

## Islamic Intellectual Capital and Takaful Financial Performance (Modal Intelektual Islam dan Prestasi Kewangan Takaful)

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### ABSTRACT

*This study examines the effect of Islamic intellectual capital that consists of Structural Capital, Human Capital, and Capital Employed on takaful financial performance in Southeast Asia and the Middle East during 2016-2019. The dependent variable, takaful financial performance, is measured from the firm's ROE. The independent variables in the current study are the Human Capital Efficiency (HCE), Structural Capital Efficiency (SCE), and Capital Employed Efficiency (CEE), and Audit Opinion used as a control variable. This study is a descriptive quantitative research using multiple linear regression analysis. The population of this study is the sharia insurance firms in Southeast Asia and Middle East countries with a total of 155 observations. This study shows that, two out of three variables are significant. Structural Capital Efficiency has a positive and significant effect, Capital Employed Efficiency has a negative and significant impact, and the Human Capital Efficiency has no significant effect on takaful financial performance. This study can be used as a reference, evaluation, and source of improvement for sharia insurance firms in optimizing the Islamic intellectual capital to improve the firm's financial performance. To achieve this objective, companies could improve employees' knowledge on sharia regulations, especially regarding sharia insurance, training, fulfilling employee's rights, improving system quality, services, and transaction procedures.*

*Keywords: Islamic intellectual capital; financial performance; takaful; human capital; structural capital*

### ABSTRAK

*Kajian ini mengkaji pengaruh Modal Intelektual Islam yang terdiri daripada Modal Struktur, Modal Insan, dan Modal yang digunakan terhadap Prestasi Kewangan Takaful di Asia Tenggara dan Timur Tengah pada tahun 2016-2019. Pemboleh ubah bersandar, Prestasi Kewangan Takaful, diukur dari ROE syarikat. Pemboleh ubah bebas adalah Kecekapan Modal Insan (KMI), Kecekapan Modal Struktur (KMS), dan Kecekapan Modal Digunakan (KMD), dan Pendapat Audit yang digunakan sebagai pemboleh ubah kawalan. Kajian ini merupakan kajian kuantitatif deskriptif dengan menggunakan analisis regresi linear berganda. Populasi kajian ini adalah firma Insurans Syariah di negara-negara Asia Tenggara dan Timur Tengah dengan jumlah pemerhatian sebanyak 155. Kajian ini menunjukkan bahawa, komponen Modal Intelektual Islam mempengaruhi Prestasi Kewangan Takaful. Kecekapan Modal Struktur mempunyai kesan positif dan signifikan, Kecekapan Modal Tenaga Kerja memberi kesan negatif dan signifikan, dan Kecekapan Modal Insan tidak berpengaruh signifikan terhadap Prestasi Kewangan Takaful. Kajian ini dapat digunakan sebagai penilaian bagi firma-firma Asuransi Syariah dalam mengoptimumkan Modal Intelektual Islam untuk meningkatkan prestasi kewangan perusahaan.*

*Kata kunci: Modal intelektual Islam; prestasi kewangan; takaful; modal insan; modal struktur*

### INTRODUCTION

Financial performance is a vital factor for a company. Healthy financial performance is an indicator of a firm's success, which also applies to insurance companies that affect the community as policyholders and investors, besides ensuring the company's sustainability and competitiveness (Camino-Mogro & Bermúdez-Barrezueta 2019; Suvvari et al. 2019). In the globalization era, a firm's success can be assessed from its tangible and intangible assets. Soewarno and Tjahjadi (2020) stated that there had been a shift from economic activities based on tangible assets to those based on intangible assets.

Intellectual capital is a form of intangible assets that plays a vital role in increasing profit, efficiency, and a firm's financial performance (Hashim et al. 2012). Human Capital, Structural Capital, and Capital Employed (Asare et al. 2017; Duho 2020) are examples of intellectual capital that have been studied in the accounting field. Researchers have found that intellectual capital can create and develop a sustainable firm's value, innovativeness and serves as the basis for science and technology in carrying economic activities (Asiaei et al. 2018; Chowdhury et al. 2019; Duho 2020). Siswanti et al. (2017) added that sharia intellectual capitals are also existed to be applied by sharia-based companies. The

fundamental differences between sharia and conventional intellectual capital can be observed in the accounts for computing the value-added or the use of sharia-based income post.

