

THE SPIN-OFF EFFECTIVENESS OF SHARIA INSURANCE IN INDONESIA: ANALYZING THE EFFICIENCY AND THE CRITERIA

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ABSTRACT

This research aims to determine the spin-off effectiveness of sharia insurance in Indonesia by comparing the efficiency of full-fledged companies and sharia business units (SBU) and measuring the achievement of spin-off criteria. The methods used are the quantitative method, namely data envelopment analysis (DEA), to measure efficiency. At the same time, the qualitative method is used to analyze the achievement of the spin-off criteria of each SBU and the supporting factors by conducting interviews with informants from the sharia insurance industry, such as the Indonesian Sharia Insurance Association (AASI), Financial Services Authority (OJK), and the Indonesian Fiscal Policy Agency (BKF). The study results show that the spin-off effectiveness has not been optimally realized because the objectives of increasing efficiency and growing the number of industries has not been achieved. The efficiency of profit for SBU is higher than full-fledged companies, and as for the efficiency of income, not all full-fledged companies are lower than SBU. The SBU industry has not achieved the number of *tabarru* funds and participant investment of 50% of the parent fund regarding the achievement spin-off criteria, showing that not all SBUs will do spin-offs. The implication of this study, the industry should prepare more thoroughly before carrying out the spin-off, determine strategies to streamline costs incurred and optimize revenue with the aim that after the spin-off, the industry can develop more. Implications for the government and regulatory agencies can be considered in making spin-off decisions.

INTRODUCTION

Law number 40 of 2014 regarding Insurance requires the sharia insurance industry, especially the sharia business unit (SBU), to carry out a spin-off no later than ten years after enacting the law. Other criteria in the law are that SBU must do a spin-off if the *tabarru* funds (participant contribution fund) and participant investment funds have reached at least 50% of the total value of the insurance funds and the participant's investment funds parent company. The purpose of the spin-off is expected to spur sharia insurance companies to develop their business, which impacts

financial performance (Pratama, 2020). Implementing spin-off can also increase the growth rate of the sharia insurance industry (Nasution, 2019). When SBU separates itself from its parent, it will be more independent in determining strategies for improving company performance and accelerating decision-making (Nasution, 2019).

From the inception of the sharia insurance industry in 1992 until now, the growth in the number of industries and the value of sharia insurance assets is still slow. Based on data from the Indonesian Financial Services Authority or *Otoritas Jasa Keuangan* (OJK), the total value of the sharia insurance industry's assets is still around 5%. However, when viewed in terms of the percentage growth in 2019 from the previous year, it increased by 8.44%. This fact has become a concern for the government to implement policies that can increase the growth of the sharia insurance industry by issuing the law concerning the implementation of spin-offs for the sharia insurance industry. Based on the data, it is hoped that the role of the sharia insurance industry in the financial sector can be realized optimally. Such as reducing poverty with the concept of sharing risk and the principle of *taawun* (mutual help), increasing the development of Sustainable Development Goals (SDGs) projects for national development, and as a solution for accelerating recovery from disasters that occurred in Indonesia (Ash-Shidiqqi & Laskarwati, 2022).

The implementation of the spin-off law by the end of 2024 should have shown progress; at least 50% have implemented it, considering that the implementation process is only four years away. However, the provisions for spin-offs stipulated by law and the OJK regulation will negatively influence the sharia insurance industry because shareholders see that this binding provision can reduce profits and harm the company. Based on OJK data, in Indonesia, the number of sharia insurance business units that have not carried out spin-offs from the total industry players reaches 78%. The data can be seen in Figure 1 below. This number is relatively small, considering that the spin-off implementation deadline is only four years away.

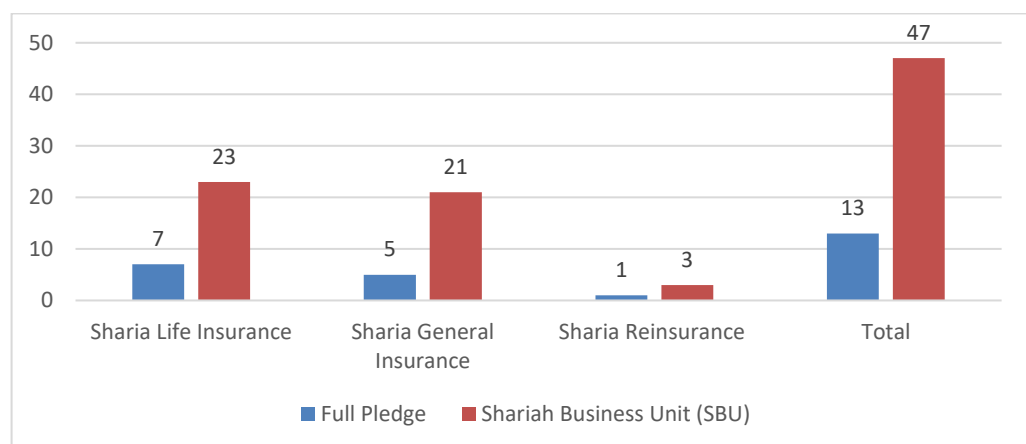


Figure 1. Full-Pledge Companies and SBU Data

Source: OJK (2020)

As explained in the previous paragraph, implementing a spin-off is expected to increase the profitability of Islamic insurance companies. However, based on data from the OJK, in 2018, of the total market contribution of Rp5.2 trillion, the market share of the sharia life business unit reached 88%. From a total market of Rp1.8 trillion for general insurance, its market share is only 75% (Figure 2).

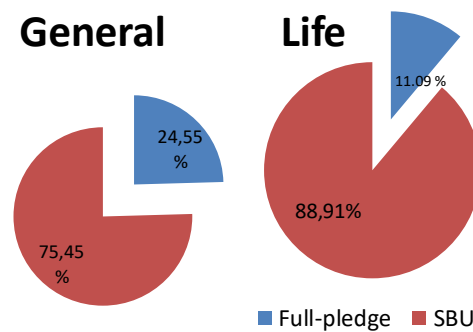


Figure 2. Market Share Sharia General and Life Business Unit

Source: OJK (2020)

The diagram means that the SBU controls the sharia insurance market share, which means that full-pledged companies do not positively impact the development of the current total market share of the sharia insurance industry.

Based on the market condition above, the provisions on the spin-off obligations have not brought positive incentives to the industry. In addition, the low number of SBU that has carried out spin-off can indicate the possibility of an onerous burden for SBU actors in increasing market share in the future. Most SBU believes that remaining in an SBU can provide better efficiency than the full-pledged form. Related to this, other researchers also said that the implementation of the spin-off did not improve financial performance and operational efficiency in sharia financial institutions (Al-Arif, 2015; Sihombing & Yahya, 2016)

The question arises whether the spin-off policy's implementation has been effective. According to Al-Arif (2015); Sihombing and Yahya (2016), spin-offs do not benefit the industry. There is no increase in profitability, efficiency, and financial performance. However, the results are the opposite of Hitokdana's (2018); Zakik's (2013) research regarding effectiveness results from an evaluation of a policy and whether the policy positively increases an industry's growth. Based on the facts and theory in question, it will show a gap between the expected goals of a policy and the existing facts. Hence, the effectiveness of implementing the policy is still questionable.

