens to have sharia insurance.

#### 4.7 Retention Ratio

Table 9: EWS Calculation Result on Sharia Insurance Retention Ratio in Indonesia and Malaysia

Ratio Retention	N	Min	Max	Mean	Std. Dev
Indonesia	9	0,27	0,42	0,37	0,05
Malaysia	9	0,10	0,69	0,44	0,20

Source: Result of Data Processing.

Sharia insurance in malaysia has a healthier financial performance when compared to sharia insurance in indonesia due to sharia insurance in Malaysia increase in own retention ratio higher than sharia insurance in Indonesia. The reasons that affect the level of own retention ratio is the ability to deal with the risks. Sharia Insurance in Malaysia is prefer to use reinsurance to protect their contribution received

## 5 CONCLUSION

Based on the results of the financial performance assessment using the ratio of Early Warning System, on the Ratio of Surplus Change, Commission Ratio, and Management Cost Ratio Sharia Insurance in Indonesia has better financial performance than Sharia Insurance in Malaysia. While Islamic Insurance in Malaysia has better financial performance than Sharia Insurance in Indonesia when on Underwriting Ratio, Claims Expense Ratio, Surplus Growth Ratio, and Own Retention Ratio. On the other site, this research also found that external factors influence the financial performance such as the awareness and knowledge of Indonesian citizens about how importance the insurance, second is government regulations that support the sharia insurance itself. Third is the level of public health to every citizen in Indonesia as well as in Malaysia, and many others factors.

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