

## DOES ISLAMIC SOCIAL CAPITAL ENHANCE SMEs SUSTAINABLE PERFORMANCE?

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### ABSTRACT

The study examines the roles of Islamic social capital and firm innovativeness in maintaining sustainable performance of SMEs in Indonesia. Compiling data from 186 respondents and using the partial least squares structural equation modeling approach (SEM-PLS), the study documents the importance of Islamic social capital for many aspects of businesses. The Islamic social capital not only supports business activities but also strengthens business networks, which in turn boosting firms' innovation its performance.

*Keywords: Islamic social capital, Firm innovativeness, Sustainable performance, Small and medium-sized enterprises.*

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## **I. INTRODUCTION**

### **1.1. Background**

The sustainability of small and medium-sized enterprises (SMEs) in the current era of economic uncertainty has been a subject of much discussion (Boohene, Gyimah & Osei, 2019; Zhang, Zhang & Song, 2019). The key problems often associated with SMEs are their lack of capital and poor internal management processes (Boohene et al., 2019). Further, in the Muslim world, the SMEs are not well integrated into mainstream institutions, locally and globally (Hassan Farooqi, 2006). Thus, in search of solutions to the sustainability issue, some argue that networks can be key. Namely, the networks would allow the SMEs to increase innovation capacity, better manage risk, build trust and exchange information (Hassan Farooqi, 2006; Tolsma, 2008), where these elements of so-called social capital are central to firm sustainability. For these reasons, Islamic social capital becomes important when talking about sustainable development in various sectors of the Islamic economy (Hassan Farooqi, 2006).

Social capital generally refers the reciprocal benefits derived from collaborations of individuals and groups (Zhang et al., 2019). Tsai & Ghoshal (1998) define social capital as a resource attached to relationships in a network. In the Islamic economy, Hassan Farooqi (2006) identifies Islamic social capital from the desire to apply moral norms or values in the production process of a business and from the existence of a network that promotes innovation opportunity.

According to the Islamic view, Islamic social capital refers to the contribution of a network or relationship among the Muslim community in the creation of mutual trust. The social interactions arising from the network provide mutual advice with the aim of simultaneously growing and developing all aspects of life (Hassan Farooqi, 2006; Tolsma, 2008). Social capital emphasizes the development process and economic welfare programs with a focus on various aspects of development, which include well-structured institutional and management models, the existence of supporting resources in development and innovation, and welfare in the development of an Islamic society. However, there is still not enough evidence that Islamic social capital exists and has a positive effect on SMEs, especially those in Indonesia that belong to Muslims.

Previous literature has concluded that social capital in general improves business performance and innovation (Agyapong, Agyapong & Poku, 2017; Boohene et al., 2019; Duodu & Rowlinson, 2019; Zhang et al., 2019). However, studies linking empirically the concept of Islamic social capital with SMEs are scarce. Several studies have discussed the importance of constructing Islamic social capital outside the business context, such as Islamic economics (Hassan Farooqi, 2006), Muslim society (Tolsma, 2008; Zaenuddin, 2020) and politics (Achilov, 2013). Broadly speaking, Islamic social capital can determine the direction of social assets that are attached to connections through an established network, where these assets provide opportunities for development in a better direction (Hassan Farooqi, 2006; Tolsma, 2008; Zaenuddin, 2020).

In light of these, this study examines the role of Islamic social capital in innovation and sustainable performance of SMEs. More specifically, it aims at examining (1) the influence of Islamic social capital on sustainable performance, (2) the influence of Islamic social capital on corporate innovation, (3) the influence

of corporate innovation on sustainable performance, (4) whether corporate innovation mediates the relationship between social capital Islam and sustainable performance.

The rest of the paper is structured as follows. In the next section, we explain key concepts and review previous studies. Section III presents the methodology used in the analysis. Section IV discusses the results. Finally, section V provides conclusion and recommendation.

## **II. KEY CONCEPTS AND RELATED LITERATURE**

### **2.1. Key Concepts**

#### **2.1.1. SMEs Sustainable Performance (SPR)**

The development is sustainable when meeting present needs does not eliminate the ability of future generations to meet their needs. In the context of business organizations (SMEs), ensuring sustainable performance requires recognition of the firms superior management system. This refers to the integration of sub-systems that reflect efficiency and effectiveness, with a focus on balance and monitoring deviations (Ciemleja & Lace, 2011; Srisathan, Ketkaew & Naruetharadhol, 2020). Furthermore, practically the sustainable performance of SMEs requires a functional process that focuses on every decision making based on the dimensions of development. Thus, the quality of the organization in SMEs affects the potential and end results of SME innovation (Adamu, Wan & Gorondutse, 2019; Ciemleja & Lace, 2011). Previous literature shows that firms have recently adopted a three-part framework; namely social, environmental, and financial, which is becoming relevant as a sustainable performance measurement tool that provides value to the firm (Rashid et al., 2015; Venkatraman & Nayak, 2015).