Another fact is seen in the percentage of SBU that have carried out spin-offs until 2020, which is far below 50% of the total existing SBU. The number of SBU that have been spin-off since the enactment of the spin-off law is only four SBU or 22%. As explained at the beginning of the paragraph, one of the spin-off criteria is that the

adequacy of the participant contribution fund in SBU must reach 50% of the insurance funds in the parent company. The statement shows that until the end of 2020, only four SBU can reach the 50% amount to carry out spin-offs before the end of the spin-off implementation deadline in 2024. This condition raises the question of whether as many as 78% have not achieved the spin-off criteria. Did the industry understand that before the spin-off policy was established, it believed it could achieve the 50% participant contribution fund adequacy? These questions are needed to answer whether the implementation of the spin-off policy has been effective or not. Because, according to Soekamto (2016), related to regulatory policy, if the regulation must be known and understood by the object being the target of the regulation, it will be effective.

On the other hand, there are also opinions from previous researchers who gave the result that the spin-off policy provided benefits and performance, encouraged the growth of Islamic insurance in the country, and increased the efficiency of the industry (Hagedoorn et al., 2018; Siswantoro et al., 2018; Waluyo, 2020). As stated by Pambuko (2019), implementing the spin-off policy significantly increases the operational efficiency of Islamic banking. Spin-offs also create significant value for firms' equity investors (Kalanoski & Svederberg, 2020). Even though there are differences of opinion regarding its benefits, it is important to research whether the implementation of the spin-off has been effective or not achieving the expected goals.

Therefore, to answer this question, this study will raise the topic of *The Spin-Off Effectiveness Of Sharia Insurance In Indonesia: Analyzing The Efficiency And The Criteria*. The study results are expected to answer whether the effectiveness of one of the spin-off objectives that can increase efficiency has been realized or not. In addition, the study results are also expected to answer the effectiveness of the clarity of the spin-off policy criteria.

Previous researchers have carried out research related to the spin-off policy. The research informed that the spin-off policy has not effectively improved performance and efficiency in Islamic banks (Al-Arif et al., 2020; Pambuko, 2019; Sihombing & Yahya, 2016; Trinugroho et al., 2021). Al-Arif et al. (2018) research on spin-off policies in terms of spin-off criteria resulted in no Islamic banks achieving these criteria until the spin-off deadline. Sunarsih and Fitriyani (2018) also investigated the efficiency of the Sharia Insurance Business Unit in Indonesia, which resulted in not all SBU achieving the efficiency level.

The difference between this research and previous research is about the research objects and the measurement of spin-off effectiveness. The research object is focused on sharia insurance, which consists of the life insurance company and the general insurance company. This research aims to measure effectiveness by seeing a gap between the facts and the expected goals of the existence of a policy (Wahab, 2002). The objective is to be measured the achievement of efficiency and spin-off

criteria regarding the adequacy of the percentage of participant contribution fund in SBU compared to insurance funds in the parent company.

The efficiency is measured by comparing the efficiency of the shariah business unit with the full-pledge sharia companies. Therefore, we can see whether the spin-off's effectiveness is achieved and whether the spin-off's implementation has been running optimally or not. In addition, this study also determined whether the company can achieve the spin-off criteria and finally provides information on the factors that support the spin-off target and process.

Until now, the measurement of effectiveness spin-off in the Islamic insurance industry has been little studied. This study makes a significant contribution by filling that gap. The method used is the mixing method. The quantitative method of the DEA approach is used to measure efficiency, while the qualitative method of the theme approach is used to evaluate the spin-off criteria.

This study result is expected to contribute to the SBU's strategy so that it is better prepared to increase revenue and plan the strategies related to cost management to achieve efficiency. In addition, this study is also expected to contribute to the parent company so that it continues providing support both during the spin-off period and the post-spin-off period. It is hoped that the research results can provide inputs related to policies that will be made to support the smooth implementation of the spin-off. The government and regulatory agencies can evaluate the achievement of spin-off criteria and measure the facts of achieving efficiency in SBU and full-pledge companies.

LITERATURE REVIEW

The spin-off in sharia insurance is regulated in law number 40 of 2014. SBU that has reached the value of participant contribution fund 50% of their parent or by the end of 2024 have carried out spin-offs at the latest. Adequacy of 50% funds aims to make the industry more independent and flexible in making decisions to improve performance (Yunus, 2019).

Effectiveness is the result of an evaluation of whether the policy provides a positive increase and benefits the industry's growth (Hitokdana, 2018; Zakik, 2013). Effectiveness related to implementing regulations are regulations that can provide positive benefits or impacts for an organization. Regulations must be understood by the object involved and achieve public welfare (Soekamto, 2016). Effective or not, it can be seen from the gap between the desired goals and the facts (Wahab, 2002). Efficiency also shows the ability of an organization/entity to manage resources to achieve goals or objectives (Rakhmawati, 2017) and the ability to do work properly and according to what was planned; the output produced is more than the input (Niswati, 2014). Profitability affects the company's level of efficiency (Sari & Saraswati, 2017).

Only a few papers have attempted to investigate the effectiveness of spin-off policies in increasing profitability or financing performance in the shariah insurance industry. Halai (2015); Uddin, 2010) examined the impact of spin-offs on the parent company's performance in their research, stating that the parent company benefits after doing the spin-off regarding operational efficiency and reducing information asymmetry. Hollowell (2009) found that the spin-off impacted the parent company's stock market price, which was consistently superior for four years since the spin-off was carried out.

Sunarsih and Fitriyani (2018) also researched the efficiency level of sharia insurance which consist of general and life insurance. Their research used the data envelopment analysis (DEA) method and input data for general and administrative expenses claims and assets, while the output data is investment income and participant contribution fund. The results of this study indicate that some insurance companies are efficient, and some are less efficient. The object of this research is only SBUs that have not separated from their parent company, so this study cannot inform how the efficiency of the SBU is after the spin-off.

These previous studies examined the impact of spin-offs only on the parent company. In a different form, this study will investigate the effectiveness of spin-off policies in the sharia insurance business unit that have separated from their parent companies or those that have not.

Most of the research on spin-off policies is carried out with on focus on Islamic banks. The results of their research provide different opinions. Pambuko (2019), in his research on spin-off policies and efficiency in Indonesian Islamic banking, found that implementing spin-off policies significantly increased the operational efficiency of Islamic banking and the return on assets (ROA) of Islamic banking in Indonesia. On the other hand, some previous researchers gave the result that the spin-off policy provided benefits and performance, encouraged the growth of Islamic insurance in the country, and increased the industry's efficiency (Hagedoorn et al., 2018; Siswanto et al., 2018; Waluyo, 2020). Spin-off also creates significant value for firms' equity investors (Kalanoski & Svederberg, 2020). Other studies related to efficiency and spin-offs informed that the spin-off policy has not been effective in improving performance and efficiency or profitability (Al-Arif et al., 2020; Sihombing & Yahya, 2016; Trinugroho et al., 2021).

H_{1a}: Spin-off policy increases efficiency in shariah insurance business unit that separated from the parent company

H_{1b}: Spin-off policy decreases efficiency in shariah insurance business unit that separated from the parent company

Al-Arif et al. (2018) evaluated the spin-off criteria in Islamic banks, where the ARIMA method was used to project the capital adequacy criteria at the SBU and

whether it could reach 50% of the parent company. The research results were that these criteria were not effectively applied because, until the end of the spin-off period limit in 2024, none of the SBU had reached the amount of capital adequacy.

Based on the description of the problems and research objectives described in the previous paragraph, a research framework can be arranged, which can be seen in Figure 3 below.

