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The effect of premium income, expenses claim, and underwriting on profitability of Indonesia joint enterprises insurance companies

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Abstract

Purpose – This research has purposes to scrutinize over the role of premium income, expenses claim and underwriting results towards profitability of Indonesia Joint Enterprises Insurance Companies.

Design/methodology/approach – The sample used is general insurance company that presents complete financial statements during 2018-2021 and listed by Otoritas Jasa Keuangan through its official website. Purposive sampling used as sampling technique with several samples are 48 data. Panel data regression used as analysis technique which then processed by Eviews-9 application.

Findings – Its results showed that only underwriting results which significantly affect on profitability, while the others variables such as premium income had significantly negative affect on profitability so did with the expense claims which turn out had no affect towards profitability. At the level of significance (α = 0.05), it has small effect, while at the significance level of (α = 0.10), the expense claims seem had significant negative affect on profitability of Indonesia general insurance industry.

Research limitations/implications – This research has certainly limitations such as the research object used relatively small only the joint general insurance companies which submitted complete financial reports which are listed by Otoritas Jasa Keuangan and followed by the company's official website.

Practical implications – This research indicates that those companies are noticed about an increase in premiums, but on the other hand they have also received many claims, therefore those premiums will be diverted to finance the claims which occur lately, then this certainly would decrease an income or profitability of the insurance company itself.

Originality/value – This research also has a different research object and research period compared to previous research, therefore it can be used as a complement the research which have done before.

Keywords: Expense claim, premium income, underwriting results, profitability.

Introduction

In line with economic developments and advancement in technology, brought greater risks in daily life. The risk which occurs in a person's life is something that can endanger that person's life, their family and those property they may have. It simply because risks cannot be predicted when it will occur. To protect a person from losses which arise as the consequences of uncertain risks, so it can

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be done by transferring or hand over the risk to an insurance company.

Based on the Law Number 40 of 2014, article 1 paragraph (1), whose declared that insurance is a settlement that connecting two or more parties, whereby the insurer binds themselves to the insured by paying such amount so called insurance premiums, that would be compensation to the insured due to loss, damage or loss of profits and legal liability which suffered by the insured that occurred from uncertain event or to provide payment based on the death or life of the insured person. (Listio & Fakrulloh, 2022; Santri et al., 2022).

Insurance are grouped into three types, which is general insurance, life insurance and reinsurance. General insurance and its business provides risk management services for losses, loss of use and accountability to the third parties which occurred by unknown events. Life insurance is the insurance that serves benefits in conquer all risks which associated with life or death of a person. Meanwhile, reinsurance are manages recoverage against consequences which borne by the loss insurance companies and life insurance companies. Then, this is shown in real terms through BPS - Statistics Indonesia (2023) data where the number of Life Insurance Companies had one of the biggest increases in 2016, from 55 companies to 61 companies in 2017.

Uniquely, public alertness relates to the role of protection against numerous kinds of threat which might occur to themselves at any time as one of reason why there's an increase in high number of life insurance users over these last few years. This kindly inversely proportional to the growth of general insurance which is still low, because its market in Indonesia that still unpopular.

ROA, which stands for Return on Assets is a metric used to assess the relationship between net income and total assets. In this research, the expansion of the insurance sector can be gauged by the profitability represented by ROA. Based on general insurance companies registered in Otoritas Jasa Keuangan (2017) it can be known that the Return On Asset (ROA) in conventional general insurance from 2016 to 2018 has decreased, that is Return On Assets in 2016 which was only 3.89 percent with profit of IDR4,837,358 million and total assets of IDR124,437,394 million. Furthermore, Return on Assets in 2017 decreased to 3.64 percent with profit of IDR4,651,866,1 million and total assets of IDR127,944,844.8 million. Also, Return on Assets in 2018 also decreased to 3.52 percent with profit of IDR 5,110,517.5 million and total assets of IDR 145,351,762,2 million.