#### **2.1.2. Islamic Social Capital (ISC)**

Social capital is essentially a strategic resource, real or virtual that can be accessed from organizational networks or work relationships (Tsai & Ghoshal, 1998). The social capital can be characterized by trust, information flow, and social norms (Adler & Kwon, 2002; Tsai & Ghoshal, 1998). In the perspective of Islam, the role of Islamic social capital stems from a network or relationship, each of which creates a reciprocal trust so that social interactions carried out by the community provide suggestions and contributions to grow and develop (Hassan Farooqi, 2006; Zaenuddin, 2020; Tolsma, 2008).

The development process in Islamic social capital is decentralized and leads to development and reform issues, the concept that connects Islamic social capital plays an important role in clarifying the process of the location of formal and informal institutions that arise and starting development process that includes many aspects so that the welfare of the people can be achieved by adhering to a process that is in accordance with Islamic principles (Hassan Farooqi, 2006; Tolsma, 2008; Zaenuddin, 2020). Furthermore, Hassan Farooqi (2006) explains that the development process is usually based on joint production by individuals who are members of different formal organizations. In the concept of Islamic social capital, good capital can be conceptualized in conjunction with the development

process or economic welfare program with a focus on (1) institutional structure in management, (2) supporting in development and innovation, and (3) basic aspects of welfare in the development of Islamic society. In the context of research, the ISC dimension of this study examines three dimensions of social capital, namely: relational, structural, and cognitive.

*Relational (RLT)*. This dimension refers to the strength of the network built by the organization where trust is a key element (Muniady et al., 2015; Zhang et al., 2019). Good trust can consciously reduce uncertainty and simplify the process, which in the end the efficiency between the two can be maximized (Andrews, 2010). There are many phenomena when distrust leads to conflicts within the organization and with external parties. Therefore, a strong belief significantly reduces this phenomenon (Molina-Morales & Martínez-Fernández, 2010). In Islamic social capital, this dimension is shaped by the principles in the social aspects of Islamic rule (Afsari, 2012). The pattern of Islamic social participation can correct the defects of non-Islamic patterns and social participation based on Islamic patterns has a major impact on the development of Islamic society (Afsari, 2012; Tolsma, 2008). This is in accordance with building moral awareness based on the Qur'an and Sunnah where it can be applied in an organization, thus the principle of complementarity and togetherness can be built in an organization so that decision making on an innovation can be achieved (Alam Choudhury, 2002; Hassan Farooqi, 2006).

*Structural (STR)*. This dimension is a core instrument in an organization or corporation to build in-depth knowledge about suppliers, customers and competitors that can accelerate innovative processes in product marketing (Acquaah, 2007). In the concept of Islamic social capital, this dimension can open up many opportunities for the presence of diverse resources so as to accelerate the innovations and the generation of new ideas (Hassan Farooqi, 2006). The resources that lie in the structure and process of social exchange in Islamic social capital are different from short-term transactions, but the organization is deliberately built through the design, configuration of relationships and resources that can be used for various purposes, both formal and informal. This is related to the existence of a continuous commitment, where its implementation affects the development of the common good (Hassan Farooqi, 2006; Tolsma, 2008; Yli-Renko, Autio & Sapienza, 2001).

*Cognitive (COG)*. This dimension refers to the resources that provide meaning systems such as norms between parties (Tsai & Ghoshal, 1998; Zhang et al., 2019). While in the concept of Islamic social capital, the cognitive dimension is developed through the principles of unity, brotherhood and morality (Afsari, 2012). Complementing this opinion, Hassan Farooqi (2006) states that norms, ties and beliefs that have been previously based on conventional arrangements are now turned into Islamic social arrangements. This can have implications for the organization's ability to provide a network of potential access to individuals and nearby resources and to be able to access knowledge through the cognitive dimension to ensure that motivation and cooperation among members are well established.

### **2.1.3. Firm Innovativeness (INO)**

Innovativeness refers to the acceptance and propensity of firm to adopt new ideas that lead to the development and launch of new products (Hurley & Hult, 1998). Innovativeness is an important construct for a firm to outperform its competitors. Also, innovativeness can provide and deliver unique value to the firm. The main focus of firm innovativeness is on the creation of new ideas, which are then implemented into their products, processes, and business systems (Knowles, Hansen & Dibrell, 2015). Firm innovativeness can also be defined in terms of both structuralist and process approaches. The structuralist approach underscores innovativeness as an integrated parameter such as technology, administration, and management structure. While the process approach emphasizes complexity, which often integrates various social groups within the organization. The business literature views firm innovativeness as an organizational culture, which reflects acceptance and openness to sustainable development ideas (Gunday et al., 2011; Hansen, 2014; Swan et al., 1999). Previous research has verified aspects of firm innovativeness not only see products and processes as innovations, but business systems are also a measure of the firm success. Product innovativeness is defined as the successful utilization of the firms' output which can be in the form of goods or services. Process innovativeness refers to the introduction of new elements in an organization's process. Furthermore, business systems include new ideas related to internal and external business operations (Hansen, Juslin & Knowles, 2007; Knowles et al., 2015).