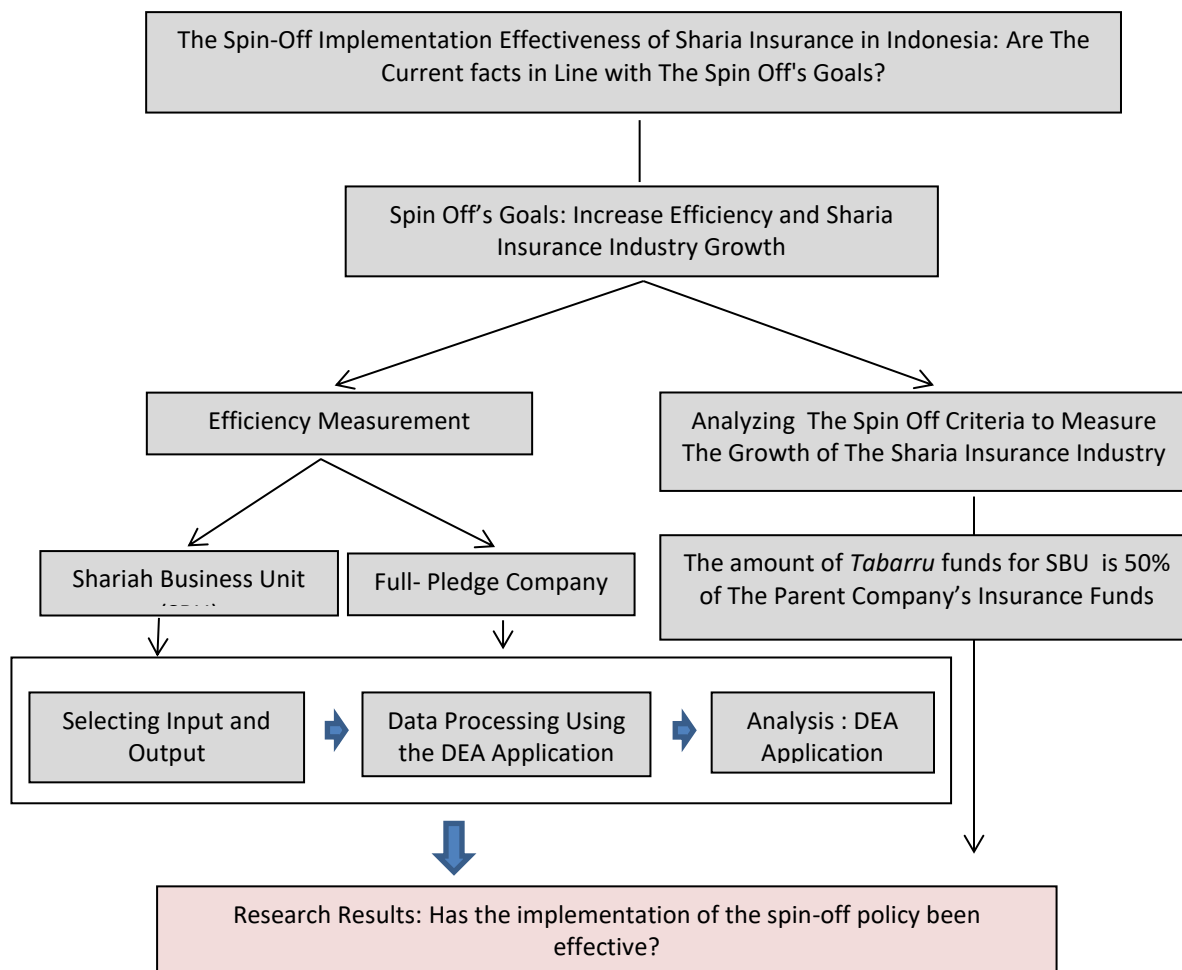


Figure 3. Framework Research

RESEARCH METHODS

This research method uses a mixed-method. First is the quantitative method with the data envelopment analysis (DEA) approach to determine the efficiency level. The second is the descriptive qualitative method with the theme approach that analyzes the spin-off criteria and the factors that can achieve effectiveness.

DEA is a mathematical technique to determine a collection of decision-making units (DMU) (Siswadi & Purwantoro, 2006). DEA was first developed by Farrell (1957), who initially used one input and one output to be multi-input and multi-output, using

a framework of relative efficiency values as the ratio of input (single virtual input) to output (single virtual output). Initially, DEA was popularized by Banker et al. (1984) with the constant return to scale (CRS) method and developed by Banker et al. (1994) for the variable return to scale (VRS), which is finally famous with CCR and BCC models (Sutawijaya & Lestari, 2009).

Efficiency is seen as reducing the use of input by maintaining the output value; on the contrary, for output-oriented, what is maintained is the input value, while the output varies as it should be (Rakhmawati, 2017). In this study, the orientation chosen is output-oriented. Each input and output variable is operationalized as follows in Table 1.

Table 1
Research Variable

No.	Variable	Operational Variable
1.	Input	- Asset value in 2016-2020 - Operational (General and Administration) Expense in 2016-2020
2.	Output	- Operating income in 2016-2020 - Net income (profit) in 2016-2020

Source: Several Literature Processed by Author

The selection of input and output data is based on the elements of the formation of profitability: assets that generate income and profits, better known as ROA, and expenses as income deductions that generate profits for the company (Mawaddah, 2015). In the output-oriented, to achieve efficiency or dual value equal to 1, DMU must achieve the maximum value of income and operating profit resulting from the DEA process with the value of assets and operating expenses that occurred. The data source used as input and output variables in the DEA uses secondary data from the Islamic insurance industry financial report. The selected data period is from 2016 to 2020. The consideration is the SBU that did the spin-off after the spin-off law was passed in 2016, namely Jasindo sharia.

The DMUs in this research include general and sharia life insurance companies, both those still in the form of SBU and those with full pledges. The number of DMUs in this study was 46 DMU, as shown in Table 2. DMU data consisted of 21 DMUs for the general/sharia insurance industry and 25 DMUs for the sharia life insurance industry and had met the required criteria, which was greater than the multiplication of inputs and outputs (Avkiran, 2001; Darrat et al., 2002). So, the number of DMUs in this study must be greater than four DMUs (two inputs and two outputs). Another DMU criteria required when using DEA is that all DMUs have the same tasks and goals (Ramanathan, 2003). The DMUs selected in this study have met the criteria: DMUs that earn profits, administrative and general expenses, and capital/wealth value above 30 billion.

Table 2
Sharia Insurance Industry

No.	Sharia Business Unit		Full-Pledge Sharia Insurance	
	General Insurance	Life Insurance	General Insurance	Life Insurance
1.	JRP	Asyki	Jasindo	AmanahGitha
2.	Reliance	Simas MSIG	Askrida	Al-Amin
3.	Tripakarta	Prudential	Chubb	Takaful
4.	Simas	AIA	Takaful	CLS
5.	Astra	Manulife		
6.	ASEI	Generali		
7.	Pan pacific	Panin		
8.	Bumida	Avrist		
9.	Adira	AXA Mandiri		
10.	ACA	Allianz		
11.	Staco	BRI		
12.	Bintang	Chubb		
13.	Tugu	AXA Financial		
14.	Sompo	Wanartha		
15.	Mega	BNI		
16.	MNC	Sunlife		
17.	Ramayana	Tokio Marine		
18.		Great Eastern		
19.		Astra		
20.		Simas Jiwa		
21.		CAR		
22.		AXA Financial		
23.		Wanartha		

Source: OJK (2020)

The primary data in this study was collected in a Forum Group Discussion (FGD), and the results of this FGD were then processed, scripted, and data reduced to obtain core information as needed. This FGD was chosen to get answers with an adequate time because researchers can directly confirm if there are differences of opinion between informants, which are often caused by differences in perceptions or points of view. The material asked during the FGD was related to indicators that can show the growth of the sharia insurance industry. The indicator is the spin-off criteria, namely sharia business units that have achieved *tabarru* funds of 50% of the parent fund can carry out spin-offs. This value also shows that the SBU is independent. Materials discussed include:

1. How far did the industry understand the spin-off criteria before the law passed?
2. Was the industry involved in discussing the spin-off criteria before the law passed?
3. To date, how many SBUs have met the spin-off criteria?

