Effect of external corporate factors on takaful performance

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Abstract

Purpose – This study examines the impact of external corporate factors (external auditors, insured satisfaction and corporate social responsibility) on the performance (ROA, ROE, ROI) of takaful providers of distinguishable Muamalah contracts (wakalah and Hybrid).

Design/methodology/approach – The full sample includes 30 Takaful insurance companies listed in Southeast Asia (SEA) and Gulf Cooperation Council (GCC) countries over the period 2011–2021. We use the FGLS method for data analysis.

Findings – Our results reveal that Takaful insurance, which holds one of the Big Four with qualified Shariah members as external auditors, leads to improved performance (ROA, ROE and ROI). In addition, our findings show that Takaful insurance should be concerned with insured satisfaction to determine its success and generate higher performance for both the wakalah and hybrid contracts (ROA, ROE and ROI). Furthermore, Corporate Social Responsibility is considered a source of efficiency that enhances Takaful's performance for the two types of wakalah and hybrid models (ROA, ROE and ROI).

Practical implications – Some suggestions may be useful for Takaful insurance regulatory authorities to intensify CSR activities, hold one of the Big Four as an external auditor and realize insured satisfaction.

Originality/value – This study highlights that it is beneficial for policymakers, insurers and investors to explore external factors that influence financial performance (return on assets, ROA; return on equity, ROE; return on investment,) in the Takaful insurance market, which uses wakalah and hybrid contracts.

Keywords Takaful performance, External factors, FGLS, Wakalah, Hybrid contract

Paper type Research paper

1. Introduction

Takaful insurance structurally differs from its conventional counterpart, especially in terms of sharing risk among the insured rather than transferring risk from the insured to Takaful operators (TO) (Sallemi and Zouari, 2022). According to IFSB (2009) guidelines, Takaful Insurance is known for its hybrid nature between proprietary and mutual entities. Takaful Insurance is based on the principles of Riba's cooperation and interdiction. The basic difference is that the Takaful insurance-related obligations and rights impose an absolute separation between the insured funds and those provided by shareholders of Takaful insurance. However, the insured parties are not only regarded as customers paying premiums to hedge against the loss suffered but also as participants. The insured parties participate through their premiums paid, where, TO manage this fund in their name according to the rights imposed by contracts types used by Takaful insurance (Wakalah [1], Mudharabah [2] and Hybrid [3]). In fact, when TO act as Mudharib or Wakil, they can determine the products, pricing, terms and conditions of each contract. They can also mix

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insured funds with shareholder funds, which makes the investment objectives and expected returns the same for both parties, which may lead to conflicts of interest. For example, Takaful participants may benefit from a low-risk investment strategy with stable returns whereas shareholders may prefer a more aggressive investment strategy that offers higher returns (Sallemi *et al.*, 2021). The largest Takaful insurance assets have been concentrated in the Gulf Cooperation Council and Southeast Asian regions since 2014, where Malaysia and Saudi Arabia hold the bulk of global assets. The latter grew by 16% to US$62bn in 2020, which was consistently higher than the recorded rate in the preceding year, which was 10% to US$51bn in 2019 (ICD–Thomson Reuters, 2021). Global Takaful assets accounted for US$46bn in 2018, which remained unchanged from the previous year. Saudi Arabia held the highest Takaful assets at US$15bn, up to 4% from 2017. However, being the largest does not necessarily indicate achievement of the highest performance. For instance, Saudi Arabia had an average return on assets (ROA) of 1% and reported losses of almost one-third of its Takaful insurance in 2018 (ICD–Thomson Reuters, 2019). In 2016, Saudi Takaful Insurance had an average ROA of 2.8%, with six reporting net losses. This is an enhancement from the 2015 average ROA of −0.08%, reflecting losses by 13 Takaful insurances (ICD–Thomson Reuters, 2017). At the end of 2014, Qatar recorded the second highest average ROA of 11% and an average ROE of 17%. Saudi Arabia registered an average ROA of (−2) % and an average ROE of (−5) %. Concerning Malaysia and Indonesia, they displayed ROA averages of 0% and 7% ROE averages of 3% and 5%, respectively (ICD–Thomson Reuters, 2015). Considering these notable differences in performance, we can conclude that the factors that significantly influence the performance of takaful using wakalah and hybrid contracts remain unclear, although takaful insurance has thrived. Understanding the factors that determine the performance of Takaful Insurance using Wakalah and hybrid contracts is important because they contribute significantly to stimulating economic growth by sharing risks among the insured (Kader and Kwon, 2014). However, several studies examining the association between internal corporate factors and firm performance have shown mixed results and have ignored external factors. Motivated by this, this study aims to determine the factors that affect Takaful performance. To fill this gap in the literature, our framework offers a more comprehensive, complete, and theoretically richer picture of the factors that influence performance Takaful insurance that use wakalah and hybrid contract. Moreover, it provides support to top management, prospective investors and regulatory authorities in determining external factors that play a vital role in improving Takaful performance. This study highlights that it is beneficial for policymakers, insurers and investors to explore the external factors that influence performance (ROA, ROE and ROI) in Takaful insurance that uses Wakalah and hybrid contracts. The remainder of this paper is organized as follows. Section 1 provides a brief literature review of the factors affecting Takaful performance. Section 2 describes the data and the research methods used. Section 3 presents the empirical results of the study. The final section concludes the study and provides implications and recommendations for future research.