Furthermore, recent developments regarding Return on Assets in joint venture general insurance has shown that joint venture general insurance in 2015 to 2017 has decreased, namely Return on Assets in 2015 which was only 2.27 percent with profit of IDR 719,854 million and total assets of IDR 31,691,778 million. Furthermore, during 2016 the Return on Assets was decreased to 1.86 percent with profit earned only IDR 585,892 million and total assets of IDR 31,570,754 million. And then the Return on Assets in 2017 which also decreased to 1.70 percent with profit of IDR 569,651 million and total assets of IDR 33,459,814 million, then the last is Return on Assets for 2018 which experienced a slight increase of 1.18 percent as well as Return on Assets in 2019 which increase 1.90 percent and in 2020 was 1.96 percent, although there is an increase but only very little. So this Return On Assets need to get serious attention. Return on Assets could be obtained from net income which divided by total assets and in the end it is coming back to profit which needs to get serious attention (Otoritas Jasa Keuangan, 2017).

Financial achievement which made by General insurance companies could be viewed from its financial statements that consist of its profit and loss statements, balance sheets cash flows (funds) and financial reports. Through the balance sheet analysis, an overview of the company's financial position can be viewed and the profit and loss statement analysis will give clear view of the company's development (Munawir, 2016).

To reveal commercial profitability level of the company can be used as an analytical tool called financial ratios. Thus, this financial ratios are analytical tools that explain the correlation between one number and another number which contained in the financial statements. Financial statement analysis could provide the best results in a condition that indicates a change in financial condition or management performance during certain period and it can be provide an overview as a trend or pattern of change, so as to provide information on opportunities and risks borne in a business process (Kuncoro & Suhardjono, 2011).

Cited from the (Peraturan Otoritas Jasa Keuangan Nomor 1/POJK 05/2018 Tentang Kesehatan Keuangan Bagi Perusahaan Asuransi Berbentuk Badan Hukum Usaha Bersama, 2018), which states that financial soundness indicators of an insurance company includes an assessment of these following factors: a) Technical reserves, b) Solvency level, c) Liquidity level, d) Investment adequacy, e) Guarantee funds and f) Other provisions related to financial health. The assessment on the solvency level is an evaluation on the difference between the allowable assets and the total liabilities, which recognize to the risk profile of each company, such as: a) credit liability b) liquidity risk c) market unavailability d) insurance threat and e) operational imminence.

Technical reserves measurement could be in form of evaluation towards liabilities of insurance or reinsurance companies that arise in the context of insurance transactions. Technical reserves could be in form of premium reserves, unearned premiums reserves, reserves for Investment-Linked Insurance Products (PAYDI), claims reserves and disaster reserves. The Assessment of investment adequacy are includes in assessment against the Admitted Assets in form of investment that must be owned by an insurance company. The Assessment of liquidity level of liquidity by means a comparison between liquid assets and current debts of insurance industry. The valuation of the guarantee fund includes the company's assets which are called as final guarantee in order to protect the interests of clients, the insured party in the firm liquidation event.

The description above shows that assets in insurance companies are very influential in assessing financial soundness quantity of insurance firms, therefore the right financial ratio which need to applies in order to calculate the level of firm profitability based on this research is Return On Assets (ROA) that focuses on capacity of a firm in an efforts to earn benefits from managing the company's resources. The higher ROA of a company, the higher company's performance will be achieved in terms of asset management. Thus, it would be able to earned huge profits.

From several previous research relates to this matter, then Hawarin (2013) found that premium income have positive and significant impact towards profitability of the insurance industry. Meanwhile, according to Ainul et al. (2017), it shows that premiums have no influence on the growth assets of insurance industry. Cited by Winarso (2014), regarding the analysis of customer claim costs on profitability insurance company (a case study at PT Prudential Life Assurance) he viewed that customer claim costs have significantly influence towards insurance company profits. Meanwhile, according to Riani (2014) regarding the impact from solvency, premiums, claims, investment and underwriting results towards profit growth in Islamic general insurance companies, it shows that claims do not affect the profit growth. Based upon Sastri et al. (2017) said that underwriting has significantly positive impact on profitability of insurance company, while, according to Muchlaso et al. (2018) concerning the effect of premiums, return on investment, claims and underwriting on Indonesia's Islamic insurance income and concludes that underwriting has no significant impact on insurance income.

This study aims to analyze the effect of premium income, claims expenses and underwriting results on the profitability of joint venture general insurance companies in Indonesia. Furthermore, from these phenomenon which occurs at general insurance industry in Indonesia and those several previous research results indicates there is a gap between the results so that further research is needed with aim to analyzing further regarding the contribution of premium paid, expenses claim likewise to underwriting results in increasing the profitability of Indonesia General insurance cooperation as an effort to help with investors to create investment decisions for the future and material for consideration of prospective insurance customers to plan and decide on several liabilities that will be transferred to insurance companies. This research also has a different research object and research period compared to previous research, therefore it can be used as a complement the research which have done before.