### **2.2. Previous Studies**

Previous studies have centered on social capital in general without specifically looking at Islamic social capital. Many of these studies have emphasized the importance of social capital for sustainable development and sustainable organizational growth (Agyapong et al., 2017; Andrews, 2010; Muniady et al., 2015; Zhang et al., 2019). In addition, the urgency of social capital as a determinant of innovation has also become the main focus. Social capital is a central element that arrange organizational relationships internally and externally to provide important learning resources for the development of the company (Adler & Kwon, 2002; Bhatti et al., 2021; Mamun et al., 2018; Zhang et al., 2019). In line with these findings, others state that the benefits of increasing sustainable performance by building social capital are the result of a series of knowledge exchanges between stakeholders, where any information that is key to innovation becomes an intangible resource in product and process development in SMEs business management (Agyapong et al., 2017; Boateng et al., 2020; Yokakul & Zawdie, 2011).

As for Islamic social capital, a study Hassan Farooqi (2006) on the predominantly Muslim province in India, i.e. West Bengal, shows the achievement of the community development process with the intervention of Islamic social capital with sustainable resource management from a series of formal institutional policy interventions. The concept of Islamic social capital is built by considering Islamic values, so that the formation of social networks can strengthen solidarity between members (Putnam, 2007; Tolsma, 2008). The social network created by the existence of Islamic social capital can then be in the form of resources, services,

support or prestige (Putnam, 2007). Islamic values as the basis of social networks that are created also support an effective network based on mutual trust and togetherness of members which is the basis of Islamic social capital in the relational dimension (Prendergast, 2005; Tolsma, 2008).

### III. METHODOLOGY

#### 3.1. Data

This study adopts a convenience sampling approach and distributes questionnaires using print media and google form. The respondents of this study are Muslim owners of SMEs from Central Java (Semarang, Solo, and Pekalongan). The SMEs in Central Java play a central role in the national economy, in particular Indonesia's halal economy (Pujiono, Setyawati & Idris, 2018). The total sample in this study is 186 with varying profiles - firm age, firm size, business category, halal business adoption and digital adoption. Further details are presented in table 1.

The constructs in this study are measured using a 5- Likert scale ranging from strongly disagree (one) to strongly agree (five). The measurement items adapt and modify from previous studies to fit our objectives. Sustainable performance constructs are all measured using four items, each adapted from Shan, Song & Ju (2016). The construct of Innovativeness is measured using six items, each adapted from Knowles et al. (2015). Furthermore, the construct of Islamic social capital is measured based on its constituent constructs; Structure (five items), Relational (four items) and Cognitive (five items). The constructs are respectively adapted from Yli-Renko et al. (2001), Maurer, Bartsch & Ebers (2011) and Molina-Morales & Martínez-Fernández (2010).

**Table 1.**  
**Frequency of Respondents**

Frequency		Amount	Percentage
Firm Size	Small	142	76.34%
	Medium	44	23.66%
	< 1 years	27	14.52%
Firm Age	2 - 4 years	101	54.30%
	> 4 years	58	31.18%
Halal Adoption	Yes	186	100.00%
	Basic	119	63.98%
Digital Adoption	Intermediate	43	23.12%
	Advance	24	12.90%
	Food and Beverage	66	35.48%
	Convenience Store	51	27.42%
Business Category	Agribusiness	12	6.45%
	Service Business	57	30.65%



### 3.2. Method

This study uses the partial least squares structural equation modeling (PLS-SEM) method. This is due to the tendency of the data to be non-normal, the complexity of the model and the number of samples below 200 respondents (Hair et al., 2017). The complexity of the model refers to the combination of reflective-formative paths and accommodates the construct of intervening (mediation type) factors. Furthermore, the construct of Islamic social capital uses a reflective-formative hierarchical component model (HCM), each of which has three lower order constructs (LOC). Based on this explanation, the PLS-SEM approach is appropriate and can accommodate the research objectives.

The measurement of reflective-formative HCM construction adopts a two-stage approach (Hair et al., 2018). In the first stage, an iterative indicator approach is used to obtain the LOC score. In the second stage, the LOC score is used in the measurement of the HOC model. Furthermore, the measurement of reliability and validity (discriminant and convergence) is applied in the construct of the research model. The structural model in this study uses direct influence and mediating effect (innovativeness). The interaction effect using a two-stage approach follows the recommendation by Hair et al. (2017).