2. Literature review and hypothesis development

2.1 External auditors and takaful performance

Agency theory is related to the separation of power between shareholders and management (Fama and Jensen, 1983). In this case, managers act in the firm as agents to provide services on behalf of shareholders, who give the mandate on some decision-making authorities to managers (Jensen and Meckling, 1976). There are possibilities of delinquency or wrongdoing by managers to meet their own interest. Therefore, the existence of AE is essential to ensure managers carry out their duties accordingly. External

auditors (EA) ensure that a firm produces relevant, adequate and credible information for shareholders, creditors, investors and stakeholders. They act independently in monitoring companies. EA reduce information asymmetry and improve management's monitoring. They control for a firm's financial processes. EA ensure the quality of the company's financial information. Audit reputation plays an important role in reducing the level of information disclosure to shareholders (Azizkhani *et al.*, 2010). Detthamrong *et al.* (2017) suggest that auditing financial statements by reputable EA reduces information asymmetry. Moreover, DeFond and Lennox (2011) and Detthamrong *et al.* (2017) show that when a company's auditor is one of the four largest audit firms (KPMG, Deloitte, Price Water House Coopers and Ernst and Young), it achieves a high performance. We conclude that audit quality is a means of combating managers' opportunistic behavior. However, it can be associated with an improvement in the performance and decision-making process of a company, because it aims to influence managerial decisions. Accordingly, we hypothesize as follows:

H1. External auditors positively affect Takaful performance.