Sharia insurance, as a growing industry, especially in Southeast Asia and the Middle East, needs to pay attention to the intellectual capital to improve and maintain their financial performance. Sabiti et al. (2017) state that sharia insurance gross contribution in Southeast Asia is second highest after Saudi Arabia. In Indonesia, sharia insurance firms' total assets, investments, and gross contribution are increasing in the last five years. Up to 2019, the sharia insurance total assets reached IDR 45,453 billion, total investments of IDR 39,846 billion, and total gross contribution of IDR 16,704 billion (Otoritas Jasa Keuangan 2019). In GCC countries, sharia insurance covers 70% of the takaful market globally, and Saudi Arabia acts as the market leader of this industry (Ismail et al. 2017). These statistics show that sharia insurance has a positive potential to continue growing and contribute to economic growth (Ilyas & Rajasekaran 2019).

However, despite its growing market, sharia insurance market share is still far behind conventional insurance (Remli et al. 2018). By December 2019, sharia insurance has a 3.31% market share compared to the overall insurance assets or around IDR 45.45 trillion (Otoritas Jasa Keuangan 2019). After the pandemic announcement by WHO on 11 March 2020, the global economic and business growth slowed down, including the insurance business. National Committee for Economy and Sharia Economy explains that sharia insurance faces three challenges in 2020: the slowdown in the global economy due to the pandemic, the decline in sharia economy inclusion from 11% to 9%, and the decline in trust towards insurance due to the insurance scam. Therefore, the quality and financial performance should be improved to maintain sharia insurance's financial position.

Alipour (2012), Yeganeh et al. (2014) and Zakery and Afrazeh (2015) find that intellectual capital affects efficiency and improves the financial performance of insurance companies in Iran. A similar finding is also reported by Sherif & Elsayed (2016), who find that intellectual capital has the ability to create values and affect insurance companies' financial performance in Egypt. Asare et al. (2017) and Oppong et al. (2019) state that Human Capital and Structural Capital act as the motor of insurance firms profitability in Ghana, supported by other studies that find the intellectual capital effect on a firm's financial performance (Kalkan et al. 2014; Kweh et al. 2014; Chen et al. 2014; Avci & Nassar 2017; Gupta & Raman 2020). However, the implementation of intellectual capital does not always bring a positive impact on the company. Hamdan et al. (2017) state that three intellectual capital components have the lowest efficiency in affecting a firm's financial performance than other sectors. Supporting this argument, Nourani et al.

(2018) state that the low efficiency of intellectual capital on Malaysian insurance companies is caused by the weak Human Capital and Structural Capital performance due to the low employee training program.

This study analyzes the impact of Islamic intellectual capital on takaful financial performance. The components of Islamic intellectual capital are based on the Islamic values and the concept of Tauhid that relates every aspect to Allah SWT. Human Capital under the Islamic perspective is the human that Allah created to be *Khalifah fil ardh* (Al Baqarah: 30). Knowledge is a provision in life and the afterlife for a *khalifah*, encouraging humans to continuously develop their knowledge (Bakir et al. 2015). In a hadith from at-Tirmidzi, Rasulullah SAW stated that "Whoever takes a journey to acquire knowledge, then Allah will ease their way to Jannah (heaven)". This hadith encourages humans to develop and maximize their Human Capital. In conventional industries, Human Capital is limited to knowledge and ethics but has not included a strong connection between human and their God.

Asare et al. (2017) use three components of intellectual capital in their study, Structural Capital, Human Capital, and Capital Employed, in examining their impact on conventional insurance profitability in Ghana in 2007-2011. Altuntas and Rauch (2017) examine the effect of concentration on financial stability in the property-liability insurance sector. Kantakji et al. (2020) use interest rate, equity return, GDP per capita, company size, *retakaful*, liquidity level, and underwriting growth. Amani and Sukmaningrum (2018) use firm financial performance ratio and *tabarru* fund's financial performance ratio. Hemrit (2020) uses company size, insurance penetration, risk reporting, and board size.

The review of the existing studies shows a limited number of studies in sharia insurance fields that focus on intangible assets. The majority of research is performed in the banking sector (Vidyarthi & Tiwari 2019; Soewarno & Tjahjadi 2020). Nawaz and Haniffa (2017) examine the effect of intellectual capital on the financial performance of 64 sharia banks in 18 countries. Siswanti and Sukoharsono (2019) also conduct a study on Indonesia sharia banking in 2010-2016. Similar studies are also performed in technology, construction, and other non-financial sectors (Nimtrakoon 2015; Nawaz & Haniffa 2017; Mohammad et al. 2018).

