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The Analysis of Leverage, Premium Growth, and Firm Size towards the Profitability of Selected Malaysian General-Insurance Companies

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Abstract

Companies in the insurance industry are significant actors in the service economy, and their services are increasingly being integrated into the broader financial sector. In both developed and emerging countries, the insurance industry is critical to the service-based economy's success. In Malaysia, the severe competition in a non-life segment, the expanding market share of private insurance companies, and the increasing amount of risks retained by insurers have all had an impact on their performance in recent years. Consequently, this study examines internal factors, namely leverage, premium growth, and firm size, towards the profitability of the selected insurance companies in Malaysia. Yearly-basis data between 2014 to 2021 have been taken from public annual reports from 15 out of the 22 general-insurance companies in Malaysia. To estimate the factors involved, the observations were analysed using the Pooled Ordinary Least Square Regression Model. The sources of these data have been mainly obtained from DataStream. The findings have suggested that leverage has a significant and negative relationship with profitability, while premium growth and firm size have a substantial and positive association with the firm's profitability. In addition, the findings appear to indicate that the management of their overall assets is highly productive, reducing the use of leverage, expanding the size of the firms, increasing premium growth, and controlling underwriting risks are the prerequisites and attributes for achieving high-profitability performance.

Keywords: Profitability, Leverage, Firm Size, Premium Growth, Insurance Companies.

Introduction

Insurance can be defined as a service that delivers benefits towards risks that occur. In the event of a contingency, an insurer undertakes to compensate the insured for any losses incurred as stated in an agreement known as an insurance policy. The insurance policy has all details about conditions and circumstances that require the insurer to pay out the amount of money to the insured or nominee(s) as issued by insurance companies. The insurance industry

plays a crucial role in the sustainable growth of the economy of a nation. Generally, Malaysian insurance companies can be divided into two categories, namely conventional insurance, and Islamic insurance, the latter of which is also known as Takaful. Each category offers both life insurance and non-life insurance, which are called general insurance. However, this study has sought to focus on the general-insurance companies.

As reported by Bank Negara Malaysia (BNM), there are 22 licensed general-insurance firms that are currently operating in Malaysia, as stated in Table 1 below.

Table 1
Licensed General Insurance Companies in Malaysia

Name	Ownership
AIA General Berhad	Foreign
AIG Malaysia Insurance Berhad	Foreign
Allianz General Insurance Company (Malaysia) Berhad	Foreign
AmGeneral Insurance Berhad	Local
AXA Affin General Insurance Company (Malaysia) Berhad	Local
Berjaya Sompo Insurance Berhad	Foreign
Chubb Insurance Malaysia Berhad	Foreign
Danajamin Nasional Berhad	Local
Etiqa General Insurance Berhad	Local
Great Eastern General Insurance (Malaysia) Berhad	Foreign
Liberty Insurance Berhad	Foreign
Lonpac Insurance Berhad	Local
MPI Generali Insurans Berhad	Local
MSIG Insurance (Malaysia) Bhd	Foreign
Pacific & Orient Insurance Co. Berhad	Local
Pacific Insurance Berhad	Foreign
Progressive Insurance Berhad	Local
QBE Insurance (Malaysia) Berhad	Foreign
RHB Insurance Berhad	Local
Tokio Marine Insurance (Malaysia) Berhad	Foreign
Tune Insurance Malaysia Berhad	Local
Zurich General Insurance Malaysia Berhad	Foreign

Source: <https://www.bnm.gov.my/general-business>

Generally, insurance has become more important since it covers almost everything, including homes, vehicles, health, and businesses. It is imperative to know that the stability and effectiveness of general-insurance firms will ensure growth in the economy. One of the primary goals of effective financial management is to achieve a level of profitability, which may be defined as the capacity of an organisation to apply its resources in such a way as to create revenues that are greater than its expenditure. According to The Star dated July 4, 2022, despite an inconsistent economic recovery, insurance new business premiums are expected to climb at least 10% this year. Hence, the insurance industry is expected to contribute significantly to the resistance and maintenance of the ability of an economic system to function properly by supplying energy for other industries and the advancement of the economy in general. To accomplish this goal, the insurance company must not only be

financially robust but also profitable in its day-to-day commercial operations. Thus, a key challenge to be investigated is not only assessing the financial performance of the insurance firms but also having a thorough understanding of the factors affecting financial performance in the industry. As a result, academics, practitioners, and institutional supervisors are interested in examining the factors that influence the insurance-firms' successes (Tegegn et al., 2020).