2.2 Customer satisfaction and takaful performance

The stakeholder theory considers ethics through the integration of human values into operational management, directions, regulations, functions and supervision. This theory encompasses the relationship between all stakeholders threatened by their opportunism. This can influence companies' performance, which benefits from the return via the financial resources and exploitation of humans, namely managers, shareholders, suppliers, customers, employees, creditors and the government. An organization's success depends on its ability to manage its relationships with its stakeholders – not only financiers and shareholders but also customers, employees and even communities and societies as a whole. Social responsibility and satisfaction invite a company to take an interest in its stakeholders and listen to them. Satisfaction is a feeling of happiness that emerges in someone after comparing their perception of the result of a product or service with their expectations. Customer satisfaction (CS) measures the manner in which a company provides products or services to meet customer expectations (Che Ngah1 *et al.*, 2016). Satisfaction with conventional insurance customers is achieved through the fulfillment of their material needs, with benefits such as low prices, higher returns and faster delivery to family members of the deceased after death in the form of life insurance. However, this does not mean that CS in terms of price, quality, delivery and accuracy is not important for Takaful insurance (Alnemer, 2013). The participants are satisfied if their benefits exceeded their expectations. In other words, satisfaction depends on the evaluation of the performance of products or services provided to customers. Customers are satisfied with the Wakalah contract when the insured does not directly share the risk borne by the Takaful Fund or any of its investment profits or surplus/deficits. Under a hybrid contract, customers are satisfied when insurers are remunerated by a predetermined percentage share in the investment profit and/or underwriting surplus, which would usually be stated explicitly in the Takaful contract. The insured and Takaful participants cannot unilaterally alter the agreed-upon sharing ratio of investment profits and/or the underwriting surplus once the contract is signed. However, Gorst (2000) asserts that it is not enough to satisfy customers because a "satisfied" customer remains a customer as long as there is no better offer, while a "happy" customer is more likely to remain loyal. Satisfaction is a customer's evaluation of a product or service that determines whether the product or service meets their needs, wants and expectations (Zeithaml *et al.*, 2000). However, dissatisfaction is a consequence of a failure to meet customers' needs and expectations. Meltzer (1997) also argues that the goal of maximizing satisfaction is to eliminate opportunistic agent behavior. CS positively affects customer loyalty, leading to higher

profitability (Carden and Dellifrain, 2004). Tantakasem (2008) revealed that reducing costs and attracting new customers increase profitability. Vorhies and Morgan (2005) show that a 5% increase in customer loyalty can increase bank profitability by an average of 50%. Customer satisfaction leads to faster market penetration and increased accelerated cash-flow and acts as an underlying mechanism for increasing shareholder wealth in any industry. Tantakasem (2008) and Hasoneh and Alafi (2012) find that CS is the best indicator of a company's profitability. Customer satisfaction is critical for the optimization of financial returns. Accordingly, we hypothesize as follows:

H2. Customer satisfaction positively affects takaful performance.

2.3 Corporate social responsibility and takaful performance

Corporate Social Responsibility (CSR) is an interesting and important research topic (Kong *et al.*, 2020). It is defined as a firm's activities with respect to perceived societal or stakeholder obligations (Brown and Dacin, 1997). CSR emphasizes economic benefits and activities that are beneficial to society (Freeman and Hasnaoui, 2011). It is also defined as the voluntary integration of social and environmental concerns into business activities and their interactions with stakeholders (European Commission, 2001). Several scholars have shown that CSR activities positively and significantly affect financial performance (Turban and Greening, 1996; Galbreath, 2006; Wang and Sarkis, 2013; Turban and Greening, 1996). Similarly, Hsiu-Jen and Shu-Yi (2014) find a significantly positive effect of CSR on companies' financial performance (ROA, ROE and EPS) in Taiwan. Nazri *et al.* (2020) examine the relationship between CSR and business performance in the context of Takaful. They find that Takaful insurance should implement CSR activities to make firms successful worldwide. Sallemi and Zouari (2023) examine the impact of CSR on performance of Takaful that use wakalah and hybrid contracts. They show that CSR has a negative effect on the performance of the overall sample and Wakalah subsample. However, it has a positive and significant effect on the performance of Takaful insurance, which uses a hybrid contract. They explain this difference by the fact that insurance companies that use hybrid contracts practice more CSR than their counterparts that use Wakalah contracts do. We conjecture that CSR leads to improved firm performance. Hence, our hypotheses are as follows:

H3. CSR positively affects Takaful performance.

3. Research methodology

Our sample includes 30 Takaful insurances listed in Southeast Asia (SEA) and GCC regions for the period 2011–2021. We do not include other insurance companies in our sample because of the unavailability of the data. Data are collected from the annual reports of Takaful insurance (available on their official websites) and the DataStream database. Table 1 presents a summary of the companies selected.