This study develops previous studies that examine the effect of intellectual capital on takaful financial performance by adding novelties of adding Islamic intellectual capital, especially in insurance firms. This study also provides insight to understand how Islamic intellectual capital affects takaful financial performance. The theoretical contribution is expected to enrich literature references, especially in intangible assets as a vital element in the Islamic finance business. The practical contribution of this study is providing information and suggestion for regulators to evaluate the existing regulations on performance assessment in sharia

insurance and for practitioners in sharia insurance to maximize the utilization of intangible assets in improving their financial performance.

#### LITERATURE REVIEW

The Resource-Based View explains that resources could add a firm's values and profitability. Wernerfelt (1984) explains that a firm is a group of resources that, when effectively managed, could achieve a competitive advantage and improve the firm's performance. Efficient and economic resource management could reduce the incurred costs. A firm can manage a resource to understand and assist strategy implementation, thus increasing effectiveness and efficiency (Barney 1991). This theory views that the differences in resources and ability of a firm will reflect the firm's ability to manage its resources.

Bontis (1998) states that the key of Structural Capital is the organizational routine or knowledge on the organization routines besides the human, such as the database, organizational charts, and process manuals that have higher values than the material values itself (Kalkan et al. 2014). Under the Islamic perspective, Structural Capital planning is a part of preparing the future and hopes for Allah's blessing for their business activities to run effectively and efficiently (Abdul-Gader & Al-Buraey 1998). Islam does not ignore science and technology but instead praises it as hinted in QS Al Anbiya' 80-81 that tells the story of Allah teaching Prophet Daud (David) to create war clothing to protect him in the war. This story affects the development of the current bulletproof vest using advanced technology. Structural Capital is related to the company's routine activities such as business process, system, technology and network, patent, organizational culture, and company working environment (Zakery & Afrazeh 2015). The higher the firm's Structural Capital, the easier it is for the company to adapt, to be flexible, dynamic, competitive, and to increase its financial performance (Matos & Vairinhos 2017; Dzenopoljac et al. 2017; Sardo & Serrasqueiro 2017; Wang et al. 2019; Dalwai & Mohammadi 2020). Therefore, the proposed hypothesis is:

H<sub>1</sub> Structural Capital has a positive effect on Takaful Financial Performance

The key to Human Capital is human intellect (Bontis, 1998). Islam views Human Capital comprehensively in QS. At Tiin ayah 4, which mentioned that Allah created humans in the best form. This commandment shows that humanity is created in its best form with different potential for goodness (Aydin 2017). Human Capital in Islam is not only focused on the development of the educational institution, skills, and expertise but also on morals and ethics, especially regarding human responsibilities. Human Capital development is a form

of responsibility for the creation of humans as *khalifah* on earth to always worship Allah and benefits the ummah (Abdullah 2012). The development is also a form of imitating Rasulullah's character, *Fathonah* (smart). Rasulullah is smart in managing his business, starting from the strategy, management, business opportunity, and business prospect (Zahroh & Nafik HR 2015). Human Capital with *fathonah* characters will be able to improve the firm's performance in providing financial services and risk mitigation that demands competent human resources to maintain the firm's financial condition. Human Capital is knowledge in one's idea and generated from learning or experiences, such as creativity, empathy, competency, and attitude (Norman 2016; Gallego et al. 2020). Human capital could create ideas for a firm in creating product uniqueness and innovate continuously. The Human Capital cannot be imitated or duplicated (Agostini et al. 2017). The higher the quality of firm's Human Capital, the higher is the investor's interest in the firm (Barbi & Mattioli 2019). Ramírez et al. (2020), Fernández-Pérez de la Lastra et al. (2020), and Sardo and Serrasqueiro (2017) studies find that Human Capital increase firm's value and has a positive effect on firm's financial performance. Therefore, the proposed hypothesis is as follows:

H<sub>2</sub> Human Capital has a positive effect on Takaful Financial Performance