Literature Review and Hypotheses

Insurance

Elicited from Wondabio (2006), insurance is a contract of both insurer party which is insurance company and the insured party namely person or groups which protected. Insurance is closely relates to transfer of certain risks from the insured to the insurer by paying sum of money which is called Premium. According to the (Law of The Republic Indonesia No. 40 Year 2014, 2014), Article 7 paragraph (1), Co-Partnership of General insurance who owned between Indonesian citizens and/or Indonesian legal entities and foreign citizens or foreign legal entities should have similar business or holding company whose one of its subsidiaries are engaged to similar industry which is insurance business. According to Windarto (2018), insurance will become an indispensable necessity for every community in the future. This is due to its role as a safeguard for people's lives, providing a sense of security. Therefore, further exploration and study of insurance are essential.

Profitability

Profitability is a Company's capacity to obtain earnings or benefits in certain period and level of sales, assets and equity capital. Profitability has an important meaning in an effort to maintain the viability of a company, because it could be able to show the prospects of a company in the future. The higher the level of profitability, the existence of company will be more guaranteed. ROA is measurement that emphasizes on total assets used by company. ROA produce an advance calculation of profitability because it shows an effectiveness of management in controlling assets for generate profits (Kasmir, 2017). The insurance company can maximize its advantages effectively when it meticulously implements actuarial calculations (Persatuan Aktuaris Indonesia, 2023).

Premium Income

According to Solikha (2017), premiums are payments collected by the insurer in return to the risk transferred. In other word it could be define as a service fee for the protection guarantee which provided by the insurer to the insured based on estimation of the losses that may suffer; it also could be means as payment fees that collected by the insurer in return of the protection benefits provided for the insured party. The premium holds paramount importance within an insurance company as it represents the primary source of income. Thus, ensuring the continuous sustainability of premium payments is crucial. To achieve this, offering diverse options for premium types that can be paid becomes imperative (Markonah, 2021).

Expense Claims

According to PSAK No. 28 Concerning an Accounting for Loss Insurance, It is written that expense claims is a compensation that should be paid or which becomes an obligation to the insurer party or insurance company in conjunction with the loss which occurred. Meng et al. (2023) highlight the significance of optimizing claims through a combination of premiums that comprise various types.

Underwriting Results

Quoted from Fikri (2009), the underwriting is referred to measurement technique in allocating the risk level owned by potential client or group of people which will later be insured that connected to particular insurance product. Moreover, Angima & Mwangi (2017) emphasize that underwriting plays a crucial role in determining a company's profit position.

Conceptual Framework

Effect of premium income on profitability

Based on the research conducted by Muchlaso et al. (2018),it is evident that premium income has a significant positive effect on Islamic insurance income in Indonesia. The study indicates that as the company receives higher premiums, its income also increases. Similarly, findings from the research by Hawarin (2013) and Sastri et al. (2017) reveal a significant correlation between premium income and insurance company profits. Based on these research results, we can propose the following hypothesis:

H_1: Premium Income has a significant positive effect on the profitability of Joint Venture General Insurance Companies in Indonesia.

Effect of claim expenses on profitability

Based on the research conducted by Ainul et al. (2017), it is evident that claims have a significant impact on asset growth in insurance companies. Similarly, Winarso (2014) and Muchlaso et al. (2018) found that claims also have a significant effect on insurance company profits. Based on these research findings, we can propose the following hypothesis:

H_2: Claim Expenses have a significant negative effect on the profitability of Joint Venture General Insurance Companies in Indonesia.

Effect of underwriting results on profitability

Based on the research conducted by Fikri (2009) and Sastri et al. (2017), it is evident that underwriting results have a significant positive effect on insurance company profits. The findings indicate that an increase in underwriting results leads to a subsequent increase in profits earned by insurance companies. Based on these research results, we can propose the following hypothesis:

H_3: Underwriting results have a significant positive effect on the profitability of Joint Venture General Insurance Companies in Indonesia.