4. At the end of 2024, which is the deadline for implementing the spin-off policy, will all SBUs be able to meet the spin-off criteria?
5. What are the strategies and problems for the SBU industry to achieve *tabarru* funds of 50% of the parent fund?

The types and sources of data used to analyze the criteria and supporting factors for the realization of effectiveness are primary data from several key informants, which can be seen in Table 3 below:

Table 3
Data of Key Research Informants

No.	Unit/Entities	Amount	Key Informant Role
1.	Indonesian Sharia Insurance Association	2	Islamic insurance industry organizations contributed to realizing the implementation of the spin-off 1. Chairman (TN) 2. Executive Director (ER)
2.	Sharia General Insurance	2	Industries that implement spin-off policies 1. Sharia Board Supervisory in BRINS (AG) 2. Head of Sharia Unit in Tokio Marine (HR)
3.	Sharia Life Insurance	1	Industries that implement spin-off policies 1. Head of Sharia Unit in Allianz (YP)
4.	Center of Financial Sector Policy (BKF)	2	Spin-off legislator, implementation supervisor 1. Junior Policy Analyst (IR) 2. Senior Policy Analyst (T)
5.	Financial Service Authority (OJK)	3	Spin-off legislator, implementation supervisor 1. Department Head of Sharia Non-Bank (RC) 2. Department Section Head of Sharia Insurance and Pension Development (N) 3. Department Section Head of Sharia Non-Bank (Institutional) (AL)

Source: Processed by Author

The data collection to find efficiency uses documentation and library methods that collect information and data through literature studies and exploration of the literature and financial reports made. The data collection results obtain input data, namely total assets and operating expenses, and output data, namely profits and operating income. The approach used in determining the relationship between input and output is an intermediation approach. An intermediation approach is a model approach to explaining the relationship between inputs and outputs in the type of business of financial institutions (Muharam, 2007). The intermediation approach describes a financial institution as an intermediary between surplus and deficit units.

The input and output data that have been collected are processed using the DEA-Solver application with the stages that can be seen in Figure 4. Based on Figure 4,

the first stage is inputting the input and output data, then determining the DEA orientation, which is output-oriented in this study.

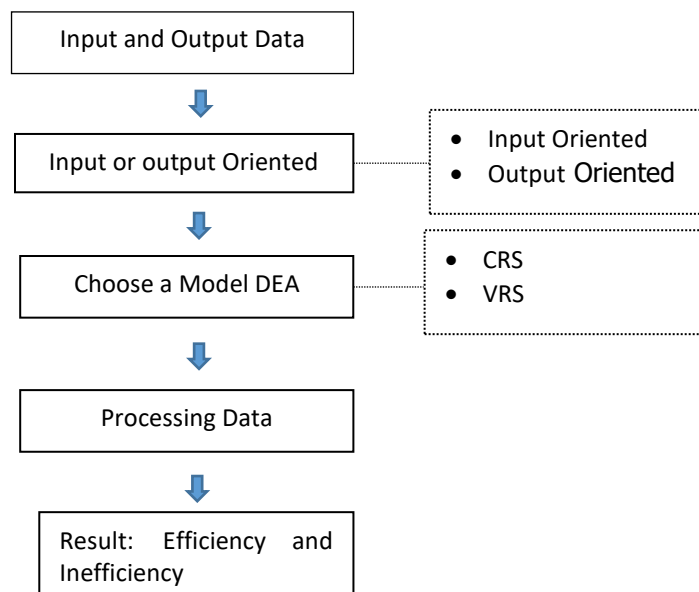


Figure 4. Schematic of DEA-Solver Application Data Processing Process

The CCR or CRS model and the BCC or VRS model are known when selecting the DEA model. The CRS is a model where every increase in the input value will cause a proportional increase in output in the range of 10%. Meanwhile, the VRS model is a model where every increase in the input value can produce a disproportionate output; it can be higher or lower (Ramanathan, 2003). The DEA model used in this study is the CCR or CRS model. This is because every increase in the value of assets and expenses used will cause an increase in output, the value of income and expenses, the value of which is proportional.

Before the data is processed using the DEA solver application, a linear programming model formulation is produced to input maximum data, input data, and formulas for constraints encountered (computer data entry) for each DMU. The formulation of the model is as follows:

$$Z \text{ Maximum} = \text{Operating Income DMU}_x + \text{Operating Profit DMU}_x \dots \dots \dots (1)$$

$$\text{Input Data} = \text{Asset Value DMU}_x + \text{Expenses Value Information DMU}_x \dots \dots \dots (2)$$

Operating income is abbreviated as OI, operating profit is abbreviated as OP, asset value is abbreviated as AV, and general and administrative expenses are abbreviated as GE. So, based on this formula, each DMU can be made formula. For

example, for Takaful DMU, the operating income was 130, operating profit was 9, asset value was 304, and general expense was 62 in 2019:

$$\begin{aligned} Z \text{ maximum} &= 130 \text{ OI} + 9 \text{ OP} \\ \text{Input Data} &= 304 \text{ AV} + 62 \text{ GE} \\ \text{Constraint} &= 130 \text{ OI} + 9 \text{ OP} - 304 \text{ AV} - 62 \text{ GE} \leq 0 \\ &304 \text{ AV} - 62 \text{ GE} = 1, \text{ OI, OP, VA, GE} \geq 0 \end{aligned}$$

For the next DMU, use the same formula as DMU Takaful, which distinguishes the value of each input and output.

The DEA model uses the analytical technique to produce the efficiency level. DMU is said to be efficient if its dual value equals 1. The analysis evaluates the relative efficiency of comparable DMUs, and then the efficient DMUs will form a frontier line. If the DMU is in the frontier line, it can be relatively more efficient than other DMUs in the sample. DEA can also show DMUs which are references for inefficient DMUs (Purwanto & Widyarti, 2011).

RESULT AND ANALYSIS

The effectiveness can occur if the regulations target receives positive benefits or impacts (Soekamto, 2016). Effective or not, it can be seen from the gap between the desired goals and the facts (Wahab, 2002). The spin-off aims to provide benefits to sharia insurance companies. One of the benefits here is the company's ability to earn profits and revenues, which can be seen from the level of efficiency achieved. Therefore, this discussion starts by finding each sharia insurance's efficiency level using the DEA-solver application.

Based on the results obtained, it will be seen whether the full-pledge company has benefited in achieving efficiency in revenue and profit and whether the full-pledge company obtains a higher efficiency level than the SBU. The effectiveness can also be seen from implementing one of the spin-offs, namely the adequacy of the value of participant contribution fund and participant investment funds owned by SBU of 50% of the parent company's funds. Can SBU fulfil these criteria considering that the spin-off deadline is only three years away? The criteria for the percentage of these funds are considered indicators of the growing number of industries. The growing number of industries is one of the goals of the spin-off.