### 3.3. Model Development

#### 3.3.1. Islamic Social Capital on Sustainable Performance

This study uses the Islamic social capital model that is based on a multidimensional construct, which is divided to sub-construction by adopting a general approach to social capital (Carey, Lawson & Krause, 2011; Muniady et al., 2015; Zhang et al., 2019). Lower order sub-construction is measured by reflective indicators (i.e., structural, relational, cognitive). Furthermore, the lower order sub-construction serves as a formative indicator for the higher order construction (i.e., Islamic social capital).

*Relational.* The results of previous studies have confirmed a strong relationship between the relational dimensions on firm performance. In order to maximize the benefits that emerge from networking, it is critical for entrepreneurs to strengthen social, business and personal ties. However, the relationship that exists depends on how strong the bond is, because different interaction dynamics will have different results without a relational bond (Agyapong et al., 2017; Andrews, 2010; Muniady et al., 2015).

*Structural.* previous studies focus on what firms need to maintain, including; suppliers, customers, competitors and community (Acquaah, 2007; Park & Luo, 2001; Zhang et al., 2019); First, close relationships with customers can provide input to companies regarding their needs and preferences. Second, close relationships with suppliers can ensure the success of the procurement process for goods and services needed. Third, close relationships with competitors enable firms to adopt new ideas, markets and technologies. Fourth, close relationship with the community can increase resistance to the uncertainty of the business environment by increasing the intensity of the relationship between various stakeholders.

*Cognitive.* the cognitive dimension is least studied when compared to the other dimensions. The cognitive dimension represents the concepts of norms,

values and meanings, which in turn influence the development of further network relationships (Muniady et al., 2015). Furthermore, the higher the intensity of this dimension, the more intense the understanding of norms and systems of meaning among network actors, which in turn will reduce the obstacles that arise in the production and operation processes (Andrews, 2010; Zhang et al., 2019).

Based on the above explanation, the hypothesis can be assumed as follows:

Hypothesis 1: Islamic social capital (structural, relational and cognitive) has significant effects on SMEs sustainable performance.

### **3.3.2. Islamic Social Capital on Firm Innovativeness**

Social capital (i.e. structural, relational and cognitive) also enhances innovative cooperative relationships (Adler & Kwon, 2002). This phenomenon occurs through the transfer of exploitative development and commitment among stakeholders in the development of the latest processes and technologies, which in turn exchange experiences focusing on continuous improvement (Jansen et al., 2009). Duodu & Rowlinson (2019) state that social capital is an important factor for firm innovativeness, the results refer to access and integration of knowledge both from internal and external aspects that can build sustainable advantages through exploitative enhancement and innovation exploration. Supporting this opinion, Agyapong et al. (2017) state that social capital can fundamentally provide quality mentoring and coaching facilities. Such action can have a positive effect on new entrants in terms of knowledge transfer, which in turn provide confidence for their business success. Therefore, the hypothesis can be postulated as follows:

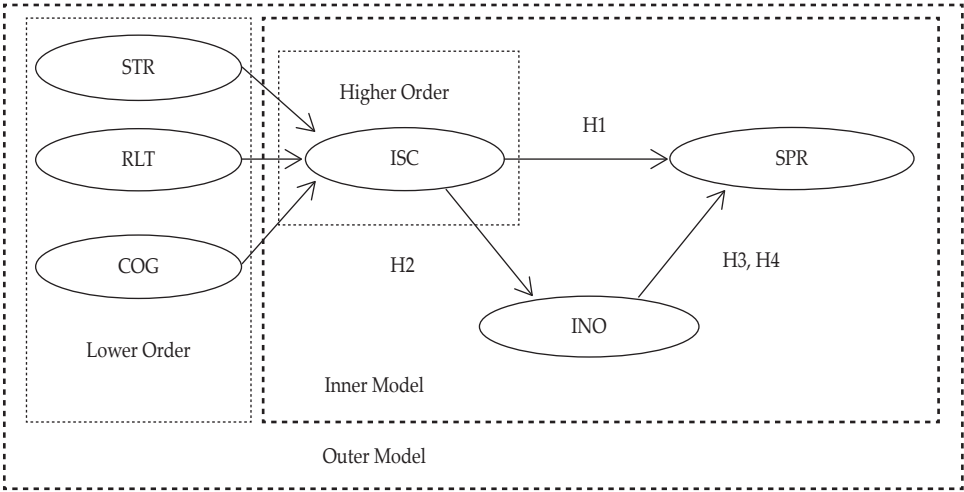
Hypothesis 2: Islamic social capital (structural, relational and cognitive) has significant effects on Innovativeness.

### **3.3.3. Firm Innovativeness on Sustainability Performance**

Innovation is regarded as one of the main constructs in sustainable performance. The development of new products and services is the basis for increasing the firms' resistance to the uncertainty of the business environment (Agyapong et al., 2017; Zhang et al., 2019). Previous studies state that the ability and speed of innovation will ultimately have implications for value-based consumers, suppliers and producers (Agyapong et al., 2017; Kuhl et al., 2016; Zhang et al., 2019). Therefore, firms need to focus on innovative approaches (processes, products and business systems), to ensure that strategies are implemented appropriately and have implications for firm performance. Therefore, the hypothesis can be postulated as follows:

Hypothesis 3: Innovativeness have significant effects on sustainable performance.





