



Investigation of Surplus (Deficit) Underwriting of Tabarru' Fund on BNI Life Insurance Unit Syariah

Baso Akib¹, Muh. Takbir Gawy Al Buny MYS², Jawad Z. Salic³

^{1,2}Parahikma Institute, Gowa, Indonesia, ³Mindanao State University, Marawi, Philippines

Email: basoakib@parahikma.ac.id¹, muh.takbirgawyal.bunymys@gmail.com²,

jawad.salic@msumain.edu.ph³

Abstract This study aims to examine the factors influencing the factors influencing the underwriting surplus (deficit) of tabarru' funds in BNI Life Insurance's sharia unit between June and July 2023. Utilizing a quantitative and descriptive methodology, the research relies on secondary data sourced from BNI Life Insurance's sharia unit financial reports spanning from 2015 to 2022. The sampling technique employed is a saturated sample, encompassing 32 time-series data points extracted from quarterly financial reports. Data collection methods include observation and documentation, with analysis conducted using multiple linear regression analysis through IBM SPSS version 20. The findings indicate that participant contributions have a positive and significant influence on the underwriting surplus (deficit) of tabarru' funds, whereas investment income and claims have a negative and significant impact. Collectively, participant contributions, investment income, and claims significantly affect the underwriting surplus (deficit). The results suggest that enhancing management practices and ensuring the stability of participant contributions, investment income, and claims could improve the underwriting surplus of BNI Life Insurance's sharia unit. The research suggests that better company management and the provision of sharia-compliant products can increase customer loyalty and public interest, thereby boosting the company's assets.

Keywords: Surplus (Deficit), Tabarru Fund, Underwriting

INTRODUCTION

In the current era of globalization, the development of Information and Technology (IT) has had an impact on people's lives (Akib, 2020). Technology, business, and cultural innovations are all advancing at an uncontrollable pace (Sapitri, 2018). As a result of this evolution, society must always be vigilant because the potential for threats is very significant. These elements directly or indirectly contribute to human beings (Sapitri et al., 2024). Therefore, people must have guarantees to deal with the dangers that will occur, among others, by having insurance for their assets and even their lives because the risk is basically part of human life (Suharli et al., 2021; Xu et al., 2024). In this case, insurance companies can be an option for people who need this protection, whose position in this situation is very decisive. As an entity that collects public funds and provides cash for national economic development, insurance companies play an important role in protecting people from dangers that can encourage development stability (Kamiliyah, 2022).

In a country where Muslims are the majority of the population, sharia-based insurance is needed as well as being able to influence people's desires because it can provide the security needed

by the community against certain threats with risk management in accordance with sharia (Fadilah & Makhrus, 2019).

Fatwa of the National Sharia Council (DSN) no. 21/DSN/MUI/X/2001 reveals that sharia-based insurance is an effort by a number of parties to protect and support each other through the investment of tabarru' funds that provide a recovery structure to manage certain risks by taking contracts that are not contrary to sharia or sharia insurance management is said to be an idea where customers work in the same direction, namely helping each other through asset investment or tabarru' which provides a pattern of returns to manage certain risks through the use of contracts that are in accordance with sharia and management is provided by sharia insurance companies in exchange for ujah (Dirmawati et al., 2023; Fadilah & Makhrus, 2019).

One of the institutions that provides guarantees to its customers with operations in accordance with Sharia is the BNI Life Insurance Sharia unit. The insurance company offers various products in developing companies that are run, such as health insurance, life insurance, education, investment, and old age. (Suharli et al., 2024).

During its operation, the Islamic insurance company mentioned above cannot be separated from the implementation of the underwriting management function because in managing tabarru' funds, an underwriting process is required here underwriting is a method used by insurance companies to select and categorize risks in deciding the level of risk to be taken and the amount of contribution to be given with the aim of providing a scheme for the process of providing risks among insurance participants that are proportional and fair (Riady et al., 2024). The risk here refers to the potential for future claims that the insurance company may have to overcome (Bahasoan et al., 2023).