Based on the theoretical research, previous research conclusions, and the formulated hypotheses, the research framework can be outlined:

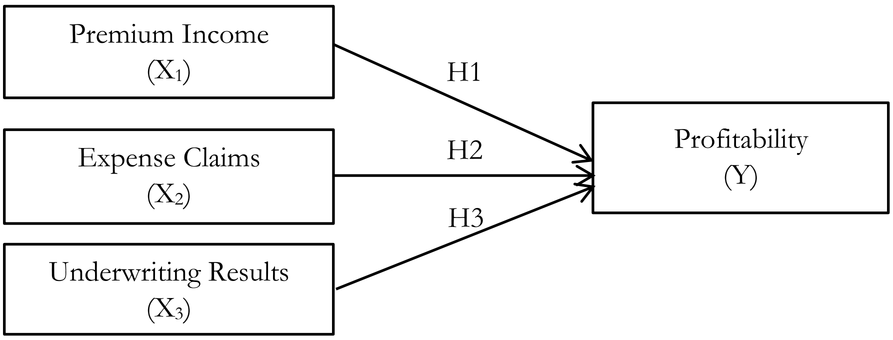

Figure 1. Illustrates Conceptual Framework

Research Methods

Research Design

Design used in this research was quantitative by means this research arranged based on financial statements of General insurance cooperation that registered on the Otoritas Jasa Keuangan (OJK). The research dependent variable is profitability (Y), while the research independent variables which is premium income (X_1), expense claims (X_2) and underwriting results (X_3).

Table 1. Presents Operational Variables

No.	Variables	Definition of Variables	Formula	Measurement Scale
1	Profitability (Y)	Company's ability to seek profits, as well as to provide estimation level of effectiveness from company's management.	$\text{ROA} = \frac{\text{Net Profit}}{\text{Total Assets}}$ Sumber: Kasmir (2017)	Ratio
2	Premium Income (X_1)	The amount of payment from the insured which calculated based on the value of the insured object with certain percentage in return for risk transfer.	Net Premium Income = Gross Premium – Reinsurance Premium – Unearned Premiums	Ratio

No.	Variables	Definition of Variables	Formula	Measurement Scale
			Source: PSAK No. 28 Concerning an Accounting for Loss Insurance	
3	Expanse Claims (X_2)	The amount of compensation that should be paid by the insurer to the insured party in connection with the occurrence of the insured loss or risk.	Expenses Claims = Gross Claims - Reinsurance Claims- Estimated Self Dependent Claims Source: PSAK No. 28 Concerning an Accounting for Loss Insurance	Ratio
4	Underwriting Results (X_3)	The results from the assessment and classification at the risk level which found in a person or group of prospective insureds that aims to protect insurance companies from losses.	Underwriting Result = Underwriting Income – Underwriting Expense Source: PSAK No. 28 Concerning an Accounting for Loss Insurance	Ratio

Sample of Population

Research population used was Co-Partnership insurance companies which registered to the Otoritas Jasa Keuangan in 2017-2020 with a total of 22 companies. Purposive sampling method was applied in this study which is the method used to reveal the sample through specific indicator. Sampling criteria in this study could be written as follows:

Table 2. Explains Sampling Criteria

No	Criteria	Amount
1	Joint enterprise general insurance company that registered on Otoritas Jasa Keuangan in 2017−2020	22
2	Joint enterprise general insurance company which publishes complete financial statements consecutively for 2017−2020	12

Based upon these criteria, there are 12 joint Enterprise general insurance companies that are included in these criteria and obtained 48 data. Joint venture general Insurance companies in this belows are the sample in this study which could be define as following table:

Table 3. Defines the Research Sample

No.	Company Name
1	PT CHUBB General Insurance Indonesia
2	PT Asuransi Allianz Utama Indonesia
3	PT Asuransi AXA Indonesia
4	PT AIG Insurance Indonesia
5	PT China Taiping Insurance Indonesia
6	PT Meritz Korindo Insurance
7	PT Mandiri AXA General Insurance
8	PT Asuransi MSIG Indonesia
9	PT Sompo Insurance Indonesia
10	PT QBE General Insurance Indonesia
11	PT Asuransi Samsung Tugu
12	PT Asuransi Tokio Marine Indonesia

Source: Otoritas Jasa Keuangan (2017)

Type of Data and Its Sources

Quantitative data that has been used in this research are the one whose in form of figures that consist the data of premium income, expense claims, underwriting results and Return On Assets of Joint venture general insurance company's financial statements for 2017-2020. The data source was secondary data which means the data that obtained indirectly from yearly reports or financial reports which published from Otoritas Jasa Keuangan (OJK) and completed by its official website.

Data Collection Methods and Data Analysis

The data collection method that conducted in this research was documentation method, which referred to finding and studying data through existing data such as balance sheet of joint venture insurance companies that listed at Otoritas Jasa Keuangan during 2017-2020. Meanwhile, this research used panel data regression model as data analysis method in this study which function to examine the data through analysis tools which called as Eviews 9 program.

Results and Discussion

Descriptive Statistics

From the descriptive statistical tests results towards 12 joint venture general insurance companies during 2017−2020, it stated that the profitability variable from these 12 joint venture general loss insurance companies during 2017−2020 has an average of 0.020185 with median value of 0.021865 through predictable error of 0. 033642. The highest value of 0.105580 that owned by PT AIG Insurance Indonesia in 2020, and the lowest value was −0.063259 that possessed by PT AIG Insurance Indonesia in 2017.

Premium income has an average of 26.26622 with median value of 26.58685 by predictable error of 0.980418. The peaks value of 27.43400 that belong to PT CHUBB General Insurance Indonesia in 2018 which amounted to 821.210 million rupiah, and the lowest value of 23,50730 that goes to PT Meritz Korindo Insurance in 2017 with total of 16,184.08 million rupiah.

Expense Claims have an average value of 25.34980 with median value of 25.88525 by predictable error of 1.713620. The peaks value of 27.02370 possessed by PT CHUBB General Insurance Indonesia in 2020 with amounted to 544,787 million rupiah and the lowest value of 17.40680 belong to PT Meritz Korindo Insurance in 2019 which total of 36.280 million rupiah.

The underwriting results have an average of 25.47119 with median value of 25.54650 by predictable error of 0.846451. The peaks value of 26.64820 possessed by PT CHUBB General Insurance Indonesia in 2018 with amounted to 374,245 million rupiah and the lowest value of 23. 26080 belong to PT Meritz Korindo Insurance in 2017 with total of 12,647.90 million rupiah.

Table 4. Explains the Descriptive Statistics

	Profitability	Premium Income	Expanse Claims	Underwriting Results
Mean	0.020185	26.26622	25.34980	25.47119
Median	0.021865	26.58685	25.88525	25.54650
Maximum	0.105580	27.43400	27.02370	26.64820
Minimum	-0.063259	23.50730	17.40680	23.26080
Std. Dev.	0.033642	0.980418	1.713620	0.846451
Skewness	-0.223965	-1.198105	-2.505527	-0.593519
Kurtosis	3.007567	3.448277	10.99901	2.539792
Jarque-Bera	0.401398	11.88555	178.1898	3.241706
Probability	0.818159	0.002625	0.000000	0.197730
Sum	0.968858	1260.779	1216.790	1222.617
Sum Sq. Dev.	0.053194	45.17731	138.0152	33.67451
Observations	48	48	48	48

F-Test (Model Feasibility Test)

Cited from the feasibility outcomes towards the model, it is known that the F-test tells about the prob value (F-statistics) of 0.000005 which is lower than (α = 0.05) by means that this study is deserve to get advance study.

Panel Data Regression Model Selection Results

Based on the results of the Chow test, the probabilities of the F-test and Chi-square values are 0.0153 and 0.0014, respectively (both probabilities are less than 0.05). As a result, the selected model is the fixed effect model.

Table 5. Chow Test Results

Redundant Fixed Effects Tests
Equation: Untitled
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	2.640179	(11,33)	0.0153
Cross-section Chi-square	30.302573	11	0.0014

The results of the regression analysis using the fixed effect model are as follows:

Table 6. Fixed Effect Model

Dependent Variable: Profitability
Method: Panel Least Squares
Date: 07/01/21 Time: 14:46
Sample: 2017 2020
Periods included: 4
Cross-sections included: 12
Total panel (balanced) observations: 48

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.347826	0.504093	-0.690003	0.4950
PI	-0.043445	0.024393	-1.781092	0.0841
EC	-0.002502	0.005797	-0.431639	0.6688
UR	0.061740	0.019277	3.202825	0.0030

Effects Specification
Cross-section fixed (dummy variables)