**Figure 1.**  
**Conceptual Model**

**3.3.4. Firm Innovativeness as Mediator**

Social capital has been shown to have a significant effect on performance. Complementing this construct, the researcher also includes innovation as a key success factor in competitive advantage (Agyapong et al., 2017). Duodu & Rowlinson (2019) describe the role of social capital in increasing the progress of exploration and exploitation of organizational innovations. In addition, innovation facilitates the exchange of ideas between companies which in turn provide specific benefits for sustainability performance (Vu Hoang, 2014). Specifically as a mediator, previous studies provide an explanation of the significant impact of innovation in mediating the relationship between social capital on the performance of SMEs (Agyapong et al., 2017; Yokakul & Zawdie, 2011). Therefore, the hypothesis can be postulated as follows:

Hypothesis 4: Innovativeness significant mediates the relationship between Islamic social capital and sustainable performance.

**IV. RESULTS AND ANALYSIS**

**4.1. Results**

**4.1.1. Measurement Model Assessment (Outer Model)**

*Screening data.* The data are first screened so that there are no missing data. Furthermore, this study uses the Harman's single factor test to verify that there is no common method variance (CMV) in the data. This is done because this study uses the same source, so the CMV problem has the potential to interfere with validity (Podsakoff et al., 2003). The output shows a seven-factor structure (eigenvalues greater than 1), with a maximum variance by one factor of 44.1 percent and each factor contributing less than 50 percent of the covariance in the variable. The results of this statistical test verify that there is no potential for CMV in the data used (Kamath, Pai & Prabhu, 2019).

*Reliability and validity tests.* We check the values of Cronbach's alpha ( $\alpha$ ) and composite reliability (CR), which are presented in Table 2. The Cronbach's alpha is in the range of 0.821 to 0.917 while CR is in the range of 0.882 to 0.935. These results confirm the reliability of the internal consistency of the constructs ( $\alpha$  and  $CR > 0.70$ ), as recommended by Hair et al. (2017). The next test is for convergent and discriminant validity using the outer loadings and average variance extracted (AVE) values. The discriminant validity is checked by looking at the Fornell-Larcker criterion value based on the recommendations from Hair et al. (2010). The test shows the overall outer loading value is higher than 0.70 except on STR 1, which is accordingly removed, while the AVE value is in the range of 0.653 to 0.752 ( $> 0.50$ ). These results indicate a convergent validity among reflective constructs (Hair et al., 2017). Meanwhile, the output of the Fornell-Larcker criterion shows that the square root AVE value of each AVE construct is greater than the highest correlation with other constructs (see table 3). Thus, all constructs in the research model show discriminant validity.

**Table 2.**  
**Outer Model Output**

Construct	Measurement	Loadings	Weights
Cognitive ( $\alpha=0.897$ , $CR=0.924$ and $AVE=0.709$ )			
COG1	Our unit has the same vision as other units in the workplace	0.862	0.253
COG2	The people in our unit are enthusiastic about pursuing firm goals	0.891	0.257
COG3	We have the same vision as other firms in the community	0.853	0.236
COG4	We consider that the future of our firms is tied to other	0.799	0.218
COG5	There is some kind of collective strategy or plan in the community	0.802	0.222
Relational ( $\alpha=0.821$ , $CR=0.882$ and $AVE=0.653$ )			
RLT1	In this relationship, neither party takes advantage in a false way	0.800	0.305
RLT2	Relationships with customers are always based on Islamic ethics	0.857	0.326
RLT3	We adhere to Islamic Ethics in maintaining relationships with partners	0.846	0.322
RLT4	We provide support to partners when difficult situations occur	0.721	0.283
Structure ( $\alpha=0.835$ , $CR=0.901$ and $AVE=0.752$ )			
STR2	We recognize customers personally as Muslims fellow	0.818	0.334
STR3	We spend a lot of time at social religious events with people from other firms	0.894	0.411
STR4	We spend a lot of time on social events organized by the Islamic community	0.887	0.405
Innovativeness ( $\alpha=0.917$ , $CR=0.935$ and $AVE=0.707$ )			
INO1	We are actively developing new products	0.766	0.175
INO2	We see the creation of new products as critical to our success	0.814	0.173
INO3	We actively develop an internal managerial process	0.768	0.163
INO4	In terms of new ideas, our firm is much better than competitors	0.908	0.217

**Table 2.**  
**Outer Model Output (Continued)**

Construct	Measurement	Loadings	Weights
INO5	Our companies tend to be early adopters of new business systems	0.900	0.225
INO6	We actively adopt internal information technology as a solution Sustainable Perfomance ( $\alpha=0.883$ , CR=0.919 and AVE=0.740)	0.876	0.229
SPR1	We have met all pre-defined goals and objectives	0.869	0.324
SPR2	Compared with competitors, our firms sales growth is better	0.799	0.251
SPR3	Compared with competitors, our firms market share growth is better	0.878	0.298
SPR4	Compared with competitors, our firms profit growth is better	0.893	0.287