To test this hypothesis, we structure our model as follows:

$$\boldsymbol{Performance} = \boldsymbol{\alpha_0} + \boldsymbol{sat_{i,t}\alpha_1} + \boldsymbol{EAU_{i,t}\alpha 2} + \boldsymbol{CSR_{i,t}\alpha_3} + \boldsymbol{FirmSize_{i,t}\alpha_4} + \boldsymbol{Debt_{i,t}\alpha_5} + \boldsymbol{covid_{i,t}\alpha_6} + \boldsymbol{\varepsilon_{i,t}}$$

We use three performance variables as the dependent variables. Return on asset (ROA) [4] Return on equity (ROE) [5] Return on investment (ROI) [6]. The study has taken three external factors variables such as CS, EA and CSR. To obtain more reliable results, we introduce three control variables: firm size, leverage and Covid-19. Table 2 shows the construction of these variables.

Region		South East Asia				Gulf Cooperation Council				
Contract	Muamalah	Wakalah				Hybrid				
Countries	Indonesia	Malaysia	Bangladesh	Pakistan	Sri Lanka	Bahrain	Saudi Arabia	Emirate	Qatar	Oman	Total
Number of companies	5	7	1	4	1	1	3	5	2	1	30

Source(s): Authors' own creation

Table 1.
Number of Takaful insurances by country and type of contract

Variables		Measure	Source
Dependent variables	Performance	ROA = Net Profit/Total Assets ROE = Net Profit/Total equity ROI=Net investment Profit/Total investment	Sanjaya *et al.* (2015), Sohail *et al.* (2017), Sallemi and Zouari (2022), Eldaia *et al.* (2021)
Independent variables	External auditors Reputation (REP)	1: if the external auditor is one of the four largest audit firms (KPMG, Deloitte, Price water house Coopers and Ernst & Young) and they have qualified Shariah auditors to carry out the audit task, and 0 otherwise	DeFond and Lennox (2011), Detthamrong *et al.* (2017)
	Corporate Social Responsibility (CSR)	Items included in the calculation of CSR divulgation	Sallemi and Zouari (2023)
	Customer Satisfaction (Sat)	$\Delta SAT = \frac{surplus_t}{premuims_t} - \frac{surplus_{t-1}}{premuims_{t-1}}$	Che Ngah1 *et al.* (2016)
Control variables	Firm size (size)	The natural logarithm of the firm's total assets	Sohail *et al.* (2017), Sallemi and Zouari (2022)
	Leverage (LEV)	Total debt/total assets	
	Covid19	1: if the period is 2020, and 0 otherwise	Almustafa *et al.* (2023)

Source(s): Authors' own creation

Table 2. Variables measurement

4. Empirical results

To test these hypothetical relationships, we follow a two-stage procedure. The first stage is the correlation results. According to the Pearson correlation, as shown in Table 3, all correlations between explanatory variables are significantly smaller than 0.8 [7]. In the Pearson test and index of conditioning, we found that these variables are distinct from each other and are not significant [8], indicating the absence of multicollinearity problems between them. To respond effectively to our research problem, we divide our sample into two subsamples: wakalah and hybrid. This subdivision identifies the most frequently accepted and commonly adopted practices and types of contracts. Table 4 illustrates the significant differences between the means of the variables.

The t-statistic reveals the persistence of significant differences between the two contract types (wakalah and hybrid), in terms of performance and external factors. These differences

	SAT	REP	CSR	LEV	SIZE
Wakalah subsample					
SAT	1				
REP	0.1186	1			
CSR	−0.0035	0.0661	1		
LEV	−0.0015	0.0665	0.1347	1	
SIZE	−0.0026	0.0099	0.0396	−0.0094	1
Hybrid subsample					
SAT	1				
REP	0.2286	1			
CSR	−0.0055	0.0641	1		
LEV	−0.0075	0.0635	0.1447	1	
SIZE	−0.0066	0.0049	0.0386	−0.0083	1