R-squared	0.623044	Mean dependent var	0.020185
Adjusted R-squared	0.463123	S.D. dependent var	0.033642
S.E. of regression	0.024650	Akaike info criterion	-4.317765
Sum squared resid	0.020052	Schwarz criterion	-3.733014
Log likelihood	118.6264	Hannan-Quinn criter.	-4.096787
F-statistic	3.895954	Durbin-Watson stat	1.243788
Prob(F-statistic)	0.000647		

$$\text{Profitability} = -0.347826 - 0.043445\ \text{PI} - 0.002502\ \text{EC} + 0.061740\ \text{UR} \quad (1)$$

According to data above, it is known that the significant variable of profitability is the premium income variable with significance value of 0,0841 (prob > 0.05) and underwriting outcome by significance value of 0.6688 (prob >0.05). By means there is only the expense claim variable which is insignificant to insurance profitability with significance value of 0.0781 (prob < 0.05). The adjusted R-squared value is 0. 463123 in other word as much as 46.31 percent of insurance profitability can be explained by the variables that presented in this study while the remaining 57.95 percent could be described by other variables which is still unknown in this study.

Classic Assumption Test

The normality test is used to examine whether the variables included in the regression model of the study follow a normal distribution. In this research, the Jarque-Bera test was conducted, and the obtained probability is greater than α = 0.05. Therefore, it can be concluded that the data is normally distributed. Here are the results of the normality test:

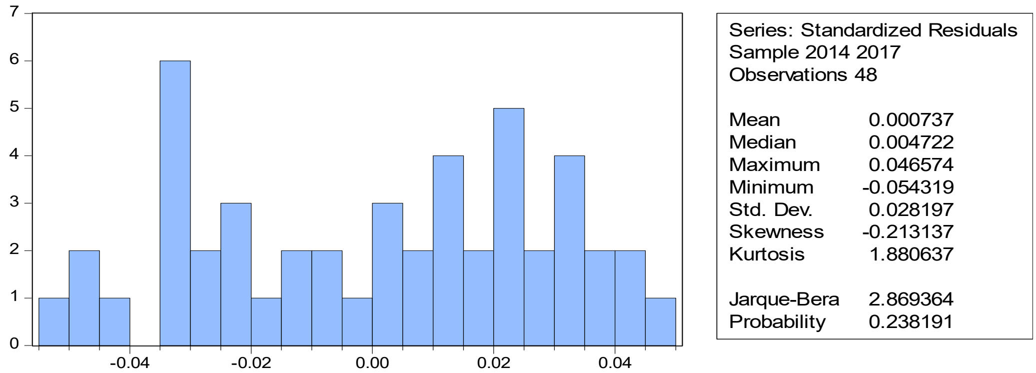

Figure 2. Normality Test Results

The normality test was performed using the Jarque-Bera test, and the resulting probability is greater than the significance level (α = 0.05). Hence, the data in this study can be considered to be normally distributed.

The presence of multicollinearity in the regression model can be assessed through the Variance Inflation Factor (VIF) values. A VIF value below 10 indicates the absence of multicollinearity issues, indicating a well-constructed regression model.

Table 7. Multicollinearity Test Results

	PI	EC	UR
PI	1.000000	0.881773	0.854032
EC	0.881773	1.000000	0.662517
UR	0.854032	0.662517	1.000000

Using the VIF formula, which is VIF = $1/(1-R^2)$, the VIF values for each variable are calculated to be 4.494859, 1.782305, and 3.695091. These values are all below 10, indicating that there are no multicollinearity problems in the data. Therefore, it can be concluded that the regression model is free from multicollinearity issues.

The final classical assumption test is the heteroscedasticity test. This test is conducted to determine whether the variance of residuals in one observation is similar to that of other observations. The requirement for this test is a probability value > α = 0.05.

Table 8. Heteroscedasticity Test Results

Dependent Variable: RESABS
Method: Panel EGLS (Cross-section weights)
Date: 07/01/21 Time: 15:32
Sampel: 2017- 2020
Periods included: 4
Cross-sections included: 12
Total panel (balanced) observations: 48
Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.002755	0.055140	0.049967	0.9604
PI	0.004800	0.005698	0.842457	0.4041
EC	0.000611	0.002038	0.299793	0.7657
UR	-0.004883	0.004611	-1.058988	0.2954

Based on the data obtained, the probability values for each variable are found to be 0.9604, 0.4041, 0.7657, and 0.2954, all of which are greater than α = 0.05. So it can be concluded that the data is free from heteroscedasticity problems. In summary, the results of the heteroscedasticity test indicate that there is no evidence of heteroscedasticity in the data.

t-Test (Partial Test)

The t-test was conducted in order to examines the magnitude of impact from the independent variables affecting the dependent variable in this research. Those requirement for conducting the t-test are those probability value should be less than α = 0.05, so there would be significant impact to its dependent variable.

Based on Table 6, the effect of each independent variable could be defined as follows:

1. Premium income has t-statistic value of -1.781092 through chance of 0.0841 that higher than its significance level (α = 0.05). In other word that the hypothesis has been rejected because its coefficient has a negative sign meaning that premium income has insignificantly negative effect towards the profitability of joint enterprises general insurance firms.
2. Expense Claims has t-statistic value of -0.431639 by chance of 0.6688 which higher than its significance magnitude of (α = 0.05). By means that the research hypothesis has been rejected, in other word that the Expense claim has insignificant impact towards profitability of joint enterprise general insurance firms.
3. Underwriting results has t-statistic value of 3.202825 through chance of 0.0030 which smaller than its significance magnitude of (α = 0.05). In other word that Hypothesis has been accepted. It can be explained that underwriting results have significantly affect on the profitability of joint enterprise general insurance companies.

Determination Coefficient Test (R^2)

The coefficient of determination outcome indicates that R-squared adjusted scores is 0.463123 meaning if as much as 46.31 percent of Joint venture general insurance company's profitability as measured variable can be estimated through its independent variables which is premium income, expense claims and underwriting results, while the remaining of 53.69 percent could be explained by another variables which excludes from this study.

Discussion

Effect of premium income on profitability

The impact of Premium Income on Profitability was analyzed in this study, and the first hypothesis suggesting a significant effect was rejected. It was found that premium income, which serves as the primary source of income for insurance and reinsurance companies, does not determine the profitability of joint venture general insurance companies. Several factors contribute to this finding, such as high claims expenses. When a company faces a heavy claims burden, it can lead to losses, especially if the claims occur at the beginning of the policy agreement when the company has not received income from the initial premium, which is typically allocated to agent fees. Additionally, some customers may unilaterally decide to discontinue premium payments, affecting the initial calculations and potentially leading to reduced company profits.

In the context of the Theory of Risk and Uncertainty, it's crucial to recognize that the insurance business operates in an environment of risk and uncertainty. Insurers collect premiums from policyholders in exchange for providing coverage against potential future losses or claims (Gifford, 2010; Williams & Baláž, 2012). This business model inherently involves assessing and managing risks. When a company faces a high volume of claims, especially early in a policy's life when little premium income has been collected, it can cause financial losses. This aligns with the theory's premise that insurance companies must navigate and mitigate various uncertainties, including the timing and magnitude of claims (Gifford, 2010; Williams & Baláž, 2012).

Moreover, insurance is fundamentally a business that profits from probability. Premiums are determined based on actuarial calculations, which consider the likelihood of policyholders filing claims (Willett, 1901). Therefore, to explain the hypothetical insignificance of Premium Income on Profitability, we can theoretically argue that an increase in premium income might not substantially contribute to a company's profitability if accompanied by a corresponding rise in claims (Beard, 2013; Outreville, 1998; Willett, 1901). This could be seen as the practical manifestation of the Theory of Distributed Loss, where the distribution of losses through claims impacts the financial outcomes of insurance companies (Outreville, 1998).

These results align with earlier research conducted by Fikri (2009), Imanda (2017), Juwita (2017), Nadia (2020), Prahasti (2020), and Tabe et al. (2018) which also found that premium income has a significant negative effect on the profitability of joint venture general insurance companies. The research suggests that an increase in the amount of premiums earned may not significantly contribute to the company's income if it comes with a rise in the number of claims. As premiums have an element of risk that triggers claims, increased premium income may be offset by higher claim payments, leading to reduced profitability for the insurance company.

In summary, the study concludes that premium income does not have a significant effect on the profitability of joint venture general insurance companies, which follows several previous research findings. The impact of claims expenses and the element of risk associated with premiums plays a crucial role in determining the overall profitability of the insurance company.