Capital Employed is an organ that connects an entity with its stakeholders (Duho 2020) and market relationship or external knowledge involved in the business (Stewart 1998; Bontis 1998). Islam teaches us always to do good to others. In the business context, a company should maintain a good relationship with its stakeholder. A manager has a responsibility to ensure that stockholder's fund is invested in halal activities that free from *riba* (interest), manage it transparently, and meet the *adl* (just) and *ihsan* (virtue) criteria (Beekun & Badawi 2005). Allah said in QS Al-Baqarah ayah 188 that human should not use their treasure in the wrong way or to bribe judges so that a person could take other people's treasure. Capital Employed is the company's knowledge of the external parties, such as the buyers, suppliers, agents, clients, shareholders, competitors, government, and related industries (Duho 2020; Alrowwad et al. 2020). Smriti and Das (2018), Abd-Elrahman et al. (2020), and Sardo and Serrasqueiro (2017) studies mention that Capital Employed positively affects a company's service quality and company market values. The higher the company's Capital Employed, the higher is its ability to maintain a relationship with external parties. Thus, increasing market values and improve its financial performance. Therefore, the hypothesis proposed in this study is:

H<sub>3</sub> Capital Employed has a positive effect on Takaful Financial Performances

## RESEARCH METHOD

This study is descriptive and quantitative research using secondary data collected from sharia insurance company financial report in Southeast Asia and Middle East countries during 2016-2019. The research object in this study is sharia insurance companies in Southeast Asia and Middle East countries. The total samples that meet the criteria are 155 observations from 2016-2019, with details as Table 1.

Three variables are used as the proxy of Islamic intellectual capital, namely Human Capital, Structural Capital, and Capital Employed (Asare et al. 2017). The takaful financial performance is measured using Return on Equity (ROE) (Sherif & Elsayed 2016) computed by dividing net income by the equity. Audit Opinion is employed as a control variable in this study.

The independent variable Islamic intellectual capital is measured using Value Added Intellectual Capital (VAIC) that computes efficiency of three intellectual capital components: Human Capital, Structural Capital, Relational Capital, and Capital Employed (Asare et al. 2017; Oppong et al. 2019). However, this study used Islamic intellectual capital, and Value Added computed from the firm's sharia income (Ulum 2013). The computation formula is as follows:

$$VA = \text{OUT} - \text{IN} \quad (1)$$

VA = Value Added

OUT = sharia-based operational and non-operational income

IN = operational and non-operational cost (excluding the employee expense) (Siswanti et al. 2017).

Human Capital (Asare et al. 2017; Wei et al. 2020) is computed using the following formula:

$$\text{Human Capital Efficiency (HCE)} = \frac{\text{VAVA}}{\text{HCHC}} \quad (2)$$

HC = salary/wage expense

Structural Capital (SC) (Asare et al. 2017) is computed using:

$$SC = \text{VA} - \text{HC} \quad (3)$$

$$\text{Structural Capital Efficiency (SCE)} = \frac{\text{SC}}{\text{VAVA}} \quad (4)$$

Capital Employed (Asare et al. 2017) is measured using

$$\text{Capital Employed Efficiency (CEE)} = \frac{\text{VAVA}}{\text{CE}} \quad (5)$$

CE = Total Equities

Overall, VAIC is computed using (Asare et al. 2017; Oppong et al. 2019),

$$\text{VAIC} = \text{HCE} + \text{SCE} + \text{CEE} \quad (6)$$

The control variable, Audit Opinion (OA), is the opinion or judgment provided by the external auditor on the fairness of information published in the financial report. Audit Opinion can be measured by granting 1 for Unqualified Opinion, 2 for Qualified Opinion, and 3 Adverse and Disclaimer Opinion (Aprila et al. 2019; Averio 2020).

The panel regression model used in this study is:

$$\text{ROE}_{it} = \alpha + \beta_1 \text{HCE}_{it} + \beta_2 \text{SCE}_{it} + \beta_3 \text{CEE}_{it} + \beta_4 \text{OA}_{it} \quad (7)$$

## PANEL REGRESSION ESTIMATION MODEL SELECTION

There are three panel regression estimation models, namely common effect, fixed effect, and random effect. To choose the best estimation model for panel data regression estimation, the Hausman Test can be used. Hausman test is conducted to find out which one is suitable for analyzing panel data, whether fixed effect or random effect. If the Chi-Square probability value is <0.05, then the analysis is more appropriate to use the fixed effect model. If the Chi-Square probability value is >0.05, then the analysis is more appropriate to use the random effect model.