MEASUREMENT OF EFFECTIVENESS IN ACHIEVING THE LEVEL OF EFFICIENCY IN THE SHARIA INSURANCE INDUSTRY

Based on the results, the efficiency level is generated for each DMU, both full-pledged and SBU. The discussion of each DMU will be grouped into the sharia general insurance industry DMU and the sharia life insurance DMU group.

Comparison of Efficiency Levels on Operating Profit – Sharia General Insurance Industry

The results of the efficiency level on profit for the sharia general insurance industry can be seen in Table 4. The data presented in the table are DMUs with an efficiency level equal to or greater than 0.1.

Table 4
Results of Calculation of Efficiency Levels on Operating Profit
Sharia General Insurance Industry in 2016-2020

No.	2016		2017		2018		2019		2020	
	DMU	Score	DMU	Score	DMU	Score	DMU	Score	DMU	Score
1	AlianzUtama	1	Simas	1	Bumida	1	JRP	1	AlianzUtama	1
2	Ramayana	1	Tripakarta	1	Mega	1	Reliance	1	Bintang	1
3	JRP	0.4851	Panpacific	1	Sinarmas	1	Tripakarta	0.6825	JRP	1
4	Panpacific	0.4118	Astra	0.8946	Bintang	0.8764	Simas	0.6719	Simas	0.9484
5	Mega	0.3659	Staco	0.8216	ACA	0.7961	Astra	0.6559	Panpacific	0.8765
6	Tripakarta	0.3243	Tugu	0.7773	Tugu	0.7607	ASEI	0.6226	ASEI	0.7859
7	Staco	0.3116	Bumida	0.7488	Tripakarta	0.7332	Panpacific	0.5263	Jasindo	0.7823
8	Simas	0.3112	JRP	0.7457	Ramayana	0.554	Bumida	0.4974	Askrida	0.7818
9	Astra	0.1984	Bintang	0.7254	Takaful	0.2174	Adira	0.4227	Mega	0.6946
10	Adira	0.1669	Mega	0.6343	Jasindo	0.1104	ACA	0.3815	Astra	0.6911
11	Jasindo	0.1618	Ramayana	0.6096			Jasindo	0.3071	Tripakarta	0.6529
12	Bumida	0.1618	AlianzUtama	0.5598			Staco	0.3028	Ramayana	0.4783
13	Bintang	0.1418	Adira	0.3459			Bintang	0.2727	Tugu	0.4783
14	MandiriAXA	0.1375	ASEI	0.2924			Tugu	0.2727	Bumida	0.3352
15	WahanaTata	0.117	MandiriAXA	0.2553			Askrida	0.2602	ACA	0.3189
16	Reliance	0.1093	ACA	0.2397			Sompo	0.26	Sompo	0.3121
17			BRI	0.1492			Chubb	0.25	Adira	0.2933
18							Mega	0.2316	Chubb	0.2781
19							MNC	0.1009	BRI	0.2132
20							Ramayana	0.0909	Takaful	0.1747
21									WahanaTata	0.1498
22									Staco	0.1404

Source: DEA-Solver LV8.0/ CCR(CCR-O)

Based on Table 4, each year, no more than three insurance industries have efficiently generated profits with assets and general administrative expenses. These sharia insurances are Allianz and Ramayana in 2016; Simas, Tripakarta, and Panpacific in 2017; Bumida, Simas, and Mega in 2018; Jas Raharja Putra (JRP) and Reliance sharia in 2019; and Allianz, Bintang, Jasa Raharja Putra in 2020. This is based on the results of the dual value is 1 or 100%. DMUs that have reached efficient levels are only SBU.

The result shows that sharia insurance industries have been optimal in achieving efficiency and contributing/dominating market share compared to full-pledge companies. Based on Table 4, it can be seen that DMUs with efficiency levels in the top 10 are also from SBU.

No full-pledge companies have yet reached this level of efficiency. Efficiency levels in full-pledge companies, namely Jasindo, Askrida, Chubb, and Takaful, are in the lower position from 2016 to 2020. Jasindo and Askrida carried out a spin-off after

enacting the spin-off law from 2016 to 2017. The low-efficiency level can be caused by increased costs due to the new organizational structure and a separate information system. New changes impact high expenses, while income has not been able to cover these additional expenses. This income also requires more time considering that when separated from the parent, full-pledge companies must be independent to get their business results, which requires a long process with these conditions where there is a large expenditure while the additional income earned has not been able to cover the increase in costs, causing these companies to earn low profits.

Chubb and Takaful are sharia insurance industries that made a full pledge before the spin-off law was enacted. Since its establishment in 1994, Takaful, namely Family Takaful and General Takaful in 1995, have taken the form of a full pledge. In 2019, these two industries experienced efficiency results far from the dual value of 1. This statement shows that the two industries have not efficiently obtained profits by using existing resources due to the inefficient management of expenses or a strategy in obtaining income has not been optimal. Takaful is in the last order because between 2018 and 2019, it was in a transition period. Since Takaful was purchased/acquired by Kospin Jasa in 2017, it has just begun to improve its organizational structure, products, and information technology. It is in the process of revamping, so the organization requires a large expenditure. In terms of revenue generation, general Takaful also lost most of its captive business in all Islamic banks, and branch offices closed, so they had to be reactivated.

According to the results presented in Table 4, several SBUs are also in a lower position regarding the efficiency produced. SBUs' efficiency can be caused by different things. For example, SBU has applied separate fees from its parent so that the cost component is greater than other SBU. Another reason is that the SBU does not have a captive market, and the cost management is inefficient.

Comparison of Efficiency Levels of Operating Income – Sharia General Insurance Industry

The achievement of efficiency in revenue by the Jasindo, Askrida, and Chubb sharia industries needs to be analyzed further because these companies have not achieved profit efficiency. In terms of market share, the three full-pledge companies received increased revenues after the spin-off. On the other hand, operating expenses increased, and the amount is higher than the increase in earned revenue. The increase in income has not been able to cover the expenses incurred. For the Takaful industry, the dual value is still far below 1 in 2018-2020. During that period, the efficiency level in Takaful company is below SBU.

The dual value indicates that there is no efficiency in earning income. The expenses incurred and assets used to obtain income have not been realized optimally. As explained in the previous paragraph, this inefficiency in revenue is because Takaful

is still in a transition process that currently requires large expenses and is related to revenue. Also, Takaful is in the early process of developing a new business.

In terms of revenue efficiency, SBU ranks below full-pledge companies. In obtaining income, SBU is still dependent on its parent. The proposed strategy is still dependent. So, it is less independent in executing business strategies than full-pledge companies, even though its profit can be higher due to the relatively lower expenditure. There are also several SBU whose efficiency levels are in the last group because it has not had a captive income yet.

The results of the efficiency level on the income of the sharia general insurance industry can be seen in Table 5. In the table, almost all full-pledge companies are in the first top 10. The result shows that the full-pledge company's income after the spin-off has achieved the spin-off goal of reaching a level of efficiency.