Tabarru' fund underwriting is used as one of the standards to assess how each Islamic insurance business handles its customers' money because it is very important and must be taken into account (Kembara & Kamaliyah, 2023). An underwriting surplus in tabarru' funds occurs if, at the end of the period, the total participant contributions exceed claims and related costs, while a decrease in underwriting results (deficit) indicates that the selected Islamic insurance business has poor underwriting management (Widyastuti & Sholihah, 2022). This can be illustrated based on the financial statements of BNI Life Insurance sharia unit obtained from the official website of BNI Life Insurance sharia unit below

The underwriting surplus (deficit) of tabarru' funds fluctuates annually, sometimes showing a positive change and other times a negative one. These variations are attributed to significant changes in specific indicators. Humaemah et al. (2018) conducted a study titled "The Effect of Participant Contributions and Investment Income on Tabarru' Fund Underwriting Surplus at PT Prudential Life Assurance Sharia Unit for the Period 2010-2017." Their research demonstrated that the dependent variable is significantly impacted by the independent variables. This aligns with the findings of Rustamunadi et al. (2021) in their study "The Effect of Investment Income and Participant Fund Portfolio Management Income on Tabarru' Fund Underwriting Surplus (Deficit) at PT BNI Life Insurance Sharia Unit for the 2015-2019 Period." Their results show that the underwriting surplus is positively and significantly influenced by investment income. **This research aims to delve deeper into the dynamic relationship between participant contributions, investment income, and the underwriting surplus in Sharia insurance. By employing advanced statistical methods and considering a broader range of economic indicators, it seeks to provide a more nuanced understanding of the factors driving underwriting surplus fluctuations. This will not only enhance the existing body of knowledge but also offer practical strategies for Sharia insurance companies to optimize their financial performance.**

Investigation of Surplus (Deficit) Underwriting of Tabarru' Fund on BNI Life Insurance Unit Syariah

In line with the research of Estiningsih et al. (2022) on "The Effect of Gross Contributions, Reinsurance, and Claims on Tabarru' Fund Underwriting Surplus of PT Mega General Insurance, Tbk Sharia Unit" with the conclusion that according to research, claims have a significant influence on the dependent variable. These studies are in accordance with Septiani's research (2024) with the title "The Effect of Net Contributions, Claim Expenses, and Investment Returns on Tabarru' Fund Underwriting Surplus in Sharia General Insurance Companies in Indonesia for the 2016-2019 Period". This work resulted in the tabarru' fund underwriting surplus variable being partially positively and significantly influenced by claim expenses, and investment returns had a negative effect on the tabarru' fund underwriting surplus.

RESEARCH METHOD

This study employs a quantitative strategy in conjunction with a descriptive approach. The data collected contains numerical numbers from the financial statements of BNI Life Insurance's Sharia unit, with an emphasis on participant contributions, investment revenue, claims, and the underwriting surplus (deficit) of tabarru' funds. From June to July 2023, the research was conducted at the BNI Life Insurance Sharia unit, which is located at Jl. Gatot Subroto Kav 24-25, Jakarta 12930, Indonesia.

The population in this research includes the whole set of financial statements released by BNI Life Insurance's Sharia subsidiary, with a focus on participant contributions, investment income, claims, and the underwriting surplus (deficit) of tabarru funds. The sample was picked using a non-probability sampling approach (saturated sample), gathering time-series data from each quarterly report from 2015 to 2022 for a total of 32 samples. Data collecting strategies included observation and documentation, with library research and archive searches functioning as data-gathering instruments.

SPSS (Statistical Product and Service Solution) software was used to process and analyze the data. To answer the study objectives, the acquired data were analyzed using a variety of methodologies, including descriptive analysis, classical assumption tests, hypothesis testing, and multiple linear regression analysis.