## RESULTS AND DISCUSSIONS

The research object in this study is sharia insurance companies in Southeast Asia and Middle East countries. The total samples that meet the criteria are 155 observations from 2016-2019. Table 1 summarized the descriptive statistics of the samples

The descriptive statistics show that ROE has a minimum score of -1.075, a maximum score of 0.775, a median of 0.054660, a mean of 0.0429, and a standard deviation of 0.171. The standard deviation higher than the mean score indicates a variation in ROE. The low mean score also suggests that sharia insurance firms have difficulty generating income during 2016-2019. The HCE variable has a median score of 2.348527, and the highest mean score of the two components is 3.3691, followed by CEE with 0.5453 and SCE with 0.4913. These scores show that Human Capital is the most dominant component of intellectual capital. The OA variable has a minimum score of 1.000, maximum score of 2.000, median 1.000000, mean 1.0580, and standard deviation score of 0.234623. These scores show that, on average, sharia insurance firms received unqualified audit opinions.

The results of the classical assumption test show that all data passed the requirement and can be used in further analysis. Table 2 summarizes the result of the classical assumption test.

TABLE 1. Sharia insurance company

No	Perusahaan	Negara
1.	PT Asuransi Jiwa Syariah Jasa Mitra Abadi	Indonesia
2.	PT Asuransi Takaful Umum	Indonesia
3.	PT Asuransi Chubb Syariah Indonesia	Indonesia
4.	PT Asuransi Sonwelis Takaful	Indonesia
5.	PT Asuransi Takaful Keluarga	Indonesia
6.	PT Asuransi Jiwa Syariah Al-Amin	Indonesia
7.	PT Asuransi Jiwa Syariah Amanah Jiwa Giri Artha	Indonesia
8.	PT Asuransi Syariah Keluarga Indonesia	Indonesia
9.	Syarikat Takaful Malaysia Keluarga Berhad	Malaysia
10.	Etiqa Family Takaful Berhad	Malaysia
11.	Etiqa General Takaful Berhad	Malaysia
12.	FWD Takaful Berhad	Malaysia
13.	Great Eastern Takaful Berhad	Malaysia
14.	Hong Leong MSIG Takaful Berhad	Malaysia
15.	Prudential BSN Takaful Berhad	Malaysia
16.	Sun Life Malaysia Takaful Berhad	Malaysia
17.	Zurich Takaful Malaysia Berhad	Malaysia
18.	Insurans Islam TAIB General Takaful Sdn Bhd	Brunei Darussalam
19.	Takaful Brunei Am Sdn Bhd	Brunei Darussalam
20.	Takaful Brunei Keluarga Sdn Bhd	Brunei Darussalam
21.	Al Alamiya for Cooperative Insurance Co.	Arab Saudi
22.	Al-Rajhi Company for Cooperative	Arab Saudi
23.	Alahli Takaful Co.	Arab Saudi
24.	Alinma Tokio Marine Co.	Arab Saudi
25.	Aljazira Takaful Taawuni Co.	Arab Saudi
26.	Buruj Cooperative Insurance Co.	Arab Saudi
27.	SABB Takaful Co.	Arab Saudi
28.	Salama Cooperative Insurance Co	Arab Saudi
29.	Takaful International Company	Bahrain
30.	Bahrain & Kuwait Insurance Company	Bahrain
31.	Islamic Insurance Company	Yordania
32.	Wethaq Takaful Insurance Company	Kuwait
33.	Bahrain Kuwait Insurance Co. (B.S.C)	Kuwait
34.	Alkhaleej Takaful	Qatar
35.	Islamic Insurance	Qatar
36.	Methaq Takaful Insurance Company	Uni Emirat Arab
37.	Abu Dhabi National Takaful Co	Uni Emirat Arab
38.	Dar Al Takaful PJSC	Uni Emirat Arab
39.	Takaful Emarat - Insurance PSC	Uni Emirat Arab
40.	Arabian Scandinavian Co	Uni Emirat Arab
41.	Arabic Islamic Insurance Co (Salama)	Uni Emirat Arab

TABLE 2. Descriptive statistics

	Mean	Median	Maximum	Minimum	Std. Dev
ROE	0.042990	0.054660	0.775033	-1.075297	0.171001
CEE	0.545303	0.335658	3.068857	0.024938	0.618603
HCE	3.369193	2.348527	14.96956	0.399804	2.946773
SCE	0.491351	0.607060	1.738400	-1.501226	0.443344
OA	1.058065	1.000000	2.000000	1.000000	0.234623