**Table 3.**  
**Fornell-Larcker Criterion Output**

Construct	COG	INO	RLT	STR	SPR
COG	<b>0.842</b>				
INO	0.801	<b>0.841</b>			
RLT	0.508	0.345	<b>0.808</b>		
STR	0.754	0.576	0.585	<b>0.867</b>	
SPR	0.800	0.788	0.448	0.661	<b>0.860</b>

**4.1.2. Structural Model Assessment (Inner Model)**

Standardized root means square residual (SRMR) is used as a benchmark for the suitability of the research model. The SRMR shows good results (saturated model = 0.052 and estimated model = 0.051). They are in accordance with the recommendations of Gao, Waechter & Bai (2015), namely the SRMR value < 0.080. Furthermore, the value of the variance inflation factor (VIF) is used to verify the absence of multicollinearity. The VIF output shows a range of 1.011 to 3.213 which is below the threshold of 5 (Hair et al., 2017). Thus, the multicollinearity is not an issue.

**Table 4.**  
**Direct and Indirect Effect Output**

Construct Relationship	$\beta$	p-values	95% (BCCI)	Supported?
INO -> SPR	0.755	0.000	(0.678; 0.820)	Yes
ISC -> INO	0.220	0.000	(0.111; 0.302)	Yes
ISC -> SPR	0.175	0.000	(0.103; 0.252)	Yes
ISC -> INO -> SPR	0.166	0.000	(0.083; 0.230)	Yes

In testing the hypothesis, this study assesses the level of significance using the bootstrap 5.000 approach (resampling) bias-corrected and accelerated confidence interval (BCCI) with p-value for a two-tailed significance (\* p: 0.05, \*\* p: 0.01, \*\*\* p: 0.001) (Cameron & Trivedi, 2010). The results of the analysis of

the direct effect show (see table 4); Islamic social capital has a significant positive effect on innovativeness (BCCI = 0.111-0.302, p-value = < 0.001), innovativeness has a significant positive effect on sustainable performance (BCCI = 0.678-0.820, p-value = < 0.001) and Islamic social capital has a positive significant effect on sustainable performance (BCCI = 0.103-0.252, p-value = < 0.001). While the results of the analysis on the indirect relationship show that innovativeness significantly partially mediates the relationship between Islamic social capital and sustainable performance (BCCI = 0.083-0.230, p-value = < 0.001). It can be said that the overall hypothesis in this study is supported (Hypothesis 1, 2, 3 and 4 = Supported).

**Table 5.**  
**Effect Size and Multicollinearity Output**

Construct Relationship	$f^2$	$Q^2$	VIF
INO -> SPR	1.593	0.096	1.051
ISC -> INO	0.051	0.028	3.213
ISC -> SPR	0.086	0.057	1.011

*Coefficient of determination ( $R^2$ ).* The coefficient of determination of the construct of sustainable performance is of a moderate value ( $R^2 = 0.659$ ,  $R^2$  adjusted = 0.656). It can be concluded that 65 percent of the variation in sustainable performance is explained by the variables of Islamic social capital and innovativeness. The cut off value uses  $R^2$  threshold values of 0.75, 0.50 and 0.25 for endogenous constructs which are described as substantial, moderate and weak (Hair et al., 2017). However, the  $R^2$  value can only capture the explanatory power of the sample used and this value does not capture the predictive performance outside the sample (Shmueli et al., 2019). Therefore, this study uses the PLSpredict approach with a focus on the sustainable performance construct as the main target. The output shows the predictive value of  $Q^2$  is greater than 0, while the root mean squared error (RMSE) and mean absolute error (MAE) indicators of the PLS-SEM model do not exceed the indicators of the linear naive model. It can be concluded that the model in this study has a high predictive power (Shmueli et al., 2019).

*Effect size and predictive relevance.* Cohen's  $f^2$  is used to identify the influence between variables in the model, which indicates a change in the value of  $R^2$  when one of the exogenous constructs is removed from the model. Cohen's  $f^2$  values of 0.02 (small), 0.15 (medium) and 0.35 (large) can be a predictor effect measure (Hair et al., 2017). Table 5 explains that the overall output  $f^2$  is in the range of 0.051 to 1.593. Furthermore, we perform the predictive relevance analysis using Stone – Geisser's  $Q^2$ . The value of  $Q^2$  can be used as a reference for the predictive relevance of the independent variable for the dependent variable (Hair et al., 2017). The  $Q^2$  value of the sustainable performance variable is 0.473, which is above the minimum threshold value of 0. This indicates that the observed values have been reconstructed properly and thus the model has predictive relevance.