Therefore, the primary aim of this study is to uncover the major factors of the Malaysian insurance companies' profitability for the year 2014 to 2020. Thus, this study has only focused on the internal factors, which can give a clearer action that can be taken by general-insurance companies to multiply their profits since the factors are under their control. Towards the end, this study would have been able to pinpoint the association between the internal factors and profitability and the most important internal factor influencing the profitability of the general-insurance companies in Malaysia.

Therefore, this research has attempted to fill in the gaps by the following objectives:

1. To investigate the performance of the selected general-insurance companies in Malaysian market.
2. To identify the most significant factors that contribute to the performance selected general-insurance companies in Malaysian market.
3. To suggest some relevant future recommendations for the researchers and the industries.

Literature Review

It is vital to examine the market structure, profitability, and behaviour of public general-insurance businesses to determine how the companies perform (Arintoko et al., 2021). Profitability refers to a firm's capability to create revenue as a return on its investment and, therefore, indicates the success or failure of an organization (Durrah et al., 2016). It demonstrates the firm's capability to deliver a rate of return on its assets and investments (Kripa & Ajasllari, 2016).

In contrast to the financial performance of insurance businesses, a number of academics from both developed and developing countries have expressed an interest in analysing the profitability of the banking industry. As a result, there is a scarcity of literature in the studied area. According to Teklit and Jasmindeep (2017), age, size, leverage ratio, premium growth, capital growth, tangibility ratio, liquidity ratio, loss ratio, market share, GDP growth, and inflation are all elements that affect insurance companies' profitability. Some of these elements may be within insurers' control (internal factors), while others may be beyond their control (external factors). In addition to the previous research evaluated in this study, the paper has added a premium growth rate as an explanatory variable to meet the study's stated goal. The internal factors, such as the firm size, premium growth rate, and leverage ratios, are likely to affect the profitability of the insurance companies in Malaysia.

Leverage is one of the internal issues that can influence the profitability of the general-insurance companies. According to Komrattanapanya and Suntrauk (2013), businesses have suffered from financial risks when they relied heavily on loan-financing in their capital structures. Several empirical studies have discovered that financial ratios, involving debt or

leverage, have negatively affected companies' performance (Arintoko et al., 2021; Ortyński, 2016). They have also found out that leverage has negatively affected the companies' profitability, indicating that the increasing proportion of debt will lead to reducing their profitability. It is also supported on a finding by Kulustayeva, Jondelbayeva, Nurmagambetova, Dossayeva and Bikteubayeva (2020) on a negative significant relationship towards profitability. Furthermore, insurance companies must keep adequate and suitable technical reserves based on the nature of their potential liabilities (Banerjee & Majumdar, 2018). However, Mohamad Said, Abdull Rahman, Abd Mutalib, and Badri (2021) identified that leverage and size of the respected sample of Malaysian hotel industry have a statistically significant relationship with profitability.

Meanwhile, there are several different ways in which the size of an insurance firm might influence its financial performance (Mazviona et al., 2017). Numerous variables, such as the number of workers, number of departments, and total assets, can be used to describe the firm's size. Typically, larger organisations are known to have greater resources, broader risk portfolios, more complicated information systems, and better handling of expenses. The size of a firm can be calculated as the decimal logarithm of an insurance company's total assets (Burca & Batrinca, 2014). Furthermore, the majority of academics in the field express the size of a firm in terms of total assets. Correlation research has revealed that company size has a positive but negligible effect on the profitability of insurance companies in Albania. Kripa and Ajasllari (2016) have also added that their findings have figured out that firm size does not really affect the Albanian insurance companies' profitability. Ortyński (2016), who examined the results of selected insurance companies in Pakistan in 2006-2013, has confirmed a positive relationship between profitability and firm size, while there is a negative impact of leverage and loss ratio on profitability. In the meantime, Jibrán et al (2016) and Srbinoski, Poposki, and Čibejet (2021) have stated that the size of a company also plays a role in determining its profitability.

As with premium growth, it has a beneficial impact on both the firm's ROA and ROE. This supports the same result derived by (Tegegn et al., 2020). Premium growth can be described as an amount paid in payable, usually regular instalments for insurance policies. The pecking order theory can be used to provide an explanation for the connection that exists between premium growth and profitability (Jibrán et al., 2016). Referring to (Srbinoski et al., 2021). The rapid premium growth, augmented market share and lower leverage contribute positively to the before tax profitability.