Table 5
Results of Calculation of the Efficiency Level of
Sharia General Insurance against Operating Income (2016-2020)

No.	2016		2017		2018		2019		2020	
	DMU	Score	DMU	Score	DMU	Score	DMU	Score	DMU	Score
1	Takaful	1	Takaful	1	Sinarmas	1	Askrida	1	Askrida	1
2	Ramayana	1	Astra	1	Jasindo	1	Ramayana	1	AllianzUtama	1
3	Mega	1	Bumida	1	Mega	1	JRP	1	Reliance	1
4	Simas	0.845	Panpacific	1	Bumida	1	Sompo	1	JRP	0.9995
5	AllianzUtama	0.4685	Tripakarta	0.9122	Tripikarta	0.8701	Chubb	0.9518	Simas	0.9953
6	Bumida	0.4601	Simas	0.7687	Ramayana	0.8027	Bumida	0.934	BRI	0.8833
7	Jasindo	0.4192	Bintang	0.832	ACA	0.7991	Reliance	0.9202	Bintang	0.8461
8	Chubb	0.3918	Adira	0.7124	Bintang	0.6807	Tripakarta	0.8883	Adira	0.8283
9	Staco	0.3279	JRP	0.6454	Takaful	0.5717	Astra	0.7659	Jasindo	0.7725
10	Tugu	0.323	Staco	0.6404	Tugu	0.5532	Adira	0.7648	Astra	0.7639
11	Tripakarta	0.3185	Chubb	0.6249			Simas	0.6619	Ramayana	0.7326
12	Adira	0.31	BRI	0.5771			ACA	0.6011	Mega	0.725
13	WahanaTata	0.2901	Reliance	0.5733			Panpacific	0.5212	Tripikarta	0.7106
14	Astra	0.2855	Jasindo	0.555			Takaful	0.4913	ASEI	0.5995
15	Bintang	0.2532	Ramayana	0.519			Staco	0.4537	Bumida	0.5979
16	Reliance	0.2423	ACA	0.4689			ASEI	0.414	Sompo	0.5931
17	ACA	0.2247	Tugu	0.4502			Bintang	0.3753	Takaful	0.5695
18	MandiriAXA	0.2179	Sonwelis	0.4359			Tugu	0.25	Staco	0.4952
19	Sonwelis	0.1962	Mega	0.4156			Mega	0.1861	ACA	0.478
20	JRP	0.1501	ASEI	0.3562			MNC	0.1035	Tugu	0.4463
21			WahanaTata	0.3319					Chubb	0.3958
22			MandiriAXA	0.3276					Wahana	0.3056
23			AllianzUtama	0.3256					Panpacific	0.2828
24			Sompo	0.1168					MandiriAXA	0.2389

Source: DEA-Solver LV8.0/ CCR(CCR-O)

Comparison of Efficiency Levels to Operating Profits – Sharia Life Insurance Industry

The data processing results for the sharia life insurance industry obtained a dual efficiency value on operating profit, as shown in Table 6. The full-pledge companies

consist of Amanah Jiwa Gita Artha, Takaful Keluarga, Al-Amin, Capital Life Syariah (CLS), Jasa Mitra Abadi (JMA), and Indonesian Family Sharia Insurance (ASKI).

Based on efficiency results, the sharia life insurance under SBU also occupies the top 10 ranks compared to the full-pledged companies. SBUs that achieve efficiency levels or dual score of 1 are BNI, Panin, AIA, and FWD in 2016; AXA Mandiri and Manulife in 2017; Prudential in 2018; Simas MSIG, Prudential, and AIA in 2019; and Avrist, Allianz, Prudential, and AIA in 2020. These SBUs have been efficient in obtaining operating profit. The profit obtained has shown an optimal value with assets and expenses that occurred in the period. Unlike the SBU sharia life insurance, full-pledged companies rank at the bottom: Amanah Gita, Takaful, Al-Amin, CLS, JMA, and ASKI. These companies' dual values are far below the value of 1.

Table 6
Results of Calculation of Efficiency Levels on Operating Profit
Sharia Life Insurance Industry in 2016-2020

Rank	2016		2017		2018		2019		2020	
	DMU	Score	DMU	Score	DMU	Score	DMU	Score	DMU	Score
1	BNI	1	AXAMandiri	1	Prudential	1	Simas MSIG	1	Avrist	1
2	Panin	1	Manulife	1	Manulife	0.6558	Prudential	1	Allianz	1
3	AIA	1	Prudential	0.8498	AIA	0.6025	AIA	0.9568	Prudential	1
4	FWD	1	Allianz	0.6016	Allianz	0.5966	Manulife	0.7502	AIA	1
5	Prudential	0.9031	BNI	0.5697	Axa Mandiri	0.5308	Generali	0.7075	BRI	0.9567
6	Avrist	0.6526	AIA	0.465	Sinar Mas MSIG	0.4511	Panin	0.6786	Panin	0.8998
7	AXAMandiri	0.6190	Panin	0.3996	Avrist	0.3773	Avrist	0.582	Manulife	0.8239
8	Mega	0.5412	Avrist	0.3697	Chubb	0.4789	AXA Mandiri	0.4834	SimasMSIG	0.7506
9	SimasJiwa	0.4831	AXAFinancial	0.3672	Panin	0.4021	Allianz	0.4527	Generali	0.6896
10	GreatEastern	0.4254	Mega	0.2501	AXA Financial	0.3645	BRI	0.4495	AXAFinancial	0.6693
11	Manulife	0.3947	Wanartha	0.2444	Mega	0.2421	Chubb	0.4474	Chubb	0.6525
12	Allianz	0.2566	Chubb	0.2296	BNI Life	0.1864	AXA Financial	0.3321	SimasJiwa	0.594
13	Chubb	0.1615	BRI	0.2134	BRI	0.2165	Amanah Githa (FP)	0.2893	BNI	0.4836
14	Wanartha	0.1438	GreatEastern	0.1638	Capital Life	0.0995	BNI	0.2336	AXAMandiri	0.4156
15	Takaful (FP)	0.0938	Takaful (FP)	0.1498	Takaful (FP)	0.0734	Sunlife	0.229	Mega	0.3692
16	Asyki (FP)	0.0794	SimasMSIG	0.1346	Al-Amin (FP)	0.0672	Tokio Marine	0.2111	Wanartha	0.3536
17	AlAmin (FP)	0.0575	AlAmin (FP)	0.0886			Great Eastern	0.1391	CAR	0.3374
18							Al-Amin (FP)	0.0967	Astra	0.2298
19							Astra	0.0916	GreatEastern	0.2145
20							Takaful (FP)	0.0808	TokioMarine	0.209
21							CLS (FP)	0.08	CLS	0.1475
22							Simas Jiwa	0.0766	Takaful (FP)	0.1429
23							ASKI (FP)	0.0758	AlAmin (FP)	0.1301
24							CAR	0.0675	Asyki (FP)	0.0366

Source: Reworked DEA-Solver LV8.0/ CCR(CCR-O)

Comparison of Efficiency Levels to Operating Income - Sharia Life Insurance

The results of the efficiency level of income for the sharia life insurance industry can be seen in Table 7. The table shows only SBUs that achieve efficiency levels or a

dual score of 1. The data results show that expenditures that occurred in the study's period have efficiently generated income. SBUs that have reached the level of efficiency with a dual score of 1 are Simas MSIG, Prudential, and BNI in 2016; Allianz, Prudential, and Manulife in 2017; Prudential in 2018; Prudential and Simas MSIG in 2019; and Prudential and AIA in 2010. Other sharia life insurance industries still get a dual value of less than 1, meaning they have not achieved income efficiently.