TABLE 3. Classical assumption test

Multicollinearity Test				
	HCE	SCE	CEE	OA
HCE	1.000000	0.644929	0.448906	-0.157821
SCE	0.644929	1.000000	0.406491	-0.143010
CEE	0.448906	0.406491	1.000000	-0.095922
OA	-0.157821	-0.143010	-0.095922	1.000000
Heteroscedasticity Test - White				
Obs*R-squared	16.76783	Prob. Chi-Square (13)		0.2101
Autocorrelation Test – LM Test				
Obs*R-squared	2.490098	Prob. Chi-Square (2)		0.2879
Normality Test				
	Jarque-Bera			3493.252
	Probability			0.000000

TABLE 4. Hausman test

Test Summary	Chi-Sq. Statistic	Chi-Sq.d.f	Prob.
Cross-section random	9.595826	4	0.0478

TABLE 5. Fixed Effect Model (FEM) Regression Result

Variable	Coefficient	Std.Error	t-Statistic	Prob.
C	0.109998	0.135669	0.810784	0.4193
HCE	-0.008365	0.006948	-1.204014	0.2312
SCE	0.138785	0.048909	2.837627	0.0054
CEE	-0.087250	0.036398	-2.397131	0.0183
OA	-0.056177	0.124004	-0.453022	0.6515
R-squared				0.456906
Adjusted R-squared				0.218351
Prob (F-statistic)				0.003056

The inter-variable output score is lower than 0.9, indicating no multicollinearity problem detected among the independent variables. The White Test used to test the heteroscedasticity shows Obs\*R-squared probability of 0.2101. Thus, it can be concluded that there no heteroscedasticity issue in the regression model.

LM Test is used to detect autocorrelation problems in a regression model. The result of the LM test shows a p-value of Obs\*R-squared of 0.2879, indicating

that this study's regression model does not contain an autocorrelation issue. The Jarque-Bera (JB) test shows a Jarque-Bera score of 3493.252 and a significant result with a p-value of 0.000, which means the residual is not normally distributed. However, this result can be ignored in large samples study. Ghozali and Ratmono (2017) explain that the classical assumption tests should focus on heteroscedasticity and autocorrelation because they might cause invalid statistical results.

Hausman Test is employed to select between Fixed Effect Model (FEM) and Random Effect Model (REM). The Random Effect Model is selected when the p-value of Chi-square is not significant ( $> 0.05$ ), while Fixed Effect Model is selected when this value is significant ( $< 0.05$ ) (Ghozali & Ratmono 2017). Table 3 summarizes the result of the Hausman Test.

The result of the Hausman Test shows a Chi-square score of 9.595826 and a p-value of 0.0478, suggesting that Fixed Effect Model is more fit for the current study.

The adjusted R-squared score in this study was 0.218351 or 21.83%. This can be interpreted that 21.83% variation in takaful financial performance can be explained by all independent variables and the control variable in the model, while other factors outside the model explain 88.17% of the variations.

The result of fixed effect testing in Table 3 shows the p-value of the t-statistic in the independent variable (SCE) was 0.0054. This result indicates that hypothesis 1 in this study is supported by the data, and we can conclude that Structural Capital has a positive and significant impact on takaful financial performance. SCE beta coefficient of 0.138785 indicates that SCE can explain or cause 13.87% changes in takaful financial performance. Bontis (1998) stated that the key of Structural Capital is the organizational routine or knowledge of the organization's routine activities, while Stewart (1997) explains that Structural Capital is a reusable capital or the "knowledge that doesn't go home at night". A strong Structural Capital, such as business process, technology, and database, can increase a firm's financial performance. Structural Capital development is deemed vital because it improves productivity, competitive advantages and as a form of worship that will bring both material and spiritual results. Islam also teaches ethics in using technology so that users will always be pious and careful in using and managing Structural Capital (Abdul-Gader & Al-Buraey, 1998). Structural Capital in a firm will make the firm's activities to be more efficient, dynamic, well adapted to change and improve the firm's financial performance (Dalwai & Mohammadi 2020; Wang et al. 2019; Mohammad et al. 2018; Asiaei et al. 2018; Matos et al. 2017; Gogan et al. 2016; Datta & Ahmed 2015; Nimtrakoon 2015; Chen et al. 2014; Yeganeh et al. 2014). This finding is consistent with Smriti & Das (2018) and Sardo & Serrasqueiro (2017) studies that state that Structural Capital positively affects productivity, sales growth, and market value. Alipour (2012) state that there is a significant positive relationship between Structural Capital and profitability of Iranian takaful firms. The internal organizational system appear to impact directly on the organizational performance. In contrast, Zakery (2015) shows that all the structural capital category negatively influences on efficiency and firm performance.