Source(s): Authors' own creation

Table 3. Correlation matrix

Variables	Model takaful	Means	Difference between means	t
REP	Wakalah	0.913	0.034	0.849 ns
	Hybrid	0.880		
SAT	Wakalah	0.052	0.048	1.685 ns
	Hybrid	0.004		
CSR	Wakalah	0.197	−0.142	−6.93***
	Hybrid	0.339		
LEV	Wakalah	0.353	0.189	1.327 ns
	Hybrid	0.164		
SIZE	Wakalah	12.717	0.929	5.591***
	Hybrid	11.787		
COVID19	Wakalah	0.98	0.01	0.470 ns
	Hybrid	0.97		
ROA	Wakalah	0.021	0.000	0.028 ns
	Hybrid	0.020		
ROE	Wakalah	0.062	0.016	0.912 ns
	Hybrid	0.045		
ROI	Wakalah	0.123	0.026	1.663*
	Hybrid	0.097		

Note(s): ***significant at 1%, **significant at 5%, *significant at 10%, ns: nonsignificant
Source(s): Authors' own creation

Table 4. Variables means' differences as a function of Muamalah contract

are mainly in ROI (t = 1.663), CSR (t = 6.93) and Takaful insurance size (t = 5.591). The results indicate that insurance companies that use Wakalah contracts are larger than those in the GCC countries. Regarding CSR, insurers that use hybrid contracts practice more social responsibility than their counterparts do (Wakalah contracts). Regarding control and performance variables (ROA and ROE), the results indicate that no significant difference persists depending on the contract used, with the exception of return on investments (ROI), showing that it is more important in insurance companies using Wakalah contracts than in those using hybrid contracts. In the second stage, the relationships between the variables are analyzed using Panel Data. First, tests must be conducted to achieve reliable and robust estimates (Table 5). The normality of the variables should be checked because the number of observations is greater than 30 and the results of the Skewness and Kurtosis tests are asserted to be significant at the 1% threshold. Homogeneity test yields an insignificant χ^2 value. This result does not confirm the presence of any individual effects, thus confirming the homogeneity of the sample. It should also be note that the fixed effect is discarded because a time-invariant parameter cannot be estimated using fixed-effect methods. SAT, REP, CSR, LEV, Covid-19 and SIZE do not vary noticeably over time. Consequently, fixed-effects estimation is inappropriate and may result in a loss of degrees of freedom (Wooldridge, 2002; Baltagi, 2005). We test the heteroscedasticity problem by performing the Breusch–Pagan test, as shown in Table 5. They indicate that the F-statistic is significant, confirming the heteroscedasticity-related problem. In this case, the generalized least squares (GLS) method is implemented. However, for this method to be effectively implemented, it is necessary to begin by identifying the heteroscedasticity form associated with the overall sample and two derivative subsamples. For this purpose, a modified Wald test is required. This should serve to check whether heteroscedasticity proves to be interindividual. These results indicate that the chi2-associated p-value does not allow for any further specification of the heteroscedastic structure. Finally, we test for the presence of an autocorrelation problem by performing Wooldridge's (2002) autocorrelation test. Following its implementation, the test shows that the F-statistic is significant at the 1% threshold. This finding confirmed the autocorrelation problem. To summarize, we can deduce that heteroscedasticity and autocorrelation problems

