DIPONEGORO JOURNAL OF MANAGEMENT *Volume 5, Nomor 3, Tahun 2016, Halaman 1-14*
http://ejournal-s1.undip.ac.id/index.php/dbr ***ISSN (Online): 2337-3792***

THE DETERMINANT OF FINANCIAL HEALTH ON SHARIA LIFE INSURANCE COMPANY

(Empirical Research on Sharia Life Insurance Company in Indonesia Period 2010-2015)

Asih Primayanti, Erman Denny Arfianto[1]
Asihprimayanti@gmail.com

Jurusan Manajemen Fakultas Ekonomika dan Bisnis Universitas Diponegoro
Jl. Prof. Soedharto SH Tembalang, Semarang 50239, Phone: +62247648685

ABSTRACT

Financial health is a term used to describe the state of one's personal or company financial situation. Considering the many factors that affect the level of health of the company, this research will develop research to analyze the effect of Firm Size (siz), Investment Performance (IP), Liquidity Ratio (LR), Incurred Loss Ratio (ILR) on Financial Health of Sharia Insurance company. The purpose of this study was to determine and analyze the factors that affect the Financial Health of Sharia Life Insurance Company in Indonesia the period 2010 to 2015.

The Financial Health measured by two methods, namely by Altman Zscore and the second with a Risk Based Capital (RBC) with Firm Size (siz), Investment Performance (IP), Liquidity Ratio (LR), Incurred Loss Ratio (ILR) as independent variables . Samples used in this study as many as 14 Sharia Life Insurance, where the method used is purposive sampling is a sampling method that takes an object with certain criteria and using cross section data, where every year the amount of data taken is not same. Analysis of data using multiple regression analysis.

The results of data analysis or regression results indicate that simultaneous Firm Size (siz), Investment Performance (IP), Liquidity Ratio (LR), and Incurred Loss Ratio (ILR) affects Financial Health (Z) and Financial Health (RBC). While partially produced different results, which is only variable Investment Performance (IP) which partially affects Financial Health (Z), but on the Financial Health (RBC), Investment Performance (IP), Liquidity Ratio (LR), Incurred Loss Ratio (ILR) partially affect the Financial Health (RBC). The magnitude of the coefficient of determination (adjusted R-square) Financial Health (Z) is equal to 0.376. This means that 37.6% dependent variable, namely the Financial Health 1 (Z) can be explained by four independent variables, ie variables Firm Size (siz), Investment Performance (IP), Liquidity Ratio (LR), Incurred Loss Ratio (ILR) while the remaining 62.4% level Financial Health (Z) is explained by variables or other causes beyond the model. Then, magnitude of the coefficient of determination (adjusted R-square) Financial Health (RBC) is approximately 0.567. This means that 56.7% dependent variable 2, namely the Financial Health (RBC) can be explained by four independent variables are variables Firm Size (siz), Investment Performance (IP), Liquidity Ratio (LR), Incurred Loss Ratio (ILR) while the remaining 43.3% Financial Health (RBC) is explained by variables or other causes beyond the model.

Keywords: Financial Health (Z), Financial Health (RBC), Firm Size (siz), Investment Performance (IP), Liquidity Ratio (LR), Incurred Loss Ratio (ILR)

INTRODUCTION

The healthy of insurance industry can be reliable and competitive indispensable in the national economy. Activities insurers in managing risk is expected to boost economic

[1] *Author, Person in charge*

growth in a country. In this last decade of the insurance industries, solvency became a major issue in the regulator of the insurance policy. Therefore, the insurance company did the strategies andtechniques in managing losses in order to prevent insolvency. (Pitselis, 2006). For assessing health of sharia life insurance company in the future can be seen from the calculation of financial ratios contained in the financial statements. To determine the extent of the company's development, can be done by comparing the financial statements. Ratio analysis is a useful tool for finding answers that can not be obtained on the financial statements. The resulting financial ratios can help the Insurance or a third party to analyze and determine the risk of lending to companies.

The limited research that describes the health indicators sharia life insurance company in Indonesia, this makes people generally have difficulty in analyzing the companies whether the company's performance is health or not. Moreover, the phenomenon of fluctuation of Solvency and Insolvency gives an indication on Sharia Life Insurance Compeny in Indonesia. With the existence of these phenomena pushed sharia life insurance company in Indonesia in order to increase the value of its solvency with good business management.

There are two ways for determinant the financial health of a company. first is the solvency and second is Zscore by Altman. First is Solvency, the solvency according Holzmuller (2009) demonstrate the company's ability to pay off all the debt that is using all its assets. It is indeed rare exception of insolvent companies (Chava and Jarrow, 2004). Altman et al. (2004) say the ability of the company's operations are reflected on the assets owned by the company. Solvency ratios emphasis on the amount of capital that can protect the excess premiums from unfavorable influences (Kashyap & Stein, 2003).

The way to measures the solvency level of a company, usually use the Risk Based Capital Ratio (RBC) (Hsiao and Whang, 2009). The National Association of Insurance Commissioners (NAIC) adopted the RBC model of life-health insurer in 1993. Feaver (1994) and Barth (2001) noted the RBC ratio as used to evaluate the capital adequacy for the life insurers. Supervisions could monitor the financial soundness and determine their action level, if insurers become inadequately capitalized, based on the RBC ratio. According to Government Regulation (PP) No. 63 of 2004 states that "Health Risk Based Capital Ratio is a measure that informs the level of financial security or a health insurance company that must be met by insurance companies amounted to 120%. The greater the Risk Based Capital ratio of a health insurance company, the healthier the company's financial condition " .

