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### FINANCIAL VIABILITY OF MALAYSIAN TOP-10 PENSION FUNDS AND INSURANCE COMPANIES BASED ON MULTIPLE EXPLANATORY VARIABLES

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**Shaliza Alwi, Rabiatal Munirah Alpandi, Masrina Nadia Mohd. Salleh, Muhammad Syafiq Mohd Salam, Fatin Farazh Ya'acob, Azila Jaini. Financial Viability Of Malaysian Top-10 Pension Funds And Insurance Companies Based On Multiple Explanatory Variables-- Palarch's Journal Of Archaeology Of Egypt/Egyptology 17(10), 234-242. ISSN 1567-214x**

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#### ABSTRACT

Pension funds are investment vehicles that receive contributions from employer, staff, or both during the working life of workers to provide them with potential pension income. Despite these plans, seniors must face a tremendous burden, because the only way they can compensate for their old age is by saving for retirement during their working life. Hence, given that employees' life expectancies are uncertain, it would be hard to know how much they should save for retirement. Therefore, this research identifies that the pension funds are thus able to resolve these risks by delivering lifetime annuities in exchange for contributions made during working years. In this paper, we will examine the factors that influence the financial performance of ten major life insurance and pension funds companies during the

period 2013 to 2018 using regression analysis to study the significance of these factors. The life insurance and pension fund companies are Allianz General Insurance Berhad, Tokio Marine Life Insurance Bhd, Great Eastern General Insurance Berhad, RHB Insurance Berhad, Prudential Assurance Malaysia Berhad, AIA Berhad, AXA Affin Life Insurance Berhad, Manulife Insurance Berhad, Chubb Insurance Berhad and Hong Leong Assurance Berhad. Data is derived from the financial statements of the respective companies to determine cash ratio, size of the company, return on assets, debt-to - equity ratio, and return on equity, inflation and economic growth. Consequently, net income is used as the proxy data to assess a firm's financial performance. Therefore, this analysis will use and predict the data collected to assess the profitability of the respective businesses.

## INTRODUCTION

Life expectancy has certainly risen in this new era as compared with decades ago due to technical advances in the medical sector as well as better living standards. It then poses a dilemma for retirees who have little to no income after they quit working. Pension schemes are also integral to the development of a retirement fund to ensure that retirees can have a comfortable existence with a secure source of income when they are no longer in employment. Pension funds are substantial as a backup institution that works after retirement as financial security for retirees (Iparraguirre, 2020). Pension funds are programs that offer an amount of money to retirees either by lump sum or annuities while providing funds to households for savings through healthcare, medical loans, or governments.

The government has also made it mandatory in Malaysia for individuals working in the Malaysian private sector to contribute as a saving scheme to the Employees Provident Fund (EPF). This compulsory saving scheme is implemented under the 1991 Malaysia Workers Provident Fund Act and provides a fixed contribution style benefit to its members. Additionally, in Malaysia, the government has made it compulsory for individuals employed in the Malaysian private sector to contribute into the Employees Provident Fund (EPF) as a saving scheme. This compulsory saving scheme is enforced under Malaysia's Employees Provident Fund Act 1991 and provides its members with a defined contribution type benefit. In a DB scheme, the employers guarantee employees a fixed pension value irrespective of the results of the investment pool. In contrast, in a DC plan, retirees' benefits are dependent on investment pool performance. It ensures that the DC plan holders are responsible and liable for the administration of the pension fund, and not the employers or government. The employers' contributions as part of their liability end when all the contributions are paid out. There are two primary forms of pension schemes in Malaysia which are the pension scheme and the provident fund. Pension plans have a compensation distribution based on a formula that takes into account the duration of service, seniority rank and last salary of the employee upon retirement. This primarily applies to civil servants who, upon retirement, earn a monthly pension.

From the background of the study, the general objective of this study is to examine the factors that influence the financial performance of ten major life

insurance and pension funds companies during the period 2013 to 2018 using regression analysis to study the significance of these factors. The two objectives of the study are to:

- i. Identify factors that influence the financial performance of ten major life insurance and pension funds companies during the period 2013 to 2018.
- ii. Identify the significance of these factors.