The p-value of the t-statistic of the HCE variable is 0.2312, which indicates that hypothesis 2 is not supported by data. HCE has a negative and not significant effect on a firm's performance, which means HCE does not affect

a firm's performance. Hashi and A (2009) explain that Human Capital in the Islamic perspective is based on the Tauhid concept that connects every human aspect with their creator, Allah SWT, to make them stay *istiqamah*. *Istiqamah* means consistency, integrity, moral honesty, intellectuals of individual's knowledge and behavior. Allah SWT creates humans in the best form with different goodness potential, as mentioned in QS. At Tiin ayah 4 (Aydin 2017). However, human also has a desire which makes them perform a behavior that contradicts Islamic teaching as mentioned in QS Shad ayah 26. Desire is a human weakness that needs to be controlled to ensure that humans do not violate Islamic values (Sejati 2017). Agostini et al. (2017) add that human is also mobile, uncontrollable, unregulated, and wholly-owned, so it entirely depends on how effective companies empower their human resources. This finding is consistent with the existing studies (Smriti & Das 2018; Morris 2015; Mehralian et al. 2012; Chu et al. 2011; Muhammad & Ismail 2009; Gan & Saleh 2008), which find a negative and not significant relationship between Human Capital and profitability, sales growth, and market value. This means, both company managers and investors have not fully realized the importance of human resources and consider tangible assets as the primary resources in running a business. This finding also indicates that people still have an orientation to invest in tangible assets.

The result of fixed effect testing shows the p-value of the t-statistic on the CEE variable of 0.0183, which indicates that hypothesis 3 is supported by data. CEE has a negative and significant effect on a firm's performance. Table 3 also shows the CEE beta coefficient of -0.087250, which means CEE explains or causes 8.72% of changes in takaful financial performance. Capital Employed is related to the organization/firm relationship with its stakeholders (Duho 2020) and the external market relationship involved in its business (Stewart 1997; Bontis 1998). According to the Stakeholder Theory, managers should be able to accommodate stakeholder's interests and provide benefits for them (Freeman 1994), encouraging the firm to improve its performance. The Signaling Theory also explains that to reduce information asymmetry between the firm (sender) and the external party (receiver), the manager could send a signal through the financial information. This signal will provide information on the firm's performance to the external parties. Some companies disclose detailed financial information, but some other companies do not disclose similar information as it will create a distracting noise and could benefit their competitors (Yasar et al. 2020; Nuswandari 2009). A firm's behavior that provides excessive information or does not disclose information could distort the actual condition of the firm. The firm sends a positive signal to make it looks good and attract external parties to continue investing in the company. This finding is consistent with previous studies (William et al. 2019; Smriti & Das 2018; Nassar 2018; Amin & Aslam 2017; Avci & Nassar 2017; Mehralian et al. 2012;

Ahangar 2011), which find that Capital Employed has a negative effect on company's financial performance, productivity, Asset Turnover, and market value.

The p-value of the t-statistic of the Audit Opinion control variable is 0.6515, which indicates that Audit Opinion has no impact on firm performance. An unqualified audit opinion does not always indicate a good financial condition of the company. Low-level financial condition indicates that the company has a poor performance and cause doubt about the firm's ability to survive. Therefore, Auditors are likely to modified unqualified audit opinion on firm's going concern (Averio 2021)

### CONCLUSION

This study concludes that not all the variables of Islamic intellectual capital are significantly affect takaful financial performance. Partially, SCE positively and significantly affects takaful financial performance. Thus, a company needs to maintain and improve its Structural Capital quality. CEE negatively affects takaful financial performance, which shows that a high relationship with external parties tends to decrease the company's financial performance. This phenomenon occurs because a firm has a strong orientation on its stakeholder's interest. HCE does not affect firm's performance because human is mobile and unpredictable, especially in term of their loyalty towards a company.

These study findings are expected to provide a reference, evaluation, and improvement for sharia insurance management to optimize the Islamic intellectual capital in improving the firm's financial performance. The limitation of this study is the selection of the proxies to measure the variable, population scope, and research period. Future studies might consider other proxies, increase sample size, and extend the research period.

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