The second ways for determinant the financial health of a company is use Zscore. According Altman, Zscore as a measure of corporate performance are used to predict the tendency of bankruptcy or not on a company. Altman Z-score has been used in research as defined in the original presentation (Altman, 1983). Altman started with 22 ratio that seems intuitively plausible as a predictor of bankruptcy. After the research process is running, he excluded ratio of at least at least contributes to the strengthening of the model. In the end, produce a model of mathematical equations which only contain five elements of a ratio that is working capital to total assets (X1), retained earnings to total assets (X2), earnings before interest and tax to total assets (X3), the market value to book value of total debt (X4) and total revenue to total assets (X5). This model can also be applied to the company's non-manufacturing industry to modify the formula. To do so, the first component up to four (X1 s-d X4) in the formula used and the fifth component (X5) is ignored (Auchterlonie, 1997). The ratios describe the ratio of management capabilities in managing the assets of the company, so the Altman Z-score can also be used as a measure of corporate performance, namely in terms of the potential bankruptcy of a company.

The ability to determine the level of health of the company will benefit many parties, especially creditors and investors. For investors, lacking or not healthy companies would have the consequence of reduced investment or even lost overall investment, whereas for creditors, statement with less healthy will result in the loss of principal receivable bills, with interest (Wing et al. 2003). For the company itself in bankruptcy proceedings will bear no small cost. However, in this study, financial health showed by two kinds of dependent variable. First, in this study, financial health showed by the solvency that measured by Risk Based Capital (RBC) and secondly showed by Zscore.

THEORETICAL FRAMEWORK

Predicting the solvency or the financial health of insurance becomes perhaitan government and insurance customers, this is to make sure the insurance company is able to pay its obligations. NAIC

(National Association of Insurance Commissioners) develop ratio IRIS (Insurance Regulatory Information System) to predict the solvency of insurance companies. Satria (1994) using the ratio NAIC developed to measure the financial performance of insurance companies in Indonesia. According to this study the liquidity ratio is the ratio of the most significant to determine the solvability of insurance, the ratio of the level of sufficiency of funds is also significant because it shows the commitment of the shareholders to the management of insurance companies that are owned, and the ratio of return invetasi significant because it can assess the investment policy of the company, as well as the ratio of capital changes dapet provide an indication of increasing or decreasing financial condition of the company in the current year.

Hsiao and Whang (2009), conducted a study of financial insolvency prediction model for life insurers use variabel of RBC and CAMEL-S. They use Zscore as a rating model and MDA , ANN, and Logit as a regression tools. In this study, the find that the RBC model is more sensitive for insolvency prediction than CAMEL-S in short term and they find that ANN is more efficient to use.

BaNiv and Hersbarger (1990) conducted a study to predict financial health of insurance. The variables used in this study include the net gain to total income, commission and other expense to premium, size, gain to the premium, the premium to surplus, this change product mix and change in asset mix. Variable changes in the composition of the product (this product mix change) peling significantly among other variables.

Chen and Wong (2004), which conducts research on the financial health of insurance companies in Asia, they found that the factors that significantly affect the financial health of the general insurance is firm size, investment performance, liquidty ratio, surplus growth, combined ratio and operating margin. In addition, factors that affect the financial health of insurance is firm size, leverage insurance, operating margin, this change asset mix, investment perfromance, and a change in product mix. The model used in this research is a logit model and the model of HHM. Classification of life insurance using the HHM models, this model is used to look at the stability of the financial statements of insurance. According to the study of financial instability makes the company more risky, because the life insurance provides dala services dealing with risks associated with the life or death of an insured person and the nature of long-term (long term) then stability is an important factor for life insurance companies.

There is no many related empirical research on the factors that affect the financial health of insurance sharia in Indonesia. Therefore, the literature used in this research is the study of factors affecting the financial health in the conventional insurance as mentioned above. This research is the development and replication of research conducted by Chen and Wong (2004).

Firm Size (SIZ) to Financial Health

Firm size (the size of the company) is a scale where small companies can be classified according to a large variety of ways, including total assets, log size, the stock market value and others (Sirait, 2011). The size of the company is one of the variables commonly used to describe the variation of disclosures in the annual reports of companies (Purwanto, Universitas Sumatera Utara 37, 2011). A large and well-established company will be easy to go to the capital market (Wulandari, 2012). Companies with a smaller size will be vulnerable to bankruptcy. It is expected that large enterprise level is also better financial health. A positive relationship between firm size and financial health was found by Chen and Wong (2004). Results of the research showed that the size of the company measured by total assets of the insurance company significantly and positive affect the health of the company. Company size is an important determinant of the financial strength of insurance companies, in both the developed and developing countries.

Based on the theoretical explanation of the above, it can be filed Hypothesis 1 as follows:

H1: Firm Size (SIZ) positive effect on the financial health of Sharia Life Insurance Company

Investment performance (IP) to Financial Health

The importance of investment performance in life insurance business extends beyond the ability to design competitive products. Good investment performance assists the insurer in generating a

higher actuarial surplus to contribute to insurer's profitability, and generate further free assets beyond the liabilities of the insurance funds.

The effective management of life insurance funds is critical in ensuring an insurer's longterm financial strength as well as its ability to meet the policy owners' expectations of future bonuses. In view of the difficult economic scenario, care must be taken by insurers to ensure prudent pricing exercise as well as proper investment strategies to match the long-term financial commitments of the life insurance industry.