Table 7
Results of Calculation of the Efficiency Level of Sharia General Insurance
The year 2016-2020 Against Operating Income

Rank	2016		2017		2018		2019		2020	
	DMU	Score	DMU	Score	DMU	Score	DMU	Score	DMU	Score
1	SimasMSIG	1	Allianz	1	Prudential	1	Simas MSIG	1	Prudential	1
2	BNI	1	Prudential	1	Allianz	0.9261	Prudential	1	AIA	1
3	Prudential	1	Manulife	1	Manulife	0.8897	Generali	0.7449	Al-Amin (FP)	0.728
4	AIA	0.8172	FWD	0.9322	Al-Amin (FP)	0.5851	Avrist	0.6197	Panin	0.6504
5	FWD	0.7913	AXAMandiri	0.8291	BNI Life	0.5128	Al-Amin (FP)	0.5859	Allianz	0.641
6	Allianz	0.6771	Sunlife	0.7881	Axa Mandiri	0.4834	Allianz	0.5727	BRI	0.6105
7	Asyki (FP)	0.5572	AlAmin = FP	0.5786	Sinar Mas MSIG	0.3628	Manulife	0.5319	Generali	0.5831
8	Panin	0.5414	BNI	0.5668	Takaful (FP)	0.3042	Panin	0.4659	Avrist	0.5604
9	Manulife	0.5201	Takaful - FP	0.4886	AIA	0.2994	BRI	0.4505	FWD	0.4443
10	Avrist	0.4316	Avrist	0.4534	Avrist	0.1919	AIA	0.4104	SimasMSIG	0.4293
11	Takaful (FP)	0.3979	Wanartha	0.3368	Capital Life	0.1157	Sunlife	0.3732	Sunlife	0.4074
12	AlAmin (FP)	0.3325	CAR	0.3262	Panin	0.1134	Takaful (FP)	0.3605	Manulife	0.3869
13	Mega	0.2982	CLS	0.2996	AXA Financial	0.1024	AXA Financial	0.3605	BNI	0.3524
14	SimasJiwa	0.2938	Chubb	0.2887	Mega	0.1012	Chubb	0.3421	Chubb	0.3444
15	BRI	0.2882	AIA	0.2622	Chubb	0.1011	AmanahGitha (FP)	0.3321	Takaful (FP)	0.3055
16	GreatEastern	0.2748	AmanahGitha	0.26	BRI	0.101	JMA (FP)	0.2493	JMA (FP)	0.2962
17	Sunlife	0.2337	BRI	0.2526			Asyki (FP)	0.2224	Asyki (FP)	0.2775
18	CAR	0.2262	Asyki - FP	0.221			Great Eastern	0.2162	Bumiputera (FP)	0.2647
19	Chubb	0.1961	Mega	0.1908			CLS (FP)	0.2015	AXAFinancial	0.2499
20	AXAMandiri	0.1866	Panin	0.1777			AXA Mandiri	0.1707	Wanartha	0.2307
21	AmanahGitha	0.1468	Bumiputera - FP	0.1488			Tokio Marine	0.1301	AmanahGitha (FP)	0.2278
22	JMA (FP)	0.1257	TokioMarine	0.1264			CAR	0.1	CAR	0.2117
23	Wanartha	0.1008	AXAFinancial	0.1133					AXAMandiri	0.2114
24			SimasMSIG	0.1021					CLS	0.207

Sources: DEA-Solver LV8.0/ CCR(CCR-O)

Based on Table 7, it can be seen that not all full-pledge companies are in the lowest position, such as Asky and Al-Amin, which are still higher than some SBU. However, there are full-pledge companies that are at the bottom.

Inefficiency in the Sharia Insurance Industry

Inefficiency, if using an output-oriented approach, occurs because the income and profits obtained are not by the projections that should be from the use of assets and expenses. For example, from the efficiency level data shown in Table 8, most of the Islamic insurance industries are experiencing inefficiency. To reach the efficient level, profit and revenue must reach the projected value. From Table 8, the Jasindo company must achieve a profit of 26.015 or 225% of the profit earned in 2019.

Based on the results in the previous paragraph, the implementation of the spin-off is seen from the financial benefits. In this case, the efficiency gains from the full-pledge companies have not been fully effective. This statement can be seen from the expected goals because there is still a gap in achieving efficiency. The profit efficiency for the full-pledge company of sharia general insurance and sharia life insurance has not yet received a dual efficiency score of 1. It indicates that the full-pledge company is not yet efficient. In addition, compared to the sharia insurance industry, which is still in the form of an SBU, the efficiency results of full-pledge companies, both general insurance and sharia life insurance, are lower than SBU. The fact is not in line with the expected goals of the spin-off. According to Nasution (2019); Pratama (2020), the objectives of the spin-off implementation to improve financial performance have not been achieved, and neither is the effectiveness.

The result shows that H_{1b} is accepted, and the results have similarities with several researches (Al-Arif, 2015; Al-Arif et al., 2020; Sihombing & Yahya, 2016; Trinugroho et al., 2021). Implementing spin-offs by several industries has not proven to increase efficiency and profitability. A fact that occurs with the aim of spin-offs is that there will still be a gap, so the effectiveness has not been achieved optimally.

Table 8
Inefficient Profit -Sharia General Insurance (in Billion Rupiah)

No.	DMU	Score	Rank	Asset			Expense			Net Income		
				Data	Projection	Diff.(%)	Data	Projection	Diff.(%)	Data	Projection	Diff.(%)
1	Takaful	0.06	26.00	86.00	86.00	0.00	11.00	2.21	-80	1.00	17.64	1664
2	Chubb	0.25	17.00	117.00	117.00	0.00	29.00	3.00	-90	6.00	24.00	300
3	Jasindo	0.31	11.00	127.00	127.00	0.00	31.00	3.26	-89	8.00	26.05	226
4	Askrida	0.26	15.00	356.00	356.00	0.00	73.00	9.13	-87	19.00	73.03	284
5	Adira	0.42	9.00	542.00	542.00	0.00	20.00	13.90	-31	47.00	111.18	137
6	Astra	0.66	5.00	498.00	498.00	0.00	48.00	12.77	-73	67.00	102.15	52
7	Bintang	0.27	13.00	110.00	61.00	-44.55	1.00	1.00	0	3.00	11.00	267
8	Bumida	0.50	8.00	49.00	49.00	0.00	8.00	1.26	-84	5.00	10.05	101
9	ACA	0.38	10.00	115.00	115.00	0.00	6.00	2.95	-51	9.00	23.59	162
10	Ramayana	0.10	25.00	139.00	122.00	-12.23	2.00	2.00	0	2.00	22.00	1000
11	Simas	0.67	4.00	341.00	341.00	0.00	12.00	8.74	-27	47.00	69.95	49
12	Tripakarta	0.68	3.00	100.00	100.00	0.00	7.00	2.56	-63	14.00	20.51	47
13	Mega	0.23	18.00	119.00	119.00	0.00	2.00	2.00	0	5.00	21.59	332
14	Staco	0.30	12.00	53.00	53.00	0.00	1.00	1.00	0	3.00	9.91	230
15	Tugu	0.27	13.00	83.00	61.00	-26.51	1.00	1.00	0	3.00	11.00	267

16	JRP	1.00	1.00	61.00	61.00	0.00	1.00	1.00	0	11.00	11.00	0
17	Panpacific	0.53	7.00	50.00	50.00	0.00	1.00	1.00	0	5.00	9.50	90
18	Reliance	1.00	1.00	39.00	39.00	0.00	1.00	1.00	0	8.00	8.00	0
19	ASEI	0.62	6.00	51.00	51.00	0.00	1.00	1.00	0	6.00	9.64	61
20	Sompo	0.26	16.00	75.00	75.00	0.00	5.00	1.92	-62	4.00	15.38	285

Sources: DEA-Solver LV8.0/ CCR(CCR-O)

The difference is seen in the efficiency of income. Facts based on efficiency results show that full-pledge companies, both sharia general insurance and sharia life insurance, are not in a lower position compared to SBU. Jasindo sharia companies get the dual value, meaning it has achieved efficiency in obtaining income with the value of the assets used and the expenses incurred. Jasindo's efficiency results are above the values of several SBU. Jasindo company carried out a spin-off after the enactment of law number 40 of 2014. It is different from Takaful which has made a full-pledge since its establishment.