Table 5.
Result of FGLS regression

Variables latentes	Model 1: ROA Valeur	*t*	Pr > |*t*|	Model 2: ROE Valeur	*t*	Pr > |*t*|	Model 3: ROI Valeur	*t*	Pr > |*t*|
Result of FGLS regression Wakalah									
REP	0.198	3,611	*0.008****	0.392	4,764	*0.000****	0.303	14,813	*0.000****
SAT	0.243	4,725	*0.009****	0.322	4,155	*0.000****	0.292	18,867	*0.000****
CSR	−0.133	−1,875	*0.062**	−0.125	−3,102	*0.002****	−0.202	−9,681	*0.000****
Size	0.123	1,887	*0.060**	0.387	4,954	*0.000****	0.292	18,550	*0.000****
LEV	−0.167	−2,841	*0.005****	−0.161	−2,377	*0.019***	−0.304	−17,440	*0.000****
Covid-19	−0.677	−3,631	*0.004****	−0.231	−3,447	*0.018***	−0.254	−7,340	*0.010****
R^2	*0.276*			*0.543*			*0.978*		
Wald χ^2	*46.25****			*5.95****			*42.65****		
Normality test Prob (skewness)	*0.000****			*0.000****			*0.000****		
Normality test Prob (kurtosis)	*0.000****			*0.000****			*0.000****		
Homogeneity test (F)	5.063 n.s			5.056 n.s			6.544 n.s		
Breusch–Pagan test for heteroskedasticity (F)	*142.32****			*130.10****			*97.46****		
Modified Wald test for group-wise heteroskedasticity (χ^2)	*29670.54****			*26702.80****			*14628.63****		
Wooldridge test for autocorrelation (F)	*38.136****			*36.147****			*35.162****		
Result of FGLS regression hybrid									
REP	0.033	2,525	*0.007* ***	0.339	1,706	*0.091**	0.116	5,874	*0.000****
SAT	0.049	3,872	*0.004****	0.501	5,993	*0.000****	0.113	8,035	*0.000****
CSR	1,108	5,330	*0.000****	0.317	3,153	*0.002****	0.159	4,706	*0.000****
Size	0.071	1,021	0.309	0.356	2,841	*0.005****	−0.170	−8,830	*0.000****
Lev	−0.132	−2,254	*0.025***	−0.148	−1.76	*−0.081**	0.126	6,018	*0.000****
Covid-19	−0.587	−3,331	*0.001****	−0.251	−2.45	*0.012***	−0.344	−8,240	*0.020****
R^2	*0.436*			*0.599*			*0.986*		
Wald χ^2	*46.25****			*6.85****			*33.55****		
Normality test Prob (skewness)	*0.000****			*0.000****			*0.000****		
Normality test Prob (kurtosis)	*0.000****			*0.000****			*0.000****		
Homogeneity test (F)	4.063 ns			4.056 ns			5.544 ns		
Breusch–Pagan test for heteroskedasticity (F)	*132.42****			*140.10****			*87.46****		
Modified Wald test for group-wise heteroskedasticity (χ^2)	*28770.54****			*27602.90****			*13528.63****		
Wooldridge test for autocorrelation (F)	*39.136****			*38.147****			*34.162****		

Note(s): ***significant at 1%, **significant at 5%, *significant at 10%, ns: nonsignificant
Source(s): Authors' own creation

are revealed. Consequently, we applied a feasible generalized least-squares (FGLS) framework. Multiple regression analyses were performed to test the research hypotheses and the results are presented in Table 5. The results for the wakalah subsample in Table 5 indicate that the R^2 values relative to Models 1, 2 and 3 are 0.276, 0.543 and 0.978, respectively. The results for the hybrid subsample in Table 5 indicate that the R^2 values relative to Models 1, 2 and 3 are 0.436, 0.599 and 0.986, respectively. Furthermore, the χ^2 test is found to be significant, implying that ROA, ROE and ROI are accounted for by the explanatory variables for both the Wakalah and Hybrid subsamples. In testing H1, we notice that the presence of one of the four largest audit firms has a significant and positive effect on Takaful's performance (ROA, ROE and ROI) in both the Wakalah and hybrid models. These results imply that the presence of one of the four largest audit firms with qualified Shariah auditors to perform the audit task tends to enhance the Takaful Insurance performance. This result supports our hypothesis, and is consistent with those of DeFond and Lennox (2011) and Detthamrong *et al.* (2017). Therefore, External auditors ensure that a takaful produces relevant, adequate and credible information that is released to shareholders, creditors, investors and other stakeholders. They reduced the information asymmetry and improved Takaful's performance. For H2, SAT has a significant impact on Takaful's performance (ROA, ROE, ROI) for the two subsamples, wakalah and hybrid. This finding implies that when insurance satisfaction increases, Takaful's performance increases. Hence, H2 is accepted. This result is consistent with the results of Vorhies and Morgan (2005), Carden and Dellifrain (2004), Tantakasem and Lee (2008) and Hasoneh and Alafi (2012) noted that satisfaction is an important determinant of Takaful's performance. This implies that Takaful Insurance is always concerned with insured satisfaction in determining success and generating higher revenue. Takaful insurance can be ensured by distributing surplus according to the adapted contract, which can improve performance. Table 5 shows that CSR negatively affects the Wakalah subsample's performance. However, it has a positive and significant effect on the performance of Takaful insurance, which uses a hybrid contract. Our result confirms the results of Wang and Sarkis (2013), Hsiu-Jen and Shu-Yi (2014), Reverte *et al.* (2016) and Sallemi and Zouari (2023). A notable difference is observed between the wakalah and hybrid subsamples. Indeed, insurance companies that use the hybrid contract practice more CSR than their counterparts that use the Wakalah contract (Table 4). These results indicate that increasing CSR practices improves the performance of insurance companies that use hybrid contracts, thus, confirming H3. Thus, Takaful Insurance should implement CSR activities for success. These results imply that an increase in CSR activities improves the performance of Takaful. CSR emphasizes economic benefits and activities that are beneficial to society. Thus, Takaful insurance should improve the divulgation of CSR activities to enhance performance. Regarding control variables, we find that firm size has a positive and significant effect on Takaful's performance (ROA, ROE and ROI). Additionally, the relationship between leverage, Covid-19 and performance is significantly negative. This result was consistent with that reported by Sallemi and Zouari (2022).