Methodology

Study Area

The sample size from 2014 until 2021 (monthly-basis) has been derived from the Thomson Reuters Eikon database, which has involved the independent variables, namely leverage (LEV), premium growth (PG), and firm size (SIZE), while the dependent variable is return on assets as a robust measurement for profitability. This study has been conducted at the fifteen general-insurance companies (out of 22 companies) in Malaysia. The sources of these data have been collected from the annual reports and financial statements predominantly extracted from DataStream. The observations have been assessed by using the Pooled Ordinary Least Square (POLS) Regression Model, Fixed Effects Model (FEM), and Random

Effects Model (REM) to assess the factors involved. Therefore, the Hausman test was conducted to see whether the FEM or REM is more appropriate.

Equation Model

The general model of the study is as follows:

$$ROA_{i,t} = \beta_0 + \beta_1 LIQ_{i,t} + \beta_2 GM_{i,t} + \beta_3 LEV_{i,t} + \beta_4 SIZE_{i,t} + \epsilon_{i,t} \tag{1}$$

The descriptions of the variables are as follows:

- ROA : Return on assets (percentage) represents profitability
- LEV : Leverage (percentage)
- PG : Premium growth (percentage)
- SIZE : Firm size (percentage)
- ε : Error term
- i : Sample unit of panel
- t : Time of period

Result Analysis

This section summarises the findings and interpretations pertaining to the relationship between the profitability of the Malaysian general-insurance businesses and leverage, premium growth, and firm size used in this study as the indicators, as well as the output of the findings.

Pearson’s Correlation Analysis

The correlation matrix has been used to assess the variables, and the findings displayed in Table 2 demonstrate the relationship between them. The correlation matrix has been used to determine whether there is a positive or negative connection between the variables. Furthermore, the correlation analysis among variables has been utilised to discover the presence of a multicollinearity problem. Fortunately, there is no multicollinearity problems, as the correlation coefficients for all variables are less than 0.5.

The results have revealed that premium growth and firm size have a positive correlation with ROA, or the selected Malaysian general-insurance companies’ profitability performance, because the values are positive. On the other hand, leverage has a negative association with profitability and has a high correlation with ROA.

Table 2
Correlation between the Study Variables

	ROA	LEV	PG	SIZE
ROA	1.000			
LEV	-0.472	1.000		
PG	0.128	-0.162	1.000	
SIZE	0.010	0.439	-0.041	1.000

Variation Inflation Factor (VIF)

In addition to the correlation analysis, the variation inflation factor (VIF) has been used to find multicollinearity among the variables in the model (VIF). The multicollinearity problem has been examined by examining the VIF values. However, Table 3 shows that none of the VIF

values recorded exceeds 5. As a result, this confirms that there is no multicollinearity problem in this research.

Table 3

Variation Inflation Factor

Variable	VIF	1/VIF
LEV	1.29	0.774
PG	1.04	0.958
SIZE	1.26	0.793
Mean VIF	1.20	

Pooled Ordinary Least Square (POLS) Regression Analysis

Table 4

POLS Results

ROA	Coefficient	Std error	t	P>t	95% Conf	Interval
LEV	-0.0082	0.774	-5.25	0.000***	-0.011	-0.005
PG	0.0315	0.958	2.44	0.022**	0.058	0.005
SIZE	0.0051	0.793	2.06	0.050**	2.460	0.010
_cons	-0.0571		-1.09	0.286	-0.165	0.051
Prob (F-stats)		0.0002				
R-squared		0.5624				

Note: *, **, and *** denote significance at the 10-per-cent, 5-per-cent, and 1-per-cent significant levels respectively.

Table 4 exhibit the evaluation outcomes of the Pooled Ordinary Least Squares (POLS) and will be interpreted described further. The value shows that if the other variables remain constant, profitability (ROA) will decrease by 0.0571 per cent. Likewise, leverage (LEV) also shows that, if profitability increases, it will also decrease leverage by 0.0082 per cent. In contrast, if premium growth (PG) increases, it will increase profitability by 0.0315 per cent. In addition, firm size (SIZE) shows that its increase will increase profitability by 0.0051 per cent.