According to Chen and Wong (2004) investment performance is an investment performance that reveals the effective and efficient investment decisions. In this study, researchers used a Return On Investment to calculate investment performance. The greater this ratio, the better because it means the greater the company's ability to generate profits. Results of research Chen and Wong (2004) concluded the investment performance positively affect the health of company in developed countries and growing.

Based on the theoretical explanation of the above, it can be filed Hypothesis 2 as follows:

H2: Investment Performance (IP) positive effect on the financial health of Sharia Life Insurance Company

Liquidity Ratio (LR) to Financial Health

Liquidity ratios are a class of financial metrics used to determine a company's ability to pay off its short-terms debts obligations. Generally, the higher the value of the ratio, the larger the margin of safety that the company possesses to cover short-term debts.Liquidity or liquidity ratio measures the company's ability to meet short-term obligations maturing (David, 2009).

The results of the study (Kritsonis, 2004) stated that the shareholders / creditors have different perspectives on companies with high current ratio. Research conducted by Chen and Wong (2004) argued that the liquidity ratio is positively related to the financial health of insurance companies.

Based on the theoretical explanation of the above, it can be filed Hypothesis 3 as follows:

H3: Liquidity Ratio (LR) positive effect on the financial health of Sharia Life Insurance Company.

Incurred Loss Ratio (ILR) to Financial Health

This ratio shows the experience of claims incurred in the company and measures the quality of the insurance closed. The high loss ratio provide information to poor underwriting and closing on a bad risk. Analysis of the disadvantages for each type of insurance required. (Oktaviani,2015)

Head of Financial Analysis Insurance Bureau of Capital Market Supervisory Agency and Financial Institution (Bapepam-LK) Masdar explained, the higher the number the claims ratio indicates underwriting companies are not qualified. It can also occur because companies set premium rates that are too low. Conversely, the less claims ratio indicates a good quality underwriting or because the company implemented a high premium rates.

The Incurred Loss Ratio (ILR) in Combined ratio is founs to be negatively related to general insurer's financial health in all economies . As reported by Browne and Hoyt (1995), a high combine ratio could indicate unfavorable underwriting results, and thus lower the profitability. So , it will not efficient for keep the financial healt. Doherty and Garven (1995) also provided theoretical evidence to the hypothesized negative relationship between the combine ratio and solvency ratio.

Based on the theoretical explanation of the above, it can be filed Hypothesis 4 as follows:

H4: Incurred Loss Ratio (ILR) negative effect on the financial health of Sharia Life Insurance Company

Figure 1
Theoritical Framework 1:

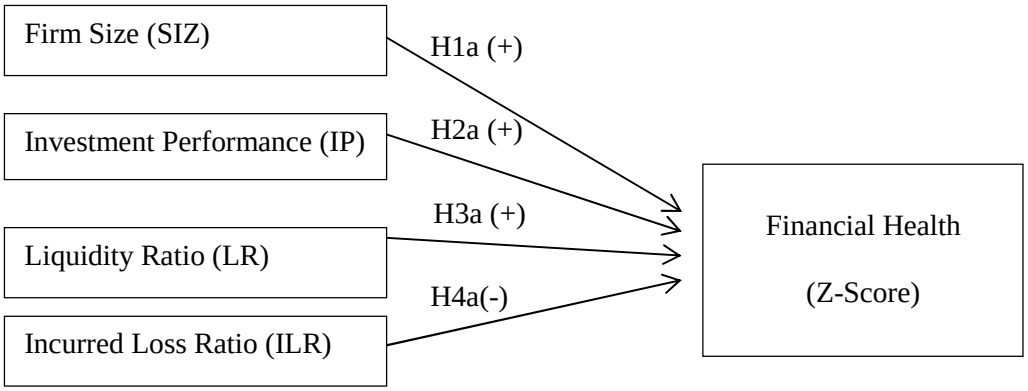
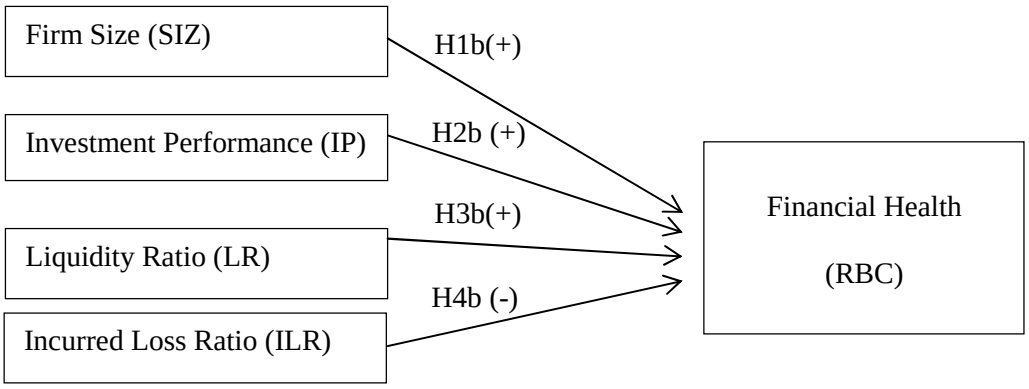


Figure 2
Theoritical Framework 2:



Source: For the present study was developed from research by Chen and Wong (2004), Ran BarNiv and Robert A Hershbarger (1990), and Shu-Hua Hsiao and Thou-Jen Whang (2009)

RESEARCH METHODS

The dependent variable is the variable that explained or influenced by independent variables (Sekaran, 2006). In this study, financial health showed by two kinds of dependent variable. First, in this study, financial health showed by the solvency that measured by Risk Based Capital (RBC) and secondly showed by Zscore.