The research approval procedure required numerous stages before the study could begin. Initially, the author applied for a research permit to the Governor of South Sulawesi Province, Cq. Head of UPT P2T BKPM South Sulawesi Province, on behalf of the Dean of the Faculty of Economics and Islamic Business, Institut Parahikma Indonesia. The letter, 104/FEBI.01/IPI/VI/2023, sought authorization to undertake the research and was written to the Governor of South Sulawesi Province, Cq. Head of UPT P2T BKPM South Sulawesi Province. Following that, approval for the research was obtained by a letter from the Acting Head of the Investment and One-Stop Integrated Service Office of South Sulawesi Province, on behalf of the Governor of South Sulawesi, dated 18761/S.01/PTSP/2023.

RESULTS AND DISCUSSION

Descriptive Analysis

Table 1. Descriptive Analysis Results

Descriptive Statistics				
N	Minimum	Maximum	Mean	Std. Deviation

Participant Contribution	32	62570,00	499902,00	183728,0400	126267,15106
Investment Income	32	-1076,57	49991,75	15710,9997	15215,97187
Claim	32	16293,00	296862,00	88746,2544	61233,47068
Tabarru' Fund					
Underwriting Surplus (Deficit)	32	-19844,85	72705,00	3599,0009	15250,43441
Valid N (listwise)	32				

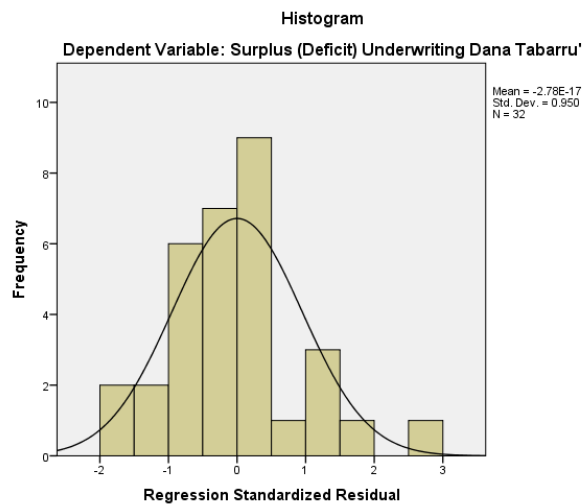
Source: SPSS 20 Output Results (2023)

The table provides the following explanation:

- Participants' contributions range from 62,570.00 to 499,902.00, with an average of 183,728.04 and a standard deviation of 126,267.15.
- Investment income ranges from -1,076.57 to 49,991.75, with an average value of 15,711.00 and a standard deviation of 15.215.97.
- Claims range in amount from 16,293.00 to 296,862.00, with an average of 88,746.25 and a standard deviation of 61,233.47.
- Tabarru' funds' underwriting surplus (deficit) ranges from -19,844.85 to 72,705.00, with an average of 3,599.00 and a standard deviation of 15,250.43.

Classical Assumption Test

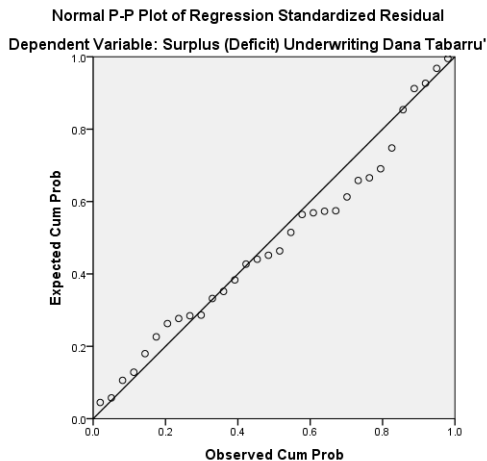
Data normality test



Source: SPSS 20 Output Results (2023)

Figure 1.
Normality Test Results-Histogram

According to Figure 1, the histogram has a bell-shaped curve, which indicates a normal distribution. This shows that the regression model utilized in the study has a normal distribution.