5. Conclusion

This study explored the impact of external corporate factors on the performance of takaful listed in SEA and GCC countries. Panel data techniques were used, as the sample size consisted of 30 Takaful insurance companies for the period–2011–2021. The study employed three models to examine the impact of external factors on the takaful insurance sector's performance. This study explores external factors that increase the performance of the Takaful insurance sector. The empirical results revealed that CSR, external auditor reputation and customer satisfaction positively and significantly affect Takaful's performance. They highlight the importance of the effects of these variables on the performance of Takaful Insurance in

Wakalah and hybrid contracts. Therefore, we conclude that external corporate factors (ROA, ROE and ROI) play an important role in Takaful's performance. Eventually, the present work might serve as a background for prospective research line to focus on, further extending the sample size and introducing other external factors.

The results had important theoretical and practical implications. For the theoretical implications, our research provided a novel field of analysis of corporate external factors and performance (ROA, ROE, ROI) determinants in Takaful insurance as a function of the Muamalah contract form. Moreover, we emphasized that Takaful Insurance needs to take care to understand and enforce adequate external corporate factors for both Takaful insurance that uses wakalah and hybrid contracts. In this context, our contribution manifested in the effect of external corporate factors on takaful insurance performance. Regarding practical implications, some suggestions may be useful for Takaful insurance regulatory authorities to intensify CSR activities, hold one of the Big Four auditors as an external auditor with qualified Shariah auditors and achieve insurance satisfaction. It would be beneficial for policymakers, insurers and investors to explore the factors that affect financial performance in the Takaful insurance market. Our results provided policymakers, insurers and investors that takaful insurance should hold one of the Big Four external auditors with qualified Shariah auditors–always concerned with insured satisfaction and increasing CSR activities–to determine its success and generate higher performance. Competent regulators should appreciated this procedure in formulating appropriate ways to effectively improve the performance of Takaful insurance, which uses Wakalah and hybrid contracts.

Notes

1. Wakalah contract: Takaful operators act as Wakil, and in return, they are remunerated via fees.
2. Mudharabah contract: Takaful operators act as Mudharib, and in counterpart, they are remunerated via profits on investments.
3. Hybrid contract, Takaful operators act as Wakil and Mudhariba.
4. ROA: define as "the measures the overall effectiveness of management in generating profits with its available assets."
5. ROE: termed a "measure of return earned on the common shareholders' investment in an organization."
6. ROI: define as "the measures the profitability of an investment."
7. The threshold at which serious multicollinearity problems begin to occur (Gujarati, 2004).
8. Correlation thresholds above 10% and packaging is less than 1.

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