1. Altman's Zscore (Z)

Altman's Zscore as a measure of corporate performance in terms of investment potential are declining bankruptcy (Sudjiyatno and Puspitasari,, 2010). Altman Z-score is an indicator for measuring the potential bankruptcy of a company. It was derived based on multivariate discriminant analysis selected from the factors most relevant (of 22 possible factors to be assessed) and the relative importance of each factor. Discriminant analysis is a technique to differentiate between data points from multiple measurement characteristics. Z-score is a form of analysis of the performance of companies using financial ratios figures are combined in a form of a mathematical equation. Z-score is one model of bankruptcy with the approach of Multiple Discriminant Analysis (MDA). This model is used to determine whether a company has the potential bankruptcy or not.

The modified Z"-Score model:
Z" = 3.25 + 6.56 (X1) + 3.26 (X2) + 6.72 (X3) + 1.05 (X4)
Where :
X1 = working capital/total assets,

X2 = retained earnings/total assets,
X3 = earnings before interest and taxes/total assets,
X4 = market value equity/book value of total liabilities

The dependent variable used in this study is a Financial Health of sharia life insurance. Financial health is a term used to describe the state of one's Company financial situation. There are many dimensions to financial health.

2. Risk Based Capital (RBC)

Risk Based Capital ratio is a measure that informs the level of financial security or health of an insurance company by way of dividing the djusted capital with total RBC (minimum level of solvency). The greater the Risk Based Capital ratio of a health insurance company, the more healthy the company's financial condition.

$$\text{RBC} = \frac{\textit{Solvency Level}}{\textit{RBC minimum}}$$

Source: PSAK No.28

Solvency level is the result of Allowable Assets minus Total Liabilities. While Solvency Level Limit Minimum or Minimum Capital Risk Based vary depending on the set of companies.

The independent variable or variables are variables that help explain the variance in the dependent variable (Sekaran, 2006). Independent variables used in this research that Firm Size (SIZ), Investment Performance (IP), Liquidity Ratio (LR), Risk Based Capital (RBC), and Incurred Loss Ratio (IL). The variables used in this study were based on the literature review.

1. Firm Size (SIZ)

The financial health of any organization is influeanced by, Among other factors, the size or the total assets of the firm. As regulators are less Likely to Liquidate large insurers, it is expected that small insurers are more vulnerable to insolvency (BarNiv and Hershbarger, 1990; Cummins, Harrington, and Klein, 1995). Variables used to measure firm size include total premium, the total admitted assets, and capital and surplus.

This variable is measured by Total Assets

2. Investment Performance (IP)

Investment performance is an investment performance that reveals the effective and efficient investment decisions. In this study, researchers used a Return On Investment to calculate investment performance.

Return on Investment ratio is used to measure the results achieved from investments made. This ratio has a normal range of at least 15%. The ratio of return on investment can be calculated as follows:

$$\text{ROI} = \frac{\textit{Investment Income}}{\textit{Average invest}}$$

Source: PSAK No.28

3. Liquidity Ratio (LR)

Asset Liquidity Ratio measures the company's ability to meet its obligations to assets that are owned. This ratio has a maximum limit of 120% of normal. Asset liquidity ratio calculations can be performed using the formula:

$$\text{Liquidity Ratio} = \frac{\textit{Stated Liabilities}}{\textit{Liquid Asset (Accounting Value)}}$$

Source : National Association of Insurance Commissioners (NAIC) / PSAK No.28

4. Incurred Loss Ratio (ILR)

Incurred loss ratio shows claims incurred to the company. The Incurred loss ratio have normal limit of a maximum of 100%. The formula for the ratio of claims expenses are:

$$\text{Incurred Loss Ratio} = \frac{\textit{Losses Incurred}}{\textit{Premiums Earned}}$$

Source : PSAK no 28.

Sampling Method

The sampling technique companies in this study using purposive sampling method, the sampling method with certain criteria in accordance with the needs of the data and information required. The criteria for the samples in this study are as follows:

a. The company engages in sharia-based life insurance registered in Bapepam LK and provided their financial statements during 2010-2015
b. Companies that were sampled had a complete financial data from 2010-2015

Analysis method

The analysis technique will be used in this research is using multiple linear regression analysis to obtain a comprehensive picture of the relationship between the variables and the other variables. In this case for the dependent variable is the Financial Health and the independent variable is the Firm Size (siz), Investment Performance (IP), Liquidity Ratio (LR), the Risk Based Capital (RBC), and incurred Loss Ratio (ILR). To find out if there is a significant influence of the independent variable on the dependent variable we used linear regression models were formulated as follows:

Model I

$$\mathbf{Z = \alpha + \beta_1 SIZ_a + \beta_2 IP_a + \beta_3 LR_a + \beta_4 ILR_a + e}$$

where :

Z	= Financial Health
SIZ_a	= Firm Size
IP_a	= Investment Performance
LR_a	= Liquidity Ratio
ILR_a	= Incurred Loss Ratio
α	= constants
β_{1-4}	= regression coefficient
e	= residual error (*error*).

Model II

$$\mathbf{RBC = \alpha + \beta_1 SIZ_b + \beta_2 IP_b + \beta_3 LR_b + \beta_4 ILR_b + e}$$

where :

RBC	= Financial Health
SIZ_b	= Firm Size
IP_b	= Investment Performance
LR_b	= Liquidity Ratio
ILR_b	= Incurred Loss Ratio
α	= constants
β_{1-4}	= regression coefficient
e	= residual error (*error*).

Classic assumption test

Classic assumption test is a statistical requirements to be met by multiple linear regression analysis. Classic assumption test include:

- **Normality test**
  Normality test aims to test whether the regression model, the dependent variable and independent variables have a normal distribution or not. A good regression model is that having data distribution normal or near normal.
- **Test Multicollinearity**
  According Ghozali (2006) This test aims to test whether the regression model found a correlation between the independent variables. In a regression model that either should not occur between the independent variables correlation. To detect the presence or absence of multicollinearity can be seen from the tolerance value or Variance Inflation Factor (VIF).
- **Test Heteroskidastity**
  Heteroskedastisitas test aims to test whether the regression model occurred inequality residual variance from one observation to another pengamataan fixed, or so-called homoskedastisitas. A good regression model is that homoskedastisitas, not heteroskedastisitas.

- **F test**
  F test is used to determine whether there is simultaneous influence of independent variables on the dependent variable. Testing criteria used is if the probability value (p value) <0.05, so

Ha is received and if the p value> 0.05, Ha rejected. F test can also be done by comparing the value of F and F table. If F count> F table, so Ha is received.

- **Partial test (t test)**
  The statistical test t basically shows how far the influence of the independent explanatory variables individually or in explaining the variation of the dependent variable.
- **The coefficient of determination**
  The coefficient of determination (R2) to measure how far the model established in explaining the variation of the independent variables.

RESULTS AND ANALYSIS

An Overview of Research Object

The object of research or sample used in this study is the Syariah Life Insurance companies listed on the Financial Services Authority (FSA) Indonesia period 2010-2015. Based on the criteria, taken14 companies to be a sample of 24 companies that exist, with the number of observations as much as 61 observation data that meets the criteria of research. The data that used in this study is secondary data, that's from the financial report of the sharia life insurance company in Indonesia. Here is the table of the listedof the company.

Table 1

Documentation of Sharia Life Insurance Company

No	Sharia Life Insurance	Description
1	PT Allianz Life Syariah	Unit Syariah
2	PT Asuransi Jiwa Syariah Al Amin	Full Syariah
3	PT Avrist Assurance	Unit Syariah
4	PT AXA Financial Indonesia	Unit Syariah
5	PT AXA Mandiri Financial Service	Unit Syariah
6	PT BNI Life Insurance	Unit Syariah
7	Asuransi Jiwa Bersama Bumiputera 1912	Unit Syariah
8	PT Asuransi Jiwa Central Asia Raya	Unit Syariah
9	PT Asuransi Jiwa Syariah Amanah Jiwa Giri Artha	Full Syariah
10	PT Asuransi Jiwa Manulife	Unit Syariah
11	PT ASURANSI JIWA MEGA LIFE	Unit Syariah
12	PT Prudential Life Assurance	Unit Syariah
13	Sinarmas MSIG Life	Unit Syariah
14	PT Sun Life Financial Indonesia	Unit Syariah

Research result

The results of this study consisted of testing the classical assumption of normality test, multicollinearity, and heteroscedasticity test. In addition to the classical assumption test done also test the hypothesis that consists of a simultaneous test (F test), partial test (t test), and the coefficient of determination. The results of the calculation as follows:

Classic assumption test

- **Normality test**

Normality test performed in this study using the Kolmogorov-Smirnov are Based on the test results of normality with *the Kolmogorov-Smirnov test* the value *Asymp.Sig* model 1 with Z-score as the dependent variable one is of 0.200 and the value *Asymp.Sig* in model 2 with RBC as the dependent variable 2 is of 0.200. Both have *Asymp.Sig* value much greater than 0.05 it can be proved that the data is distributed nomal, so free from irregularities classical assumptions.

- **Test Multicollinearity**

Based on the test results multikolinearitas , VIF in model 1 and model 2 no one has a value of more than 10 and also the value of TOL in model 1 and model 2 no one has a value of less than 0.1. Based on the results of VIF and the value of TOL in table 4.6 and table 4.7 above, it can be stated that all variables in this study did not happen multikolinearitas, so free from irregularities classical assumptions.

- **Test Heteroskidastity**

The results of the test glejser output display on both models indicate that there is no independent variables are statistically significant affect the dependent variable Absolute value Ut (AbsUt in model 1 and model 2). This is evident from the significance probability is above the 5% confidence level. Therefore we can conclude the regression model does not contain any heteroscedasticity.

- **Simultaneous Test (Test F)**

Based on the statistical test F shows the value of F arithmetic model 1 with Z-score as the dependent variable 1 is equal to 8.450 with a significance value of 0.000. In model 2 with RBC seen as dependent variable 2 calculated F value is equal to 20.671 with a significance value of 0.000. Can be seen the significance of both the above models is below 0.05 sig, therefore it can be concluded that both fulfill the *Goodness of Fit,* because the probability value (sig.F) is smaller than 0.05 sig so this research model feasible to use.

- **Partial test (t test)**

The statistical test t basically shows how far the influence of the independent variables individually in explaining the variation of the dependent variable. The result of partial test (t test) with dependent model 1 and model 2 research can be seen in Table 2 and Table 3 below:

Table 2

t- Test Results Statistics - Model 1

Variabel Independen	Expected SIgn	Coefficients	t	Sig.
(Constant)		1,103	3,007	,004
LnSIZ	-	-,002	-,092	,927
LnIP	-	-,179	-5,674	,000
LnLR	+	,037	,294	,770
LnILR	_-	-,073	-1,283	,205

a. Dependent Variable: LnZ

Table 3

t- Test Results Statistics - Model 2

Variabel Independen	Expected SIgn	Coefficients	t	Sig.
(Constant)		-3,566	-3,208	,002
LnSIZ	+	,073	1,077	,286
LnIP	-	-,194	-2,033	,047
LnLR	+	3,043	8,053	,000
LnILR	_-	-,355	-2,050	,045

a. Dependent Variable: LnRBC

Source: Secondary data which processed using SPSS 23

Table 4
Conclusion of t- Test Results Statistics - Model 1&2

No	Model	Result of t-Test Statistic :
1	Model 1 Dependen : LnZ	Result of t-Test Statistic Model 1 : Independen: 1. LnSIZ Result : a. Ho=Accepted (Partially not significant, α>5%) b. $H1_a$=Rejected (Negative Effect) 2. LnIP Result : a. Ho=Rejected (Partially significant, α<5%) b. $H2_a$=Rejected (Negative Effect) 3. LnLR Result : a. Ho= Rejected (Partially significant, α<5%) b. $H3_a$=Accepted (Positive Effect) 4. LnILR Result : a. Ho=Accepted (Partially not significant, α>5%) b. $H4_a$=Accepted (Negative Effect)
2	Model 2 Dependen : LnRBC	Result of t-Test Statistic : Independen: 1. LnSIZ Result : a. Ho=Accepted (Partially not significant, α>5%) b. $H1_b$=Accepted (Positive Effect) 2. LnIP Result : a. Ho=Rejected (Partially significant, α<5%) b. $H2_b$=Rejected (Negative Effect) 3. LnLR Result : a. Ho=Rejected (Partially significant, α<5%) b. $H3_b$=Accepted (Positive Effect) 4. LnILR Result : a. Ho=Rejected (Partially significant, α>5%) b. $H4_b$=Accepted (Negative Effect)

- **Koefisien Determinasi**

Based on the test results of the coefficient of determination (R^2) shows that the coefficient of determination (R^2) of the value of Adjusted R Square on model 1 with Z as the dependent variable is equal to 0.332 or 33.2%, this indicates that 33, 2% variable Z can be explained by four independent variables SIZ, IP, LR and ILR, while the remaining 63.8% is explained by other causes outside the model 1. in model 2 with RBC as the dependent variable showed that the coefficient of determination ($RÂ^2$) amounted to 0.567, or 56.7%, this shows that 56.7% variable RBC can be explained by four independent variables SIZ, IP, LR and ILR, while the remaining 43.3% is explained by other causes outside the model 2.

INTERPRETATION RESULTS

Hyphotheses 1a (H1a), variables strategy Firm Size (SIZ) has a negative coefficient and the effect was not significant (sig above 5%) of the Financial Health (Z). This negative effect meant that total assets increased, making the company increasingly unhealthy. This indicates the value of risky

assets in the financial statements Indonesian sharia life insurance. These results contrast with previous research that Chen and Wong (2004), and Ran BarNiv and Robert A Hershbarger (1990). In theory, the higher the total assets of this, output is likely to cause inefficient. As to the theory expressed efficiency, greater company size could have led to companies increasingly inefficient management companies increasingly numerous and widespread. So it takes a huge cost, so that the total assets of large cnderung higher risk of health companies. This is what may underlie the negative effect of Firm Size to financial health. This model mengasilkan nonsignificant results, because the data used is the cross section data and a limited number of samples

Hyphotheses 1b (H1b), In contrast to the interpretation of the results of model 1 above, the interpretation of model 2, variable Firm Size (SIZ) has a positive coefficient so that the effect is positive but the same, which was not significant (sig above 5%) of the Financial Health (RBC). This meant that, the higher the total assets of the company, then the company is getting healthier. These results are consistent with the theory and previous investigators that Chen and Wong (2004), and Ran BarNiv and Robert A Hershbarger (1990), where the Firm Size (SIZ) positive effect on financial health. This model give not significant results, because the data used is the cross section data and a limited number of samples.

Hyphotheses 2a (H2a) and Hyphotheses 2b (H2b), Interpretation of results in model 1 and 2 in Investment Performance (IP) produces the same results of analysis, strategy Variable Investment Performance (IP) has a negative coefficient so that a negative influence significantly (sig above 5%) of the Financial Health. This means that the higher the Investment Performance (IP) the lower the health of the company. This result is contrary to theory and previous investigators that Chen and Wong (2004), and Ran BarNiv and Robert A Hershbarger (1990), that saying the Investment Performance (IP) has a positive and significant impact to the financial health. The negative relationship between the ratio of Investment Performance (IP) on a Financial Health means an increase in the ratio of return on investment will lower investment income. This condition can occur for a total investment of more allocated to investments that small flowers, such as deposits, bonds, etc., while the allocation of the shares only slightly (Oktaviani, 2014). Thus, although the total investment increased, but the growth of disposable income actually fell.

Hyphotheses 3a (H3a), Interpretation of the results for model 1, variables Liquidity Ratio (LR) has a positive coefficient and the effect was not significant (sig above 5%) to the Financial Health (Z). These positive effect was supported by previous theory and research that conducted by Chen and Wong (2004), and Ran BarNiv and Robert A Hershbarger (1990) that the Liquidity Ratio (LR) has a positive effect on financial health, but the differentiation is that this ratio partially not significant.