Source: SPSS 20 Output Results (2023)

Figure 2.
Normality Test Results-Normal P-P Plot

The regression model used in this study is deemed normally distributed since the points are uniformly scattered around the diagonal line. A significance test was used to establish whether or not the data was normal. If the significance value is less than 0.05, the data is deemed non-normally distributed; if it is larger than 0.05, it is considered regularly distributed. The one-sample Kolmogorov-Smirnov test was used to determine the normality of data distribution.

Table 2. Results of the Kolmogorov-Smirnov Normality Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		32
Normal Parameters ^{a,b}	Mean	0E-7
	Std. Deviation	10047,00409293
	Absolute	0,113
Most Extreme Differences	Positive	0,113
	Negative	-0,065
Kolmogorov-Smirnov Z		0,639
Asymp. Sig. (2-tailed)		0,810
a. Test distribution is Normal.		
b. Calculated from data.		

Source: SPSS 20 Output Results (2023)

The results of the one-sample Kolmogorov-Smirnov test showed an Asymp. Sig. (2-tailed) value of 0.810, which is larger than 0.05. This suggests that the data being examined has a normal distribution.

Multicollinearity test

Table 3. Test Results (Multicollinearity, Multiple Linear Regression, and t/Partial)

Model	Coefficients ^a					Collinearity Statistics	
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Tolerance	VIF
	B	Std. Error	Beta				

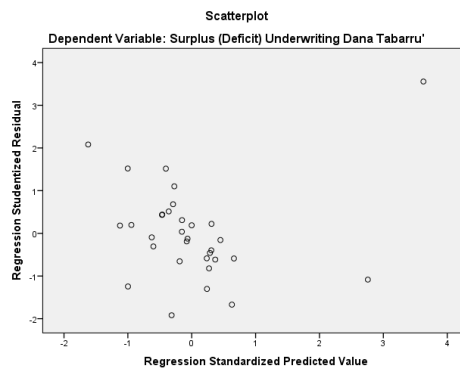
(Constant)	-2367,318	3418,504	0,693	0,494			
Participant Contribution	0,225	0,038	1,863	5,875	0,000	0,154	6,489
Investment Income	-0,891	0,205	-0,889	4,346	0,000	0,371	2,697
Claim	-0,241	0,066	-0,968	3,665	0,001	0,222	4,497

a. Dependent Variable: Tabarru' Fund Underwriting Surplus (Deficit)

Source: SPSS 20 Output Results (2023)

The table shows that there is no evidence of multicollinearity among the independent variables. This is demonstrated by the VIF values, which are all less than 10 (6.489 for participant contribution, 2.697 for investment income, and 4.497 for the claim variable), as well as the tolerance values, all of which are greater than 0.1 (0.154 for participant contribution, 0.371 for investment income, and 0.222 for the claim variable).

Heteroscedasticity test



Source: SPSS 20 Output Results (2023)

Figure 3.
Heteroscedasticity Test Results

According to Figure 3, the dots are randomly distributed below the zero line on the Y-axis, without establishing a discernible pattern. This implies the lack of heteroscedasticity symptoms, allowing the regression model to forecast changes in the surplus (deficit) underwriting of tabarru' funds using the independent variables.

Autocorrelation test

Table 4. Test Results (Autocorrelation-Durbin Watson and R Analysis)

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0,752 ^a	0,566	0,519	10571,54373	1,897

a. Predictors: (Constant), Claims, Investment Income, Participant Contributions

b. Dependent Variable: Tabarru' Fund Underwriting Surplus (Deficit)

Source: SPSS 20 Output Results (2023)

Investigation of Surplus (Deficit) Underwriting of Tabarru' Fund on BNI Life Insurance Unit Syariah

The Durbin-Watson (DW) statistic has a computed value of 1.897, which is shown in the table. against determine autocorrelation, compare the DW statistic against critical values from a table. With a 0.05 significance level, the critical values for a sample size (n) of 32 and three independent variables (k) are $DU=1.6505$ and $4-DU=2.3495$. The DW statistic (1.897) falls within these values ($1.6505 < 1.897 < 2.3495$), indicating that the regression model does not show signs of autocorrelation.