The results show that the spin-off objective regarding operating income achievement has been realized, and the H_{1a} is accepted. The results are similar to previous research (Hagedoorn et al., 2018; Halai, 2015; Hollowell, 2009; Siswantoro, 2014; Sunarsih & Fitriyani, 2018; Uddin, 2010; Waluyo, 2020). Spin-off also creates significant value for firms' equity investors (Kalanoski & Svederberg, 2020). This shows that the spin-off has been running quite effectively. This is also supported by the fact that several full-pledge companies, in the sharia life insurance, value efficiency in generating revenue. However, this efficiency is low. Some are higher than SBU. The results of this study show that some full-pledge companies have been efficient, but some have not; this is similar to Sunarsih and Fitriyani's (2018) research.

THE EFFECTIVENESS OF ACHIEVING GROWTH IN THE NUMBER OF SHARIAH INSURANCE INDUSTRIES

The Spin-Off Criteria Analysis - Achievement of *Tabarru* Funds in SBU 50% of Insurance Premium Funds at The Parent Company

In this case, only four SBU have reached the participant contribution fund of 50% of the parent. To get confirmation of this fact, the researcher interviewed key informants through forum group discussion (FGD) events. The first question is the process of determining the percentage of participant contribution funds. The determination of these criteria was based on information from ER and TN; at that time, the industry did not know because the percentage value was the result of a decision by the government. So, the industry does not get clarity on the consideration for determining the percentage amount. If it is associated with Soekamto's (2016) opinion that regulation is effective if the target knows and understands, the facts, which have been described regarding the conditions before the criteria were ratified, show that the spin-off criteria have not yet been established effectively.

Another condition related to the spin-off criteria is how the implementation of the fund percentage is achieved during the spin-off. Based on interviews with key informants, until now, even several years after the deadline for the end of the 2024 spin-off, no SBU has been able to achieve this percentage of funds. This value is difficult to realize.

According to EN in the forum, SBU is a small part of sharia insurance business actors. When there is an increase in the acquisition of contribution funds, the parent company will generate higher insurance premium funds, so it is difficult to pursue this percentage. What was conveyed by EN was also approved by informants from other industries. Information from informants regarding the obstacles in achieving the percentage of contribution and investment funds has the same results as Al-Arif et al.'s (2018) research, testing the spin-off criteria in Islamic banks. They stated that, until the end of 2024, no Islamic bank could achieve the capital percentage of 50% of the parent. In the other research, testing the spin-off criteria in the Islamic life insurance industry showed that the industry has not yet reached the amount of these funds (Yunus, 2019). Ramadani (2018) also conveyed the results of his research: the industry did not yet have the readiness to carry out a spin-off with the criteria for the percentage of funds.

Therefore, the government and regulatory agencies should provide relaxation as outlined in the regulations to provide facilities so that the spin-off implementation can run smoothly. Informants from the industry also said that they would prepare an alternative for SBU, which could not achieve the adequacy of the participant contribution fund percentage. There are several possibilities that an SBU with a low value of participant contribution fund will move its portfolio to a larger SBU, or a smaller SBU will merge its business with another SBU into a full-pledge company. Of course, this will impact the decline in the number of the sharia insurance industry. This fact is different from the previous opinion that effectiveness occurs when a regulation impacts the growth of the number of industries (Hitokdana, 2018).

Factors in Realizing the Effectiveness of the Spin-off Policy Implementation

The first factor that can realize the effectiveness of the spin-off that can improve company efficiency is the management's ability to manage costs because it is not yet efficient in earning profits, indicating an increase in expenses after the spin-off where the percentage increase in costs is still higher than the percentage increase in revenue.

AG and YG informants said that after carrying out the spin-off, operational costs would be even greater due to: 1) the existence of a new organizational structure with several new positions, causing an increase in salary expenses; 2) additional employees who were previously integrated with the parent company; and 3) the system separated technology. The cause of this condition, where the amount of expenditure that occurs is not proportional to profit gain, is supported by information from interviews with Islamic insurance industry practitioners. They are TS and HP, who said that the spin-off

implementation had a major impact on the efficiency in pursuing profits due to the organizational structure formed by a full-fledged company with the provisions of the OJK to increase the company's operational costs. In their research, the higher operational costs after the spin-off were also conveyed by Farrell (1957); Ghoni and Efendi (2021).

The second factor that can realize effectiveness is the leadership's role and commitment, which is needed to support SBU, which will conduct a spin-off (Ramadani, 2018). Informants from OJK have also confirmed the results of this study. They conveyed that the support and commitment of the leadership are necessary for realizing the success of the spin-off implementation, which is not only supported at the time of also supported during several periods after separation.

The third factor that also affects the achievement of effectiveness is the HR factor. A key informant conveyed that by separating into a full-fledged company, competent human resources are very helpful in increasing the company's revenue. However, by becoming a full-pledge, the management of HR competencies is the company's responsibility, which will also impact expenses that increase the value of the company's operating expenses.

The role of the government and regulatory bodies is also an important factor in realizing the spin-off goal. Some of the difficulties and problems faced by the SBU industry that cause inefficiency can be resolved with the support and the existence of new policies that adjust to conditions that occur after the spin-off. For example, policies related to taxation, protection of the company's business, investment in capital formation to become a full-fledged company, providing technical assistance, allowing for cost-sharing, and other things.

CONCLUSION

This study concludes that spin-off has not been fully effective in achieving the goal of increasing industrial efficiency. The results show that the efficiency of SBU's profit is higher than full-pledged companies. Efficiency on revenue is slightly different where the full-pledge companies' efficiency values are not entirely at the bottom. There is no efficiency for all full-pledged companies, and the value of most of the full-pledged companies under the SBU shows a gap between the expected spin-off objectives and the existing facts, so the effectiveness of the spin-off implementation has not run optimally.

In increasing the number of industrial growth, effectiveness has not been optimally achieved because SBU is difficult to achieve the criteria for the percentage of 50% of participant contribution fund and participant investment from parent company funds.

The factors that can realize effectiveness are related to cost management factors in increasing efficiency. After SBU carries out the spin-off, the value of

operating expenses increases. The increases are not proportional to the revenue growth, causing the operating profit of the full-pledge company to be lower than the SBU. In addition, the income generated is also not optimal, causing the profit generated to be lower. The next factor is the much-needed leadership support and commitment when SBU separates and post-spin-off until it is genuinely independent. Another factor is the support of professional human resources, technological factors, financial management strategy factors, and the role of the government and regulators that are needed to make spin-off policies more effective.

The results of this study provide thought contributions to the industry to prepare more thoroughly before carrying out the spin-off, determine strategies to streamline costs incurred, and optimize revenue to develop the company even after the spin-off. Meanwhile, it is expected to provide support during the SBU spin-off and after the spin-off from the parent company side. The results of this study also contribute inputs to the government and regulatory agencies that can be considered in making spin-off decisions.

The limitations of this study are related to the data used. The data used is only five years. In addition, the input and output variables only use two input and output variables, respectively. For further research, it is better to use data that is more than five years, and the variables used are more than two variables.

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