Hyphotheses 3b (H3b), The interpretation of the results of model 1 above is same with model 2, but the interpretation of significant in model 2 is different with model 1, Variable Liquidity Ratio (LR) also has a positive but significant (sig under 5%) to the Financial Health (RBC). This means that the higher the Liquidity Ratio (LR), the better the conditions of the Financial Health of Companies. These positive effect was supported by previous theory and research that conducted by Chen and Wong (2004), Ran BarNiv and Robert A Hershbarger (1990) argued that the liquidity ratio is positively significant related to the financial health of insurance companies.

Hyphotheses 4a (H4a) and Hyphotheses 4b (H4b), Interpretation of the results for model 1 and model 2, Variable incurred strategy Loss Ratio (ILR) in both models has a negative coefficient of the Financial Health (Z) and Financial Health (RBC). This negative influence means that the less off incurred Loss Ratio (ILR), making the company more healthy. This result is following to existing theories and previous investigators Chen and Wong (2004) argued that the incurred loss ratio is negatively related to the financial health of insurance companies. Head of Financial Analysis Insurance Bureau of Capital Market Supervisory Agency and Financial Institution (Bapepam-LK) Masdar explained, the higher the number the claims ratio indicates underwriting companies are not qualified. It can also occur because companies set premium rates that are too low. Conversely, the less claims ratio indicates a good quality underwriting or because the company implemented a high premium rates.

Although both models have the same effect, but the significance is different for both these models, the model 1 incurred Loss Ratio (ILR) effect was not significant (sig above 5%) of the Financial Health (Z), and in model 2 incurred Loss Ratio (ILR) significantly (sig under 5%) of the

Financial Health (RBC). The significance of the difference could be due to the cross section data and uses two models with two different dependent variables.

CONCLUSION

This study was conducted to examine the effect of Firm Size (SIZ), Investment Performance (IP), Liquidty Ratio (LR), and incurred Loss Ratio (ILR) of the Financial Health in Indonesia Islamic life insurance company 2010-2015 by using two models dependent, the first model is Altman Z-Score (Z) as a dependent, and the second model is Risk Based Capital (RBC) as the dependent variable.

The explanation of research results from the two models with two dependent variables differ as a measurement of the Financial Health of Sharia Life Insurance of Indonesia, it was concluded the result that the measurement Financial health, more appropriate use of the Risk Based Capital (RBC) for independent variables is much better able to describe its influence to variable RBC dependent compared with the Z-score as the dependent variable, evidenced by the results of R2 (RBC)> R2 (Z), and total level of significance of independent variables on the dependent variable RBC more than the Z-score as the dependent variable.

T-test both models showed a significance level of SIZ, IP, LR and ILR on the dependent variable Z and the dependent variable RBC. On the results of the t-test model 1 is Z as the dependent variable, of the four independent variables, only one significant variable (values below 0.05), namely Investment performance (IP). Whereas in model 2 is RBC as the dependent variable, of the four variables independent, only one is not significant, the variable Firm Size (SIZ), while three other independent variables significantly (values below 0.05), and the three variable after is significant. In conlusion of t-Test, the model 2 with RBC as the dependent variable better at giving an overview of how the results of the research have the opportunity to correct.

Limitations of this study are the limited amount of data samples that required to used, that's why form 24 company, this thesis only use 15 company that required. Also, this thesis is not use time series data, but use cross section data, because the number of years of financial report that required to used in this reasearch, is not provided by some Indonesian sharia life insurance companies. In addition, the ratio that used in this thesis is not much enough to give result certainly about the determinant of financial health of sharia life insurance in Indonesia.

Based on the foregoing, there are some suggestions for future research, that for future studies are expected to add a period of time so that the amount of observational data that meet the criteria of each sample and for Further research is expected to use independent variables contained in the ratio of Early Warning System (EWC) others, in describing the Financial Health sharia life insurance company in Indonesia.

REFERENCES

Aasen, 2011. Applying Altman's Z-Score to the Financial Crisis (An Empirical Study of Financial Distress on Oslo Stock Exchange). *Master Thesis*. Norwegian School of Economics.

Afza and Asghar (2012), financial reforms and efficiency in the insurance companies of Pakistan, African Journal of Business Management 6 (30), 8957-8963

Agustina M.I. 2011. Analisis Kinerja Keuangan Berdasarkan Early Warning System pada PT. Asuransi Central Asia Cabang Palembang. *Tesis.* Poltek PalComTech, Palembang, Indonesia.

Ahmeed, 2013. The Non- Financial Factors Influencing The Performance of Islamic Insurance In Kenya: A Case Study of Takaful Insurance of Africa. European Journal of Business and Management. Vol.5, No.13, 2013

Altman, 1983. Distressed Firm and Bankruptcy prediction in an international context: a review and empirical analysis of Altman's Z-Score. *Wiley Interscience*. New York.

Ambrose, J. M. and J. A. Seward, 1988, Best's Rating, Financial Ratios and Prior Probabilities in Insolvency Prediction, *Journal of Risk and Insurance*, 229-244.

BarNiv, R. and R. Hershbarger, 1990, Classifying Financial Distress in the Life Insurance Industry, *Journal of Risk and Insurance*, 118-136.

Browne, M.J., and R.E. Hoyt, 1995, Economic and Market Predictors of Insolvencies in the Property-Liabilities Insurance Industry, *Journal of Risk and Insurance*, 62: 309-327.

Chen, R & Wong, K. A. 2004. The Determinants of Financial Health of Asian Insurance Companies. *Journal of Risk and Insurance*, 71: 469-499.

Citra, A. 2012. Analisis Pengaruh Rasio Early Warning System dan Risiko Sistematik terhadap Harga Saham pada Perusahaan Asuransi Kerugian yang Terdaftar di BEI. *Thesis*. STIE Perbanas Surabaya.

Cummins, J.D., S. E. Harrington, and R. Klein, 1995, Insolvency Experience, Risk Based Capital and Prompt Corrective Action in Property-Liability Insurance, *Journal of Banking and Finance*, 19: 511-527. Erlangga, Jakarta

Ghozali, Imam. 2011. *Aplikasi Analisis Multivariate dengan Program SPSS 19*. Badan Penerbit Universitas Diponegoro. Semarang.

Gujarati D, 2003, *Ekonometrika Dasar*, (Penerjemah Sumarno Zain), Penerbit

Hasbi, Hariandy., & Surwawardani B., 2013. Sistem Peringatan Dini Sebagai Pendukung Kinerja Perusahaan Asuransi Syariah. *Jurnal Keuangan dan Perbankan*, Vol.17, No.2 Mei 2013, hlm. 243–252

Holzmuller, I. 2009. The United States RBC Standards, Solvency II and the Swiss Solvency Test: A Comparative Assessment. *The Geneva Papers*, 34: 56-77.

Hsiao, S.H & Whang T.J. 2009. A Study of Financial Insolvency Prediction Model for Life Insurers: Expert Systems with Applications. *Journal of OP Research*,98: 419-430.

Ikatan Akuntansi Indonesia. 1990. "Pernyataan Standar Akuntansi Keuangan (PSAK) No. 28 tentang Akuntansi Asuransi Kerugian".

Ikatan Akuntansi Indonesia. 1990. "Pernyataan Standar Akuntansi Keuangan (PSAK) No.36 tentang Akuntansi Asuransi Jiwa".

Insana, 2012. Analisis Faktor-Faktor yang Mempengaruhi Kesehatan Keuangan Asuransi Jiwa Syariah Di Indonesia. *Thesis.* Universitas Indonesia, Depok, Indonesia.

Keputusan Direktur Jenderal Lembaga Keuangan Nomor.Kep. 4499/LK/2000, tentang Jenis, Penilaian dan pembatasan Investasi Perusahaan Asuransi dan Perusahaan Reasuransi dengan Sistem Syariah.

Keputusan Menteri Keuangan Republik Indonesia, Nomor. 424/KMK/06/2003, tentang Kesehatan Keuangan Perusahaan Asuransi dan Perusahaan Reasuransi

Keputusan Menteri Keuangan Republik Indonesia, Nomor. 426/KMK/06/2003, tentang Perizininan Usaha dan Kelembagaan Perusahaan Asuransi dan Perusahaan Reasuransi.

Khan and Noreen, 2014. Efficiency Measure of Insurance v/s Tak ful Firms Using DEA Approach: A Case of Pakistan, Journal. Islamic Economic Studies Vol. 22, No. 1, May, 2014 (139-158)

Kusuma and Arfianto, 2014. Pengaruh Profitabilitas, Risiko Underwriting Dan Ukuran Perusahaan Terhadap Tingkat Solvabilitas Perusahaan Asuransi Di Indonesia (Studi Perusahaan

Asuransi Kerugian Di Indonesia Tahun 2006-2012). *Journal of Finance*, Volume 3, Nomor 2, Tahun 2014, Halaman 1

National Association of Insurance Commissioners (NAIC). 2009. NAIC Capital Adequacy Task Force Risk-Based Capital Overview. Kansas City, USA.

Oktaviani, 2015. *Early Warning System* dan Pertumbuhan Pendapatan Kontribusi Pada Perusahaan Asuransi Jiwa Syariah Indonesia. *Jurnal Keuangan dan Perbankan*, Vol.19, No.2 Mei 2015, hlm. 271–282

Peraturan Menteri Keuangan Nomor. 11/PMK/010/2011, tentang Kesehatan Keuangan Usaha Asuransi dan Usaha Reasuransi Dengan Prinsip Syariah.

Peraturan Menteri Keuangan Nomor. 135/PMK/05/2005, tentang perubahan atas Keputusan Menteri Keuangan Nomor 424/KMK 06/2003.

Peraturan Menteri Keuangan Nomor. 18/PMK/010/2010, tentang penerapan Prinsip Dasar Penyelenggaraan Usaha Asuransi dan Reasuransi dengan Prinsip Syariah.

Satria, Salustra. 1994, Pengukuran Kinerja Keuangan Perusahaan Asuransi Kerugian Di Indonesia Dengan Analisis Rasio Keuangan "Early Warning System", Kerjasama Lembaga Penerbit FE-UI dengan PAU FE-UI, Jakarta

Sula, M.S. 2004. Asuransi Syariah *(Life and General)* Konsep dan Sistem Operasional. Jakarta: Gema Insani.

Tahira and Arshad, 2014. Comparative performance of Islamic and conventional insurance companies in Pakistan. IOSR Journal of Business and Management (IOSR-JBM) e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 16, Issue 6. Ver. II (Jun. 2014), PP 33-45

Undang-Undang Republik Indonesia Nomor 2. 1992. "Undang-Undang Republik Indonesia Nomor 2 Tahun 1992 tentang Usaha Perasuransian".