Multiple Linear Regression Model

The table explains the constant (α) and β coefficients for participant contributions, investment income, and claims in a multiple linear regression equation. These numbers are utilized to create a regression model that predicts the surplus (deficit) underwriting of tabarru' funds using the independent variables. The multiple linear regression analysis findings can be described as follows:

- 1) Multiple linear regression analysis resulted in a constant value of -2,367,318. This means that when all of the independent variables (participant contributions, investment income, and claims) are equal to zero, the dependent variable (surplus (deficit) underwriting of tabarru' funds) stays at -2,367,318.
- 2) The coefficient value for participant contributions of 0.225 means that for every 1% increase in participant contributions, the surplus (deficit) underwriting value of tabarru' funds is predicted to rise by 0.225. Conversely, for every 1% decline in member contributions, the surplus (deficit) underwriting value of tabarru' funds is predicted to fall by 0.225.
- 3) The -0.891 coefficient for investment income means that for every 1% rise in investment income, the surplus (deficit) underwriting value of tabarru' funds is predicted to fall by 0.891. Conversely, with every 1% fall in investment income, the surplus (deficit) underwriting value of tabarru' funds is predicted to rise by 0.891.
- 4) The -0.241 coefficient for claims shows that for every 1% rise in claims, the surplus (deficit) underwriting value of tabarru' funds is predicted to decline by 0.241. In contrast, with every 1% drop in claims, the surplus (deficit) underwriting value of Tabarru' funds is predicted to rise by 0.241.

Hypothesis Test

T-test (partial)

The degrees of freedom (df) for the t-test may be determined from the study data using the formula $df = n - k - 1$, where n is the number of samples (32) and k is the number of independent variables (3). Thus, $df = 32 - 3 - 1$, which is 28. The t-table value for $df=28$ is 1.701. The findings of the t-test in Table 4 on page 7 can be read as follows:

- a) Participant contributions have a considerable influence on the surplus or deficit underwriting of tabarru' funds, with a t-value of 5.875, above the essential t-value of 1.701 at a significance level of 0.05. With a significance level of 0.000, which is less than 0.05, the null hypothesis (H_0) is rejected, and the alternative hypothesis (H_1) is accepted. This means that participant contributions (X) have a positive and considerable impact on tabarru's surplus (deficit) underwriting (Y).
- b) The impact of investment income on the surplus (deficit) underwriting of tabarru' funds is substantial, as demonstrated by the t-value of -4.346, which is less than the crucial t-value of -1.701 at a significance level of 0.05. With a significance level of 0.000, which is less than 0.05, the null hypothesis (H_0) is rejected, and the alternative hypothesis (H_1) is accepted. This implies that investment income (X) has a negative and large impact on the surplus (deficit) underwriting of tabarru' funds.

- c) Claims have a substantial influence on the surplus (deficit) underwriting of tabarru' funds, as evidenced by the t-value of -3.665, which is less than the necessary t-value of -1.701 for a significance level of 0.05. With a significance level of 0.001, which is less than 0.05, the null hypothesis (H0) is rejected, and the alternative hypothesis (H1) is accepted. This means that claims (X) greatly negatively impact tabarru's underwriting surplus (deficit).

F test (simultaneous)

Table 6. F Test Results (Simultaneous)

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	4080637212,848	3	1360212404.283	12,171	0,000 ^b
1 Residuals	3129211028,544	28	111757536.734		
Total	7209848241,392	31			

a. Dependent Variable: Tabarru' Fund Underwriting Surplus (Deficit)
 b. Predictors: (Constant), Claims, Investment Income, Participant Contributions
 Source: SPSS 20 Output Results (2023)

A significance value of 0.000 is assigned to the computed F-value of 12.171 derived from Table 6. To calculate the crucial F-value, the degrees of freedom (df) must be established. For the numerator df (df1), which represents the number of independent variables minus one, $df1 = 4 - 1 = 3$. The denominator df (df2) is the total number of samples minus the number of independent variables minus one: $df2 = 32 - 4 - 1 = 27$.