Based on the table above, it is obvious that there are significant readings on the t-statistic of all the variables towards profitability as the t-statistic readings are more than 2. The overall readings of t-statistic show that leverage is the most significant variable towards profitability. Probability, as indicated by the p-values, shows that the three factors, which are leverage, premium growth, and business size, are significant in this study. This is because the p-values are at the one-per-cent, five-per-cent, and ten-per-cent significant levels respectively, indicating that all the variables measured are significant.

Random-Effect-Model Regression Analysis

Table 5

Random-Effect Results

ROA	Coefficient	Std error	t	P>t	95% Conf	Interval
LEV	-0.0060	0.790	-5.31	0.000***	-0.014	-0.006
PG	0.0310	0.939	2.39	0.022**	0.054	0.008
SIZE	0.0053	0.796	2.09	0.050**	2.449	0.011
_cons	-0.0571		-1.18	0.286	-0.155	0.054
Prob (F-stats)		0.0005				

Note: *, **, and *** denote significance at the 10-per-cent, 5-per-cent, and 1-per-cent significant levels respectively.

The Random Effect Model (REM) in Table 5 determines a significant relationship between the dependent variable and independent variables. Based on the results displayed above, leverage (LEV) was discovered to have a negative relation with the profitability (ROA), while premium growth (PG) and firm size (SIZE) revealed to have a positive relation with the profitability.

Additionally, The Breusch and Pagan (BP) Multiplier test validates the appropriateness of employing the Random Effects Model. The BP Multiplier value is 0.0995 with the Prob> χ^2 is 0.000, which is less than $\alpha = 0.05$. Thus, the alternative hypothesis (Random Effects Model) is rejected while the null hypothesis (POLS Model) is more suitable, therefore, the former has been used in the estimation.

Breusch and Pagan Multiplier Test

The Breusch and Pagan Multiplier Test has signified that the Prob > chi2 is 0.0000, which is below 0.05. Therefore, the alternate hypothesis (Random Effect Model) is accepted while the null hypothesis (Pooled OLS Model) is rejected.

Final Estimation

$$ROA_{i,t} = -0.05721_{i,t} - 0.006LEV_{i,t} + 0.031PG_{i,t} + 0.0053SIZE_{i,t} + \epsilon_{i,t}$$

The regression model given above describes the ROA regression model using leverage, premium growth, and firm size as independent variables for Malaysian general-insurance companies. Based on the model, if the other variables remain constant, profitability will decrease by 0.0571 per cent. The leverage value validates the negative relationship with profitability, which means that if there is a one-per-cent increase in leverage, profitability will decrease by 0.0082 per cent. However, the coefficient value for premium growth shows a positive relationship with profitability, suggesting that if there is a one-per-cent increase in premium growth, profitability will increase by 0.0315 per cent. Furthermore, the coefficient value of firm size shows a positive relationship with profitability, which means that a one-per-cent increase in firm size will increase profitability by 0.051 per cent.

In terms of the coefficient determination (R2), it shows that there is a 56.24 per cent variation in profitability, which is simultaneously clarified by the variation in all the independent

variables. The estimated model is acceptable because the probability F-stat = 0.0002, which is less than $\alpha = 0.05$. This indicates that all the variables jointly affect profitability.

Conclusion

In summary, the outcomes of the present analysis have signified that firm size and premium growth positively and significantly influence return on assets, which are similar to those of the previous studies done by (Jibrán et al., 2016; Kripa and Ajasllari, 2016; Ortyński, 2016). Meanwhile, leverage negatively and significantly influences company profitability (Arintoko et al., 2021; Ondigi & Willy, 2016; Ortyński, 2016). Typically, larger companies are more likely to perform better as they can achieve operating-cost efficiency and have more resources. Still, there is a need to reduce the use of leverage to fund their companies since it can negatively affect their profits. A high level of financial leverage may be reflected in decreased market values, which may consequently reduce the firms' profits and lead to insolvency issues for the firms.

In some cases, the increase in premium growth comes from the excessive growth of underwriting that can lead to underwriting risks. This is because the underwriting risks have a negative influence on insurers' profitability (Burca & Batrinca, 2014). Therefore, it is recommended for the companies control their underwriting risks by reducing costs associated with managing claims. However, Jibrán et al (2016) have suggested that the companies can boost their profitability simply by increasing their size and premium growth.

Lastly, when businesses, investors, and regulators analyse the services provided by the general-insurance companies in Malaysia, the findings of this study may have repercussions for them. The factors that have been thought to have an impact on profitability could assist them to create regulatory policies targeted at establishing and maintaining the performance of the insurance companies in general.

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