Table 6.  
Coefficient Determination and Blindfolding Output

Construct Relationship	SSO	SSE	R <sup>2</sup>	R <sup>2</sup> Adjusted	Q <sup>2</sup>
SPR	800.000	421.413	0.659	0.656	0.473
INO	1200.000	1162.545	0.048	0.043	0.031
ISC	600.000	600.000			

Table 7.  
Output of PLSpredict

Construct	PLS-SEM		Benchmark	
	RMSE	MAE	RMSE	MAE
SPR 1	0.885	0.650	0.885	0.655
SPR 2	1.012	0.813	1.018	0.813
SPR 3	0.811	0.631	0.813	0.635
SPR 4	0.833	0.642	0.833	0.646

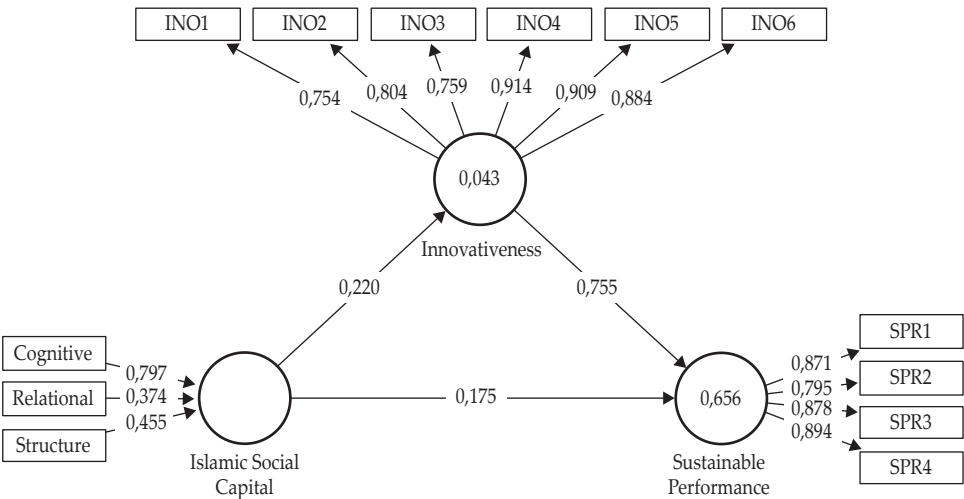


Figure 2.  
Output Full Model

4.2. Robustness Check

This study uses non-linearity criteria for robustness check, following the recommendations from Sarstedt et al. (2020). The assumption that the relationship between constructs is always linear (based on theory), while empirically linear relationships do not always occur. Statistically, when the relationship between two constructs is nonlinear, the size of the effect between the two constructs does not only depend on the magnitude of the change in the exogenous construct but also on its value (Hair et al., 2018). Therefore, this study considers the polynomial model and adds a quadratic effect. The output of the quadratic effect shows that

the results are not significant for all paths (see table 8). It can be concluded that the insignificant interaction offers evidence of the robustness of the linear effect (Sarstedt et al., 2020).

**Table. 8**  
**Output of Quadratic Effect**

<b>Construct Relationship</b>	<b>B</b>	<b>p-values</b>	<b>f<sup>2</sup></b>	<b>95% (BCCI)</b>
INO -> SPR	0.733	0.000	1.134	(0.650; 0.799)
ISC -> INO	0.205	0.023	0.018	(0.008; 0.353)
ISC -> SPR	0.223	0.001	0.058	(0.092; 0.355)
Quadratic Effect (INO -> SPR)	-0.025	0.449	0.004	(-0.072; 0.065)
Quadratic Effect (ISC -> INO)	0.012	0.794	0.000	(-0.062; 0.124)
Quadratic Effect (ISC -> SPR)	-0.041	0.227	0.005	(-0.108; 0.024)

### 4.3. Analysis

The results of this study provide significant support for the argument that Islamic social capital has an influence on SMEs innovativeness and sustainable performance. First, structural social capital provides crucial benefits for the establishment of strong relationships between internal and external parties (Acquaah, 2007; Park & Luo, 2001; Zhang et al., 2019). This study emphasizes that the similarity of ideology as a Muslim can facilitate social interaction between firm, suppliers, consumers and competitors. Also, religious event and Islamic communities can be a vehicle for firms to strengthen relationships with various stakeholders, which in turn can exchange information related to ideas, processes, capital and new markets. Second, cognitive social capital is empirically useful for SMEs to be able to apply the norms, understandings and consensus that have been set by the organization (Andrews, 2010; Tsai & Ghoshal, 1998; Zhang et al., 2019). This study emphasizes the importance of applying Islamic norms and ethics such as responsibility, virtue and honesty, which in turn can increase the intensity of their vision and mission guided by the mutual benefit of stakeholders. Third, relational social capital provides advantages for SMEs in development and sustainable performance (Agyapong et al., 2017; Andrews, 2010; Muniady et al., 2015). This study confirms that the relationship that exists between internal and external parties by prioritizing Islamic ethics can increase the intensity of trust between the two, which in the end the benefits obtained can be balanced and proportional without harming any party. Therefore, it is very important that SME business owners have more time to build social relations with fellow Muslims by attending religious events and Islamic community in which there are people from other companies with a strong Islamic core.

The relationship between innovativeness and sustainable performance is also tested in this study. Empirically, it shows that innovativeness has a significant positive effect on sustainable performance. This finding supports previous studies which state that creativity and innovation cannot be underestimated when talking about SMEs sustainable performance (Agyapong et al., 2017; Duodu & Rowlinson, 2019; Kaasa, 2009; Molina-Morales & Martínez-Fernández, 2010).



Competitive pressures and uncertain business environment cause a trade-off for the survival of SMEs. Therefore, the development of new ideas in terms of processes, products and systems is the main key for SMEs in maintaining their competitive advantage, which in the end can achieve sustainable performance. Finally, the results of this study provide significant support for the argument that innovativeness partially mediates the relation between Islamic social capital and SMEs sustainable performance. These results support previous findings which view that social capital and innovativeness in general are the most important parts for the sustainability of SMEs competitive advantage (Agyapong et al., 2017; Duodu & Rowlinson, 2019; Yokakul & Zawdie, 2011). This study confirms that Islamic social capital and innovativeness are important constructs for sustainable performance, where the benefits that arise provide opportunities for SME business players to be able to understand organizational needs from various internal and external aspects, in relation to their social relationships with various stakeholders.

## **V. CONCLUSION AND RECOMMENDATION**

### **5.1. Conclusion**

Overall it can be concluded that Islamic social capital can be an important to many aspects of business. While in practice it is not easy to transform all elements of social capital into Islamic social capital, it is not impossible to place Islamic social capital as the basis of business resources that provide benefits in terms of business networks, information, new ideas and various other benefits related to the development of Islamic business. Further benefits are from product, process and service innovation, which will ultimately create sustainable organizational performance. Also, the involvement of Islamic social capital in the development of Islamic business provides the value of adherence to Islamic principles, giving deep meaning to business activities and confidence to Muslim businessmen.

One of the dimensions of Islamic social capital that is highlighted is the cognitive dimension. This dimension confirms that there is a link between the SMEs internal vision and goals (management and employees) with the network. The collective visions and goals of the entire organization are the main foundation for innovation and sustainable performance. Another dimension in Islamic social capital that needs attention is the structural dimension, which involves various stakeholders in the development of Islamic business. Through strong networks, SMEs share opportunities and risks. Opportunities here mean that SMEs can become partners with suppliers and customers. The risk in question is the presence of competitors. In the network, there will be very little possibility of very tight competition. Instead, SMEs will get support from other members in the network. The activeness of SMEs in the community and higher responsiveness among community members have indirectly built and developed the community to be bigger and stronger. Consequently, a business ecosystem will emerge in society based on Islamic social capital. Islamic social capital forms a basic need in business development in Islamic business networks. Finally, SMEs must adhere to Islamic ethical principles in maintaining relationships with business partners in the community.

## 5.2. Recommendation

*Practice.* The research findings provide practical implications for SME owners in making organizational decisions. First, the owners or managers need to make positive use of the Islamic organization or community as a vehicle to strengthen and build a network between stakeholders. Second, from an internal perspective, SMEs owners must understand the needs related to social relations between employees by aligning the firms' vision and missions with Islamic ethics and norms. Third, the owners and managers of organizations need to create an Islamic environment for stakeholders (internal and external) such as prioritizing the common good rather than personal gain.

*Future Research.* The research findings contribute to the understanding of the SMEs sustainable performance and the roles played by Islamic social capital and firm innovativeness. As this study focuses on Islamic social capital and innovation, future research may consider other constructs (i.e. institutional based view, government support, etc.). Also, it will very interesting if the research context is expanded using the multigroup method (rural vs urban). Overall, these constructs and other methods can consciously provide a more comprehensive understanding of Islamic social capital from various perspectives.

*Regulation.* Islamic social capital usually arises naturally in business in Muslim communities. This is important because of the growing number of businesses among the Muslim community and the need to maintain the sharia business ecosystem in Indonesia. Through this paper, it is hoped that the government will start planning to regulate the ecosystem and supply chain of Islamic businesses. This regulation at the same time keeps all business activities in accordance with sharia principles. This regulation can be initiated by various institutions, such as the Financial Services Authority and Bank Indonesia. The Financial Services Authority regulates Islamic business networks and activities. Meanwhile, Bank Indonesia is expected to be able to become a filter on the types of financing and networks that are allowed under Islamic principles. Bank Indonesia is also expected to be a mediator between business actors and capital owners (SMEs), suppliers and consumers in the business activity chain so that the Islamic ecosystem will function well.

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