Looking up these df values in the F-distribution table at a significance threshold of 0.05 yields the crucial F-value of 2.947. Because the computed F-value of 12.171 is more than the crucial F-value of 2.947, and the significance level of 0.000 is less than 0.05, it may be inferred that the independent factors have a positive and significant influence on the dependent variable.

Analysis of the coefficient of determination (R²)

R analysis test results show a coefficient of determination (R-squared) of 0.519. This suggests that the independent factors examined can explain 51.9% of the variation in the dependent variable, surplus (deficit) underwriting of tabarru' funds. The remaining 48.1% of the variation is due to variables beyond the scope of this study.

CONCLUSION

The study's results indicate that participant contributions positively and significantly impact the surplus (deficit) underwriting of tabarru' funds. This suggests that higher contributions lead to increased surplus (deficit), while lower contributions result in a decrease. Conversely, both investment income and claims negatively and significantly affect the surplus (deficit), indicating that higher investment income or claims lead to a reduced surplus (deficit). The study also found that participant contributions, investment income, and claims collectively significantly influence the surplus (deficit) underwriting of tabarru' funds. Based on these findings, the author recommends that the BNI Life Insurance Sharia unit take steps to mitigate default risks in order to enhance the underwriting surplus. This could attract more investments in Islamic insurance. Additionally, the author suggests introducing Hajj and Umrah insurance products to cater to the needs of the Muslim community. It is also recommended that the public be encouraged to engage with Islamic financial institutions as a viable alternative to traditional financing. For future research, the author suggests focusing on company management variables to assess their impact on profit. In conclusion, the study

Investigation of Surplus (Deficit) Underwriting of Tabarru' Fund on BNI Life Insurance Unit Syariah

suggests that effective management and providing Sharia-based products such as life protection, health, education, investment, and retirement plans could enhance public interest and participant contributions. This, in turn, could lead to increased investment income, claims, and underwriting surplus in the BNI Life Insurance Sharia unit.