## LITERATURE REVIEW

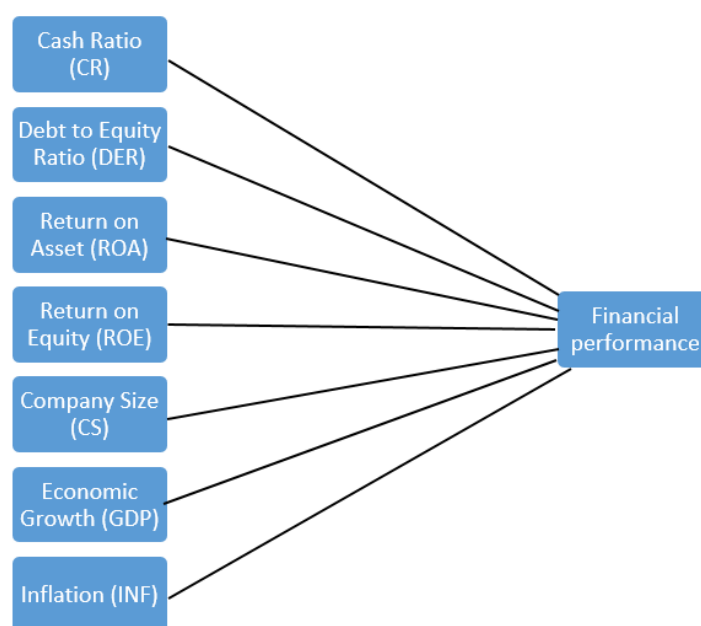
This study examines the influence factors of financial performance of ten major life insurance and pension funds companies. The independent variables are cash ratio, company size, return on assets (ROA), debt to equity ratio (DER), return on equity (ROE), inflation rate and economic growth (GDP).

The cash ratio is one of the many liquidity ratios used to assess the willingness of a company to pay off its existing obligations in cash and cash equivalents only. The cash ratio is considered to be much more conservative relative to other liquidity ratios, because the current debt is calculated against cash only and it is presumed that all capital assets cannot be paid off (Moin, 2020). The cash ratio helps the creditors and investors to determine the percentage of a company's current liabilities that cash and cash equivalents is capable of covering. A ratio that is above 1 would indicate that a company is capable of paying off its current liabilities with only cash and cash equivalents, and yet have some fund left over after the payment. Another independent variable that is being used is the company size. The results of a study done by Berger and Di Patti (2006) shows that firm size is one of many variables that is capable of affecting a firm's value thus affecting performance. A big firm size can sometimes be an indicator that the company has experienced considerable growth and will mostly give a positive signal to investors, which will ultimately lead to an overall increase in performance of the business. A big firm's size will reflect a higher profit that can be accomplished in the future.

Another study done by Karadeniz and Iskenderoglu (2011) shows that there is a prominent significant relationship between the firm size as well as the capital structure of the firm. A capital structure that is optimum can increase the business value to stakeholders. In other words, we can say that a company of bigger size has a greater ability to attain and source more loans when compared with the smaller businesses and might increase the value of the firm to an investor. Return on assets (ROA) is defined as a financial ratio that indicates the profitability of a company in relation to its total assets. A study by Gul and Zaman (2011) suggests that ROA can be widely used to quantify the performance and profitability of a firm. However, unlike Return on Equity (ROE), ROA takes into account the debt of a company. Moreover, according to Naceur (2003), ROA emphasizes more on the proficiency of a firm's management capability in utilizing their real investment resources to generate profits. A higher ROA suggests that the firm is more efficient in managing their assets to generate more income, hence, boosting their financial performance. The financial health of a company can be determined by the debt

to equity ratio, as this financial ratio usually shows the investors and lenders how much debt and equity a company uses to finance its operations (Vătavu, 2015). This financial ratio is specifically important to the lenders and investors as they can ensure whether the company is in a healthy state. The study by Berger and Di Patti (2006) regarding the effect capital structure on financial performance using a sample of 196 Romanian companies listed on the Bucharest Stock Exchange found that the performance in Romanian companies is higher when they avoid debts and finance their businesses using equity. Return on equity (ROE) is a profitability ratio which measures the ability of a firm to generate profit from the investments of shareholders. A higher ROE implies that the firm is efficient in handling the shareholder's investment by reinvesting it to generate profit for the firm. Inflation rate is an increment in the Consumer Price Index (CPI), which refers to an average of prices level for goods and services<sup>8</sup>. When inflation occurs, it decreases our purchasing power which means our money has lesser value and may eventually decrease the standard of living as everything has become expensive.

According to Cheng and Tan (2002), inflation creates noise in the functioning of economy of a country; therefore accurate analysis is critical to prohibit the adverse effect caused to the economy by inflation. Economic growth is an increase of production of specific goods and services over period of time. It always measured by Gross Domestic Product (GDP) as GDP takes a country's entire economic output into account, Ching and Furuoka (2010) have stated that the economic growth will leads to high demand for insurance. This is because economic growth will increase people's purchasing power which allows them to purchase insurance as it provides firms and individual with financial securities. Besides, studies done by Ćurak et al. (2009) have stated that insurance company which acts as a part of financial system, economic growth will affect the performance of a company by creating more profit to a business and therefore stock price increases. This may allow firms to have capital to invest and hire more employees. Figure 1 illustrates the conceptual framework of the study.



**Figure 1:** Proposed model

## MATERIALS AND METHODS

In this study, the financial performance of a firm is examined. As for this study, net profit is used as the proxy data to measure the financial performance of a firm. The model used in this study is as below. Table 1 shows the descriptive analysis of all the insurance and pension firms investigated in this study.

$$NI = \beta_0 + \beta_1(CR) + \beta_2(DER) + \beta_3(ROA) + \beta_4(ROE) + \beta_5(CS) + \beta_6(GDP) + \beta_7(INF)$$

Descriptive analysis of all the insurance and pension illustrate in **Table 1**.

**Table 1:** Items

	Net Income	Cash Ratio	Debt-Equity Ratio	Return on Assets (ROA)	Return on Equity (ROE)	Company Size (Total assets)	GDP (current) ('0000000000)	Inflation (annual 1%)
Mean	189873	0.117	7.237	0.023	0.138	0.101	140.110	2.366
Std Error	31573	0.017	0.586	0.003	0.011	0.016	1.139	0.122
Median	81709	0.078	8.499	0.015	0.127	0.076	139.044	2.105
Std Error Deviation	244565	0.131	4.536	0.023	0.087	0.125	8.821	0.946
Sample Var.	0	0.017	20.577	0.001	0.008	0.016	7.781	0.894
Kurtosis	2.15	5.016	-0.659	-0.195	1.2	24.083	0.000	-0.736
Skewness	1.79	2.058	0.331	0.758	-0.189	3.974	0.000	0.117
Range	952700	0.614	16.061	0.102	0.458	0.993	24.822	2.986
Minimum	-29163	0.001	1.501	-0.023	-0.111	-0.123	130.444	0.885

## RESULTS AND DISCUSSION

The multiple regression analysis of all insurance and pension fund firm illustrate in Table 2. From the multiple regression tables, the y-intercept is -8.215 which explains the initial financial performance of the firms when other variables are kept constant. The R-square achieved is 82.27%. It is said to have a strong coefficient of determination which means 82.28% of the dependent variable (financial performance) is explained by the independent variables. The higher R<sup>2</sup> shows the estimated points of the sample data is very close and explains that the model is a good fit. Independent variables are analyses for significance at 5% significant level. If the p-value of the variables is less than 0.5 then the independent variable is said to be significant at 5% significance level. The hypothesis testing summary illustrate in Table 3. From the data obtained, the regression modeled with the respective coefficients is as below:

$$NI = -8.215 + 0.111(CR) + 0.241(DER) - 5.917(ROA) + 14.292(ROE) + 0.899(CS) + 0.652(GDP) - 0.102(INF)$$

The root unit test results are shown in Table 2.

**Table 2:** Items

Cash Ratio	0.110**
	-1.09
Debt-Equity Ratio	0.240**
	0.62
Return on Assets	-5.916**
	-0.35
Return on Equity	14.292***
	3.44
Company Size	0.89**
	0.85
GDP (current)	0.65*
	0.40
Inflation (annual %)	-0.10
	-0.44*
Constant	-8.215*
	-0.17
R-Squared	82.27%
n	60
F-statistics	17.33***
	#8
White ( $\chi^2$ )	34.51
	#8
Breusch-Pagan ( $\chi^2$ )	212.54
	#8

**Table 3:** Items

Variable	p-value	Significance of the variable
CASH RATIO	$0.028 < 0.05$	Significant
DEBT- EQUITY RATIO	$0.054 > 0.05$	Not Significant
RETURN_ON_ASSETS	$0.042 < 0.05$	Significant
RETURN_ON_EQUITY	$0.001 < 0.05$	Significant
COMPANY_SIZE	$0.039 < 0.05$	Significant
GDP	$0.069 > 0.05$	Not Significant
INFLATION	$0.065 > 0.05$	Not Significant

Moreover, the coefficient of the independent variables is also analysed in this study to determine the relationship between the dependent variable and independent variables. Table 4 is the summary of the relationship between the dependent variable and independent variables.

**Table 4:** Items

Variable	Coefficient of the variables	Direct or inverse relationship	Explanation
CASH RATIO	0.11	Directly proportional	Cash ratio has a positive coefficient which explains the direct relationship between the net profits of the firm. As cash ratio increases, the net profit of the firm increases too.
DEBT-EQUITY RATIO	0.24	Directly proportional	Debt to equity ratio has a positive coefficient which explains the positive relationship between the net profits of the firm. As debt to equity ratio increases, the net profit of the firm increases too.
RETURN ON ASSETS	-5.91	Inversely proportional	Return on asset has a negative coefficient which explains the inverse relationship between the net profits of the firm. As return on asset increases, the net profit of the firm decreases.
RETURN ON EQUITY	14.29	Directly proportional	Return on equity has a positive coefficient which explains the increasing relationship between the

			net profits of the firm. As return on equity increases, the net profit of the firm increases too.
COMPAN Y SIZE	0.89	Directly proportional	Company size has a positive coefficient which explains the direct relationship between the net profits of the firm. As company size increases, the net profit of the firm increases too.
GDP	0.65	Directly proportional	GDP has a positive coefficient which explains the positive relationship between the net profit of the firm. As GDP increases, the net profit of the firm increases too.
INFLATI ON	-0.10	Inversely proportional	Inflation has a negative coefficient which explains the inverse relationship between the net profit of the firm. As inflation increases, the net profit of the firm decreases.

## CONCLUSION

This study was an attempt to determine the factors influencing the financial performance of Malaysian insurance companies. In conclusion, based on seven explanatory variables, the profitability of the ten insurance companies in Malaysia has been regressed. These variables include cash ratio, debt-equity ratio, asset return, equity return, business size, gross domestic product, and inflation. This research applies the financial statements' annual data for the period from 2013 to 2018. In this report, descriptive statistics and multiple regression analysis were used to analyze the effect of the variables on insurance companies' financial performance. The outcome of the regression indicates that profitability is strongly and positively linked to cash ratio, return on assets, size of the company and return on equity. It means that insurance firms with lower net assets and overall equity have a higher profitability. By comparison, productivity is insignificantly reversed by the debt-equity ratio, the gross domestic product, and inflation. The regression result shows that the profitability is significantly and positively related with cash ratio, return on assets, company size, and return on equity. This indicates that insurance companies with larger total assets and total equity presented an increased profitability. In contrast, profitability is insignificantly inversely related to debt- equity ratio, gross domestic product, and inflation. Meanwhile, based on



the results from this report, the return on assets and inflation has affected profitability. The coefficient table indicates that productivity is negatively related to the return on assets and inflation. Therefore, it means any changes in return on assets and inflation would affect the profitability of the business.

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