Effect of claim expenses on profitability

The study explored the impact of Claim Expenses on Profitability and uncovered that claim expenses do not wield a substantial influence on the profitability of joint venture general insurance companies. This intriguing finding can be illuminated by invoking the concept of the Law of Large Numbers from probability theory and statistics. In essence, when insurance companies serve a vast and diverse customer base, the Law of Large Numbers suggests that, on average and over time, claims will naturally fluctuate (Braunsteins & Mandjes, 2023). Moreover, a noteworthy facet of the insurance industry is the practice of transferring a part of the claim burden to reinsurance companies. This strategic maneuver enables insurance companies to file claims with reinsurers when substantial risks materialize. As a result, this redistribution of risk serves as a bulwark, mitigating the potentially adverse effects of high claim expenses on the profitability of the insurance company (Braunsteins & Mandjes, 2023).

However, it's essential to acknowledge that the relationship between claim costs and profitability in an insurance company is subject to multifaceted external influences. These external factors encompass changes in interest rates, prevailing investment market conditions, fluctuations in exchange rates, and shifts in regulatory frameworks. These variables can substantially affect the financial landscape of insurance companies. For example, changes in interest rates can alter investment returns, while shifts in market conditions can affect the valuation of insurance assets. Additionally, exchange rate fluctuations can introduce volatility into international operations, and regulatory changes can affect the solvency and capital requirements of insurers. Therefore, while claim expenses may not show a direct and significant impact on profitability, it's essential to consider these external dynamics that can shape the financial performance of insurance entities.

These observations resonate with the findings of earlier research conducted by Ghofar (2012), and Imanda (2017), both of which noted that claim expenses do not wield a substantial influence on the profitability of insurance companies. These insights underscore the vital role of risk management, diversification, and reinsurance arrangements in the insurance industry, where the Law of Large Numbers and external factors play integral roles in shaping the financial outcomes of insurance companies.

Effect of underwriting results on profitability

The study examined the effect of Underwriting Results on Profitability and found that underwriting results have a significant positive effect on the profitability of joint venture general insurance companies. So the third hypothesis in the study is accepted, indicating that a 1 percent increase in underwriting results leads to a 6.17 percent increase in profitability.

The underwriting process plays a crucial role in influencing the company's profit as it involves filtering and evaluating the risks that the company will accept. This is the primary activity of an insurance company. Underwriting involves identifying and screening risks from potential insureds, and the decisions made during this process have a significant impact on the company's risks and overall financial health. The underwriting function is vital for the insurance company's continuity and success.

These findings are consistent with previous research conducted by Fikri (2009), Liu et al. (2022), and Sastri et al. (2017), which also support the idea that underwriting results have a significant positive effect on the profitability of joint venture general insurance companies. The underwriting process assesses and classify the level of risk associated with potential insured individuals or groups, ultimately safeguarding insurance companies from potential losses.

In summary, the study concludes that underwriting results indeed have a significant positive effect on the profitability of joint venture general insurance companies. The underwriting process's critical role in managing risks and ensuring the company's financial stability is reflected in the positive impact on profitability. These results align with earlier research conducted by Fikri (2009), Liu et al. (2022), and Sastri et al. (2017).

Conclusion, Limitations, and Recommendations

Conclusion

Based on the analysis conducted in this study, these conclusions can be drawn:

1. Premium income does not have a significant effect on the profitability of joint venture general insurance companies in Indonesia.
2. Claim expenses do not have a significant effect on the profitability of joint venture general insurance companies in Indonesia.
3. Underwriting results have a significant positive effect on the profitability of joint venture general insurance companies in Indonesia.

Limitations

This research has limitations, including:

1. The coefficient of determination (R2) shows that only 46.31 percent of the dependent variable can be explained by the independent variables in this study, indicating there may be other variables not examined here that influence profitability.
2. The research focused on joint venture general insurance companies that provide complete financial reports published by the Otoritas Jasa Keuangan and supplemented by the company's official website, which may not represent the entire insurance industry.

Recommendations

Based on the findings and discussions in this study, several recommendations for future research are suggested to further develop this area of study:

1. Include more variables in the research model, such as investment returns, solvency, and operating expenses, to gain a more comprehensive understanding of their impact on profitability.
2. Replicate the research using data from conventional general insurance companies or explore other types of insurance companies, such as life insurance and Islamic general insurance, to compare the findings across different insurance sectors.

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