REFERENCE

- Akib, B. (2020). Pengaruh Pemanfaatan Teknologi Informasi dan Kualitas Sumber Daya Manusia Terhadap Kinerja SKPD Pemerintah Kota Palopo. *El-Idarah: Jurnal Manajemen Pendidikan Islam*, 6(2), 145–159.
- Bahasoan, A. N., Soumena, F. Y., Arsyad, R., & others. (2023). Identifying Increasing Poverty in Indonesia: Does the Human Development Index and Unemployment Affect Poverty in Indonesia? *Migration Letters*, 20(8), 585–605.
- Dirmawati, D., Sapitri, N. A., Soumena, F. Y., & Mustakim, D. (2023). The Influence of Islamic Branding and Brand Ambassadors on Purchase Intention at Tokopedia. *International Journal of Engineering Business and Social Science*, 1(04), 1269–1277.
- Estiningsih, W., Mursito, H., Nurranto, H., & Lestiyono, S. (2022). Pengaruh Kontribusi Bruto, Reasuransi Dan Klaim Terhadap Surplus Underwriting Dana Tabarru Pt Asuransi Umum Mega, Tbk Unit Syariah. *SENTRI: Jurnal Riset Ilmiah*, 1(2), 392–401.
- Fadilah, A., & Makhrus, M. (2019). Pengelolaan dana tabarru' pada asuransi syariah dan relasinya dengan fatwa dewan syariah nasional. *Jurnal Hukum Ekonomi Syariah*, 2(1), 87–103.
- Humaemah, R., & Kurohman, T. (2018). Pengaruh Kontribusi Peserta dan Pendapatan Investasi terhadap Surplus Underwriting Dana Tabarru' pada PT. Prudential Life Assurance Unit Syariah Periode 2010-2017. *Syar'Insurance: Jurnal Asuransi Syariah*, 4(2), 127–152.
- Kamiliyah, Z. (2022). Faktor Investasi Klasik Peserta Asuransi pada Unit Link Syariah di Yogyakarta. *AN NUR: Jurnal Studi Islam*, 14(1), 62–79.
- Kembara, A., & Kamaliyah, F. (2023). Pengaruh Hasil Investasi, Underwriting, Dan Dana Tabarru' Terhadap Laba Perusahaan Asuransi Jiwa Syariah Di Indonesia Periode 2017-2021. *Jurnal Literasi Akuntansi*, 3(4), 177–188.
- Riady, A., Farida, I., Husna, M., & others. (2024). Examining The Influence Of Islamic Branding, Physical Evidence, And Relationship Quality On Customer Loyalty In The Context Of Bank Syariah Indonesia (Bsi) Makassar Branch At Unismuh. *Journal of Economics, Technology \& Business/Jurnal Ekonomi Teknologi \& Bisnis (JETBIS)*, 3(3).
- Rustamunadi, R., & Lestari, I. (2021). Pengaruh Pendapatan Investasi Dan Pendapatan Pengelolaan Portofolio Investasi Dana Peserta Terhadap Surplus (Defisit) Underwriting Dana Tabarru' Pada Pt Bni Life Insurance Unit Syariah Periode 2015-2019. *Syar'Insurance: Jurnal Asuransi Syariah*, 7(2), 32–39.
- Sapitri, N. A. (2018). Pengaruh E-Commerce Dan Pemanfaatan Teknologi Informasi Terhadap Minat Berwirausaha Online Dalam Perspektif Islam Pada Pedagang Online Di Kota Makassar Sulawesi Selatan. *El-Iqtishod: Jurnal Ekonomi Syariah*, 2(1), 26–39.
- Sapitri, N. A., Hasbi, H., Nurhikma, N., & Sari, L. F. Z. (2024). The Influence of Investment Returns and Tabarru Fund Contributions on The Asset Growth of Registered Sharia Life Insurance Companies in Ojk in The Period 2019-2022. *International Journal of Engineering Business and Social Science*, 2(5), 1284–1296.
- Siregar, A. R., Rahma, T. I. F., & Daulay, A. N. (2024). ANALISA KINERJA PERUSAHAAN DALAM RANGKA PERSIAPAN SPIN OFF UNIT USAHA SYARIAH PT. AXA MANDIRI. *Jurnal Manajemen Terapan Dan Keuangan*, 13(02), 520–531.

- Baso Akib, Muh. Takbir Gawy Al Buny MYS, Jawad Z. Salic
Suharli, S., Idayanti, R., Irma, I., Wahyu, N., & others. (2024). The Impact of Sharia Working Capital Financing and SME Investments on Economic Growth in South Sulawesi. *East Asian Journal of Multidisciplinary Research*, 3(5), 1875–1898.
- Suharli, S., Wahab, A., & Habbe, A. H. (2021). Application Of Islamic Economic Principles In Realizing Management Banking Without Interest. *Dinasti International Journal of Education Management and Social Science*, 3(2), 277–288.
- Widyastuti, E., & Sholihah, A. (2022). Faktor Penentu Surplus Underwriting Dana Tabarru'Asuransi Jiwa Syariah di Indonesia Periode 2015-2020. *El-Jizya: Jurnal Ekonomi Islam*, 10(1), 67–84.
- Xu, S., Wang, J., & Cao, N. (2024). Study on the influencing factors of fishery producers' willingness to participate in aquaculture insurance-based on the perspective of subjective norms and risk perception. *Aquaculture and Fisheries*.
<https://doi.org/10.1016/j.aaf.2024.04.002>

Copyright holder:

Baso Akib, Muh. Takbir Gawy Al Buny MYS, Jawad Z. Salic (2024)

First publication right:

[Journal of Management, Economic and Financial](#)

This article is licensed under:

